



**Centre for Aerospace & Defence Laws (CADL)
Directorate of Distance Education
NALSAR University of Law, Hyderabad**

Course Material

M.A. (SPACE AND TELECOMMUNICATION LAWS)

2.3.9. TELECOMMUNICATION LAWS IN INDIA

**Compiled by:
Prof. (Dr.) V. Balakista Reddy
Ms. Ruchi Jain**

(For private circulation only)

TABLE OF CONTENTS

MODULE I – INTRODUCTION TO TELECOM INDUSTRY IN INDIA	05-42
1.1 Telecom Industry in India: An Overview	
1.2 Origin and Development of Telecommunication in India	
1.3 Growth in Telecom Sector	
1.4 Administration and Control	
1.5 Regulatory Control	
1.6 Pre-Reform Period and Telecommunications in India	
1.7 Liberalization and Reforms in Telecom Sector: A Review	
1.8 Pest Analysis of Indian Telecom Industry	
 MODULE II- TELECOM LAWS IN INDIA	 43-84
2.1 Indian Telegraph Act, 1885	
2.2 Wireless Telegraphy Act, 1933	
2.3 National Telecom Policy, 1994	
2.4 National Telecom Policy, 1999	
2.5 National Telecom Policy, 2012	
2.6 Broadcasting Legislation in India	
2.7 Prasar Bharati (Broadcasting Corporation of India) Act, 1990	
2.8 Regulation of Cable Television	
 MODULE III- TELECOM REGULATORY AUTHORITY OF INDIA	 85-124
3.1 The Telecom Regulatory Authority of India Act, 1997	
3.2 Activities of TRAI	
• Consumer Centric Initiatives	
• Recommendations	
• Regulations	
• Directions	
 MODULE IV- DISPUTE RESOLUTION IN INDIAN TELECOM INDUSTRY	 125-154
4.1 Dispute Resolution Methods	
4.2 Telecom Disputes Settlement and Appellate Tribunal (TDSAT)	
• Background	
➤ History and Rationale	
➤ Structure and Composition	
➤ Jurisdiction and Powers	
• Analysis	
➤ Independence	
➤ Efficiency	
➤ Efficacy	

MODULE V- MEDIA, INTERNET AND TELECOM LAWS

155-214

5.1 Telecommunications and Internet Privacy in India

- The Information Technology Act, 2000
- Case Laws: IT Act, 2000
- Indian Telegraph Act, 1885
- Case Laws: Indian Telegraph Act
- Comparison of Interception Provisions under ITA and TA
- Policies/Licenses
- TRAI Regulations on Unsolicited Marketing Calls

5.2 Regulation of OTT Streaming Services in India

- Advent of Cinema in India: Emergence of Content Regulation
- Transition to Television in India: Evolution of Content Regulation
- Shift to OTT Video Streaming Services. The Arrival of Architectural Censorship?
- Content Regulation in India: Looking Ahead

MODULE VI- CONTEMPORARY ISSUES AND CHALLENGES

215-250

6.1 Telecom Services/Licences and Infrastructure in India

6.2 Spectrum Management

6.3 Foreign Investment in Telecom Sector in India

6.4 Mergers and Acquisitions in the Indian Telecom Sector

6.5 National Digital Communications Policy, 2018

MODULE-I

INTRODUCTION TO TELECOM INDUSTRY IN INDIA

TELECOM INDUSTRY IN INDIA: AN OVERVIEW

The phenomenal growth of the IT industry in India has brought to the fore the growing importance of India as a knowledge powerhouse. But this competitiveness is restricted to the services sector. In fact it is the sector that is increasingly contributing to the high growth rate recorded in the country. Despite showing a good growth performance over the last three or four years, the manufacturing sector is still a non-performer although three industries constituting the manufacturing sector, namely auto parts, cotton textiles and pharmaceuticals are showing much dynamism in terms of exports. However India's exports have now diversified to encompass services. In fact the service sector in general has come to occupy a pre eminent position in India's economy in terms of its contribution to overall GDP, exports and as a destination for Foreign Direct Investments (Table 1). But the manufactured exports basket is still dominated by low and medium technology products although, as stated earlier some high tech products such as pharmaceuticals and certain types of machine tools have crept into India's export basket. But the growth of IT exports and evidences of moving up the value chain in IT, the emergence of other high technology industries such as biotechnology, aerospace etc is enabling India to be in the league of high technology producers from the developing world. The recent growth of R&D outsourcing is yet another illustration of the country's prowess in high technology activities. An interesting dimension of high technology production in India is that this capability is largely in the realm of services rather than in manufacturing. However there are indications that this capability in high tech services is slowly percolating to high tech manufacturing. And an industry where it is very clearly visible is in the area of telecommunication where a revolution of sorts is taking place (Mani, 2007). In the context, the purpose of the present section is to understand the technological implications of the phenomenal growth of this industry.

The entire section is structured into five sub-sections. The first sub-section traces the contribution of the telecommunication services sector to the overall growth performance of India's economy and in that process to the catching up of her economy. The second sub-section distills out the various dimensions of the telecom services industry. Seven dimensions of the growth performance are identified and discussed here. The third sub-section identifies at least three disquieting features of this growth performance in terms of the growing digital divide, the increasing dependence on imported equipments for providing these services and the low diffusion of Internet. However there is at least one silver lining in this otherwise dark cloud, namely the possibility that India may soon emerge as a major manufacturing hub for not just mobile handsets but also for the manufacturing of semi-conductor devices that go into the production of these handsets. A detailed discussion of this tendency and its implication for the economy forms the theme of the fourth sub-section. Finally the fifth and concluding section summarizes the main findings and identifies the policy conclusions that arise.

The contribution of telecommunications to the growth performance of India's economy

Communications is the fastest growing sector within India's economy. The average compound rate of growth of the sector works out to 24.02 per cent per annum since the turn of this millennium (See Table 2). No other sector of the economy has clocked such a high rate of growth. The sector accounts for about 4 per cent of GDP and therefore with this rather high rate of growth contributes about 11 per cent of the growth in overall GDP of the country. Of the Information and Communications Technology (ICT) sector of the economy, it is again the communications sector that is more important. This is evident from a dataset on ICT spending developed by World Information Technology and Services Alliance (2006), of the total spending on ICT by India, about 63 per cent was in communications (See Figure 1).

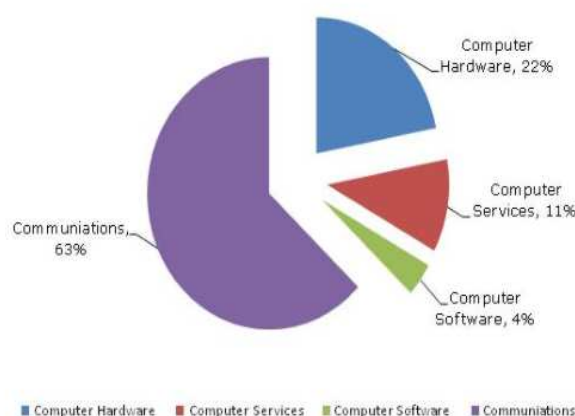


Fig 1: Distribution of total ICT spending in India, 2001-2006

Table 1: Relative share of the service sector in India's economy, 1990-91 and 2006-07 (per cent)

	Real GDP	Exports	FDI
1990-91	40.6	20	Not Available
2006-07	61.8	39	81

The communication sector is composed of both services and equipment manufacturing although in the above characterization the data refers only to the services segment. The domestic production of telecom equipments has shown some impressive increases during the period since 2001, but even now (c 2006), it accounts for only about 15 per cent of the total telecoms industry. Even then with some fluctuations the equipment sector is slowly decreasing its share in the total revenues of the telecommunications industry (See Figure 2).

Table 2: Contribution of the communication sector to India's growth performance 1999-2000 to 2005-06 (1997-2003)

	Share	Growth rate of communication sector	Overall rate of growth of GDP	Contribution(%)
1999-2000	1.6			
2000-2001	1.9	26.9	41	12.47
2001-2002	2.2	19.5	56	7.66
2002-2003	2.6	25.6	34	19.58
2003-2004	3.1	25.4	86	9.16
2004-2005	3.5	22.8	75	10.64
2005-2006	4	23.9	91	10.51

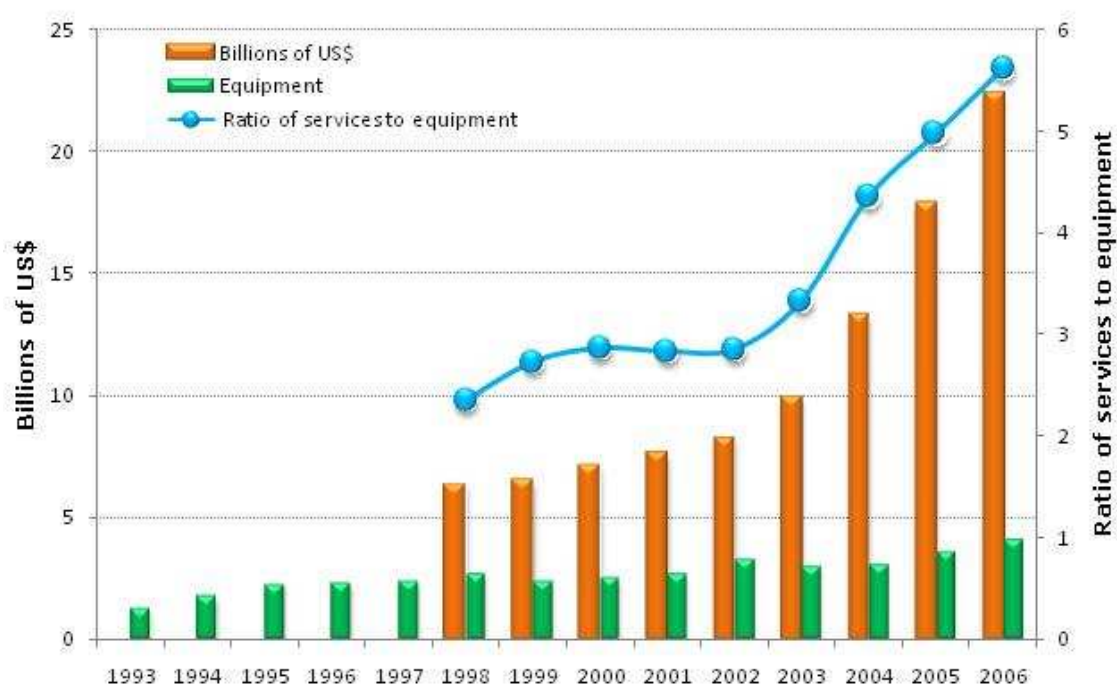


Fig 2: Relative shares of the equipment and service sectors in the total telecom equipment sector, 1992-93 to 2005-2006

Dimensions of the of the growth performance of telecommunications services

In 1991, India had just 5 million telephone subscribers. At the end of July 2007, there were 233 million subscribers thus showing an average annual growth rate of over 27 per cent per annum. No other country in the world, other than China, has shown such high rates of growth

in the number of telephone subscribers (See Table 3). Tele density too which was below 1 telephone per 100 persons has now risen sharply to about 20. Among the infrastructure industries, telecommunications is the only industry that has shown significant improvements over the reform period. Consequently it is generally opined that a revolution of sorts is taking place in the Indian telecoms industry. There are at least, seven dimensions of this growth performance that merit our attention.

(i) Dominance of wireless technology, rather than wireline: The Indian telecom sector is now heavily dominated by wireless technologies, which include cellular mobile and fixed wireless technologies. In fact almost the entire increase in the availability of telephones have been contributed by wireless technologies. India has one of the highest ratios of wireless to wireline technologies, which is now almost 5 (Table 3). In fact what is interesting is that since 2005, the availability of wireline technologies has started decreasing. A number of factors explain this and this decrease in the popularity of fixed telephones has now become a worldwide trend. This rather heavy reliance on wireless technologies, while extremely positive from the availability point of view, has some implications for the diffusion of Internet in the country. This will be analysed in some more detail in one of the subsequent sub-sections.

Table 3: Trends in the number of telecom subscribers and in tele density, 1991-2007
(Numbers in millions; Tele density is number of telephones per 100 people)

Columns	Fixed	G. Rate	Mobile	G. Rate	Total	G. Rate	Tele Density	Ratio of mobile to Fixed
1991	5.07				5.07		0.6	
1992	5.81	14.60			5.81	14.60	0.67	
1993	6.8	17.04			6.8	17.04	0.77	
1994	8.03	18.09			8.03	18.09	0.89	
1995	9.8	22.04			9.8	22.04	1.07	
1996	11.98	22.24			11.98	22.24	1.26	
1997	14.58	21.37	0.34		14.88	24.21	1.56	0.02
1998	17.8	22.42	0.88	158.82	18.68	25.54	1.94	0.05
1999	21.59	21.29	1.2	36.36	22.79	22.00	2.33	0.06
2000	26.51	22.79	1.88	56.67	28.39	24.57	2.86	0.07
2001	32.44	22.37	3.58	90.43	36.02	26.88	3.58	0.11
2002	41.84	27.87	13	263.13	54.48	51.25	4.3	0.31
2003	42.58	2.65	33.58	158.31	76.16	39.79	5.1	0.79
2004	45	5.68	50	48.90	95	24.74	7.04	1.11
2005	49	8.89	76	52.00	125	31.58	10.66	1.55
2006	40.43	-17.49	149.5	96.71	198.93	51.94	17.16	3.70
2007	39.25	-2.92	233.63	56.27	272.28		25	5.28
2008 *	38.92		277.92		325.78		28.33	7.14

*as on June 30 2008

(ii) Monthly addition to mobile subscribers and the growing market for telecom handsets: As a corollary of the above, it is seen that there has been a steady increase in the average number of mobile subscribers per month since 2003 (Table 4). In 2003, on an average 1.5 million new subscribers were added to the existing stock. This has since increased to approximately 7 million per month in 2007. The very sharp reduction in the number of subscribers in March 2007 was due to a *governmental security regulation*ⁱ. These large increases in the number of mobile handsets have strong positive implications for the telecom equipment industry and specifically the mobile handsets industry, which means that close to 7 million handsets are being sold every month. Consequently a huge domestic market for telecom equipments has suddenly emerged in the country spawning the creation of a significant manufacturing base. The South Indian city of Chennai has become a thriving cluster for mobile handsets manufacturing and this has important implications for the downstream industries such as the semiconductor industry. This point will be discussed in some depth in the fourth sub-section.

(iii) Increasing privatisation of the telecom services industry: The distribution of telecom services in the country was entirely in the hands of the public sector for a very long time until the middle of the 1990s. The new telecom policy of 1994 changed all this.

Table 4: Monthly additions to mobile subscribers, 2002-08 (in million numbers)

Column	2002	2003	2004	2005	2006	2007	2008
January		0.64	1.58	1.76	4.69	6.81	8.77
February		0.6	1.6	1.67	4.27	6.22	8.53
March		0.96	1.93	0.78	5.03	3.53	10.1
April	0.28	0.64	1.37	1.46	3.88	6.11	8.21
May	0.29	2.26	1.33	1.72	4.25	6.57	8.62
June	0.35	1.42	1.43	1.97	4.78	7.34	8.81
July	0.36	2.32	1.74	2.46	5.39	8.06	
August	0.49	1.79	1.67	2.74	5.9	8.31	
September	0.37	1.61	1.84	2.48	6.07	7.8	
October	0.53	1.67	4.51	2.9	6.71	8.05	
November	0.72	1.9	1.56	3.51	6.8	8.32	
December	0.8	1.69	1.95	4.46	6.4	8.17	
Average	0.46	1.46	1.63	2.33	5.35	7.1075	

The share of the private sector in the overall telecoms industry has been rising (Figure 3) and the ratio of private to public actually crossed unity in 2006. This again is due to the fact that the public sector is more dominant in wireline (or fixed) and the private sector is dominant in the wireless (mobile) segment (Table 5).

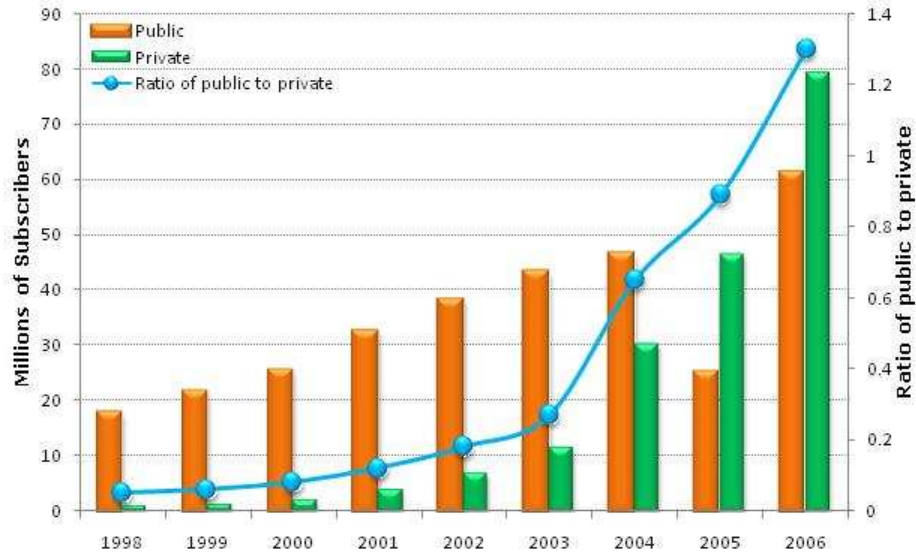


Fig 3: Rising privatisation of the telecommunications services sector, 1995-2006

This sort of a structure of the industry is largely the product of historical reasons. The two public sector service providers BSNL and MTNL dominated the wireline sector, while the private sector was able to dominate the new wireless technology. In fact it was only quite recently that the government allowed the public sector entities to provide wireless communication services.

Table 5: Structure of the telecommunications services industry according to ownership
(Percentage shares as on May 31 2007)

	Wireline	Wireless
Public	91	19.32
Private	9	80.68
Total	100	100

(iv) Competition in the provision of telecom services: Fixed vs. Mobile and within Mobile GSM vs. CDMA: An interesting feature of the industry is that after a very long time, it has suddenly become very competitive. There are three dimensions to this competition. First it is a competition between two standards or technologies, namely Global System for Mobile Communications (GSM) vs. Code Division Multiple Access (CDMA) standards. Second it is a competition between various service providers, although this competition was restricted to public policy designed spaces or markets known as telecom circles. A still another dimension is the type of market. There are essentially three types of markets based on the geographic coverage of the service. They are: i. Local telephone market; ii. Long distance or national telecom services; and iii. Foreign or the overseas market. In the present we focus on all the three dimensions of competition between the service providers.

A. Competition in Fixed and Mobile technologies: The markets for mobile services are much more competitive than the one for fixed line services. In the latter the incumbent service provider, BSNL continues to have a lion's share of the market. However the existence of mobile communication services have made the market for fixed line services contestable and as a result despite high concentration, prices of fixed telecom services kept falling or kept under check over the last five years or so. The trends in prices of telecom services will be analysed in detail below. I now analyse competition in the fixed (wireline) and mobile (wireless) technologies separately.

(a) Competition in fixed telephone services: If one goes by overall summary measures of domestic competition, the market for fixed telephone services are much more concentrated than the one for mobile services. For instance (as on May 31 2007), the Herfindhal Index for fixed services for the nation as a whole works out to 0.6899 while the one for mobile services work out to 0.1592. This national level picture hides the level of competition that exists at the sub national level. In order to gauge this, I have computed the structure of the market for fixed telecom services in each of the 28 telecom circles that the country is divided into. See Table 6. As can be seen from this Table, the market for fixed telecom services is highly concentrated in all the telecom circles, although in seven of them, namely Delhi-NCR, Chennai, Madhya Pradesh, Mumbai, Punjab and Karnataka, the H. Index has a value less than 0.8000. Of course this does not mean that the market for fixed telecom services is not competitive. There are two dimensions to this level of competition for fixed services. First, as has been argued earlier, the consumers are increasingly substituting mobile for fixed services, so the fixed service providers face intense competition from mobile services. Second, the existence of telecom regulator too has acted as a check on the dominant service provider, BSNL from charging high prices. Instead what one sees is a *significant improvement in the performance of BSNL during this periodⁱⁱ* during this period . First of all, BSNL is one of the leading profit making central public sector enterprises in the country: in 2005-06 it made a net profit of Rs 89.40 billion- one of the few non oil public sector enterprises (PSE) in the top 10 profit making PSEs in the country. Three areas where the firm has made performance improvements are in: (a) considerable reductions in the number of consumers on the waiting list for a connection; (b) reductions in the number of faults per subscriber; and (c) number of personnel per 1000 subscribers. On all the three indicators BSNL has made substantial progress (Department of Telecommunications, 2007) and I argue that this entirely due to the force of competition leading to efficiency gains for this rather monopolistic firm which have had a previous history of being completely impervious to the demands of consumers.

Table 6: Degree of competition in the market for fixed telephone services (as on September 30 2007)

Telecom Circle	Number of Service Providers (September)	Herfindhal Index (September)	Dominant Supplier (with market share in percentage)
Andaman & Nicobar	1	1	BSNL(100%)
Andhra Pradesh	4	0.8522	BSNL(92.19%)
Assam	1	1	BSNL(100%)
Bihar	3	0.9966	BSNL(99.83%)
Chennai	4	0.5929	BSNL(74.35%)
Chattisgarh	2	0.6959	BSNL(81.30)
Delhi-NCR	4	0.5291	MTNL(66.67%)
Gujarat	4	0.8999	BSNL(94.80)
Haryana	4	0.9462	BSNL(97.25%)
Himachal Pradesh	3	0.9941	BSNL(99.70%)
J.K	2	1	BSNL(99.99%)
Jharkhand	1	1	BSNL(100%)
Karnataka	4	0.7065	BSNL(83.18%)
Kerala	4	0.9656	BSNL(98.25%)
Kolkata	4	0.8831	BSNL(93.87%)
M.P	4	0.7038	BSNL(82.28%)
Maharashtra	4	0.9261	BSNL(96.20%)
Mumbai	4	0.6819	MTNL(81.72%)
North East -I	1	1	BSNL(100%)
North East-II	1	1	BSNL(100%)
Orissa	3	0.9938	BSNL(99.69%)
Punjab	5	0.7353	BSNL(85.18%)
Rajasthan	5	0.8125	BSNL(89.69%)
Tamil Nadu	4	0.885	BSNL(93.93%)
UP(East)	4	0.9405	BSNL(96.96%)
UP(West)	4	0.948	BSNL(97.34%)
Uttaranchal	1	1	BSNL(100%)
West Bengal	3	0.9953	BSNL(99.76%)
All INDIA	7	0.6748	BSNL(81.43%)

(b) Competition in the mobile services industry: The history of the mobile services industry can be traced to 1997 or so when GSM cellular services were started. Since then the industry has grown and matured with another standard, CDMA, being introduced towards the end of 2002. Compared to the fixed services, the mobile services industry has a number of distinguishing features. First, the industry started as one dominated by private sector enterprises and the government religiously followed a policy of ‘managed competition’ by licensing more than one service provider in a telecom circle. In fact majority of the 28 circles have at least four services providers and in a number of cases there are six service providers well. In short right through inception the government envisaged an oligopolistic form of competition. Second, most of these private sector enterprises had some of foreign equity holding of sorts. Third all of them are based on new technologies that were state-of-the art. Fourth, the conduct of the industry was, relatively speaking, more regulated by the newly created independent regulatory agency, the Telecom Regulatory Authority of India (TRAI). Fifth, it is one of the fastest growing industries in India and it can be safely assumed that it is the growth of this industry that has catapulted the communications sector as one of the major growth-contributing sector of India’s economy. Sixth, the mobile communications industry, especially the equipment part of the industry is the second largest in the world (next to China) and therefore has attracted considerable FDI in the manufacture of handsets leading to the employment of skilled manpower. Seventh, India is supposed to be having the cheapest

mobile telecom tariffs in the world. The early part of the industry was of course riddled with much controversy pertaining to the terms and conditions under which the licenses were issued and the spectrum allocated between various kinds of service providers (Desai, 2006). Since all the services providers were new and had the same vintage of technology, their competition was more in terms of price and conditions of sale and of late these two aspects are much in public scrutiny thanks to the timely intervention, on various occasions, by the regulator.

If one computes the H-Index for the industry, at the national level (which is not exactly a meaningful as some of the providers are only at specific telecom circles), it shows a mild increase: the H-Index for the industry increased from 0.1370 in 2002 to 0.1593 in 2007. However this increase hides considerable variations at the circle level (See Table 7).

Most of the service providers have focused on specific regional markets, with the exception of Bharti (the largest mobile service provider). In fact there are only four service providers who have a presence in at least 20 of the 29 circles. It is also interesting to see that the circles where BSNL has a monopoly position are also those with very low revenue potential. In other words, the private sector providers have positioned themselves in the most revenue earning circles. Also it is seen that it is the circles with high revenue earning potential that one sees an increase in the intensity of competition- the metros of Delhi, Mumbai and Chennai for instance.

Table 7: Degree of competition in the market for mobile telephone services (as on September 30 2007)

Telecom Circle	Number of service providers	Herfindhal Index	Dominant supplier (with market share in percentage)
Andaman & Nicobar	1	1	BSNL(100%)
Andhra Pradesh	6	0.1874	Bharti Airtel (28.8%)
Assam	4	0.2537	Aircel (29.94%)
Bihar	5	0.3099	Bharti Airtel (40.84%)
Chennai	6	0.1943	Aircel (26.51%)
Chattisgarh	1	1	BSNL(100%)
Delhi-NCR	6	0.1833	Bharti Airtel (24.99%)
Gujarat	6	0.2194	Vodafone Essar(37.07%)
Haryana	6	0.1765	BSNL(23.67%)
Himachal Pradesh	6	0.2931	Bharti Airtel(38.05%)
J.K	4	0.4281	BSNL(50.28%)
Jharkhand	1	1	BSNL(100)
Karnataka	6	0.2366	Bharti Airtel(38.81%)
Kerala	6	0.1919	BSNL(25.94)
Kolkata	5	0.2109	Vodafone Essar(25.17%)
M.P	5	0.2399	Reliance(32.69%)
Maharashtra excluding Mumbai	6	0.1759	Idea(22.56%)
Mumbai	6	0.1811	Vodafone Essar(25.18)
North East -I	4	0.272	Aircel(36.55%)
North East-II	1	1	BSNL(100%)
Orissa	5	0.2454	Bharti Airtel(33.06)
Punjab	7	0.1942	Bharti Airtel(29.01)
Rajasthan	7	0.192	Bharti Airtel(25.56)
Tamil Nadu excluding Chennai	6	0.1984	Aircel(27.86%)
UP(East)	6	0.2119	Vodafone Essar(27.67%)
UP(West)	6	0.1784	Vodafone Essar(23.53%)
Uttaranchal	1	1	BSNL(100%)
West Bengal excluding Kolkatta	6	0.2097	Vodafone(29.51)
All India	12	0.1592	Bharti Airtel(23.38%)

(c) Competition between mobile standards: It was seen above that mobile phones were introduced in the country towards the latter half of the 1990s and specifically in 1997. Ever since that year and until the end of 2002, the market was dominated by just one technology, namely the GSM. But in December 2002, a firm called Reliance Infocomm Ltd launched CDMA services across 17 circles on a countrywide basis. CDMA has since been growing faster than GSM, although there are some year-to-year variations (See Figure 4). Most Indian consumers are unaware of the nitty gritty of the two technologies. So the deciding factor between the two technologies is often based on price and other conditions of offer such as the coverage of the service ease of obtaining a new connection and whether a handset is available at a reduced price as part of the deal. Given this sort of a possibility of perfect substitution between the two types of technologies, the existence of the two standards have made both the markets for GSM and CDMA services very competitive. This is especially so when the market for CDMA services is highly concentrated with just two service providers accounting for almost the entire output (See Table 8). This is further indicated by the higher Herfindhal Index for CDMA services. What is being argued here is that despite being highly concentrated CDMA service providers have to compete with GSM service providers and this has prevented the CDMA service providers wielding any excessive market power.

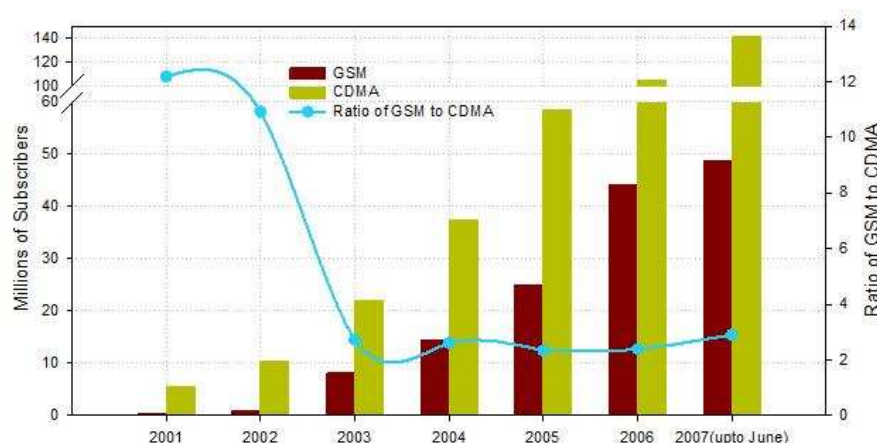


Fig 4: Ratio of GSM to CDMA subscribers, 2001 through 2007

Table 8: Structure of the GSM and CDMA Services Industry (as on March 31 2006)

GSM		CDMA	
	Market share		Market share
<u>Bharti</u>	0.2830	<u>Reliance Infocomm</u>	0.7356
<u>BSNL</u>	0.2480	<u>Tata Teleservices</u>	0.2315
<u>Hutchison</u>	0.2220	<u>BSNL</u>	0.0234
<u>Idea</u>	0.1065	<u>MTNL</u>	0.0053
<u>Aircel</u>	0.0377	<u>HFCL</u>	0.0029
<u>MTNL</u>	0.0280	<u>Shyam Telelink</u>	0.0014
<u>Spice</u>	0.0279		
<u>Reliance</u>	0.0275		
<u>BPL group</u>	0.0194		
Herfindhal Index	0.2063	Herfindhal Index	0.5952

One of the most important institutional requirements for competition to emerge and sustain is the introduction of *number portability*ⁱⁱⁱ. *Number portability* allows a customer to move from one mobile service to another within GSM, and also between GSM and CDMA, while retaining the same number. TRAI had recommended in March 2006 to the, Department of Telecommunications (DoT) that mobile number portability be introduced by April 2007. According to this recommendation, a subscriber would be able to avail himself of the service by making a one-time payment of Rs 200 that would enable the operator to recover in three to five years her investment cost involved in introducing portability. It appears that DoT has not accepted this recommendation citing technical reasons such as non availability of dual technology handsets that can handle both GSM and CDMA handsets. It is generally held that major opposition to number portability came from GSM service providers while the CDMA providers were welcoming it with the hope that it would allow them to expand their market share.

(v) *Competition between mobile standards:* One of the more direct effects of this competition is lower prices. Before the deregulation of the telecom services industry and indeed the entry of mobile service providers, the telecom consumers were periodically subjected in increases in the tariff. This has now been effectively checked. Although it is not easy talk about the price of telecom services, basically it follows a two part tariff both in the case of fixed and mobile services, first an activation charge followed by a charge for each type of calls. For mobile communication consumers then there is the additional cost of calls according to whether it is post or prepaid. Based on estimates made by TRAI (2006), I have obtained the minimum effective charge derived out of an outgoing usage of 250 minutes per month per quarter during 2003 through 2005. This is plotted for both fixed and mobile services as well. Although charges for both the calls have come down, a higher reduction is noticed in the case of mobile services. In fact, India now has one of the cheapest mobile tariffs in the world (Table 9) and this can give an additional fillip to the growth of the Information and Communications Technology (ICT) industry in the country. If one were to plot the price of telecom services and the number of subscribers, one can see an inverse relationship in the case of mobile services although in the case of fixed services such an inverse relationship is not visible. This is because of the relative advantages which mobile technology can bestow on its user.

Table 9: Cost of mobile calls in India compared to other countries (as in June 2004)

Country	Call charges per minute (US \$)	Minutes of usage per subscriber per month	Average Revenue Per User (US \$)	Termination rates per minute Mobile (US \$)
Australia	0.24	159	43	0.152(.016)**
Brazil	0.11	92	11	0.080(0.020)
China	0.04	261	10	0.025(0.010)
Switzerland	0.45	119	59	0.163(0.017)
Japan	0.33	156	63	0.130(0.022)
India	0.03*	309	11	0.007(0.007)

NOTE: *refers to 2005 rates; Figures in parentheses indicate the termination rates per minute for fixed telephones.

The two state-owned service providers, BSNL and MTNL have launched "One India Plan" with effect from 01.03.2006. Under this a three minute local call and a one minute national long distance call (referred to as STD calls) will cost only Re. 1. The "One India" plan, also, for the first time, takes away the distinction between the fixed line tariff and the cellular tariff and thus, makes the tariff "technology independent". A similar plan has also been introduced for the customers of post paid and pre-paid mobile services of BSNL and MTNL.

(vi) **Institutional support:** An interesting feature of the growth of telecommunications industry in the 1990s and beyond compared to the earlier period is the strong public policy support that the industry has received. It manifested in the form of the following policies:

- i. National Telecom Policy of 1994
- ii. Telecom Regulatory Authority Act of 1997
- iii. New Telecom Policy of 1999
- iv. Broadband Policy of 2004

Other policies having an indirect effect are: FDI policy, the Electronic Hardware Policy of 2003, and the *Semiconductor Policy of 2007*^{vi}.

Of these four main policies, in my view, the most important piece of legislation that is determining the growth performance of the industry is the establishment of a regulatory agency in the name of *Telecom Regulatory Authority of India (TRAI)*^v.

The ten year history of telecommunications regulation in India can be divided into two phases: the first covering the period 1997-2000, when TRAI was established for the first time, and the second covering the period 2000 onward, when considerable amendments were made to the original TRAI Act. On the whole, TRAI's functioning has been marred by a number of bitter disputes between it, the DoT and the service providers, although in more recent times (especially since 2001) it has been rather effective in shaping the conduct of the

industry in terms of pricing behaviour and indeed in quality of service. Here in this subsection, I do not attempt to provide a detailed review of TRAI's operations since its inception, but a quick survey of its place in telecom regulation in India. The purpose is essentially to illustrate the need for a more independent regulator that can effectively oversee the functioning of now an almost completely deregulated industry. The actual benefits that the consumers have received from this regulation have been discussed in detail elsewhere in the paper in terms of increased easy access to telecom services, considerable improvements in both the price and quality of services and being an ever present watch dog of the industry.

TRAI's functions can be broadly categorised into two: recommendatory and mandatory. It is seen that in most of the important conduct variables such as the promotion of competition, pricing, technology and quality of service and in the efficient use of spectrum etc, the pronouncements of TRAI are merely recommendatory and the final decision is to be taken by the government. The mandatory powers of TRAI are restricted to a number of technical issues such as fixing the terms and conditions of inter-connectivity between the service providers, laying down the standards of quality of service and to ensuring that these conditions are actually met by the service providers and ensuring the effective compliance of Universal Service Obligation. This shows that the effective space that is available for the TRAI in terms of asserting its real power is very limited. This fact has to be borne in mind while one assess the contribution of this regulatory agency towards improving the conduct of the industry even post 2000 than that actually prevailed in the previous period.

After a detailed review of its functioning during the earlier period (1997-2000), Mani (2002) referred to the TRAI as a 'muddled regulator'. This is because during this phase, TRAI's functions were poorly articulated, and it was generally viewed as driven by the well-organized and vociferous lobby of private phone service operators. TRAI did little to hide its pronounced contempt for the DoT and the state-owned providers, BSNL and MTNL. At the same time, it failed to ensure that private operators adhered to their license conditions. Its authority and credibility were undermined by court rulings that clearly exposed its lack of power. Its reputation suffered even more when it allowed the private operators to fight its court battles. In short, it would not be incorrect to state that there was 'regulatory capture' during this first and initial phase of its operations.

The governmental admission of the ineffectiveness of TRAI resulted in the cabinet approval of a plan to reinvent the regulator and define its functions more clearly. This takes us to the second phase in TRAI's history and this thinking manifested itself in the form of the issuance of an ordinance to replace TRAI with an appellate tribunal with judicial powers and a reconstituted regulator that lacked one of the most important functions of any telecom regulator, namely the power to settle disputes between the various stakeholders. This function has been vested with the newly created *Telecom Dispute Settlement and Appellate Tribunal (TDSAT)*^{vi}. However this was followed up with a strengthening of TRAI's role in a number of other areas. But it can be shown that although the amendment has further clarified the precise role of the regulator by considerably reducing the grey areas, it has effectively reduced the power of the regulator. TRAI's recommendations to the government are binding only with

respect to the non-compliance and efficient use of the spectrum. On the crucial issues of timing and licensing of new service providers, TRAI's recommendations are not binding. In sum, the TRAI has been reduced to a tariff-setting body empowered only to fix tariffs and inter connection charges and to set norms on quality of service. And on these two and especially on the tariff issue, TRAI's role is generally considered to be very satisfactory.

(vii) Growing R&D outsourcing: It is generally held that India has emerged as a major R&D hub. The recently concluded Technology Information and Forecasting Assessment Council (TIFAC) (2007) study has confirmed this commonly held proposition and according to this study, R&D investment worth of \$1.13 billion has flowed into India during the five-year period 1998-2003. The total receipts on R&D services have doubled itself from US \$ 221 million in 2004-05 to US \$ 519 million in 2005-06 (Reserve Bank of India, 2006, p. 1355). Telecom along with the pharmaceutical industry is a major recipient of these investments. The innovative performance of this segment can be gauged from the fact the number of US patents issued to inventors from India (including MNCs having operations in India) in the area of telecom technologies have increased from just 1 in 2001 to 13 in 2005 (Table 10).

Table 10: Patents issued to Indian inventors in the US, 2001-2005 (Number of patents)

	Multiplexing	Pulse or Digital	Telephonic	Telecommunication	Total
2001	0	1	0	0	1
2002	2	1	0	1	4
2003	3	1	0	1	5
2004	6	2	1	0	9
2005	7	2	1	3	13

ORIGIN AND DEVELOPMENT OF TELECOMMUNICATION IN INDIA

In the year 1851 the British first introduced telecommunication services in India through operational land lines near Kolkata. Dr. William O'Shaughnessy who pioneered telegraph and telephone in India belonged to the Public Works Department all through the experimental stage. Electronic telegraph made its appearance in India as early as in 1854. A regular separate department was opened around 1854 when telegraph facilities were thrown open to the public. Being a British Colony, both telegraph and telephones were introduced into India almost contemporaneously with United Kingdom. The telegraph department during 1854-57 comprised of a superintendent of telegraphs, with three deputy superintendents at Bombay, Madras and Pegu in Burma. There were inspectors at Indore, Agra, Kanpur and Banaras and an operating and maintenance staff. Indo-European Telegraph Department, which later came to be known as the overseas communication, was administered by a Director-in-Chief whose Head Quarters was in London.

In 1880, two telephone companies namely The Oriental Telephone Company Ltd. and The AngloIndian Telephone Company Ltd. approached the Government of India to establish telephone exchanges in India. The permission was refused on the grounds that the introduction of telephones was a Government monopoly and that the Government itself

would commence the work. By 1881, the Government changed its earlier decision and eventually a license was granted to the Oriental Telephone Company Limited of England for opening telephone exchanges at Kolkata, Mumbai, Chennai and Ahmadabad. The telephone service was made operational in the year 1881. Telephone came to India in 1882, a little later. On 28th January, 1882, Major E. Baring, member of Governor General of India's council confirmed the opening of Telephone exchange in Kolkata named "Central Exchange" and it carried 93 subscribers. The telegraph, and later the telephone were introduced in India in 1882 and were viewed by the British as tools of command and control that were essential to maintain law and order in the country. In 1883 the British combined the telegraph services with postal services to further increase their command and control in India. Runners, Stationed at telegraph offices, carried telegrams to remote post offices, thereby linking the British rulers with even the most distant pockets of India. Bombay also witnessed the opening of Telephone Exchange in 1887.

On 15th February, 1888, the overseas communications were merged with the Director-General of the Indian Telegraph Department. It was decided that the administration reports of the two departments, Indian Telegraph and the Indo-European department, should be separated so as to show how the finance of the country was affected by each unit. The operations of the two separate services, Post Office and Telegraph Department developed side by side. On the eve of the first World War in 1914, the next big administrative change came. The Postal Department and the Telegraph Department were amalgamated under a single Director-General. The process had started in 1912, but completed in 1940. A major reorganization of the department took place in April, 1925. The accounts of the Indian posts and Telegraphs were reconstituted to examine the true fiscal profile of the department. The attempt was to find out the extent to which the department was imposing a burden on the tax payers or bringing revenue to the Exchequer, how far each of the four constituent branches of the department, the postal, telegraph, telephone and wireless were contributing towards this result.

It was further examined whether the rates charged from the public for the various services were inadequate or excessive. The Posts and telegraphs, like all public and private undertakings, was a victim of the universal financial and economic depression which crashed on the world in 1930. During 1931, numerous economy measures had to be introduced according to the advice of the Posts and Telegraphs sub-committee to the Retrenchment committee presided over by Sir. Cowasjee Jahangir. Naturally the adoption of the various measures of retrenchment could not but have an adverse effect on the emoluments and interests of the personnel of the Department. From the beginning P & T setup was run on welfare lines without the motto of profit. The annual report of the department for 1931 said, "It is the accepted policy of the government that the department should be so administered that there should be neither any substantial profit nor any substantial loss on its working under normal conditions". The department is bound by a large volume of statutory and other rules. After gaining independence from Britain in 1947, the national government continued the colonial legacy, organizing post and telegraph services exclusively in the domain of the state. Jawaharlal Nehru's post independence socialist policies dedicated India to state – run,

state owned monopolies in various sectors, including Indian telecommunication as well. The foreign telecommunication companies were nationalized and the Posts, Telephone and Telegraph (PTT) Company was set up by the Ministry of Communications.

After the implementation of the Federal Financial Integration Scheme on 1st April, 1950, the administration of the entire network of telegraphs and telephone systems of the nation, including those that previously existed in the former princely state became a major adventure. In 1950 the number of telephone exchanges absorbed from princely states was 196. This system which was working with different degrees of efficiency could fit into the general telecommunication network. The installed capacity of these 196 exchanges was 13,362 lines with 11,296 working connections. Soon after the absorption an attempt was made to improve their technical efficiency by replacing absolute and unserviceable equipment and lending well-qualified and experienced staff. Isolated exchanges were integrated with the general pool. The more complicated task was absorption of the staff. Their final absorption into the different cadres of service in posts and telegraph was a major step. By April, 1972, the telecommunications accounts were separated. Simultaneously the department also started preparing the balance sheet annually.

In 1978 Telecom Consultants India was set up to discharge the responsibility of providing telecom services in foreign countries. The public sector units like the Indian Telephone Industries and the Hindustan Cables Ltd lost their monopoly positions. The Centre for the Development of Telematics (C-DOT) was established to promote research and development of indigenous technology in the field of telecom. By mid-80's, C-DOT also gave production rights for their RAX's up on payment of substantial fee to the private sector. Managed by slow-moving, over staffed government machinery under the aegis of the Ministry of Posts and Telegraphs, the performance of India's telecommunications sector was slow until the mid – 1980s. The main reason for this poor performance was with the view that telephones were a 'luxury' rather than a 'necessity'. Moreover, there was the dominance of the state – run telecommunications with no competitive pressures for originality in telecommunications product, services and their pricing. In India the Ministry of Posts and Telegraphs focused in improving the delivery of telegrams and telexes while other countries were embracing digital telephony and facsimile machines. Till 31st December, 1984, the Postal Telegraph and Telephone Services were managed by the Posts and Telegraphs Department. In January 1985, two separate departments for the posts and the telecommunications were created. The accounts of the department, initially were maintained by the accountant general of the P & T.

In India, telecom sector is one of the major sectors where there is more chances for its sustainable growth. The Indian telecom market ranks among the fastest growing industries in the country. Indian Telecom market is mainly divided into two major segments namely, the Fixed Service Providers (FsPs) and the Cellular Service Providers. Fixed service provider network comprises land lines, basic services, domestic and long distance call service. The two major basic operators BSNL and MTNL comprise almost 90 per cent of the FSPS in the country around 5 per cent are operated by private firms and are mostly scattered in the urban areas. In most cases the private basic service telephone operators cater to offices, business firms, schools and the corporate sector. In the case of the cellular services there are mainly

two subdivisions. They are CDMA and GSM. In the GSM sector, the major players are Vodafone, Airtel, Idea cellular, Aircel and so on. The national company BSNL also has its GSM service named “Cell one” which has a major share in the semi urban and rural areas. The major companies which dominate the CDMA Scenario are Reliance Communications and Tata Indicom. In both the sectors of cellular services, perfect competition exists according to the demand supply chains.

From the holistic point of view telecom industry can be divided into four sub-sets. They are:

- (a) Network Infrastructure companies; Alcatel, Lucent, Cisco, Ericsson.
- (b) Telecom service Providers; Bharati-Airtel, Vodafone, Idea, Reliance.
- (c) Telecom Equipment Manufactures; Nokia, Motorola, Samsung.
- (d) Telecom Solutions Providers; Tech-Mahindra, Aricent, IBM India, Wipro, Sasken.

In Indian telecom sector, the government has named each state as each circle. These circles are “Metro” and “A”, “B” and “C”. “C” zones are based on subscriber potential. “Metros” are Delhi, Mumbai, Chennai and Kolkata. Circle A – Maharashtra, Gujarat, A.P, Karnataka and Tamil Nadu. Circle B–Kerala, Punjab, Hariyana, U.P [East & West], Rajasthan, M.P and West Bengal. Circle C – Himachal Pradesh, Bihar, Orisa, Assam, and North East. Bombay and Delhi Telephones were separated to create the new entity called Mahanagar Telephone Nigam Ltd. (MTNL).

Department of Telecommunications (DOT)

In the year 1985, the DOT was set up to provide domestic and long distance telephone services. The telecom services have been recognized the world-over as an important tool for socio-economic development of a nation and hence telecom infrastructure is treated as a crucial factor to realize the socio-economic objective in India. Accordingly, the DOT has been formulating development policies and projects for the accelerated growth of the telecommunication services. The Department is also responsible for frequency management in the field of radio connection in close co-ordination with the international bodies. It also enforces wireless regulatory measures by monitoring wireless transmission of all uses in the country. The DOT has been the premier telecom service provider in India with its presents through the length and breadth of the country. The Department in 1986 reorganized the Telecommunication circles with the SSAs as basic units. It was implemented in a phased manner. With a view to deciding matters of policy, a separate telecom Board, named the Telecom Commission, was also setup. The telecom commission was constituted in 1989. The Telecom commission was set up by the government of India with necessary executive, administrative and financial powers to deal with various aspects of Telecommunications. The Commission has the DOT Secretary as its Chairman with Member (Services), Member (Technology), and Member (Finance) as its fulltime members. The part time members are Secretary (IT), Secretary (Finance), secretary (Planning Commission), Secretary (DOE), Secretary (Industries), and Secretary (IP & P). But this again composed mainly of the officers of the DOT. In 1999, modification was brought to the policy. The DOT has a Public Grievances cell at Sanchar Bhavan, New Delhi, which receives various types of complaints

related to telecom services and takes these up with the concerned service provider for redressal.

Industrial Assistance and Export Promotion

The Industrial Assistance and Export Promotion group working in DOT for the telecom sector is responsible for the activities such as (a) assistance in formulation of Import and Export policies for the sector, Foreign Investment policies and procedures; (b) processing of applications for foreign investment and foreign technology; (c) matters relating to promotion of telecom exports including sponsoring of trade delegation, setting up of Indian pavilions in International Exhibition and organization of seminars; (d) examination of matters relating to customs and excise duties and other Direct and Indirect Taxes for the telecom sector; (e) assistance in matters relating to Trade and Industrial policies; and (f) assistance to various industrial units in the Telecom sector for implementation of their projects.

Mahanagar Telephone Nigam Limited (MTNL)

In the year 1986 on 1st April, the government established MTNL and was incorporated as a limited company to manage & control telecommunication services in the two metropolitan cities of Delhi & Mumbai. The jurisdiction of the company comprises the city of Delhi and the areas falling under the Mumbai Municipal Corporation and Thane Municipal Corporation. MTNL was setup, because the telephones in big cities were so difficult that a mere Departmental undertaking could not run it. For cellular services, the company has the license to provide the service in Delhi including the peripheral towns of Gurgaon, Faridabad, Ghaziabad & Noida and in Mumbai including Kalyan. The vision of the company is to provide world class telecom services at affordable rates and ultimately to become total solution provider in telecom sector. MTNL had enjoyed monopoly till 2000 in the two metro cities of Delhi and Mumbai, where it operates. Since then the private operators have started providing basic services in Mumbai and are expected to do the same soon in Delhi. Increased competition from private operators was expected during the tenth plan. To maintain its position as a major player in Mumbai and Delhi, MTNL envisaged to expand its cellular network in a big way during the tenth plan. Expansion of internet services and introduction of IT related services is another major element of company's overall strategy of growth and competition.

Videsh Sanchar Nigam Limited (VSNL)

In the year 1986 the government established VSNL for international telephone services (overseas communications). VSNL was corporatized in 1986. The corporatization process was not smooth and the consultants were given a very short time to prepare a report. The organizational structure of VSNL consisted of a chairman and MD, supported by a board consisting of five members - finance, planning, operation, human resources, commercial and network services. After corporatization VSNL has been structured as a single organization. Now the VSNL has been fully privatized.

Corporatisation

Telecom markets were liberalized and regulated world-wide. Competition and welfare enhancement were the main drivers behind liberalization of markets. This called for opportunities not only for new entrance but also for incumbents. Regulation should be strategically aimed at enhancement of general welfare without mutilating markets nor harming providers or subscribers. India is the fastest growing economy post its liberalization and globalization activism and Asia's third largest economy behind Japan and China. India's telecom density is not so high as compared to the western market. These liberalization measures introduced in the telecom sector were expected to boost the investors' confidence, bring greater competition for the benefits of subscribers and develop modern telecommunication network in the country at a faster pace. Many companies are easily attracted to the telecom sector and are interested in investing large amount which is good for both the telecom sector and the economy of the country. India's telecom market is the fastest growing investment pocket in the world.

Telecom Regulatory Authority of India (TRAI)

In the year 1997, the government setup the TRAI to provide a comprehensive telecom service in the country. With the entry of private sector in the provision of telecommunication services a need was felt to have an independent regulatory body. This requirement was indicated in the guide lines issued for entry of private sector in basic telecom service. Accordingly, TRAI was established in the year 1997 in pursuance of TRAI (ordinance) 1997, which was later replaced by an Act of Parliament to regulate the telecommunication services. The desired objectives of bringing about functional clarity, strengthening the regulatory frame work and the dispute settlement mechanism have been attained by bringing about a clear distinction between the regulatory and recommendatory functions of TRAI, by making it mandatory for Government to seek recommendations of TRAI in respect of specified matters and by the setting up of separate dispute settlement mechanism.

Bharath Sanchar Nigam Limited (BSNL)

After finalization of various financial and HRD aspects, the business of running telecom operations throughout the country except in the metros of New Delhi and Mumbai, the service providing functions of the Department of Telecom Services (DTS) and DTO were transferred to the newly created company BSNL. The two newly carved out service providing Departments from the DOT, namely the Department of Telecom Services (DTS) and Department of Telecom Operations (DTO) were corporatized ahead of schedule and a Public sector company "Bharath Sanchar Nigam Ltd. (BSNL)" was given all the service providing functions performed by these two Departments w.e.f. October 1, 2000 and began its existence as a fresh entity. The creation of BSNL was expected to provide a level playing field, in all areas of telecom services, between government operators and private operators.

With the corporatization of the two service providing Departments Viz. DTS and DTO in to a PSU "BSNL", the role of Telecom commission has been changed. After shedding the direct responsibility of service providing functions of the DOT, Telecom commission was

responsible for policy formulation, licensing, wireless spectrum management, administrative monitoring of PSUs, research and development and standardization, validation of equipment etc.

Some of the other development activities of telecom sector are the following:

a. Opening up of National Long Distance Services

As per the new Telecom Policy (NTP), 1999, the Government has opened the National Long Distance Service beyond the service area to the private operators without any restriction on the number of operators w.e.f 13th August, 2000. The government has also issued guidelines for providing Licenses to Infrastructure Provider– II (IP–II) for the purpose of leasing/ renting out/ Selling end- to–end band width. No formal license is required for providing assets such as Dark Fibres, Right of way, Duct Space and Tower. They are only required to be registered as IP–I.

b. Telecom Dispute Settlement and Appellate Tribunal (TDSAT)

A separate dispute settlement body known as “Telecom Dispute Settlement and Appellate Tribunal” to adjudicate any dispute between a licensor and licensee, between two or more service providers, between a service provider and a group of subscribers, and to hear and dispose of appeals against any decision or order to TRAI, has been formally constituted with the appointment of chairperson and two members. The tribunal has become operational and started hearing cases.

c. Strengthening of the Unit for Telecom- Economic Analysis

The Telecom Commission created a Policy planning cell in the Economic Research unit to prepare discussion papers, policy papers on national and international issues relating to the telecom sector. The Economic Research Unit (ERU) in the Department of Telecommunications which is a multi–disciplinary unit consisting of economists, statisticians, engineers and financial experts, provides various inputs on technoeconomic issues relating to telecom policy formulation and planning. The ERU compiles and disseminates various data on techno- economic parameters relating to telecom sector. The unit provides telephone demand projections for basic services to the Telecom commission and all the circle heads. The projections cover the demand at the all India level, each telecom circle and metro telecom districts and all the stations with equipped capacity of 200 lines and above. It studies the trends in the investment by the private sector to provide various telecom services. The ERU also carries out various techno-economic studies on specific issues relating to telecommunications, apart from sponsoring studies on specific aspects. Accordingly, it has carried out technoeconomic studies on tariff related issues, call distribution pattern etc. and prepared a number of reports and policy papers. It has prepared Indian Telecommunication statistics during the period under report. The material for the pre-Budget Economic Survey on Telecommunication was also prepared. The Annual Report of the Department of Telecommunication is also co-ordinated and brought out by the unit.

d. Manufacture of Telecom Equipments

India is a major manufacturer of a wide range of telecom equipments. The total production of telecom equipments and cables in terms of value has increased from Rs. 3985 crores in 1992–93 to Rs. 8,300 crores in 1996-97 which further increased to Rs. 10760 crores during 1999-2000. The Indian telecom equipment industry's revenues fell marginally to Rs. 1,13,188 crores in 2011-2012 from 1,14,133 crores in 2010-2011.

e. Export of Telecom Equipments & Services

India has been recognized as a key supplier of products and technologies for rural telecom by international organization Viz and ITV. Vigorous efforts are being made to increase the exports of telecom equipments and services.

f. Virtual Private Net work (VPN)

VPN is a private data network that provides connectivity within closed user groups Via public telecommunication infrastructure. Competition is likely to heat up in the VPN segment as DOT has relaxed the norms for private players.

g. Public Telephones

The Opening up of Public Telephone (PTS) at various places like Bus station, Railway station, thickly populated areas and business areas were occurred so as to satisfy the requirements of ordinary people. In the areas where the density of telephones was very low, PTS were opened. But the introduction of Mobile phones has decreased the use of PTS. At the initial stage the PTS were only within the hands of DOT, as a monopoly. But the liberalization policies and the subsequent privatisation policies have paved the way for the installation of PTS of private companies also. The installation of electronic exchanges with dynamic locking system have prevailed upon the prospective subscribers to use the STD and ISD facilities of their own and the use of PTS for STD /ISD facilities became very rare.

h. Reduction of Excess Staff

DOT provides basic service by drawing a pair of copper cables for each connection. But such cables become faulty in rainy seasons. Underground cables have comparatively less fault rate, excluding these seasonal changes, than the over head lines. But at the time of over head lines, the required number of permanent line staff and mass doors, was more. In the case of underground cables comparatively less permanent employees are required. In this case the digging jobs are done by petty contractors but the technologies like WLL and mobile, the initial investment is heavy.

i. World-wide Interoperability for Micro-wave Access (WiMAX)

WiMAX has been one of the most significant developments in wireless communication in the recent past. Since this mode of communication provides network access in inaccessible locations at a speed of more than 4 Mbps, it is expected to be a major factor in driving telecom services in India especially Wireless services. Thus it will lead to the increased use

of telecom services, internet, Value Added Service (VAS) and enterprise services, WiMAX is expected to accelerate economic growth and assist in providing better education, health care and entertainment services. Aircel is the pioneer in WiMAX technology in India. The state owned player, BSNL, aims to connect 74,000 villages through WiMAX.

j. Mobile Number Portability

It is a standard where a customer wishing to port his/her number, is required to contact the donor to obtain a Port Authorisation Code (PAC) which he/she then has to give to the recipient. Once having received the PAC the recipient continues the port process by contacting the donor. This form of porting is also known as 'Donor-Led' and has been criticised by some industry analysts as being inefficient. It has also been observed that it may act as a customer deterrent as well as allowing the donor an opportunity of 'winning- back' the customer. This might lead to distortion of competition, especially in the markets with new entrants that are yet to achieve scalability of operation. To reduce their network deployment costs, many service providers are considering infrastructure sharing. It is considered having the advantages like improved service quality, increased affordability for customers, faster roll out of services in rural and remote areas, significant reduction in initial set up costs, lower operating costs for service providers and increased environmental aesthetics.

k. Value Added Services

VAS in telecommunication industry refers to non-core services, the core or basic services being standard voice calls and fax transmission including bearer services. The value added services are characterised as (a) not a form of core or basic service but adds value in total service offering; (b) standards alone in terms of profitability and also stimulates incremental demand for core or basic services; (c) can sometimes be provided as stand alone; (d) do not cannibalize core or basic service; (e) can be add-on to core or basic service and as such can be sold at premium price; and may provide operational synergy with core or basic services. A value added service may demonstrate one or more of these characteristics and not necessarily all of them.

GROWTH IN TELECOM SECTOR

After the inception in India, over a period of 200 years, telecommunication has indeed grown by leaps and bounds to occupy an important position in the Indian economy today. Buoyed by the rapid surge in the subscriber base, huge investments are being made into this industry. There were around 200 million telephone lines in India which makes it the 3rd largest phone network in the world after china, and the US. Today, the telecom market in India enjoys the highest growth rate in the whole world. The improvement in the standard of living and the development of infrastructure and connectivity are some of the main reasons for the significant growth of the telecom industry.

In order to capitalise the opportunity of meeting the subscriber needs in highly competitive market the operators have reduced the tariffs to attract subscribers with low purchasing power primarily in semi urban and rural India. Through the changing regulations and events, the

Industry players are aiming to achieve acquiring new subscriber by expanding in semi urban and rural India, and selling more services to existing subscribers. Several steps were taken to improve the tele-density in the country. Targets of additional DSLs were enhanced. Intensive efforts are being made to cover more villages through VPTs. Private sector is being encouraged to provide telecom facilities at a faster pace. The progress made was reviewed by the Minister of Communication during the meeting held with circle heads and heads of SSAs.

India had around 84000 telephone lines for its population of 350 million at the time of its independence in 1947. The rapid growth in Indian telecom industry has been contributing to India's GDP at large. After independence the growth in telecom sector in public sector was fair and well planned. The country wide telecom net work worth Rs.80000 crores has been set up entirely through public investment. It had increased the number of telephones in the country from hardly 60000 in 1950 to 21 million in 1999. The international telephone circuits increased almost seven fold from 1000 to 6600 in seven years from 1986 to 1993. When the telecom developments of other countries are considered, it is apparent that the developments in India are not much better. There are not enough telephone lines in India. There were 7 million phones for a population around 900 million people. India provides larger number of new telephone connections per year. Between 1988 and 1998, the number of villages with some kind of telephone facility increased from around 27,316 to 300000 villages. Revenues of the DOT, the state- run telecommunications operator, increased from \$790 million in 1988 to 4.3 billion in 1998, simply a five- fold increase in 10 years. Though there has been a sharp expansion in the telecom network in the country both in the basic services and cellular mobile services and an impressive increase in the tele-density (number of telephone per 100 population) from a level of 0.60 per cent in 1990-91 to 2.86 per cent by 1999-2000. In the mid-1999 the cellular penetration in the cities had reached about one million people even though there was sluggishness in the case of basic services. It was in 1994 the telecom sector was opened up to allow private operators to provide cellular telephony services. The telecommunication network of the public Sector (BSNL and MTNL) in India was one of the largest telecom networks in Asia. The equipped capacity of the public Sector operators was increased from 26.1 million in 1998-99 to 32.8 million lines at the end of 1999- 2000. The total number of Direct Exchange Lines (DELs) during the same period has increased from 21.6 million to 26.5 million. As on January 31st, 2001, the equipped capacity reached a level of 36.7 million and DELs to about 30 million. In the year 2011 the equipped capacity is 546.32 lakh lines.

The remarkable feature of the expansion of telecom network in India is the rapid increase in cellular mobile subscriber base. A stunning 117 billion metered calls were made in India from the PCO in 1998. Up to the year 1998, the country could achieve a growth in tele-density of 1.92 per cent only. After 50 years, in 1998, tele-density was 1.94 per cent only. Annual plan of 2000-'01 and revised plan 1999-2000, Inter-alia, pay special emphasis on accelerated growth and early implementation of telecommunication facilities. Tele-density in India in the year 2000 was 2 per cent, was being targeted to increase up to 7 per cent in 2005 and 15 per cent in 2015 by the NTP 1999.

The tele-density in India is very low not only compared to those in the advanced countries but also compared to those in other developing countries like China (7.0 per cent) Malaysia (19.8 per cent) and Thailand (8.4 per cent). Therefore a quantum jump both in quantitative and qualitative terms is required for expanding the telecom network within a shortest possible time to bring it at par with the rest of the world and achieve the largest enunciated by the NTP, 1999. During the first ten months of the financial year (2000-01), the subscriber base has further gone upto 3.27 million, a further increase of about 74 per cent. By 1999, India had an installed network of more than 25 million telephone lines that spread across 300 cities, 4869 towns, and 310897 villages, making India's telecommunications network the ninth largest in the world. The financial year 2002-03 was a year of excitement and challenges for the Indian telecom industry. The industry witnessed significant regulatory developments along with changes in the competitive landscape. The year witnessed the introduction of interconnect usage charge and a free mobile incoming regime for the first time in India. This interconnect regime has attempted to bring about a level playing field while trying to put an end to predatory and discriminatory practices.

India is the fastest growing free market democracy in the world. It has a mature and dynamic private sector, which accounts for 75 per cent of India's GDP and a market with enormous potential due to its large size and diversity. India offers significant business opportunities to the services, as well as the manufacturing sectors. This is because India offers benefits such as cost advantage in product development and back-office processing and the large scale availability of skilled professionals. The middle class population is also a significant market for any business entity. The target for the 11th plan period (2007-12) is 600 million phone connections with an investment of US \$73 million. Apart from the basic telephone service, there is an enormous potential for various value added services.

Competition deregulation and technological revolution continue to change the way of telecommunication sector functions. India added 130 million new customers in 2008-'09, the largest globally. The country's cellular base witnessed close to 50 per cent growth in 2008, with an average 9.5 million customers added every month. Massive investment running into billions of dollars (installing each telephone line costs about \$750) were needed for the expansion, so private sector involvement intensified. Indian Telecommunications portrays the real sense of transferring the information between two distant points in space. Thus the history of Indian telecom can be started with the introduction of telegraph and still ongoing with the present status of effective mobile phones available all over the country.

The telephone coverage in India rose to 34.50 per cent in Jan, 2009 from 33.23 per cent in December 2008, indicating huge market potential, especially in rural areas, the cell phone subscribers increased 10.81 millions in December 2008 and 15.40 million in January, 2009. Up to the end of January, 2009, the total number of cell phone subscribers in India had reached 362.3 millions, the fixed phone subscribers dropped to 37.75 million from 37.9 million in December 2008, and the broadband subscribers increased to 5.65 millions from 5.45 million. During the month of March 2009 BSNL added a net of 1,17,000 land line connections registering a positive growth after several years of steep and steady dips. As per the Telecom subscription data as on 31st August, 2009, the number of telephone subscribers

in India increased to 494.07 million at the end of August, 2009 from 479.07 million in July 2009. In the wireless segment there are 15.08 million new additions. There has been a substantial decline in tariffs over the years. The adoption of new technology has been a major factor that has helped service providers reduce the tariffs considerably. As per the accounts on 31st March 2011, in BSNL there are 90 million subscribers (27.45 million wirelines, 72.69 million wireless lines), 1,32,243 crore asset, 2,81,635 employees and BSNL has 6th position in mobile connection, 6,000 crores loss in 2010- 2011. Although there has been a rapid rollout of cellular mobile networks with over 886.0 million subscribers as on June 2011, there has been relatively less penetration in rural areas with only 298.1 million connections. Besides huge gap between rural and urban tele-density, broadband penetration. The Indian telecom market is expected to grow by Rs. 3,44,921 crores by the year 2012. The rate of growth will be around 26 per cent and the sector will also generate employment to around 10 million people. The number of telephone subscribers is expected to grow by around 650 million.

The statistics in the history of Indian telecommunication show that there has been a mammoth revolution in this sector of India. The continuing growth of the telecom industry seems to have become a key contributor to India's progress. Today, there are about 500 million telecom subscribers with a net addition of more than 11 million new mobile subscribers per month.

ADMINISTRATION AND CONTROL

Department of Telecommunications (DoT)

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)

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 renewal on expiry of the validity periods.

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. The 2000 Amendment took away the TRAI's dispute resolution function and entrusted the same to the Telecom Disputes Settlement Tribunal (TDSAT). Following structure gives a cursory glance of the present regulatory structure in the telecom sector of India in brief.

Regulatory structure of the Indian telecom sector

Regulatory body	Functions	Comment
DOT (Department of Telecom)	Licensing, license fee, frequency management of telecom sector	Policymaking and enforcing body
Telecom Commission	Executive and policy making function of ministry	Part of DOT
WPC- Wireless Planning Commission	The national radio regulatory authority responsible for spectrum management, including licensing. Caters for the needs of all wireless users in the country, government or private, security or non-security.	Country's spectrum management
GOTIT-(Group on Telecom and IT)	Decides on ad hoc issues depending on the immediate needs	Prime Minister's council

TRAI –Telecom Regulatory of India	Regulating, issuing directions and settlement of disputes between various service providers. Mandatory for DOT to seek recommendation of TRAI in respect of specified matters and then setting up separate dispute settlement mechanism. Also has the power to call for any information, conduct investigations and to issue directions (directives)	Day to day management of sector
TDSAT-Telecom	To adjudicate any dispute: Dispute	
Dispute Settlement Appellate Tribunal	(1) between a licensor and a Licensee (2) between two or more service providers (3) between a service provider and a group of consumers	settlement body

PRE-REFORM PERIOD AND TELECOMMUNICATIONS IN INDIA

Before 1990's Telecommunication services in India were complete government monopoly i.e. the Department of Telecommunication (DoT). Government also retained the rights for manufacturing of Telecommunication equipment. MTNL and VSNL were created in the year 1986. Early 1990's saw initial attempts to attract private investment. Telecommunication equipment manufacturing was delicensed in the year 1991.

A notable revolution has occurred in the telecom sector. In the pre reforms era, this was entirely in the hands of the central government and due to lack of competition, the call charges were quite high. Further, due to lack of funds with the government, the government could never meet the demand for telephones. In fact, a person seeking a telephone connection had to wait for years before he could get a telephone connection. The service rendered by the government monopoly was also very poor. Wrong billing, telephones lying dead for many days continuously due to slackness on the part of the telecom staff to attend to complaints, cross connections due to faulty/ill maintained telephone lines, obsolete instruments and machinery in the telephone department were the order of the day in the pre reforms era.

Today, there are many players in the telecom sector. The ultimate beneficiary has been the consumer. Prices of services in this sector have fallen drastically.

Telephone connections are today affordable to everyone and are also easily available. Gone are the days, when one had to wait for years to get a telephone connection. The number of telephone connections which was only 2.15 million (fixed lines) in 1981 increased to 5.07 million (fixed lines) in 1991. Today (as in 2003), there are 54.62 million telephone connections of which 41.33 million are fixed line telephone connections, 12.69 million are cellular mobiles and the remaining 0.60 million are WLL telephones¹. Wireless in Local Loop (WLL) telephones and cellular mobile telephones were unknown in India a few years ago. Cell phones charges have come down so much that today one can see even a common man going around with a cell phone in his hand. The private companies are giving various

incentives to attract customers, a situation which is entirely opposite to the conditions prevailing in the pre reforms era when one had to wait for years to get a telephone connection.

The first step toward deregulation and beginning of liberalization and private sector participation was the announcement of National Telecom Policy 1994. NTP 1994, for the first time, allowed private/foreign players to enter the 'basic' and the 'new cellular mobile' section. Foreign Direct Investment (FDI) up to 49% of total equity was also allowed in these sectors. The policy allowed one private service provider to compete in basic services with the incumbent Department of telecommunication (DoT) in each DoT internal circle. It allowed duopoly in cellular mobile services in each circle. As part of the implementation of the National Telecom Policy (NTP) 1994, licenses were issued against license fees through a bidding process. This policy initiated the setting up of an independent regulator—the Telecom Regulatory Authority of India (TRAI), which was established in 1997. The main objective of TRAI is to provide an effective regulatory framework to ensure fair competition while, at the same time, protecting the interest of the consumers.

LIBERALIZATION AND REFORMS IN TELECOM SECTOR: A REVIEW

1991-92

1. On 24th July 1991, Government announced the New Economic Policy.
2. Telecom Manufacturing Equipment license was delicensed in 1991.
3. Automatic foreign collaboration was permitted with 51 per cent equity by the collaborator.

1992-93

1. Value added services were opened for private and foreign players on franchise or license basis. These included cellular mobile phones, radio paging, electronic mail, voice mail, audiotex services, videotex services, data services using VSAT's, and video conferencing.

1994-95

1. The Government announced a National Telecom Policy 1994 in September 1994. It opened basic telecom services to private participation including foreign investments.
2. Foreign equity participation up to 49 per cent was allowed in basic telecom services, radio paging and cellular mobile. For value added services the foreign equity cap was fixed at 51 per cent.
3. Eight cellular licenses for four metros were finalized.

1996-97

1. TRAI was set up as an autonomous body to separate the regulatory functions from policy formulations and operational functions.

2. Coverage of the term "infrastructure" expanded to include telecom to enable the sector to avail of fiscal incentives such as tax holiday and concessional duties.
3. An agreement between Department of Telecommunication (DoT) and financial institutions to facilitate funding of cellular and basic telecom projects.
4. External Commercial Borrowing (ECB) limits on telecom projects made flexible with an increased share from 35 per cent to 50 per cent of total project cost.
5. Internet Policy was finalized.

1998-99

1. FDI up to 49 per cent of total equity, subject to license, permitted in companies providing Global Mobile Personal Communication (GMPC) by satellite services.

1999-00

1. National Telecom Policy 1999 was announced which allowed multiple fixed Services operators and opened long distance services to private operators.
2. TRAI reconstituted: clear distinction was made between the recommendatory and regulatory functions of the Authority.
3. DOT/MTNL was permitted to start cellular mobile telephone service.
4. To separate service providing functions from policy and licensing functions, Department of Telecom Services was set up.
5. A package for migration from fixed license fee to revenue sharing offered to existing cellular and basic service providers.
6. First phase of re-balancing of tariff structure started. STD and ISD charges were reduced by 23 per cent on an average.
7. Voice and data segment was opened to full competition and foreign ownership increased to 100 per cent from 49 per cent previously.

2000-01

1. TRAI Act was amended. The Amendment clarified and strengthened the recommendatory power of TRAI, especially with respect to the need and timing of introduction of new services provider, and in terms of licenses to a services provider.
2. Department of Telecom Services and Department of Telecom operations corporatized by creating Bharat Sanchar Nigam Limited.
3. Domestic long distance services opened up without any restriction on the number of operators.
4. Second phase of tariff rationalization started with further reductions in the long distance STD rates by an average of 13 per cent for different distance slabs and ISD rates by 17 per cent.
5. Internet Service Providers were given approval for setting up of International Gateways for Internet using satellite as a medium in March 2000.
6. In August 2000, private players were allowed to set up international gateways via the submarine cable route.

7. The termination of monopoly of VSNL in International Long Distance services was antedated to March 31, 2002 from March 31, 2004.

2001-02

1. Communication Convergence Bill, 2001 was introduced in August 2001.
2. Competition was introduced in all services segments. TRAI recommended opening up of market to full competition and introduction of new services in the telecom sector. The licensing terms and conditions for Cellular Mobile were simplified to encourage entry for operators in areas without effective competition.
3. Usage of Voice over Internet Protocol permitted for international telephony service.
4. The five-year tax holiday and 30 per cent deduction for the next five years available to the telecommunication sector till 31st March 2000 was reintroduced for the units commencing their operations on or before 31st March 2003. These concessions were also extended to internet services providers and broadband networks.
5. Thirteen ISP's were given clearance for commissioning of international gateways for Internet using satellite medium for 29 gateways.
6. License conditions for Global Mobile Personal Communications by Satellite finalized in November 2001.
7. National Long Distance Service was opened up for unrestricted entry with the announcement of guidelines for licensing NLD operators. Four companies were issued Letter of Intent (LOI) for National Long Distance Service of which three licenses have been signed.
8. The basic services were also opened up for competition. 33 Basic Service licenses (31 private and one each to MTNL and BSNL) were issued up to 31st December 2001.
9. Four cellular operators, one each in four metros and thirteen were permitted with 17 fresh licenses issued to private companies in September/October 2001. The cell phone providers were given freedom to provide, within their area of operation, all types of mobile services equipment, including circuit and/or package switches that meet the relevant International Telecommunication Union (ITU)/ Telecom Engineering Centre (TEC) standards.
10. Wireless in Local Loop (WLL) was introduced for providing telephone connection in urban, semi-urban and rural areas.
11. Disinvestment of PSU's in the telecom sector was also undertaken during the year. In February 2002, the disinvestment of VSNL was completed by bringing down the government equity to 26 per cent and the management of the company was transferred to Tata Group, a strategic partner. During the year, HTL was also disinvested.
12. Government allowed CDMA (Code Division Multiple Access) technology to enter the Indian market.
13. Reliance, MTNL and Tata were issued licenses to provide the CDMA(Code Division Multiple Access) based services in the country.

14. TRAI recommended deregulating regulatory intervention in cellular tariffs, which meant that operators need no longer have prior approval of the regulator for implementing tariff plans except under certain conditions.

2002-03

1. International long distance business opened for unrestricted entry.
2. Telephony on internet permitted in April 2002.
3. TRAI finalized the System of Accounting Separation (SAS) providing detailed accounting and financial system to be maintained by telecom service providers.

2003-04

1. Unified Access Service Licenses regime for basic and cellular services was introduced in October 2003. This regime enabled services providers to offer fixed and mobile services under one license. Consequently 27 licenses out of 31 licenses converted to Unified Access Service Licenses.
2. Interconnection Usage Charge regime was introduced with the view of providing termination charge for cellular services and enable introduction of Calling Party Pays regime in voice telephony segment.
3. The Telecommunication Interconnection Usage Charges Regulation 2003 was introduced on 29th October 2003 which covered arrangements among service providers for payment of Interconnection Usage Charges for Telecommunication Services and covered Basic Service that includes WLL (M) services, Cellular Mobile Services, and Long Distance Services (STD/ISD) throughout the territory of India.
4. The Universal Service Obligation fund was introduced as a mechanism for transparent cross subsidization of universal access in telecom sector. The fund was to be collected through a 5 per cent levy on the adjusted gross revenue of all telecom operators.
5. Broadcasting notified as Telecommunication services under Section 2(i)(k) of TRAI Act.

2004-05

1. Budget 2004-05 proposed to lift the ceiling from the existing 49 per cent to 74 per cent as an incentive to the cellular operators to fall in line with the new unified licensing norm.
2. 'Last Mile' linkages permitted in April 2004 within the local area for ISP's for establishing their own last mile to their customers.
3. Indoor use of low power equipments in 2.4 GHz band de licensed from August 2004.
4. Broadband Policy announced on 14th October 2004. In this policy, broadband had been defined as an "always-on" data connection supporting interactive services including internet access with minimum download speed of 256 kbps per subscriber.
5. The Telecommunications (Broadcasting and Cable Services) Interconnection Regulation 2004 was introduced on 10th December 2004.

6. BSNL and MTNL launched broadband services on 14th January 2005.
7. TRAI announced the reduction of Access Deficit Charge (ADC) by 41 per cent on ISD calls and by 61 per cent on STD calls which were applicable from 1st February 2005.

2005-2006

1. Budget 2005-2006 cleared a hike in Foreign Direct Investment(FDI) ceiling to 74 per cent from the earlier limit of 49 per cent. 100 per cent FDI was permitted in the area of telecom equipment manufacturing and provision of IT enabled services.
2. Annual license fee for National Long Distance (NLD) as well as International Long Distance (ILD) licenses reduced to 6 per cent of Adjusted Gross Revenue (AGR) with effect from 1st January 2006.
3. BSNL and MTNL launched the 'One-India Plan' with effect from 1st March 2006 which enable the customers of BSNL and MTNL to call from one end of India to other at the cost of Rs. 1 per minute, any time of the day to phone.
4. TRAI fixed Ceiling Tariff for International Bandwidth, Ceiling Tariff for higher capacities reduced by about 70 per cent and for lower capacity by 35 per cent.
5. Regulation on Quality of Service of Basic and Cellular Mobile Telephone Services 2005 introduced on 1st July 2005.
6. BSNL announced 33 per cent reduction in call charges for all the countries for international calls.
7. Quality of Service (Code of Practice for Metering and Billing Accuracy) Regulation 2006 introduced on 21st March 2006.

11th plan (2007-2012)

Foreign Direct Investment (FDI) in Telecom sector has increased in recent years with value of 81.62 billion with share of 10% in total inflow during January 2000 to June 2005. This is mainly in telecom services and not in telecom manufacturing sector. Therefore, it is essential to enhance the prospect for inflow of increased funds. The National Telecom policy (NTP) 1999 sought to promote exports of telecom equipments and services. But till date export of telecom equipment remains minimal. Most of the state-of-the-art telecom equipments including mobile phones are imported from abroad. There is thus immense potential for indigenous manufacturing in India. Certain measures like financial packages, formation of a telecom export promotion council, creation of integrated facilities for telecom equipment through Special Economic Zones (SEZ) and encouraging overseas vendors to set up facilities in India, are required for making India a hub for telecom equipment manufacturing and attract FDI. The telecom sector has shown robust growth during the past few years. It has also undergone a substantial change in terms of mobile versus fixed phones and public versus private participation. The following discussions from the report of the working report on the telecom sector for the 11th plan (2007- 2012) will show the growth of telecom sector since 2003.

PEST ANALYSIS OF INDIAN TELECOM INDUSTRY

PEST Analysis (Political, Economic, Social and Technological) is a management method whereby an organization can assess major external factors that influence its operation in order to become more competitive in the market. As described by the acronym, those four areas are central to this model. – Investopedia. The external environment variable is beyond the control of the firm. It requires corporate strategy realignment analysis for shifting of business environments. Firms which are operating in different parts of the country possess invulnerable ecosystem. It has a large variety of exogenous factors which can influence the firm's competitive position. The firms have to understand and evaluate the external factors of the business models and also have to mitigate these external factors through the use of pre-emptive strategy (Bonnicipest, 2014).

A. Political Analysis

- **Foreign Direct Investments (FDI):** FDI has played a vital role in shaping the telecom sector in telecom infrastructure and financial expansion over the past years. FDI's during the financial year 2018- 2019 was US\$2.67 million. However, there was a fall in FDI inflow in 2019. The reasons behind the fall in FDI is because of the reduction of the number of telecom companies through mergers. Another reason was the lack of certainty over telecom regulations and the absence of a conducive environment to operate (PTI , 2019).

- **National Digital Communication Policy – 2018:** The Government of India has introduced National Digital Communication Policy (NDCP) – 2018. It fulfils the communication and information needs of enterprises and citizens. This policy establishes resilient, secure, ubiquitous and affordable digital communications services and infrastructure. It facilitates digitally empowered society and economy. The main goal of the policy will be achieved by 2022. It will provide broadband for all, create additional 4 million jobs in the Digital Communications Sector and increase the contribution of digital communications sector by 8%, towards Indian's Gross Domestic Product (Telecommunication annual report, 2019).

B. Economic Analysis

- **Goods and Service Tax:** The Goods and Service Tax rate (GST) is 18% for the telecom services. The rate varies based on the place in which telecommunication services are offered. Integrated Goods and Service Tax (IGST) is charged for inter-state supply. In case the location of the supplier and the place of supply are in other states the CGST + SGST charges will apply. The petroleum products are excluded from GST but it is necessity for telecommunication sector. This sector has to maintain round the clock continuous supply of services to the telecommunication towers because towers run's on diesel i.e. electricity, lithium cell batteries and DG sets. As a result, this has a huge cascading effect on the telecommunications sector. GST council is yet to decide whether to treat the sale of Subscriber Identification Module as service or goods (Gupta, 2019).

- **Domestic and export share:** TRAI had made some recommendations on exports. The telecom body said that India has to transform its imports to exports for the indigenous

manufacturing of telecommunication equipment. It has instructed that India should target in bringing down the import of telecom equipments to the level of net-zero within 2022. To promote this target of TRAI a collective fund of amount of 10 Billion Dollars should be allocated to develop the Research and Development of telecom products in our country. The primary reasons for decreasing exports and increasing imports is continuous competition from China. There was large scale production and low-cost export of telecom equipments in China. On the other hand, in India imported telecom equipment from Sweden, the United States, and Finland (Rathee, 2018).

- **Revenue Growth:** Telecom industry is set to reverse previous two years of declining trend with a 7% revenue growth in 2020. Fiscal owing has expected that average revenue per user (ARPU) will increase by 11%. Debt protection metrics will remain to improve even though debt metrics will be weak. Sponsors support and deleveraging plans will give continuous support for overall credit profile. Due to elevated Capex and weak cash accruals, the telecom industry has been pushing into debt since the last three years of fiscal 2019 (Gurnaney, 2019).

- **Productivity Growth:** The technological revolution has remained ahead of the curve. The hyper-competition in the telecom industry has made a great impact on the country. According to Reserve Bank of India data, the productivity of telecommunication sector is high when comparing the other sectors from the reforms since 1991. Its productivity is also growing over 10% in the present. On the other hand, other sectors are not achieving even 5% of productivity growth in the same. Telecom sector has been taken up to 7% of growth from the last decade. It is one of the fast-moving sectors in the Indian economy (Kapoor, 2018).

C. Social Analysis

- **Education:** Telecommunications can promote access to education in rural areas. It can help the student to access content directly. It also helps teachers in developing knowledge and skills. Telecommunication can also assist a lot to improve literacy for adults. Additionally, mobile phone education has drastically changed the mindsets of students. They provide education anytime anywhere throughout the year without time lag. By leveraging the increasing penetration of mobile value-added services and mobile phones, significant progress can be produced towards attaining 100% literacy. According to KPMG report, the Indian digital education sector is expected to expand from 1.6 million customers in 2016 to 9.6 million customers by 2021 (Christoph, 2017). India has 43 crore children at the age of 0 to 18 years. The rural-urban school enrolment ratio is 7:5, approximately 60% of students from rural areas, up to 10 years of age, absence fundamental reading skills (Kavishwar, 2018). Digital education has opportunities to expand services to rural areas because more of the students are in rural areas only.

- **Health:** Healthcare delivery is set to change its course in the future. Telecom development and other associated techniques contribute enhanced results of quality. In several instances, these interrelated technological innovations also decreased the need for hospitalization. The significant development is in the field of telemedicine. Telemedicine and M- health

application changed patient mindsets. Doctors are rare in rural areas and their time is precious. By eliminating unnecessary journeys, telemedicine can enable physicians to see more patients every day. The networks established between 22 super speciality hospitals with the 78 remote rural hospitals in the country through geostationary satellites proves the efficacy of the telemedicine (Singh, 2018).

D. *Technological Analysis:* Telecom industry is capital intensive. Therefore, the product cycle and services must stay for long before the returns are felt. Licensed operators and equipment manufacturers are under pressure because technology is uncertain. The revenue of the firm will decline when technology changes (Gupta, 2015). Telecom sector needs constant upgrades in order to meet its technological advancements. Telecom capital expenditure was considered to be non-discretionary and this expenditure increases or decreases, depending on the technological changes, which occur on a time-to-time basis and which require an increase in the CAPEX (Capital expenditures) to be incurred by the operator (Care Ratings Professionals Risk Opinion, 2018). Indian telecom sector needs more population and to boost the present insufficient spectrum (India Rating & Research, 2012).

The government has taken initial steps towards the development of India such as Smart City Project, Make in India, Payment banks, and Digital India. The 4G LITE services created a good platform for the exponential growth of cloud, Internet of Things, Machine to Machine, big data and analytics which led to huge development of voice, video, and data (Joshi, 2016). Revolution is taken place in trends and technology. It has been accepted across the world operators. Now slowly 5G is becoming a reality worldwide and will evolve naturally from current 4G networks. The 5G will constitute a turning point for communications in the future, bringing instant high-power connectivity to devices (Bose, 2019). The telecommunications industry is on the verge of technological revolution and digital transformation in order to offer its consumers a wider range of services. Consumers demand better service quality from service providers. The solution to this problem is to embrace artificial intelligence and machine learning (Khokale, 2019).

MODULE-II

TELECOM LAWS IN INDIA

TELECOM LAWS IN INDIA

‘Telecommunications’ falls under the legislative competence of the Union and not the states. Consequently, the legal framework governing the telecommunications sector is within the control of the Union Government and the Parliament.

The legal framework governing the telecommunications sector in India is provided by:

1. The Indian Telegraph Act 1885, and the rules made there under
2. The Wireless Telegraphy Act 1933, and the rules made there under
3. The Telegraph Wires (unlawful Possession) Act 1950, and the rules made there under
4. The Cable Television Network (Regulation) Act 1996, and the rules made there under
5. The Telecom Regulatory Authority of India Act 1997, and the rules made there under

The control and regulation of the Union government over the telecommunication sector is enshrined in section 4 of the Telegraph Act 1885, read with Section 3 of the Wireless Telegraphy Act 1933.

Section 4(1) of the Telegraph Act 1885 specifically states that:

Within India, the Central Government shall have exclusive privilege of establishing, maintaining and working telegraphs:

Provided that the Central Government may grant a license, on such conditions and in consideration of such payments as it thinks fit, to any person to establish, maintain or work a telegraph within any part of India.

This provision has the following effect:

1. The establishing, maintaining and working of ‘telegraphs’ within India has been clearly stated to be in the nature of a ‘privilege’.
2. The Central Government has been vested with the exclusive right of establishing, maintaining and working of telegraphs.
3. The Central Government has the ability to grant a license to any person to either establish or maintain, or work a telegraph in any part within India on such conditions and in consideration of such payments as the Central Government may deem fit.

The Central Government also has been vested with the powers to make rules for governing the establishment, maintaining and working of:

1. Telegraphs other than wireless telegraphs
2. Wireless telegraphs on ships within Indian territorial waters and on air craft within or above India.

The Central Government also has the specific power to make rules for the conduct of all or any telegraphs established, maintained or worked by the government or by persons licensed under the Telegraph Act 1885. It is also vested with the power to determine the rates at

which and the other conditions and restrictions subject to which messages shall be transmitted within India and to any country outside India. The Indian Telegraph Act 1885, while providing for the regulation of the establishment, operation and maintenance of a 'telegraph', effectively vests in The Union Government with the Power to regulate the provision of all telecommunication services as each of them involves either the establishment or working, or operation and maintenance of a 'telegraph'.

The Wireless Telegraphy Act 1933, while seeking to regulate the possession of wireless communication apparatus effectively regulates the every aspect relating to wireless communication including the use of frequencies and the place of establishment of wireless equipment in any telecommunication network. The Wireless Telegraphy Act 1933 clearly mandates that unless a person has been exempted by the Union Government from the provisions of this Act; no person shall possess wireless telegraphy apparatus except in accordance with a license issued under the Telegraphy Act 1933. The telegraph authority constituted under the Indian Telegraph Act 1885, has been declared as the competent authority to issue licenses under the Wireless Telegraphy Act 1933, and it is vested with the power to issue these licenses in such manner, on such conditions and subject to such payments may be prescribed.

Even though the Telegraph act 1885, and the Wireless Telegraphy Act 1933, do provide for private participation in the establishment, working, operation and maintenance of telegraphs and wireless telegraphy apparatus by providing for the power of the Union Government to grant licenses, the framework created by the Telegraph act 1885, does not provided for the crucial aspect for private participation in the telecommunication sector namely, regulations to provide for a level playing field with the incumbent operator.

INDIAN TELEGRAPH ACT, 1885

The Indian Telegraph Act, 1885 (hereinafter referred as the "Act") is the main legislation dealing with the establishment, maintenance and working of telegraphs in the country. The expression "telegraph" has been given a very wide connotation under the Act. Section 3 of the Act defines it to include any appliance, instrument, material or apparatus used or capable of use for transmission or reception of signs, signals, writing images, and sounds or intelligence of any nature by wire, visual or other electro-magnetic emissions, radio waves or hertzian waves, galvanic, electric or magnetic means. As per this definition, a telephone, a video and a television falls within the definition of telegraph. In *Balvinder Singh v. Delhi Administration and others*, the High Court of Delhi held that the television and video, both fall within the definition of telegraph and a licence for public exhibition of the same is necessary under the Cinematography Act, 1952 in addition to the commercial licence for them, under the Telegraph Act, 1885. In *State v. Mangal Rao*, it has been held that a radio-set receiving communication is a telegraph within this meaning. The Act has a very wide application but mostly it is being invoked with regard to working of telephones, which is a subject of great consumer interest in modern civilised society affecting almost every individual. The mobile cell phones, which have revolutionised the whole communication system, are also covered by the term telephones.

Under the Act, the telephones have been classified into different categories for the purpose of allotment of connections and separate procedures have to be followed for the allotment of telephones in each category. Besides allotment of telephone connections, the Act makes provisions about disconnection of telephones in certain cases, compensation for illegal disconnection, deficiency in service and other related matters.

I. Establishment, Maintenance and Working of Telegraph

Within the country the central government has the exclusive privilege of establishing, maintaining and working of telegraph, provided that it may grant a license, on such conditions and in consideration of such payments as it thinks fit to any person to establish, maintain or work a telegraph in a particular area. It may also, prescribing necessary conditions, permit the establishment, maintenance and working of wireless telegraph on ship within Indian territorial waters and on aircraft within or above India or Indian territorial waters, and of telegraph other than wireless telegraph within any part of India: The central government may delegate all or any of its powers to the telegraph authority to be exercised subject to such restrictions and conditions as may be necessary. The telegraph authority means the Director General of Posts and Telegraphs, and includes any officer empowered by him to perform all or any of the functions of the telegraph authority under this Act.

Power to take possession of licensed telegraphs and to order interception of messages is also vested with the government. It, however, does not confer unguided and unbridled powers on the central or state government or any authorised officer to take possession of any telegraph.

According to section 5, on the occurrence of any "public emergency" or in the interest of the public safety, the central government or a state government, or any authorised officer may take temporary possession of any telegraph established, maintained or worked by any person licensed under the Act. During any such emergency, other necessary orders can be issued in the interest of the sovereignty and integrity of India, the security of the state or for maintaining friendly relations with any foreign state or public order. The regulatory orders can be passed for preventing incitement to the commission of any offence also. In this connection, directions may be given that a particular message, to or from any person or relating to any particular subject, be not transmitted, or be intercepted or be disclosed to the government. Before taking such action, the reasons should be recorded in writing. The press messages intended to be published in India or correspondents accredited to the central government or a state government cannot be ordinarily intercepted or detained.

For the purposes of taking into temporary possession any telegraph, the 'public emergency' includes any situation in which problems arise concerning the public safety, threat to sovereignty and integrity of the country, the security of the state, public order etc. It is in the context of these matters that the appropriate authority has to form an opinion with regard to the occurrence of a 'public emergency' with a view to take temporary possession of any telegraph. Economic emergency is not one of those matters expressly mentioned in the statute. Moreover, 'economic emergency' may not necessarily amount to a public emergency

and justify action under this section unless it raises problems relating to the above mentioned matters.

For attaining the objectives of the Act and better working of the telegraphs, section 6 of the Act makes every railway company bound to permit the government to establish and maintain a telegraph upon any part of the land of the company. Besides, the company may be required to give other reasonable facilities for proper working of such a telegraph. Section 6A empowers the central government to notify the rates, conditions and restrictions regarding transmission of messages to any country outside India. In this regard, the central government should take into account: (a) the rates for transmission of messages in countries outside India; (b) the foreign exchange rates; (c) the rates for transmission of message within India; and (d) such other relevant factors as may be necessary.

Section 7 empowers the central government to regulate the conduct of all or any telegraphs established, maintained or worked by the government or by the licensed persons. The regulations can be related to the following matters:

- (a) the rates at which, and the other conditions and restrictions subject to which, messages shall be transmitted within India;
- (b) the precautions to be taken for preventing the improper interception or disclosure of messages;
- (c) the period for which, and the conditions subject to which, telegrams and other documents belonging to, or being in the custody of, telegraph offices shall be preserved;
- (d) the fees to be charged for searching for telegrams or other documents in the custody of the concerned authority;
- (e) The conditions and restrictions subject to which the telegraph line, appliance or apparatus for telegraphic communication shall be established, maintained, worked, repaired, transferred, shifted, withdrawn or disconnected;
- (ee) The charges in respect of any application for providing any telegraph line, appliance or apparatus;
- (f) The charges in respect of (i) the establishment, maintenance, working, repair, transfer or shifting of any telegraph line, appliance or apparatus; and (ii) the services of operators operating such line, appliance or apparatus;
- (g) the matters in connection with the transition from a system, whereunder rights and obligations relating to the establishment, maintenance, working, repair and transfer or shifting of any telegraph line, appliance or apparatus for telegraphic communication, attach by virtue of any agreement, to a system whereunder such rights and obligations attach by virtue of rules made under this section;

(h) the time at which, the manner in which, the conditions under which and the persons by whom the rates, charges and fees mentioned in this sub-section shall be paid and the furnishing of security for the payment of such rates, charges and fees;

(i) the payment of compensation to the central government for any loss incurred in connection with the provision of any telegraph line, appliance or apparatus for the benefit of any person - (a) where the line, appliance or apparatus is, after it has been connected for use, given up by that person before the expiration of period fixed by these rules, or (b) where the work done for the purpose of providing the line, appliance or apparatus is, before it is connected for use, rendered abortive by some act or omission on the part of that person;

(j) the principles according to which and the authority by whom the compensation be assessed;

(k) the proposed qualifications and the examinations, if any, to be passed by the persons employed for the establishment, maintenance or working of any telegraph.

Rules can also be made about any other matter which may be necessary for the proper and efficient administration of telegraphs.

The central government is further authorised to prescribe fines for any breach of regulation by a person licensed under the Act up to one thousand rupees, and in case of a continuing breach a further fine of two hundred rupees for every day after the first breach of regulation takes place. In cases of breach by a servant of the person so licenced, or any other person, the fine can be up to one fourth of the specified amount.

The central government is free to enter into any agreement with any person for the establishment, maintenance and working of any telegraph line, appliance or apparatus for the purpose of affording means of telegraphic communication. It can enter into any such agreement after having regard to the number of lines, appliances or apparatus required by that person for telegraphic communication and finds it necessary or expedient to enter into such agreement with him.

The Kerala High Court in *Mohammad Ali v. Union of India*, has held that there is no unqualified right on the part of any subscriber or any transferee to the grant of a telephone or for the transfer of telephone. But, in providing the telecommunication services on a monopoly basis, the state is not discharging a sovereign function. It is running a public utility service in which the consumer satisfaction must be regarded as a matter of prime importance. Dispute about excess billing must be dealt with fairly and justly in a spirit of service on the basis of commercial expediency by the department, rather than resolving the extreme steps of disconnecting the telephone. In *General Manager Telecommunication v. Lakhan Lai Gupta*, the Uttar Pradesh State Consumer Commission has held that in a complaint of excessive telephone billing, reading of the telephone concerned should be taken at an interval of 15 days. If the complaint continues then in such circumstances the matter should be enquired into by visiting the place of the subscriber.

II. Categorisation of Telephones

The applicants for allotment of telephone connections have been divided into three broad categories: (i) O.Y.T. (Own Your Telephone) scheme; (ii) the special category; and (iii) general category. Under the O.Y.T. scheme, the applicants are required to deposit a particular sum of money which varies according to capacity of the telephone exchange and such applicants are entitled to certain preference in the matters of allotment of telephone connections in as much as certain percentage of available connections are earmarked for such applicants.

The other category of applicants who are entitled to preferential treatment in the matter of allotment of telephone connections are those falling in the "special category". The rest of the applicants fall in the "general category" and their applications for grant of telephone connections are to be dealt with in the normal course. The applicants who are entitled to be registered in special category, under the administrative instructions, are those belonging to:

- (i) medical profession i.e., doctors, qualified nurses and registered midwives;
- (ii) press - newspapers, journals and magazines registered with the registrar of newspapers, registered newspaper agencies, accredited press correspondents and press photographers;
- (iii) public institutions, recognition school and colleges, registered trade unions, registered cooperative societies etc.;
- (iv) agricultural farms;
- (v) registered small scale industries and;
- (vi) prominent social workers and public men who are actively engaged in such work.

The applicants, entitled to be registered under the special category, appear to be to those who advance the interest of general public and the classification is based on the following two criteria:

- (i) the applicants have to be in greater contact with the members of the public in connection with their activities; and
- (ii) they cannot be expected to spare the necessary funds which are required for obtaining a telephone connection on priority basis under the O.Y.T. scheme.

In *Shankar Birimiwal and another v. Union of India and others*, the Rajasthan High Court has held that the above classification of applicants into categories is neither arbitrary nor irrational and, therefore, not violative of the provision of article 14 of the Constitution.

Though this classification has not been formally revoked, it has become obsolete because of the new technological revolution as any person may be able to get a telephone connection within a week or so.

III. Disconnection of Telephone

The Telegraph Rules, 1951, framed under section 7 of the Act deals with the matters related to disconnection of telephones and authorise disconnection of telephones on the ground of misuse or any other circumstances which make disconnection necessary. In *Amreek Singh v. District Manager, Indore Telephone and others*, it was held that the subscriber must be informed of the

grounds of disconnection of telephone before it is actually disconnected. Further, in *Kailash Prasad Modi v. Chief General Manager, Orissa Telecommunication and others*, it had been held that before the telephone of the petitioner was disconnected, he was entitled to notice informing him the basis on which this action was contemplated. If earlier a notice has been served to a person in some other capacity or on a different ground, a fresh notice should be given to him about the disconnection of his telephone on the basis of existing grounds.

The Punjab and Haryana High Court, in *Harphool Singh v. Union of India*, has held that no phone is liable to be disconnected on an allegation that the same was used by somebody other than the subscriber. Wherever the assignment or transfer of telephone is not proved, the disconnection of the telephone is illegal. In *Sub-Divisional Officer of Telephones & Ors. v. Shri J.B. Jain & Company*, the State Commission of Karnataka dealing with matters of consumers under the Consumer Protection Act, 1986 has held that telephone connection of the father cannot be disconnected on the ground of his son having gone in arrears of his separate telephone.

IV. Compensation for Illegal Disconnections

Compensation can be awarded in case of illegal disconnections. Accordingly, in *Telecom. District Engineer Sangrur and Another v. Niranjan Das*, compensation for illegal disconnection was given in a case where the telephone had been disconnected even after the payment of the bill. It was held as deficiency in service and the complainant was entitled to compensation for inconvenience as well as mental agony suffered by him.

Since a telephone subscriber is entitled to expect that he will be provided uninterrupted services as long as he meets his obligations with regard to prompt payment of bills relating to rental, call charges etc., he is, therefore, entitled to be compensated for the inconvenience and hardship caused to him as such. Claim of compensation for non-function of a telephone over a period has also been allowed. In *Shanmugam Chemical Industries v. Telecommunication Department & Others*, compensation worth Rs. 50,000 was awarded due to delay of 3 years for non-giving of telephone connection under O.Y.T scheme.

V. Arbitration of Disputes

Section 7B provides that if any dispute concerning any telegraph line, appliance or apparatus arises between the telegraph authority and the person for whose benefit they have been provided, the dispute should be determined by arbitration and be referred to an arbitrator appointed by the central government. An arbitrator may be specially appointed for the determination of a particular dispute or generally for the determination of various disputes.

The award of the arbitrator would be conclusive between the parties to the dispute and not questioned in any court. However, in *Santokh Singh v. Divisional Engineer, Telephones, Shillong and Ors.* it has been held that the existence of an alternative remedy per se is not a bar to the exercise of jurisdiction by High Court under article 226 of the Constitution.

The words "any dispute concerning any telegraph line, appliance or apparatus" are of wide amplitude and will take within their sweep all kinds of disputes which relate to the functioning and working of any telegraph line, apparatus or appliances. The moment the correctness of the telephone bill is challenged on the ground of mal-functioning or misuse of the telephone line, surely it is a dispute concerning the telegraph line, apparatus or appliance within the meaning of section 7B. In *M/s Banaras Manufacturer Pvt. Ltd. v. Mahanagar Telephone Nigam Ltd. and others*, it has been held that it is apparent from section 7B of the Act that if any dispute arises between a subscriber and the telegraph authority in regard to payment of a telephone bill that shall be referred to an arbitrator to be appointed by the central government. If the very appointment of the arbitrator is void, the award given by him cannot be legally sustained being *void ab initio*. In *Divisional Engineer Telephones and others v. M/s Behari Lai Shayam Sunder*, it was held that provisions of Arbitration Act are not applicable to the arbitration proceedings contemplated under section 7B.

The Consumer Protection Act, 1986 gives an additional remedy in addition to those available in the Telegraph Act. It has the jurisdiction to decide a dispute involving meter reading or excess bill even if such disputes might be covered under section 7B of the Act. In *Divisional Manager, Telephones, Lucknow v. M/s Madhu Enterprises Lucknow*, it has been made clear that the telecommunication department comes under the purview of the Consumer Protection Act, 1986. In *Union of India v. Mr. S. Prakash*, also it has been laid down that the arbitration clause under the Indian Telegraph Act, 1885, does not oust the jurisdiction of the consumer forum.

VI. Deficiency in Service

There are various situations in which the services of the telephone authority may be deemed as deficient. For example, if a telephone with a local connection works as the STD even without such a connection, it amounts to deficiency in services. In *P.K. Goel v. G.M. Telephone Division, Jaipur*, on the same ground, it was held that in such a case no STD charge can be included in the local call bill. Disconnection for alleged non-payment of bill also amounts to deficiency in service. In *Shri Naba Kishore Mahapatra v. Divisional Engineer of Telephone and another*, disconnection of telephone for non-payment of the bills, which had not been received by complainant, without notice amounts to deficiency in service. In *Mahanagar Telephone Nigam Ltd. v. Mohd. Shakir*, it was held that since in the present day situation telephone is neither a luxury nor a comfort but a necessity, failure to make telephone functional which remained non-functional despite complaint, amounts to deficiency in service. A compensation of Rs. 25,000 was awarded to complainant in this case.

Where the telephone was disconnected although the payment of the bill had been made by the consumer, department was held to have been negligent. In *Dr. Davinder Mittal v. G.M., Telecom, District Fandabad and others*, it was held that disconnection of telephone without notice for non payment was not valid and the complainant was held to be entitled to compensation. In *Akhil Bharitiya Grahak Panchayat v. G.M. (Telecom) Bihar Circle*, levy on wrong pulse rate, was also held to be deficiency in service.

VII. Revocation of License

Under section 8 of the Act, the central government may revoke any licence on the breach of any of the prescribed conditions or in default of payment of any consideration. The government has been given absolute immunity against any loss or damage in consequence of any telegraph officer failing in his duty with respect to the receipt, transmission or delivery of any message. There is no absolute immunity provided to the concerned officer. The officer would be responsible for any loss or damage if it is caused negligently, maliciously or fraudulently.

VIII. Power to Place Telegraph Lines and Posts

Power to place telegraph lines and posts have been incorporated under Part III of the Act. Section 10 deals with the power of telegraph authority to place and maintain telegraph lines and posts. The telegraph authority may accordingly place and maintain a telegraph line under or over or along or across any immovable property. Such power should be exercised only for the purpose of a telegraph established or maintained by the central government or to be so established or maintained.

The central government acquires only the right of user in the property under, over, along, across, in or upon which the telegraph authority places any telegraph line or post. The telegraph authority cannot exercise such powers in respect of any property vested in or under the control or management of any local authority, without the permission of that authority and on the conditions as may be imposed. Further, in the exercise of these powers, the telegraph authority is supposed to do as little damage to property as possible, and, when it has exercised those powers in respect of any property, it has to pay full compensation to all persons concerned for any damage sustained by them by reason of the exercise of those powers.

Section 11 of the Act confers on the telegraph authority a right to enter on any property to repair or remove telegraph lines or posts. In this respect, permission may be given by the local authority on the basis of some reasonable conditions as regards mode of execution of the work and other related matters. But the local authority may require removal or alteration of a telegraph line or post if found expedient in the circumstances of the case. It may also require removal or alteration of any pipe laid down for the purpose of supplying gas or water or of any drain, but it should not be the main pipe or the main drain. In case of any conflict with respect to this between telegraph authority and local authority, the dispute would be referred to an officer appointed by the central government for this purpose. An appeal would

lie from the decision of such officer to the central government, whose decision would be final in regard to that matter.

The disputes as to compensation, in case of property other than that of local authority, are dealt with under section 16 of the Act. In view of this, if the exercise of the powers by the telegraph authority to place and maintain telegraph lines or posts is resisted or obstructed by any person, the district magistrate can, in his discretion, order that the telegraph authority would be permitted to exercise these powers. If, after the making of such an order, any person resists the exercise of those powers, or having control over the property, does not give all facilities for their being exercised, he would be deemed to have committed an offence under section 188 of the Indian Penal Code. If any dispute arises concerning the sufficiency of the compensation to be paid to the owner of the property, it shall, on application for that purpose by either of the disputing party to the district judge within whose jurisdiction the property is situate, be determined by him. If any dispute arises as to the person entitled to receive compensation, or as to the proportions in which the persons interested are entitled to share in it, the telegraph authority may pay into the court of the district judge such amount as he deems sufficient or, where all the disputing parties have in writing admitted the amount tendered to be sufficient or the amount has been determined as mentioned above and the district judge, after giving notice to the parties and hearing such of them as desired to be heard, shall determine the persons entitled to receive the compensation or, as the case may be, the proportions in which the persons interested are entitled to share in it. Every determination of a dispute by a district judge shall be final.

Before passing any order, the district magistrate has necessarily to issue notice to all persons interested and give them an opportunity to state their objections, if any. Without giving such an opportunity, he will not have any material, at any rate adequate material, to decide whether he should pass an order that the authority be permitted.

Section 17 deals with removal or alteration of telegraph line or post on property other than that of local authority. If any person desires to deal with that property in such a manner as to render it necessary or convenient that the telegraph line or post be removed to another part thereof or to a higher or lower level or altered in form, he may require the telegraph authority to remove or alter the line or post accordingly. If compensation has been paid to him he should, on making the requisition, tender to the telegraph authority the amount requisite to defray the expense of the removal or alteration, or half of the amount paid as compensation, whichever may be the smaller sum. If the telegraph authority omits to comply with the requisition, the person making it may apply to the district magistrate within whose jurisdiction the property is situated to order the removal or alteration. A district magistrate receiving such application may, in his discretion, reject the same or make an order, absolutely or subject to conditions, for the removal of the telegraph line or post to any other part of the property or to a higher or lower level or for the alteration of its form; and the order so made shall be final. Section 17 does not provide any machinery for the settlement of a dispute relating to the claim of a permanent injunction directing the telegraph authority to remove the telephone line from the land belonging to the plaintiff, and thereby

permanently restraining the telegraph authority from taking any telephone line on any portion of the land belonging to the plaintiff.

Section 18 provides for cutting down of the trees after the erection of lines which may be standing or lying near a telephone line interrupting telegraphic communication. A magistrate of the first class or second class may, at the request of the telegraph authority, cause the tree to be removed or dealt with in any other suitable way.

Any person, desiring to deal in the legal exercise of a right with any property in such a manner as is likely to cause damage to a telegraph line or post which has been duly placed in accordance with the provisions of this Act, or to interrupt or interfere with telegraphic communication, has to give not less than one month's notice in writing of the intended exercise of such right to the telegraph authority, or to any telegraph officer empowered in this behalf. If any such person deals with that property, without giving such notice, in such a manner as is likely to cause damage to any telegraph line or post, or to interrupt or interfere with telegraphic communication, a magistrate of the first or second class may, on the application of the telegraph authority, order such person to abstain from dealing with such property in such manner for a period not exceeding one month from the date of his order and forthwith to take such action with regard to such property as may be, in the opinion of the magistrate, necessary to remedy or prevent such damage, interruption or interference during such period.

Any person dealing with such property, with the bonafide intention of averting imminent danger of personal injury to himself or any other human being, would be deemed to have complied with the requirements of notice if he gives such notice of the intended exercise of this right as is in the circumstances possible. Where no such previous notice can be given without incurring the imminent danger, he should give notice of the actual exercise of such right to the authority or the specified officer forthwith.

IX. Penalties

The Act contains certain provisions for the punishment of various offences under it. But mostly they are not appropriate and need to be revised to make the working of Act more effective. According to section 20, any person who establishes, maintains or works a telegraph within India in contravention of the provisions of the Act or otherwise than as permitted by rules can be punished, if the telegraph is a wireless telegraph, with imprisonment which may extend to three years, or with fine, or with both, and, in any other case, with a fine which may extend to one thousand rupees. Offences under this provision, in respect of a wireless telegraph, for the purpose of the said code, are bailable and non-cognizable. When any person is convicted of an offence punishable under this section, the court before which he is convicted may direct that the telegraph in respect of which the offence has been committed, or any part of such telegraph, be forfeited to the government.

If a licence holder continues any of the conditions contained in his licence, he is punishable with a fine upto one thousand rupees and with further fine upto five hundred rupees for every week during which the breach of the condition continues.

If any person, knowingly or having reason to believe that a telegraph has been established or is working in contravention of this Act, transmits or receives any message by such telegraph, or performs any other service incidental thereto, he can be punished with fine which may extend to fifty rupees. Similarly, if a railway company, or an officer of a railway company, neglects or refuses to comply with the provision of the Act, it or he shall be punished with fine which may extend to one thousand rupees for every day during which the neglect or refusal continues.

Intrusion into signal room, trespass in telegraph office and obstructing performance of duties by an officer or servant is punishable with fine which may extend to five hundred rupees. Similarly, if any person unlawfully attempts to learn contents of a message, he may be punished with a fine of five hundred rupees with imprisonment for a term which may extend to one year. If any person intentionally damages or tempts with the telegraph, he is punished with imprisonment for a term which may extend to three years, or with fine, or with both.

Section 25 covers the cases of intentionally damaging or tempering with telegraphs. If any person prevents or obstructs the transmission or delivery of any message, or intercepts or acquaints himself with the contents of any message, or commits any other mischief and damages, removes, tampers with or touches any battery, machinery other things in the system, he is to be punished with imprisonment for a term which may extend to three years, or with fine, or with both. Injury to or interference with a telegraph line or post is also punishable with a fine which may extend to one thousand rupees.

The cases other than those falling under section 25 are dealt with under section 25A. So, if any person deals with any property and thereby wilfully or negligently damages any telegraph line or post duly placed on such property in accordance with the provisions of this Act, he shall be liable to pay the telegraph authority such expenses as may be incurred in making good such damage. If the telegraphic communication is intercepted because of such damage, he would be punishable with a fine which may extend to one thousand rupees. These provisions do not apply where such damage or interruption is caused by a person dealing with any property in the legal exercise of a right after fulfilling the requirements of giving proper notice in that respect to the telegraph authority.

If any telegraph officer makes a way with or alters or unlawfully intercepts or discloses, message or divulges the purport of any signals, he can be punished with imprisonment for a term which may be extended to three years, or with fine or with both. Further, if any telegraph officer fraudulently sends message without payment, he can be punished with imprisonment for a term which may extend to three years or with fine, or with both.

If any telegraph officer, or any person not being a telegraph officer but having official duty connected with any office which is used as telegraph office is guilty of any misconduct, he can be punished with imprisonment for a term which may extend to three months, or with fine which may be extended to one hundred rupees or with both.

It is being observed that there are frequent complaints against the telecom authority related to the issues including: (a) excessive billing; (b) charges for the period the telephones remain out of order; (c) disconnecting a telephone for non-payment of charges without explanation; (d) delay in installation of telephones, etc. The complaints against excessive billing are wide spread but the improvements are not taking place as could be expected. To protect consumer interest all the provisions of the Act need to be invoked by the consumer associations as well as individuals in a vigorous manner. That would have the twin benefit of preventing harm to consumers as well as make the system efficient.

WIRELESS TELEGRAPHY ACT, 1933

The Wireless Telegraphy Act, 1933 regulates the possession of wireless telegraphy apparatus in the country. Section 3 of the Act accordingly prohibits the possession without licence of all wireless telegraphy apparatus as may be prescribed by the central government. Since the Indian Telegraph Act, 1885 deals only with the establishment, maintenance and working of telegraphs, it does not restrict or control the mere possession of the apparatus, or penalise such possession without licence. The Act of 1885 would come into operation only if it is proved that the apparatus had been put to use.

The "wireless telegraphy" apparatus has defined under section 2(2) of the Wireless Telegraphy Act as "any apparatus, appliance, instrument or material used or capable of use in wireless communication". It includes only those articles which may be declared by the central government to be wireless telegraphy apparatus. It does not include any such apparatus, appliance, instrument or material commonly used for other electrical purposes, unless it has been specially designed or adopted for wireless communication or forms part of some other apparatus designed for that purpose. Any other article may be declared by the central government not to be treated as a wireless telegraphy apparatus for the purposes of the Act.

The disc antenna, which receives and is capable of receiving waves without the use of wire can be called a wireless telegraphy apparatus. Though the cable network owners have stopped using disc antenna, it cannot be said that the same has ceased to be capable of being used in wireless communication without wires. It, therefore, remains a wireless telegraphy apparatus.

A Video Cassette Recorder (VCR) which is merely used for playing back pre-recorder takes on the television screen is not a telegraphy apparatus. The restriction on the installation, operation or working of a telegraph without a licence has been judicially held to be reasonable. Under section 4 of the Act the central government has been authorised to exempt any person from the provisions of this Act, either generally or subject to certain conditions as the situation may demand. The licences under the Act can be issued by the telegraph authority constituted under the Indian Telegraph Act, 1885 and the same can lay down the procedure, conditions and the fees or charges to be paid about the grant of any such licence. Section 6 makes the possession of a wireless telegraphy apparatus without licence punishable with fine as well as imprisonment.

Under the Act, the central government can order conduct of necessary searches also to find out the possession of wireless telegraphy apparatus without licence. The apparatus confiscated or having no owner are deemed to belong to the central government. Section 11 of the Act has made it clear that a licence issued under it cannot be deemed as authorising any person to do anything for which a licence under the Indian Telegraph Act, 1885 is necessary. So the Indian Telegraph Act, 1885 is having an overriding effect on the Wireless Telegraphy Act, 1933.

The Act is necessary for consumer awareness because they should have necessary knowledge of the apparatus for the use of which a licence is necessary. This can help them to protect themselves from deception and use of any apparatus without licence, even if induced by somebody to do so.

NATIONAL TELECOM POLICY, 1994

Giving effect to this realization and liberalizing successfully required heavy doses of investment and structural changes in the telecom monolith. This was perhaps the genesis of a new policy initiative resulting in the enunciation of the National Telecom Policy 1994. This policy document represented the first attempt to codify policy objectives and provide a roadmap for telecom development in India. The policy document laid down specific targets, such as making telephone service available on demand by 1997, coverage of all villages by 1997, provision of PCOs in urban areas for every 500 persons by 1997 and introducing all value added services available internationally, preferably by 1996. The resource gap estimated for realization of these targets was well over Rs. 230 billion and therefore the policy emphasized the involvement of the private sector and the need for private investment to bridge the resource gap. Hence, the policy for the first time allowed private companies registered in India to participate in the provision of basic telephone services subject to stipulated conditions. It established a duopoly regime providing for two operators each in the four metros and eighteen telecom circles. Another important dimension of this policy document was its emphasis on protecting and promoting consumer interests and ensuring fair competition. The policy reflected an ambitious approach in setting the targets, but adopted a cautious approach in dealing with the issues of liberalization in the telecom sector. The duopoly regime that it established implied continued dominance of the market by the incumbent government operator, which inhibited growth of a competitive environment.

The objectives of the New Telecom Policy will be as follows:

- The focus of the Telecom Policy shall be telecommunication for all and telecommunication within the reach of all. This means ensuring the availability of telephone on demand as early as possible.
- Another objective will be to achieve universal service covering all villages as early as possible. What is meant by the expression universal service is the provision of access to all people for certain basic telecom services at affordable and reasonable prices.
- The quality of telecom services should be of world standard. Removal of consumer complaints, dispute resolution and public interface will receive special attention. The

objective will also be to provide widest permissible range of services to meet the customer's demand at reasonable prices.

- Taking into account India's size and development, it is necessary to ensure that India emerges as a major manufacturing base and major exporter of telecom equipment.
- The defense and security interests of the country will be protected.

Even though the NTP94 did not go far enough on the liberalization route, it did cut the umbilical cord tying the Indian telecom sector to its monopoly supplier, nursed by the more-than-a-century old Indian Telegraph Act. The new paradigm in the telecom sector created interest worldwide and investors, both Indian and foreign, evinced keen interest in being partners in telecom development. However, the implementation of the policy did not match the euphoria it created and delivered mixed results. Physical targets were unrealized, particularly for rural telephony. Only about half of over 600,000 villages stood covered by March 1999. And many of these telephones in rural areas failed to work properly for technology reasons.

However, with regard to provision of PCOs, the progress was comparatively better and the number rose from 80,000 in March 1994 to 277,000 in March 1999. There was significant growth in the number of STD/ISD PCOs, which went up from 57,119 in March 1994 to 272,989 in March 1999. The STD/ISD PCOs were franchised, and provided opportunity for self-employment to unemployed youth, ex-servicemen and economically disadvantaged segments of the society. In the introduction of private players in the mobile and the basic segments of the service, the main criterion was the bid price for a 10-year license, with the proposed annual payments converted to a net present value using a discount rate of 16 percent. In both service segments, the rollout of private operators suffered considerable delay, particularly so in the case of basic service, largely due to controversies surrounding the bidding and selection processes for award of a license. As a result, by 1999 the private operators could introduce service in only two of the six circles for which basic service licenses were awarded. The picture was somewhat better for mobile services, as private mobile operators started operations in 1997. From a policy perspective, the noticeable delays and hiccups pointed to the need for greater transparency and clarity in the licensing process and the terms of licenses, as well as for an independent regulator.

NATIONAL TELECOM POLICY, 1999

While the implementation of NTP94 did make material differences, as earlier noted, it was found wanting in addressing all issues of competition and in realizing the targets set forth in the policy. A number of projects faced problems for two principal reasons: first, the actual revenues realized fell far short of projections; and secondly, the operators were unable to arrange funding for their projects. The enunciation of a New Telecom Policy 1999 responded to the far-reaching changes taking place in the telecom sector worldwide as well as to the inadequacies of NTP94. The NTP99 further liberalized the scope of cellular mobile service, fixed service, and cable service, including the terms and conditions of licenses and operational aspects. Interconnection had been a key concern among service providers and had given rise to many disputes.

Recognizing the importance of the issue, in NTP99 the GOI brought it within the ambit of policy. The NTP99 policy unequivocally asserts that interconnection shall be permitted between service providers in the mobile and basic service segments. This policy also covered issues in such other areas as the resolution of problems facing the existing operators, the restructuring of the Department of Telecommunications, spectrum management, universal service obligations and the role of the regulator. Free entry into basic telecommunications replaced duopoly.

The objectives of the NTP-1999 are as under:

- Access to telecommunications is of utmost importance for achievement of the country's social and economic goals. Availability of affordable and effective communications for the citizens is at the core of the vision and goal of the telecom policy.
- Strive to provide a balance between the provision of universal service to all uncovered areas, including the rural areas, and the provision of high-level services capable of meeting the needs of the country's economy;
- Encourage development of telecommunication facilities in remote, hilly and tribal areas of the country;
- Create a modern and efficient telecommunications infrastructure taking into account the convergence of IT, media, telecom and consumer electronics and thereby propel India into becoming an IT superpower;
- Convert PCO's, wherever justified, into Public Tele info centers having multimedia capability like ISDN services, remote database access, government and community information systems etc.
- Transform in a time bound manner, the telecommunications sector to a greater competitive environment in both urban and rural areas providing equal opportunities and level playing field for all players;
- Strengthen research and development efforts in the country and provide an impetus to build world-class manufacturing capabilities
- Achieve efficiency and transparency in spectrum management
- Protect the defense & security interests of the country
- Enable Indian Telecom Companies to become truly global players.

In line with the above objectives, the specific targets that the NTP-1999 seeks to achieve would be:

- Make available telephone on demand by the year 2002 and sustain it thereafter so as to achieve a teledensity of 7 by the year 2005 and 15 by the year 2010
- Encourage development of telecom in rural areas making it more affordable by suitable tariff structure and making rural communication mandatory for all fixed service providers
- Increase rural teledensity from the current level of 0.4 to 4 by the year 2010 and provide reliable transmission media in all rural areas

- Achieve telecom coverage of all villages in the country and provide reliable media to all exchanges by the year 2002
- Provide Internet access to all district head quarters by the year 2000
- Provide high speed data and multimedia capability using technologies including ISDN to all towns with a population greater than 200,000 by the year 2002.

Setting up of Telecom Disputes Settlement and Appellate Tribunal

A refinement in the regulatory framework occurred in 2000 when an amendment of the TRAI Act split the regulatory and adjudicatory functions by establishing a specialized statutory dispute settlement mechanism, namely, the Telecom Disputes Settlement and Appellate Tribunal (TDSAT) with a Chairperson and two members. The Chairperson of this Tribunal has to be a person who is, or has been, a judge of the Supreme Court of India or the Chief Justice of a High Court. To qualify as a member, a person should have held the post of Secretary to the Government of India or an equivalent post for not less than two years, or be well versed in the fields of technology, telecommunications, industry, commerce and/or administration. This body's responsibilities, subject to certain exceptions, include adjudication of any dispute between a licensor and a licensee, between two or more service providers, and between a service provider and a group of consumers. It is competent to regulate its own procedures and enjoys both original and appellate jurisdiction. The civil court cedes jurisdiction to TDSAT in matters falling within the latter's competence, the orders of which are executable as a decree of civil court. Appeal against TDSAT's orders lies to the Supreme Court of India on points of law. The Chairperson and members have secure tenure; removal is possible only under certain tightly defined circumstances. Side by side with the setting up of a dispute settlement mechanism, the government also distanced itself from providing telecom services by corporatizing its service arm in the year 2000 as a result of which a new corporation Bharat Sanchar Nigam Limited (BSNL) came into being.

Thus, an initially public monopoly first permitted limited private access, followed by limited entry, and now free entry into basic telecommunications. The government also divested itself of its regulatory role by creating an independent regulatory body, followed by divestiture of a direct operational role through a Government owned Corporation. Nevertheless, the government retains policy-making and licensing functions and its standard-setting role, and determines the allocation of spectrum.

Convergence

The NTP99 also referred to convergence of markets and technologies. The Communication Convergence Bill, 2001 made some progress towards giving shape to this development. Although introduced in Parliament, this Bill made little headway and lapsed before it could be enacted into law. Much later, vide a government notification dated January 9, 2004, broadcasting and cable services have been brought within the definition of "telecommunication service" as defined in TRAI Act, 1997, as amended in 2000. This has placed the regulation of broadcasting and cable services under the jurisdiction of the telecom

regulator, and disputes arising in respect of these services under the purview of the appellate body in the telecom sector.

Implementation hiccups

However, notwithstanding the ushering in of competition through these policy instruments, the sector has encountered many vexatious disputes, some minor and some major in nature, which have impeded the growth of the telecom sector from time to time. Aspects of dispute settlement will be dealt with in some detail when the impact of regulatory decisions are discussed below, however, one of the major policy issues related to the resolution of problems faced by the existing operators in discharging their contractual obligations concerning the payment of license fees. The government's decision to give an option to the existing operators to migrate from a regime of license fee payment to one of revenue sharing was highly controversial. In some quarters, people viewed the initiative as an attempt to bail out defaulters at the cost of the public exchequer. In retrospect, this decision improved the financial viability of telecom players as well as correcting the aberrations that resulted from the unrealistic bidding witnessed in earlier phases of the award of licenses in basic service.

Other Policy Initiatives:

a) Foreign Direct Investment (FDI):

Another important policy initiative endeavored to promote FDI in the telecom sector, a measure considered necessary to augment the resources available to the sector. The new Policy permitted foreign ownership of up to 49% of a telecom venture, automatically, and up to 74% subject to certain conditionalities. In the manufacture of telecom equipment, however, sole foreign ownership has been permitted, subject to sectoral requirements. The new FDI policy has yielded good results as is evident from an increase in FDI inflow from Rs. 3.43 billion during 2000 to Rs. 45.97 billion during 2007 through October.

b) Infrastructure Sharing:

A recent development has witnessed active infrastructure sharing. Earlier only passive infrastructure sharing was allowed, permitting a new telecom operator to rent space on the tower belonging to another for deployment of its own equipment to support its rollout. With the new ruling on active infrastructure sharing, a new entrant can now rent all active electronics, switching, and circuits from another telecom operator that owns the passive and active infrastructure. The active sharing of infrastructure, however, excludes the sharing of spectrum. This ruling will help new operators to launch their services with lower upfront capital investment, resulting in improved viability and lower tariffs. The lower cost of providing service will encourage service providers to expand telecom services in rural areas without encountering the high costs that usually accompany the provision of telecom coverage in such areas.

NATIONAL TELECOM POLICY, 2012

Telecommunication has emerged as a key driver of economic and social development in an increasingly knowledge intensive global scenario, in which India needs to play a leadership role. National Telecom Policy-2012 is designed to ensure that India plays this role effectively and transforms the socio-economic scenario through accelerated equitable and inclusive economic growth by laying special emphasis on providing affordable and quality telecommunication services in rural and remote areas. Thrust of this policy is to underscore the imperative that sustained adoption of technology would offer viable options in overcoming developmental challenges in education, health, employment generation, financial inclusion and much else. NTP-2012 is an initiative to create a conducive policy framework to address these issues and to touch lives of all citizens and transform India. By formulating a clear policy regime, NTP-2012 endeavors to create an investor friendly environment for attracting additional investments in the sector apart from generating manifold employment opportunities in various segments of the sector. Availability of affordable and effective communications for the citizens is at the core of the vision and goal of the National Telecom Policy – 2012.

The last decade is characterised by significant penetration of telecommunications in India. The New Telecom Policy 1999 has been a catalyst for growth of the telecom sector. The number of telephone connections, at the end of February 2012, was 943 million, as compared to 41 million at the end of December 2001. This growth has been fuelled by the cellular segment (mobile phones) which alone accounted for 911 million connections at the end of February 2012. The composition of the telecom sector too has witnessed a structural change, with the private sector accounting for 88 % of the total connections.

Today, India is one of the fastest growing telecom markets in the world. The unprecedented increase in teledensity and sharp decline in tariffs in the Indian telecom sector have contributed significantly to the country's economic growth. Besides contributing to about 3% to India's GDP, Telecommunications, along with Information Technology, has greatly accelerated the growth of the economic and social sectors.

The National Telecom Policy 2012 (NTP 2012) is conceived against this backdrop. The vision is to transform the country into an empowered and inclusive knowledge-based society, using telecommunications as a platform.

Notwithstanding the economic progress over the last decade, the digital divide in the country continues to be significant. On the one hand, expansion of telecommunications in the rural areas has been slower than urban areas, with the former accounting for only 34% of the total connections. On the other, the ability of the poorer sections of the society, both in rural and urban areas, to benefit from technology needs to be enhanced. NTP-2012 has the vision ***Broadband on Demand*** and envisages leveraging telecom infrastructure to enable all citizens and businesses, both in rural and urban areas, to participate in the Internet and web economy thereby ensuring equitable and inclusive development across the nation. It provides the enabling framework for enhancing India's competitiveness in all spheres of the economy.

NTP-2012 envisages support to platform neutral services in e-governance and m governance in key social sectors such as health, education and agriculture that are at present limited to a few organizations in isolated pockets. This will expand the footprint of these services and thus foster an atmosphere of participative democracy delivery model that is truly citizen-centric.

Telecommunications is no longer limited to voice. The evolution from analog to digital technology has facilitated the conversion of voice, data and video to the digital form. Increasingly, these are now being rendered through single networks bringing about a convergence in networks, services and also devices. Hence, it is now imperative to move towards convergence between telecom, broadcast and IT services, networks, platforms, technologies and overcome the existing segregation of licensing, registration and regulatory mechanisms in these areas to enhance affordability, increase access, delivery of multiple services and reduce cost. It will be a key enabler of equitable and inclusive growth. The policy aims to address and enable the coordinated action to respond to the dynamic needs resulting from confluence of telecom, broadcasting and IT sectors.

Given the continued predominant role of wireless technologies in delivery of services in ICT sector, NTP-2012 incorporates framework for increasing the availability of spectrum for telecom services including triple play services (voice, video and data) for which broadband is the key driver. This will be facilitated by deployment of services through appropriate instrumentalities, while safeguarding national interests.

The emerging technology trends in electronics hardware, telecom connectivity and IT will make it possible for millions of citizens to access services electronically in self-service mode using mobile phones and the Internet or through assisted service points such as Common Service Centres etc. Once a mere communication device, the Telephone has now the potential of being an instrument of empowerment. There is need to reorient the telecommunication policy. This vision is made possible through ubiquitous network connectivity of mobile technology, broadband Internet, fiber penetration in all villages, high technology low-cost affordable devices and software solutions which enable electronic access to service including m-payment. A unique AADHAR based electronic authentication framework would be integral part of providing service to the people. Cloud computing will significantly speed up ability to design and roll out services, enable social networking and participative governance and m-Commerce at scale which were not possible through traditional technology solutions.

A concerted effort to boost manufacturing activity is now exigent as robust economic growth in the country is leading to an extraordinarily high demand for electronic products in general and telecom products in particular. NTP-2012 provides a roadmap for India to become a leader in cutting edge, state of the art technologies through R&D and creation and incorporation of Indian IPRs in global standards. This will require measures for boosting entrepreneurship and creating a major global manufacturing hub for telecommunication equipment to achieve self-sufficiency while squarely addressing security and strategic

concerns. At the same time establishment of processes and standards for protection of the environment will also be required.

For the continued growth trajectory of telecom sector, it is crucial to establish appropriate mechanisms to achieve balance between competition and consolidation while dealing with the legacy issues in the sector, thus benefiting both the users and providers of telecommunication services.

NTP-2012 recognises that the rapid growth in the telecom sector requires to be supported by an enhanced pace of human capital formation and capacity building. It becomes imperative to put in place an integrated skill development strategy for the converged ICT sector as a whole so that there is continuous up-gradation of skills in tune with the technological developments. The cornerstone of this strategy is to derive maximal dividend from our young population and their creative abilities. The advent of technologies like cloud computing present a historic opportunity to catapult India's vaunted service delivery capabilities to a new level domestically as well globally.

Introduction of new technologies has posed fresh challenges in network security, communication security and communication assistance to law enforcement agencies. NTP 2012 provides a clear strategy for squarely addressing these concerns.

The PSUs have played a pre-eminent role in provision of telecom services in the country, particularly in rural, remote, backward and hilly areas. Contribution of BSNL and MTNL to broadband penetration in the country is significant. The importance of PSUs in meeting the strategic and security needs of the nation can also not be understated. This policy recognises that these PSUs will continue to play such important role.

Institutions form the backbone for policy implementation if the policy objectives are to be fully realised. World over, the telecom regulator plays a critical role in the orderly growth of the telecommunication industry, balancing the interests of both the consumers and the service providers. By virtue of the TRAI Act, India has an independent regulator. NTP 2012 seeks to further empower the regulator.

NTP-2012 recognises the importance of creation of the robust and resilient telecom networks for adequately addressing the need for proactive support for mitigating disasters, natural and manmade.

NTP-2012 recognises futuristic roles of Internet Protocol Version 6 (IPv6) and its applications in different sectors of Indian economy.

VISION

To provide secure, reliable, affordable and high quality converged telecommunication services anytime, anywhere for an accelerated inclusive socio-economic development.

MISSION

1. To develop a robust and secure state-of-the-art telecommunication network providing seamless coverage with special focus on rural and remote areas for bridging the digital divide and thereby facilitate socio-economic development.
2. To create an inclusive knowledge society through proliferation of affordable and high quality broadband services across the nation.
3. To reposition the mobile device as an instrument of socio-economic empowerment of citizens.
4. To make India a global hub for telecom equipment manufacturing and a centre for converged communication services.
5. To promote Research and Development, Design in cutting edge ICTE technologies, products and services for meeting the infrastructure needs of domestic and global markets with focus on security and green technologies.
6. To promote development of new standards to meet national requirements, generation of IPRs and participation in international standardization bodies to contribute in formation of global standards, thereby making India a leading nation in the area of telecom standardization.
7. To attract investment, both domestic and foreign.
8. To promote creation of jobs through all of the above.

OBJECTIVES

1. Provide secure, affordable and high quality telecommunication services to all citizens.
2. *Increase rural teledensity from the current level of around 39 to 70 by the year 2017 and 100 by the year 2020.*
3. *Provide affordable and reliable broadband-on-demand by the year 2015 and to achieve 175 million broadband connections by the year 2017 and 600 million by the year 2020 at minimum 2 Mbps download speed and making available higher speeds of at least 100 Mbps on demand.*
4. Enable citizens to participate in and contribute to e-governance in key sectors like health, education, skill development, employment, governance, banking etc. to ensure equitable and inclusive growth.
5. *Provide high speed and high quality broadband access to all village panchayats through a combination of technologies by the year 2014 and progressively to all villages and habitations by 2020.*
6. *Promote innovation, indigenous R&D and manufacturing to serve domestic and global markets, by increasing skills and competencies.*
7. *Create a corpus to promote indigenous R&D, IPR creation, entrepreneurship, manufacturing, commercialisation and deployment of state-of-the-art telecom products and services during the 12th five year plan period.*
8. Promote the ecosystem for design, Research and Development, IPR creation, testing, standardization and manufacturing i.e. complete value chain for domestic production of telecommunication equipment to *meet Indian telecom sector demand to the extent*

of 60% and 80% with a minimum value addition of 45% and 65% by the year 2017 and 2020 respectively.

9. *Provide preference* to domestically manufactured telecommunication products, in procurement of those telecommunication products which have security implications for the country and in Government procurement for its own use, consistent with our World Trade Organization (WTO) commitments.
10. *Develop and establish standards to meet national requirements, generate IPRs*, and participate in international standardization bodies to contribute in formulation of global standards, thereby making India a leading nation in the area of international telecom standardization. This will be supported by establishing appropriate linkages with industry, R&D institutions, academia, telecom service providers and users.
11. *Simplify the licensing framework* to further extend converged high quality services across the nation including rural and remote areas. This will not cover content regulation.
12. Strive to create *One Nation - One License* across services and service areas.
13. Achieve *One Nation - Full Mobile Number Portability* and work towards *One Nation - Free Roaming*.
14. *Reposition the mobile phone* from a mere communication device to an instrument of empowerment that combines communication with proof of identity, fully secure financial and other transaction capability, multi-lingual services and a whole range of other capabilities that ride on them and transcend the literacy barrier.
15. Encourage development of mobile phones based on open platform standards.
16. Deliver high quality seamless voice, data, multimedia and broadcasting services on *converged networks* for enhanced service delivery to provide superior experience to users.
17. Put in place a simplified Merger & Acquisition regime in telecom service sector while ensuring adequate competition.
18. Optimize delivery of services to consumers irrespective of their devices or locations by *Fixed-Mobile Convergence* thus making available valuable spectrum for other wireless services.
19. Promote an ecosystem for participants in VAS industry value chain to make India a global hub for Value Added Services (VAS).
20. Ensure adequate availability of spectrum and its allocation in a transparent manner through market related processes. *Make available additional 300 MHz spectrum for IMT services by the year 2017 and another 200 MHz by 2020.*
21. Promote efficient use of spectrum with provision of regular *audit of spectrum usage*.
22. De-licensing additional frequency bands for public use.
22. *Recognize telecom as Infrastructure Sector* to realize true potential of ICT for development.
23. Address the Right of Way (RoW) issues in setting up of telecom infrastructure.
24. Mandate an ecosystem to ensure setting up of a *common platform for interconnection* of various networks for providing non-exclusive and non-discriminatory access.
25. Strengthen the framework to address the environmental and health related concerns pertaining to the telecom sector.

26. Enhanced and continued *adoption of green policy in telecom* and incentivise use of renewable energy sources for sustainability.
27. *Protect consumer interest* by promoting informed consent, transparency and accountability in quality of service, tariff, usage etc.
28. *Strengthen the grievance redressal mechanisms* to provide timely and effective resolution.
29. Strengthen the *institutional framework to enhance the pace of human capital formation* and capacity building by assessing and addressing educational and training needs of the sector.
30. Encourage *recognition and creation of synergistic alliance of public sector* and other organisations of Department of Telecommunications (DoT). This should be achieved through appropriate policy interventions and support for optimum utilisation of their resources and strengths in building a robust and secure telecom and information infrastructure.
31. Evolve a *policy framework for financing the sector* consistent with long term sustainability.
32. Put in place appropriate fiscal and financial incentives required for indigenous manufacturers of telecom products and R&D institutions.
33. Achieve substantial *transition to new Internet Protocol (IPv 6)* in the country in a phased and time bound manner by 2020 and encourage an ecosystem for provision of a significantly large bouquet of services on IP platform.
34. Strengthen the institutional, legal, and regulatory framework and re-engineer processes to bring in more efficiency, timely decision making and transparency.
35. Put in place a web based, real time e-governance solution to support online submission of applications including processing, issuance of licences and clearances from DoT.

BROADCASTING LEGISLATION IN INDIA

The statutory basis of government monopoly of the broadcast sector, which was widespread until the emergence of satellite television in the 1990s, can be traced to the 123 year-old Indian Telegraph Act of 1885. The Act states that the Central Government has the exclusive privilege of establishing, maintaining, and working telegraphs within India. The Act and its subsequent amendments define telegraph broadly to include most modern communication devices irrespective of their underlying technology. Judicial decisions have also held that the term ‘telegraph’ includes the term telephone, television, radio, wireless, mobile and video equipment.

The Act authorizes the Central Government to take temporary possession of a telegraph in cases involving public emergencies or public safety. Section 5(2) enables the government to lawfully intercept telegraph messages on certain grounds. These include India’s sovereignty and integrity, state security, friendly relations with foreign states, public order, and preventing the commission of an offence. The Act empowers the government to revoke a telegraph license for breach of any terms and conditions or for a default in making license-fee payments.

Though the Telegraph Act does not explicitly define ‘telecommunications service’ and ‘broadcasting service’, the Telecom Regulatory Authority of India Act, 1997, defines communication service in s 2(1)(k) as:

“Service of any description (including electronic mail, voice mail, data services, audio text services, video-text services, radio paging, and cellular mobile telephones services) which is made available to users by means of an transmission or reception of signals, writing, images, and sounds or intelligence of any nature, by wire, radio, visual or any other electronic means but shall not include broadcasting services.”

[Provided that the Central Government may notify other service to be telecommunication service including broadcasting services.]

Though this section expressly excludes ‘broadcasting’ from this definition, the directive authorizes the government to notify broadcasting services to be a telecommunication service. This notification gave TRAI the authority to regulate broadcasting and cable services in India. The license required for broadcasting (the Wireless Operating License) is given by the Wireless Planning and Coordination Committee (WPC) Wing of the Ministry of Communication and Information and Technology, while the Ministry of Information and Broadcasting (MIB) gives a Grant of Permission Agreement.

Most radio and television services are also regulated by the Indian Wireless Telegraphy Act (No 17 of 1933), as they constitute ‘wireless communications’. Section 2(2) and Section 3 regulate wireless communication by requiring users of various types of wireless equipment to obtain wireless licenses for possessing and using the equipment. These licenses are granted by the WPC (Wireless Planning & Coordination Authority) Wing of the Department of Telecommunications (DoT)

Therefore, to offer most kinds of broadcasting services, a broadcasting company must obtain two types of licenses:

- A Grant of Permission (GOPA) to offer broadcast services issued by the Ministry of Information and Broadcasting under the Telegraph Act
- A wireless operating license from the WPC (Wireless Planning & Coordination Authority) Wing of the Ministry of Communication and Information Technology under the Wireless Telegraphy Act

RADIO SERVICES:

Terrestrial radio services can be divided into two main categories: AM radio that uses medium or short wave frequency bands, and FM that uses VHF frequencies in the 88 MHz to 108 MHz band. AM radio is offered only by AIR while FM radio, which works on line-of-sight principles and can be clearly received within a local area, is offered by both AIR and private channels.

FM Radio

AIR began FM broadcasts in Madras on 23 July 1977. FM radio was opened to private players in 1999. The Ministry of Information and Broadcasting invited bids for licenses to operate 140 FM stations in 40 cities. In March 2000, the government short-listed 29 applicants for licenses to operate 101 FM radio stations. Upon further screening, the government issued letters of intent to 93 stations. Ultimately, FM licenses were granted to 16 companies to operate 37 channels. The initial FM radio licenses were valid for ten years and licensees were required to submit performance bank guarantees equivalent to a year's license fee to ensure that they carried out their license obligation.

Second Round of FM Licenses

Many of the FM stations that were licensed were financially unsuccessful and could not meet the license fee requirements. They soon demanded a reduction in license fee and change in the prevailing licensing network. The MIB then constituted the Radio Broadcast Policy Committee under the chairmanship of Amit Mitra, Secretary General, FICCI, on 24 July 2003 to make recommendations for Phase II of FM licensing, and to “study the desirability and implications of making modifications in the licensing regime of Phase I licenses. The committee called for revisions to the prevailing license fee structure for FM licenses, and recommended the introduction of an annual revenue sharing arrangement that would require FM licensees to pay 4 per cent of their gross revenue as license fees. It also proposed restructuring existing licenses and restricting the licensees' liability for their original license-fee payments. The second round of allocation of licenses concluded in early 2006.

TRAI took over regulatory responsibilities for broadcasting in January 2004. Its first set of recommendations to the government, sent in August 2004, proposed a migration package that would enable existing FM licensees to substitute their fixed fee terms with a more flexible revenue sharing formula. It also suggested relaxing the strict restrictions on multiple ownership that prevented FM licensees from owning more than one frequency in a city. It proposed a cap of 25 per cent on the total number of frequencies held by a single license across the country. It made detailed recommendations regarding foreign investment in FM radio. It suggested removing restrictions on news and current affairs programmes.

In July 2005, the government accepted most of TRAI's recommendations and framed a new policy for FM licenses. The main features of this policy were:

- Two-round selection process for 336 channels in 90 cities
- Requirement that applicants be registered in India
- Prohibition of control by persons convicted of certain offences.
- Prohibition of application by subsidiary of applicant company
- Prohibition of application by companies with same management
- Prohibition of application by companies of the same group or otherwise inter connected companies

- Prohibition of application by religious bodies or companies controlled by/associated with them
- Prohibition of application by political bodies or companies controlled by/associated with them
- Prohibition of application by advertising agencies or companies controlled by/associated with them
- Prohibition of application by Trusts, Societies, Non-Profit Organizations or companies controlled by/associated with them
- Permission granted for ten years

Under the policy

- Applicants are allowed to run one channel per city provided the total number of channels allocated to the entity is within the overall ceiling of 15% of all allocated channels in the country.
- Licensees cannot outsource, through any long-term production or procurement arrangement, more than 50% of the total content, and not more than 25% of the total content can be outsourced to a single content-provider.
- Licensees cannot hire or lease more than 50% of broadcast equipment on long term basis
- Licensees cannot enter into any borrowing or lending arrangement with other permission holders or entities other than recognized financial institutions, which may restrict its management or creative discretion to procure or broadcast content

Total number of frequencies that an entity may hold

No entity can hold permission for more than 15% of all channels allotted in the country. In the event of allotment of more channels than prescribed, the entity will have the discretion to decide which channels it would like to surrender and the government has to refund its OTEF for these channels in full.

Foreign Investment:

Total foreign investment is permitted to the extent of not more than 20% of the paid up equity in the entity holding permission for a radio channel. Foreign investment includes Foreign Direct Investment (FDI) as defined by RBI, and FDI by OCBs/NRIs/PIOs etc. Portfolio Investments by Foreign Institutional Investors (FIIs) (within limits prescribed by RBI) and borrowings, if these carry conversion options. The permission is subject to the following conditions:

- One Indian individual or company owns more than 50% of the paid up equity excluding the equity held by banks and other lending institutions.
- The majority shareholder exercises management control over the applicant entity.
- Has only Resident Indians as Directors on the Board.
- All key executive officers of the applicant entity are resident Indians.

No permission holder shall be permitted to change the ownership pattern of the company through transfer of shares of the major shareholders to any new shareholders without the written permission of the Ministry of Information & Broadcasting. The permission is granted for a period of five years from the date of its operationalisation, subject to the condition that the new shareholders conform to all the prescribed eligibility criteria.

Cross Media Ownership:

If, during the currency of the permission period, government policy on cross-media ownership is announced, the permission holder shall be obliged to conform to the revised guidelines within a period of six months from the date of such notification, failing which it shall be treated as non-compliant of Grant of Permission Agreement, and liable for punitive action. In case the permission holder is not in a position to comply with cross media restrictions for bonafide reasons acceptable to the Ministry of Information & Broadcasting, the Permission Holder would be given the option of furnishing one month's exit notice; the entry fee for the remaining period, calculated on a pro rata basis, would then be refunded to the permission holder.

News and Current Affairs Programmes:

No news and current affairs programmes are permitted under the Policy (Phase-II). TRAI, in its recommendations on licensing issues related to the 2nd phase of FM broadcasting, had advised the government to lift restrictions on the broadcasting of news and current affairs. However, the government has not implemented these recommendations.

Code of Conduct:

Every permission holder shall follow the AIR Programme and Advertising Code as amended from time to time. In the event of the government announcing the setting up of a Broadcast Regulatory Authority, by whatever name it is called, and the content regulations are modified, the permission holder shall be obliged to conform to the revised guidelines.

No permission holder shall use brand names or owners' names or corporate-group names to identify its channel to gain commercial advantage over other permission holders.

The Ministry of Information & Broadcasting shall have the right to suspend the permission of one or more permission holders in the public interest or for the sake of national security in order to prevent the misuse of their respective channels. The permission holders shall be obliged to immediately comply with the directives of the Government.

3rd Phase of Private FM Radio Broadcasting

TRAI released its Recommendations on the 3rd Phase of Private FM Radio Broadcasting on 22 February 2008. Details of the recommendations are available in the accompanying document on recent TRAI recommendations.

Community Radio

In a major development, the Government has permitted educational institutions and, more recently, not-for-profit organizations to operate community radio stations. The 2002 Guidelines were applicable only to established educational institutions. In December 2006, the I&B Ministry issued guidelines making it possible for not-for-profit organizations to set up community radio. By the end of February 2008, nearly 200 applications had been received under the new, broadened scheme. By the end of April, 76 organisations (including educational institutions and Krishi Vigyan Kendras) had received Letters of Intent (LoI) for setting up community radio stations.

Satellite Radio

Satellite radio relies on satellite signals, instead of FM/AM frequencies, for radio transmission. These services are in a nascent stage in India. Recognising the potential for satellite radio services, TRAI issued comprehensive recommendations in June 2005.

TRAI Recommendations

TRAI has indicated that satellite radio services would be complementary to FM services, rather than competitive. TRAI suggested that there be no separation between carriage and content in satellite-radio licenses. There should be common rules of subscription and broadcast-type services. All India Radio (AIR)'s programme and advertisement codes should apply to satellite radio. There should be no ban on news and current affairs programmes. Licenses should be permitted to establish terrestrial repeaters to rebroadcast their signals for better reception. Given the high capital-intensity of the medium and limited number of global players, 100% foreign investment should be permitted in satellite radio services. Licenses should be issued for ten years. There should be no license fee, unless there is excessive demand for available spectrum. If satellite radio licenses are permitted to use terrestrial repeaters, a revenue share of 4 per cent can be imposed as a license fee. No specific transmission standards should be prescribed. A satellite radio licensee should be free to decide on the preferred transmission technology subject to the licensor's approval. Satellite radio licensees should offer to their subscribers the option of blocking unwanted channels.

Satellite Radio Policy

Meanwhile, satellite radio had already entered the country - like cable TV - on the basis of a license issued by the Ministry of Telecommunications. WorldSpace began operations in 2000 and, because satellite radio services were then unregulated, it became by default the only private radio broadcaster in the country to offer news and current affairs channels.

In May 2008 TRAI opened up its draft Satellite Radio Policy for comments (with a deadline of less than two weeks). It included a section relating to news channels which, if accepted and implemented, could mean the end of news and current affairs on non governmental radio.

The relevant section of the draft Satellite Radio policy states:

5.1 Satellite radio service provider shall be able to carry only the following types of radio channels on its service:

- i. Non-News and Current Affairs radio channels registered with Government of India as per provisions contained in Part-II of these Guidelines.
- ii. The news broadcast of All India Radio (AIR) as mutually agreed between the service provider/radio channel and AIR.
- iii. Channels of Prasar Bharati as provided in paras 5.13 and 5.14

This is despite the fact that TRAI's Recommendations on Phase III of FM Radio licensing – issued in February 2008 – had already stated that "FM Radio broadcasters may be permitted to broadcast news taking content from AIR, Doordarshan (DD), authorized TV news channels, United News of India (UNI), Press Trust of India (PTI) and any other authorized news agency without any substantive change in the content. No other source of news is permitted at present." While even this formulation was fairly restrictive, the new policy seeks to restrict news and current affairs on private radio channels to programmes produced by the state broadcaster, All India Radio. Critics believe that such a move could have major implications for both private FM and community radio in the country.

PRASAR BHARATI (BROADCASTING CORPORATION OF INDIA) ACT, 1990

The introduction of the Prasar Bharati Bill in Parliament in May 1979 was the direct result of the recommendations of the B. G. Verghese Committee set up in 1977 after the Internal Emergency declared by the then Prime Minister Indira Gandhi (1975-77). The Bill was allowed to lapse after the Janata Party government elected to form the government after the Emergency collapsed and the Congress Party returned to power.

The victory of the National Front government in 1989 saw the revival of the Prasar Bharati Bill in a somewhat modified form; the Bill was passed by Parliament and received presidential assent on September 12, 1990. The Prasar Bharati Act provided for the formation of an autonomous Broadcasting Corporation that would manage Doordarshan and AIR, discharging all powers previously held by the Information and Broadcasting Ministry. The Corporation would inherit the capital assets of Doordarshan and AIR and would be managed by a 15-member Prasar Bharati Board, including the Directors-General of the two organisations and two representatives from amongst the employees. The Chair and other members of the Board would be appointed on the recommendations of the selection committee headed by the Vice President. A fifteen member Broadcasting Council would address public complaints.

The primary duty of the Broadcasting Corporation was to 'organize and conduct public broadcasting services to inform, educate, and entertain the public' and to ensure 'a balanced development' of broadcasting of radio and television. The Corporation was to be guided by a set of objectives while discharging its functions. These include:

- Upholding the unity and integrity of the country and the values enshrined in the Constitution
- Safeguarding the citizen's right to be informed freely, truthfully and objectively on all matters of public interest, national or international, and presenting a fair and balanced flow of information including contrasting views without advocating any opinion or ideology of its own
- Paying special attention to the fields of education and spread of literacy, agriculture, rural development, environment, health and family welfare and science and technology.
- Providing adequate coverage to the diverse cultures and languages of the various regions of the country by broadcasting appropriate programmes.
- Providing adequate coverage to sports and games so as to encourage healthy competition and the spirit of sportsmanship.
- Providing appropriate programmes keeping in view the special needs of youth.
- Informing and stimulating the national consciousness with regard to the status and problems of women and paying special attention to the upliftment of women.
- Promoting social justice and combating exploitation, inequality and such evils as untouchability and advancing the welfare of the weaker sections of the society.
- Safeguarding the rights of the working classes and advancing their welfare
- Serving the rural and weaker sections of the people and those residing in border regions, backward or remote areas.
- Providing suitable programmes keeping in view the special needs of the minorities and tribal communities.
- Taking special steps to protect the interests of children, the blind, the aged, the handicapped and other vulnerable sections of the people.
- Promoting national integration by broadcasting in a manner that facilitates communication in the languages in India; and facilitating the distribution of regional broadcasting services in every State in the languages of that State.
- Providing comprehensive broadcast coverage through the choice of appropriate technology and the best utilisation of the broadcast frequencies available and ensuring high quality reception.
- Promoting research and development activities in order to ensure that radio and television broadcast technology are constantly updated.
- Expanding broadcasting facilities by establishing additional channels of transmission at various levels.
- Ensuring that broadcasting is conducted as a public service to provide and produce programmes.
- Establishing a system for the gathering of news for radio and television.
- Negotiating for the purchase of, or otherwise acquiring, programmes and rights or privileges in respect of sports and other events, films, serials, occasions, meetings, functions or incidents of public interest, for broadcasting and establishing procedures for the allocation of such programmes, rights or privileges to the services.

- Establishing and maintaining a library or libraries of radio, television and other materials. Conducting or commissioning, from time to time, programmes, audience research, market or technical service, which may be released to such persons and in such manner and subject to such terms and conditions as the Corporation may think fit.

Though the Broadcasting Corporation was supposed to be independent, Section 23 of the Act gave the Central Government the power to issue to the Corporation directions to broadcast or not to make a broadcast, if it deemed it necessary in the interests of the sovereignty, unity and integrity of India, or the security of the State, or the preservation of public order. Another provision that curtailed the autonomy of the Corporation was Section 13, which provided for the constitution of a 22-member Parliamentary Committee to oversee the working of the Corporation. The National Front government (with VP Singh as Prime Minister) fell before the Act could be notified.

However the legislation got a fresh lease of life when the Supreme Court, on 9 February 1995, in the Cricket Association of Bengal case, directed the Government to set up an independent broadcasting authority that would give access to all interests and groups. In September 1997, then Information and Broadcasting Minister Jaipal Reddy announced that the Act would be notified. The United Front government introduced changes in two main categories. It scrapped Section 13 of the 1990 Act that had provided for a Parliamentary Committee to oversee the working of the Board. Other amendments removed the Government's power to stipulate advertisement airtime and provided for the transfer of the assets of Doordarshan and Akashvani to the Corporation for a perpetual lease of a token Re 1 a year.

The second sets of amendments were broadly meant to seek to reconcile the Prasar Bharati Act with planned legislation on private broadcasters. It replaced the Broadcasting Council provided for in the Prasar Bharati Act with the Broadcasting Authority of India, that would govern private broadcasters when the then pending Broadcasting Bill 1997 was enacted.

The United Front government appointed SS Gill as the Chief Executive of the Corporation, amending the statutory qualifications for the designated head of Prasar Bharati. But early general elections in 1998 saw the formation of a new BJP-led government. The BJP had opposed Gill's appointment as violative of the stipulated age limit. When Gill refused to resign, the BJP government allowed the presidential ordinance amending the Prasar Bharati Act to lapse, and then removed him from office saying he did not satisfy the qualifications required under the Act. The government also removed other members of the Prasar Bharati from their posts. These actions were challenged in the Delhi High Court, which declined to interfere on the ground that it was a policy matter.

The Central Government introduced the Prasar Bharati (Broadcasting Corporation of India) Amendment Bill, 2008 in Parliament, amending the Prasar Bharati Act to reduce the tenure of the Corporation's Chairman from six to three years. The move is seen to be aimed at easing out the current Prasar Bharati Chairman, MV Kamath. An upper age limit of 70 years

was also introduced for the position of Chairman. The I&B Minister said these changes would help bring diversity of experience at the top level for the benefit of the organisation. The I&B Minister, Priya Ranjan Dasmunsi, pointed out in the statement of objects and reasons that it was felt necessary to rationalise such matters “in order to inject sectoral experience to rejuvenate Prasar Bharati and its Board.”

Prasar Bharati has been functioning in name, without measuring up to the objectives underlying the act. The PB Act has implemented only partially. For instance, neither the assets nor the staff of AIR/DD have

REGULATION OF CABLE TELEVISION

The sudden emergence of cable television and cable networks in the early 1990s caught the Indian government unprepared. The DoT initially responded with new regulations targeting the fledgling networks, requiring all users and dealers of satellite equipment to obtain special operating licenses for their equipment. Users and dealers were specifically prohibited from engaging in commercial distribution of programmes downloaded from satellites. To obtain these licenses, users had to undertake that they would not use their equipment to establish unauthorized networks.

The government’s action against cable television networks was unsuccessfully challenged by cable operators before various high courts. Despite this, the growth of these networks continued, especially in urban areas. The Government appointed a committee which recommended that the censors should clear all programmes transmitted through cable networks. It also suggested that cable networks should be prohibited from directly relaying programmes received from satellites. The government, however, did not accept these recommendations.

Shiv Cable v State of Rajasthan

The reality of cable networks was tested in *Shiv Cable TV System v. State of Rajasthan*. The case arose from a district administration’s order directing the local police to halt cable TV networks because the cable operators lacked the necessary licenses. The affected operators challenged the district administration’s order in the Rajasthan High Court on the ground that there was no law that required them to obtain licenses for their networks. They argued that the district administration’s actions violated their fundamental right to carry on a trade and business. The state government told the high court that the cable operators had to obtain licenses under the Telegraph Act and the Wireless Telegraphy Act to legally operate their networks.

The High Court agreed with the government’s arguments. It explained that cable networks typically comprise two elements:

1. A dish antenna to receive programmes transmitted by satellites.
2. A cable network to physically distribute these programmes to subscribers.

The Court said that since a cable operator's dish antenna was capable of receiving transient images of fixed and moving objects from satellites, the dish antenna constituted been transferred to the Corporation. The staff are still government servants under 'deemed deputation' to Prasar Bharati. a wireless telegraph apparatus under the Wireless Telegraphy Act. It held that unless covered by an exemption, the dish antenna required a wireless license for its operation.

The Court held that lines and cables in a cable network were covered by the definition of a 'telegraph line' under the Telegraph Act, and the cable operators had to obtain statutory licenses in order for their dish antennas to download programmes from satellites and to transmit these downloaded programmes through their networks to customers.

Despite this, the High Court set aside the impugned orders of the district administration as they were made without jurisdiction. It held that under the Telegraph Act and the Wireless Telegraphy Act, only the Director General of Posts and Telegraphs, a Central Government official, was competent to take the actions in question. The High Court noted that the government had not framed any rules or guidelines to regulate cable networks. Noting that an outright prohibition on cable networks was difficult because they had already grown deep roots in several areas, the high court called on the government to establish a licensing system to regulate cable networks.

This decision prompted the government to promulgate an ordinance in 1994 that provided a legal basis to regulate cable networks. The ordinance was later ratified by Parliament and passed as the Cable Networks Act, 1995. This legislation was amended in 2003 to require cable subscribers to use conditional access systems to receive premium channels. The government's New Telecom Policy, 1999 sought to align the cable industry closer to the market for telecom services. It classified cable operators as access providers along with fixed and cellular licensees. It allowed cable operators to provide last mile links, switched services, and one-way entertainment services in their respective service areas. Cable operators were allowed to directly interconnect with other service providers within their service area and share infrastructure with them. The government decided not to allow cable operators to provide two-way communications as it would amount to their offering fixed services. But the policy gave cable operators the option to obtain a separate fixed license for this purpose.

The Cable Networks Act, 1995

The principal purpose of the Cable Networks Act was to introduce regulatory certainty to the cable market that had emerged in the early 1990s. The statement of objects and reasons declared that cable TV constituted a 'cultural invasion' as cable programmes were predominantly Western and alien to Indian culture and way of life. It declared that the lack of regulation had resulted in undesirable programmes and advertisements being shown to Indian viewers without any censorship.

Section 3 of the Act mandates that a cable television network can be operated only by a registered cable operator. The registering authority is any authority so notified by the Central Government.

‘Cable television network’ is defined in Section 2 c) as:

Any system consisting of a set of closed transmission paths and associated signal generation, control and distribution equipment designed to provide cable service for reception by multiple subscribers.

In order to register, an entity could be

- an Indian citizen
- an association of individuals whose members are Indian citizens - a company in which not less than 51 per cent of paid up equity share capital is held by Indian citizens

If the registering authority refuses to register an applicant, it must record its reasons for doing so and inform the applicant accordingly.

Statutory Violations and Offences:

The Cable Networks Act empowers and authorizes a government officer to seize a cable operator’s equipment if the officer has reason to believe that the cable operator is functioning without proper registration. The seized equipment cannot be retained for a period exceeding ten days from the date of seizure, unless a local District Judge, within whose jurisdiction the seizure has been made, approves continued retention of the seized equipment.

A first time violation under the statute can result in an imprisonment term that extends up to two years or a fine up to Rs. 1000 or both. Every subsequent offence is punishable with imprisonment for a term up to five years and a fine that may extend to Rs. 5000. The Act says that if a company commits an offence under the statute, the company and any person in charge, or responsible for its business, shall be deemed guilty, proceeded against and punished accordingly. If a company commits an offence with the consent, connivance, or attributable negligence of a director, manager, secretary, or other officer, these officers are deemed guilty, along with the company, and they can be prosecuted, and punished accordingly.

Cable Television Network Rules, 1994:

The Rules were enacted under the Cable Television Networks (Regulation) Ordinance, 1994. The Programme Code of the Cable Television Network Rules lays down restrictions on the content of both programmes and advertisements that can be shown on cable TV. These restrictions are laid down in Section 6 of the Rules.

No programme can be shown that:

- Offends against good taste or decency

- Contains criticism of friendly countries
- Contains attack on religions or communities or visuals or words contemptuous of religious groups or which promote communal attitudes (*sic*)
- Contains anything obscene, defamatory, deliberate, false and suggestive innuendos and half truths
- Is likely to encourage or incite violence or contains anything against maintenance of law and order or which promote anti-national attitudes
- Contains anything amounting to contempt of court
- Contains aspersions against the integrity of the President and Judiciary
- Contains anything affecting the integrity of the Nation
- Criticises, maligns or slanders any individual in person or certain groups, segments of social, public and moral life of the country
- Encourages superstition or blind belief
- Denigrates women through the depiction in any manner of the figure of a woman, her form or body or any part thereof in such a way as to have the effect of being indecent, or derogatory to women, or is likely to deprave, corrupt or injure public morality or morals
- Denigrates children
- Contains visuals or words which reflect a slandering, ironical and snobbish attitude in the portrayal of certain ethnic, linguistic and regional groups
- Is not suitable for unrestricted public exhibition

The Rules say that the cable operator should strive to carry programmes in his cable service that project women in a positive, leadership role of sobriety, moral and character building qualities. They say that care should be taken to ensure that programmes meant for children do not contain any bad language or explicit scenes of violence. Programmes unsuitable for children must not be carried in the cable service at times when the largest numbers of children are viewing.

Restrictions on Advertisements

The Advertising Code in the Cable Network Rules says that all advertising carried in the cable service have to conform to the laws of the country and should not offend morality, decency and religious susceptibilities of the subscribers. The code says that no advertisement shall be permitted which:

- Derides any race, caste, colour, creed and nationality
- Is against any provision of the Constitution of India
- Tends to incite people to crime, cause disorder or violence, or breach of law or glorifies violence or obscenity in any way
- Presents criminality as desirable
- Exploits the national emblem, or any part of the Constitution, or the person or personality of a national leader or a State dignitary
- In its depiction of women violates constitutional guarantees to all citizens

- Projects a derogatory image of women. The Rules say that women should not be portrayed in a manner that emphasises passive, submissive qualities and encourages them to play a subordinate, secondary role in the family and society. The cable operator is supposed to ensure that, in the programmes carried in his cable service, the portrayal of the female form is “tasteful and aesthetic, and is within the well-established norms of good taste and decency”
- Exploits social evils like dowry, child marriage
- Promotes directly or indirectly the production, sale or consumption of cigarettes, tobacco products, wine, alcohol, liquor or other intoxicants, infant milk substitutes, feeding bottle or infant food.

The Rules prohibit advertisements that

- Are wholly or mainly of a religious or political nature or directed towards any religious or political end
- Contain references that hurt religious sentiments
- Contain references that are likely to lead the public to infer that the product advertised or any of its ingredients has some special or miraculous or super natural property or quality, which is difficult of being proved
- Contain pictures and audible matter of the advertisement that are excessively loud
- Endanger the safety of children or creates in them any interest in unhealthy practices or shows them begging or in an undignified or indecent manner
- Contain indecent, vulgar, suggestive, repulsive or offensive themes or treatment
- Contain advertisements that violate the standards of practice for advertising agencies as approved by the Advertising Agencies Association of India, Bombay, from time to time

All advertisements should be clearly distinguishable from the programme and should not in any manner interfere with the programme – for example, the use of lower part of screen to carry captions, static or moving, alongside the programme.

In March 2008, the Central Government amended the Cable Television Network Rules through a gazette notification to ban ‘surrogate advertisements’ to prevent tobacco and liquor brands from sidestepping the law. According to the notification, no advertisement that permits “directly or indirectly sale or consumption of cigarettes, tobacco products, wine, alcohol, liquor or other intoxicants.”

Indecent Representation of Women Act

Although the Cable Television Network Rules, 1994, and the Advertising Code within it, include specific provisions relating to the representation of women on television, in May 2008 the National Commission for Women initiated a process seeking to modify the Indecent Representation of Women (Prohibition) Act, 1986 on the ground that its scope needed to be widened to include the expanded electronic media and cyberspace. The amendments, apparently proposed by the Ministry of Women & Child Development,

Government of India, were posted on the NCW website for comment and seminars were held in different cities to discuss the proposals. The main recommendations comprise amendment of Section 1 of the Act to make the definition of ‘derogatory representation of women’ wider and increase in the punishment prescribed for violations.

Use of Conditional Access Systems in Cable Networks:

In December 2002, Parliament enacted an amendment to the Cable Networks Act requiring consumers to use ‘addressable systems’ to access premium and pay channels through cable networks. Addressable systems are also called ‘conditional access systems’ (CAS) or ‘set-top boxes.’ The amendment provided that cable subscribers receive a basic package of channels that had to include a mixture of entertainment, information, and educational programmes. The government may fix the total number of free-to-air channel to be included, and the maximum amount that cable operators may charge subscribers in the basic service tier.

Following a 2003 Amendment, the Central Government announced a series of measures to implement the CAS framework, including a 2003 notification that required cable operators in Chennai, Mumbai, Delhi and Kolkata to transmit pay channels only through addressable systems. Operators were given six months to procure the necessary equipment to implement this requirement. Through a separate notification, the government ordered cable operators to offer a minimum of 30 free-to-air channels in a basic package to be priced at Rs. 72. The Government also amended the Cable Network Rules to regulate rentals and security deposits for set-top boxes.

While broadcasters and Multi-Service Operators (MSOs) welcomed the introduction of CAS framework, consumers were outraged at the prospect of paying special rates for premium channels. Local cable operators were also upset as they feared loss of revenue from cable subscribers who would elect to receive only the basic package of free-to-air channels.

The government was thus forced to announce an indefinite delay in the introduction of CAS in Delhi. Soon the matter was taken to the Delhi High Court [*Jay Polychem v Union of India* (2004) IV AD 249 (Del)]. In December 2003, the Delhi High Court ordered the introduction of the CAS framework in Delhi on a trial basis for three months.

In January 2004, the Government referred the matter to TRAI. For this purpose the government issued a notification under section 11(1) (d) of the Telecom Regulatory Authority of India Act entrusting additional regulatory functions to the Authority. In a separate notification, the government revised the definition of ‘telecommunication service’ in Section 2 (1) (k) of the TRAI Act to include broadcasting and cable services within this definition. This meant that TRAI could now regulate broadcasting and cable service as telecommunication services and the Telecom Disputes Settlement and Appellate Tribunal (TDSAT) could adjudicate upon disputes relating to this service.

Following TRAI’s recommendations, the Central Government suspended the notification of the CAS framework in February 2004. However, the matter did not end here. A single judge

of the Madras High Court stayed the government's suspension notification in March 2004. This was followed by the Delhi Court ordering the government to reintroduce the CAS framework within four weeks. The Central Government then issued amendments to the Cable Network Rules in the metro areas.

The amendments established a detailed regulatory scheme to reintroduce the CAS framework in areas notified by the Central Government. Rule 11(5) of the Cable Network Rules prohibits MSOs from offering cable services in the notified areas without the Central Government's permission. The Ministry of Information and Broadcasting may grant or refuse permission after taking into account factors like the MSO's operational area, the number of subscribers and local operators in the area, commercial arrangements with broadcasters and cable operators, financial strength, management capability, security clearance, the MSO's ability to supply and maintain adequate set top boxes.

Every broadcaster is required to declare whether each of its channels is either pay or free to air, and the maximum retail price of each of the 'pay channels.' If TRAI believes that the declared price for a channel is too high, it may revise the price of the channel. It has the option of fixing retail price ceiling for all pay channels.

Rule 9 of the Cable Network Rules empowers TRAI to take decisions regarding:

- Standard interconnection and distribution agreements to be used for pay and free to-air channels between broadcasters and MSOs, and MSOs and cable operators
- Ceilings for security deposits and monthly rentals charged for set-top boxes
- Tariffs for the basic service tiers of cable services and minimum number of free to-air channels
- Quality of service standards

TRAI released comprehensive recommendations on broadcasting and cable services in October 2004. It recommended that there should be no regulation on advertisements in free-to-air and pay channels. But it proposed a suitable amendment to the Cable Networks Act to enable the government to regulate advertisements, if necessary. It called for strengthening the functions of authorized officers under the Cable Networks Act and recommended that they be made responsible for registering cable operators. Based on a detailed study of various cable technologies, TRAI suggested that the government consider 'traps' as an alternative to set top boxes for distribution of cable channel. Traps were cheaper than set-top boxes, and could be used as a transitory arrangement.

TRAI proposed three alternative models for the future regulation of the cable industry. The first model did not envisage a mandatory CAS framework. The second would use the system of traps as a mandatory arrangement, and the third envisages a mandatory arrangement with CAS.

TRAI Recommendations on Restructuring of Cable TV Services, July 2008

In July 2008 TRAI issued draft recommendations relating to the restructuring of Cable TV services in order to “ensure effective licensing compliance, attract investment, facilitate new value added services and encourage digitisation.” It provided a deadline of only a week for comments on the draft.

The most significant recommendations propose the replacement of the present system of registration for Local Cable TV operators (LCOs) with a licensing framework, and the creation of a separate licensing provision for Multi-System Operators (MSOs), thus recognising them as separate entities from local cable TV operators.

The recommendations also include changes in the licensing authorities, the geographical boundaries of service areas permitted under such licenses, the duration of licenses, the documents to be submitted along with applications for licenses, the entry fee and administrative cess to be levied, the time frame for the grant of licenses, procedures for renewal as well as termination/cancellation/suspension of licenses, mechanisms for the redressal of subscriber complaints, responsibility for violations of rules and regulations relating to content, and technology (e.g., digitisation vs. analog transmission).

The 154-page document includes a preface and introduction that provides an interesting useful condensed history of the advent and growth of cable television in India, with the latest data available on the subject.

Film Certification under the Cinematograph Act

The Cable Network Rules and the Uplinking and Downlinking Guidelines require cable operators and broadcasters to comply with the Cinematograph Act in determining their programme content. The Central Board for Film Certification (CBFC) certifies films based on the Cinematograph Act framework. Films are certified as ‘U’ (unrestricted exhibition), UA (parental supervision), A (restricted supervision), depending on the content. The grounds for denial of certification are laid down in Section 5 (B) (1): “the film or any part of it is against the interests of the security of the State, friendly relations with foreign States, public order, decency or morality, or involves defamation or contempt of court or is likely to incite the commission of any offence.”

MODULE-III

TELECOM REGULATORY AUTHORITY OF INDIA

THE TELECOM REGULATORY AUTHORITY OF INDIA ACT, 1997

The Telecom Regulatory Authority of India Act, 1997 (hereafter referred as the "Act") has been passed to bring the quality of telecom services to world standards, and make available a wide range of services to customers at reasonable prices. The Act has made possible fair competitive participation of various companies in the telecom sector and the protection and promotion of consumer interest. Under the Act, the regulatory functions have been separated from the service providing functions, which is now the general trend in the world. Mainly, the Act provides for the establishment of the Telecom Regulatory Authority (hereafter referred as "Authority") to maintain harmony in present multi-operator situation in which private operators are competing with the government operators. It is expected that this may ensure healthy growth of the telecommunications infrastructure and protection of consumers' interest in a better way.

The role of the Authority is mainly related to introduction of new service providers and the specification of the terms and conditions of the licences granted to them. This is a matter of very vital concern for general consumers.

The Act was amended in 2000 by the Telecom Regulatory Authority of India (Amendment) Act which, *inter alia*, substituted Chapter IV of the principal Act providing for the establishment of Telecom Dispute Settlement and Appellate Tribunal. The Appellate Tribunal is empowered to hear and dispose of appeals against any direction, decision or order of the Authority. Any failure to comply with the orders of the Appellate Tribunal has been made punishable under the Act. Against any direction or order made by the Appellate Tribunal, appeal can be filed in the Supreme Court.

Under the Act "telecommunication service" means the service of any description, including electronic mail, voice mail, data services, audio tex services, video tex services, radio paging and cellular mobile telephone services, which is made available to users by means of any transmission or reception of signs, signals, writing, images and sounds or intelligence of any nature, by wire, radio, visual or other electro-magnetic means. But the telecommunication service does not ordinarily include broadcasting services. The central government has been empowered to notify any other service also as telecommunication service including broadcasting services.

Since there is all around a revolution taking place in services like electronic mail, voice mail, data services and cellular mobile phone services, the Act enables the consumers and the consumer organizations to be equally responsive to the needs of the time and make the Regulatory Authority work for the protection of their interests. The consumer associations should, therefore, create common awareness about the authorities established under the Act and their role. Guidance and opportunities to approach these authorities should also be provided to common people.

The provisions of the Act are in addition to and not in derogation of the provisions of the Indian Telegraph Act, 1885 and the Wireless Telegraphy Act, 1933. So the functions and powers of the telegraph authority under the Indian Telegraph Act, 1885 in relation to the

areas falling within the jurisdiction thereof are not affected by the provisions of this Act. The telegraph authority, which grants the licences under section 4 of the Indian Telegraph Act, 1885 is also a licensor for the purpose of this Act.

Telecom Regulatory Authority of India

Composition

The power to establish the Telecom Regulatory Authority of India lies with the central government. The Authority may consist of a chairperson, one or two whole-time members and one or two part-time members, to be appointed by the central government.

The chairperson and the members should be persons having special knowledge and professional experience in telecommunication, industry, finance, accountancy, law, management or consumer affairs. Any person in government service can be appointed as a member if such a person has held the post of secretary or additional secretary, or the post of additional secretary and secretary to the Government of India or any equivalent post in the central government or the state government for a period of not less than three years. Any person having financial or other interest likely to affect prejudicially his functions as such member should not be so appointed.

The chairperson and other members can hold office for a term of three years, or until they attain the age of sixty-five years, whichever is earlier. On the commencement of the Telecom Regulatory Authority of India (Amendment) Act, 2000, the persons appointed as chairperson and as members and were holding office as such immediately before such commencement were directed to vacate their respective offices, and were made entitled to claim compensation, not exceeding three month's pay and allowances for the premature termination of the term of their offices and contract of service.

Under section 5 of the Act, a government employee, if selected as the chairperson or whole-time member of the Authority, has to retire from his service before joining.

A member of the Authority may relinquish his office by giving in writing to the central government notice of not less than three months. The chairperson or any whole-time member, ceasing to hold his office under the Authority, becomes ineligible for further employment under the central government or any state government. They can not also accept any commercial employment, for a period of one year from the date they cease to hold office. This condition is not applicable to the chairperson or a member who has ceased to hold office under Amendment Act of 2000 and they will be eligible for re-appointment in the Authority or the Appellate Tribunal.

The power of general superintendence in the conduct of the affairs of the Authority lies with the chairperson of the Authority who has to preside over the meetings of the Authority and discharge other prescribed functions. A vice-chairperson may be appointed by the central government to exercise and discharge some such powers and functions of the chairperson as may be delegated to him.

A member of the Authority can be removed from his office by the central government, if he has been adjudged an insolvent or has been convicted of an offence involving moral turpitude or has become physically or mentally incapable of acting as a member. Further, a member who has acquired such financial or other interest in the Authority as is likely to affect prejudicially his functions as a member or has abused his position as to render his continuance in office prejudicial to the public interest can also be removed from office. However, before a member is removed from his office, he should be given a reasonable opportunity of being heard in the matter.

Functions of the Authority

The functions of the Authority are to make recommendations, either *suo motu* or on a request from the licensor about:

- i. the need and timing for introduction of new service provider;
- ii. the terms and conditions of licence to a service provider;
- iii. the revocation of licence for non-compliance of terms and conditions of licence;
- iv. the measures to facilitate competition and promote efficiency in the operation of telecommunication services so as to facilitate growth in such services;
- v. the technological improvements in the services provided by the service providers;
- vi. the type of equipment to be used by the service providers after inspection of equipment used in the network;
- vii. the measures for the development of telecommunication technology and any other matter relatable to telecommunication industry in general;
- viii. the efficient management of available spectrum;

In addition to making such recommendations, the authority is required to:—

- i. ensure compliance of terms and conditions of licence;
- ii. fix the terms and conditions of inter-connectivity between the service providers;
- iii. ensure technical compatibility and effective inter-connection between different service providers;
- iv. regulate arrangement amongst service providers of sharing their revenue derived from providing telecommunication services;
- v. lay-down the standards of quality of service to be provided by the service providers and to conduct the periodical survey thereof as to protect the interest of the consumers;
- vi. lay-down and ensure the time period for providing local and long distance circuits of telecommunication between different service providers;
- vii. maintain register of inter-connectivity agreements and other related matters;
- viii. keep such register open for inspection to any member of public on payment of prescribed fee; and
- ix. ensure effective compliance of universal service obligations.

The Authority can levy fees and other charges at specified rates. It can perform such other functions of administrative and financial nature as may be entrusted to it by the central government.

The recommendations of the Authority on these matters are not binding upon the central government. Once the central government seeks the recommendations of the Authority in respect of need and timing for introduction of new service providers and about terms and conditions of licence, it should forward the same within a period of sixty days from the date on which they were sought. If necessary, the Authority may, for the purpose of making recommendations request the central government to furnish relevant information or documents, which the government is supposed to supply within a period of seven days from the date of request.

If the Authority does not send any recommendations about a matter within the specified period or as mutually agreed upon between the central government and the Authority, the central government may issue a licence to the service provider even in the absence of the recommendation. The central government may in appropriate cases refer the recommendation back to the Authority for its reconsideration, and the Authority should re-submit the same after reconsideration within fifteen days from the date of such reference. After receipt of further recommendations, if any, the final decision can be taken by the central government.

The Authority is empowered to notify the rates for providing telecommunication services, within and outside India. It also includes the rates at which messages can be transmitted to any country outside India. The Authority may for sufficient reasons notify different rates for different persons or class of persons for similar telecommunication services.

Powers of the Authority

The Telecom Regulatory Authority has been empowered to call upon any service provider at any time to furnish in writing the information or explanation relating to its affairs. If found expedient, the Authority can also appoint one or more persons to make an inquiry in relation to the affairs of a service provider. Likewise, the Authority may get the books of account or other documents of any service provider inspected by its officers. For the purpose of this provision about inspection of accounts or other documents, every person or officer of a department or body of persons dealing with such documents would be bound to make them available for such inspection. To make it convenient, under the Act every service provider is bound to maintain the books of account and other documents in the prescribed manner. Besides, the Authority is empowered to issue any directions to service providers as may be considered necessary for their proper functioning.

Appellate Tribunal

Composition

The Appellate Tribunal consists of a chairperson and one or two members appointed by the central government, in consultation with the Chief Justice of India. The jurisdiction of the

Appellate Tribunal may be exercised by the Benches which may be constituted by the chairperson and each Bench may ordinarily be of one or two members. The central government is authorised to notify the areas in relation to which each Bench may exercise its jurisdiction.

The chairperson can transfer a member of Tribunal from one Bench to another Bench. If at any stage of the hearing of a case it appears to the chairperson or a member of the Appellate Tribunal that the case ought to be heard by a particular Bench, the same may be accordingly transferred by the chairperson to such Bench.

The chairperson of the tribunal can be a person who has been the Judge of the Supreme Court or the Chief Justice of a High Court. The member can be a person who has held the post of a secretary or any equivalent post in the central government or the state government for a period of not less than two years or a person who is well versed in the field of technology, telecommunication, industry, commerce or administration. The chairperson and every other member of the Appellate Tribunal will hold office for a term not exceeding three years. The chairperson can hold office up to the age of seventy years and a member only upto the age of sixty-five years.

The chairperson or any member of the Appellate Tribunal can be removed from his office by the central government on the same grounds as have been specified in case of the members of the Authority.

Before removing the chairperson or a member of the Appellate Tribunal from his office, a reference will have to be made to the Supreme Court by the central government, on which the Supreme Court may conduct an enquiry and report the grounds on which the involved persons may be removed from office. The central government may suspend from office the person in respect of whom a reference has been made to the Supreme Court until an appropriate order is passed after receiving the report of the Supreme Court on such reference.

Jurisdiction

As mentioned above, section 14 of the Act provides for the establishment of the Telecom Disputes Settlement and Appellate Tribunal known as the Appellate Tribunal to adjudicate any dispute between a licensor and a licensee; two or more service providers, *inter se*; and between a service provider and a group of consumers. The matters relating to the monopolistic trade practice, restrictive trade practice and unfair trade practice which were earlier covered by the MRTP Act, 1969 and now under the Competition Act, 2002 would not be dealt with under this Act. Further the complaint of an individual consumer maintainable before a Consumer Disputes Redressal Forum (distribution) or a Consumer Disputes Redressal Commission (State Commission) or the National Consumer Redressal Commission (National Commission) established under section 9 of the Consumer Protection Act, 1986 cannot be brought before the Appellate Tribunal. Moreover, any dispute between the telegraph Authority and any other person cannot be heard by this Tribunal. However, the Tribunal may hear and dispose of an appeal against any direction, decision or order of the Authority under this Act.

Manner of dispute settlement and appeals

For the adjudication of any dispute an application can be made to the Appellate Tribunal by the central government or a state government or a local authority or any person. Any of them, if aggrieved by any direction, decision or order of the Authority, can also prefer an appeal to the Appellate Tribunal. Every appeal can be preferred within a period of thirty days from the date on which a copy of the direction or order or decision of the Authority to be appealed against is received. The Appellate Tribunal may, for a sufficient cause, entertain an appeal even after the expiry of that period.

The Appellate Tribunal should, for disposing of a dispute or appeal, give to each party an opportunity of being heard. A copy of every order passed by the Tribunal should be sent to each party to the dispute/appeal and to the Authority. To avoid delay in adjudication or disposal of an appeal, an endeavour should be made to dispose of it finally within ninety days from the date of receipt. The Tribunal has been required to record its reasons in writing for not disposing of an application or appeal within that period.

For the purpose of examining the legality or propriety or correctness of any dispute made in any application or any direction or order of the Authority referred to in the appeal, the Appellate Authority may, on its own motion or otherwise, call for its record such application or order and make such orders as it may think fit.

The Appellate Tribunal is not bound by the procedure laid down by the Code of Civil Procedure, 1908, but has to follow the principles of natural justice. It is, therefore, empowered to regulate its own procedure. The tribunal has the same powers as are vested in a civil court under the CPC, while trying a suit, in respect of summoning persons, examining witness, discovery and production of documents, issuing commissions for the examination of witnesses or documents, and reviewing its decisions. Every proceeding before the Appellate Tribunal is deemed as a judicial proceeding.

An applicant or appellant may appear before the Appellate Tribunal either in person or through one or more chartered accountants or company secretaries or cost accountants or legal practitioners or any of its officers.

Appeal to the Supreme Court

Section 18 of the Act makes provisions for appeal against any order of the Appellate Tribunal to the Supreme Court. An appeal can accordingly lie against any order, not being an interlocutory order, of the Appellate Tribunal to the Supreme Court on one or more of the grounds specified in section 100 CPC. If any decision or order has been made by the Appellate Tribunal with the consent of the parties, no such appeal can lie. Appeal should be preferred within a period of ninety days from the date of the decision or order. The Supreme Court may, for sufficient cause, entertain an appeal even after the expiry of the period of ninety days.

Orders of the Appellate Tribunal are executable in the same manner as the decrees of civil courts and, for this purpose, the Tribunal has the powers of a civil court. The Tribunal may

also transmit any of its orders for execution to a civil court having local jurisdiction. If any person wilfully fails to comply with an order of the Appellate Tribunal, he is punishable with fine up to one lakh rupees and for a subsequent offence with fine upto two lakh rupees. In case of continuing contravention, additional fine can be imposed which may extend to two lakh rupees for every day during which such default continues.

A study of the provisions of the Act reveals that the Act has provided for the establishment of an efficient machinery for regulating the functioning of the telecommunication service. Sections 14 and 14A give consumers a valuable right to seek protection and enforcement of their interests before the Authority and the Appellate Tribunal established under the Act. Therefore, the consumers and consumer organizations can actively participate in the process of regulation of the telecommunication services with due regard for consumer interests. In case of their failure to do so, there cannot be an orderly growth of the telecom sector.

ACTIVITIES OF TRAI

CONSUMER INTERESTS

The Authority has taken several measures to protect the interest of the consumers and improve the regulatory mechanism which contributes towards enhancing consumer satisfaction. For ensuring the same, TRAI has been issuing Regulations, Directions and orders on various consumer centric issues from time to time. To enable consumers and consumer organizations to take advantage of these measures, it is important that they are made aware of these initiatives. For dissemination of information to consumers, TRAI follows a multi-pronged strategy in the form by conducting of Consumer Outreach Programmes (COP), Regional Workshops, undertaking electronic and print media campaigns and publishing consumer education material to enhance consumer awareness about their rights and service-related issues. During the calendar year 2019, 75 CoPs were conducted across the country.

Quality of Service

The monitoring of Quality of Service and disseminating information on QoS and curbing the spam had undergone a sea-change with more focus on technology-based solutions. New benchmarks have been notified for VoLTE and CSFB for consideration of call muting and call set up delay. To curb the menace of Unsolicited Commercial Communication (UCC), a new regulatory framework has been introduced which mandated the Access Providers to use technology enablers. TRAI monitors the performance of service providers through Quarterly Performance Monitoring Reports (PMR) and Point of Interconnection congestion reports submitted by the service providers. The audit & survey of quality of service are carried out by independent agencies engaged for the purpose. TRAI has also been imposing financial disincentive on service providers for failing to comply with the quality of service benchmarks.

The details of Show Cause Notices and Orders issued to the Telecom Service Providers are as under:

Non-compliance of QoS Benchmarks

During the year, TRAI issued 16 Show Cause Notices to Basic Service Providers, 46 Show Cause Notices to Broadband Service Providers and 32 Show Cause Notices to Cellular Service Providers for not meeting the benchmarks of QoS parameters and for delay in submission of compliance reports.

After examining the responses to Show Cause Notices issued during the year, 54 orders imposing Financial Disincentives (FD) towards non-compliance of QoS Regulations and 21 orders were issued for delay in submission of compliance reports of QoS Regulations along with levying of financial disincentives as detailed below:

Services	Financial Disincentive
Broadband	48.45 lakhs
Basic	36.00 lakhs
Cellular	320.00 lakhs
Total Amount	404.45 lahs

Quality of Service on Metering & Billing

Show Cause Notice dated 24 June 2019 was issued to M/s Vodafone and M/s Bharti Hexacom Ltd. for contravention of the provisions of the Quality of Service (Code of Practice for Metering and Billing Accuracy) Regulations, 2006 dated 21 March 2006 for special audit of Rajasthan Telecom Circle for the period 1 January 2017 to 31 December 2017 and for incremental prepaid CDRs period from 1 January 2018 to 31 March 2018.

In response to the above Show Cause Notice, an order of Financial Disincentive to wards non compliance of metering and billing regulations was imposed for Rs. 42.41 lakhs.

Unsolicited Commercial Communication (UCC)

Show Cause Notices dated 20 November 2019 were issued to BSNL and MTNL and a Show Cause Notice dated 6 December 2019 was issued to RCOM for violating the clause 26 of the TCCCPR, Regulations, 2018.

Monitoring and ensuring of Quality of Service (Performance Monitoring Report of TSPs, Audit and Assessment of Quality of Service of various TSPs and Customer Perception Reports offered by TSPs)

TRAI monitors the performance of service providers through quarterly Performance Monitoring Reports and Point of Interconnection congestion reports submitted by the service providers.

For ensuring quality of service, TRAI has been closely monitoring the performance of service providers against the quality of service benchmarks through Performance Monitoring Reports. TRAI also have regular interactions with service providers for improving quality of service. Further, TRAI has engaged independent agencies for auditing and assessing quality

of service. The results of the audit and assessment of quality of service are published for the information of stakeholders. TRAI has also been imposing financial disincentive on service providers for failure to comply with the quality of service benchmarks.

Audit

TRAI has engaged independent agencies for auditing and assessing the performance of service providers on quality of service.

TRAI also publishes information about the quality of service performance by service providers, the results of Audit and assessment of Quality of Service undertaken by Independent Agencies through its website for the information of stakeholders. The publishing of quality of service related information has also been forcing the service providers to improve the quality of service performance and also to address deficiencies in meeting the benchmarks.

Assessment of Quality of Service carried out through Independent Drive Test Report of Cities (except Delhi LSA), Highways and Railway Routes were uploaded on TRAI website.

Consumer Protection & Empowerment

As per TRAI Act 1997, transparency and consumer protection are an important mandate of TRAI. TRAI recognizes the importance of reaching out to the consumers and to safeguard their interests, but also to obtain feedback and to involve them in decision-making processes of TRAI. With this objective, TRAI has launched couple of Mobile Apps last year to outreach telecom consumers in India. Encouraged by the success and acceptance, TRAI has developed new consumer oriented Mobile App and Portals. The features of new technological platforms are as follows:

a) TRAI Website:

A dedicated page on New Regulatory Framework on Broadcasting & Cable Services has been added on TRAI website. This page shall provide information to various stakeholders related to new regulatory framework Regulations/Press-releases, Broadcaster's Tariffs (Channel/Bouquets), contact details of services providers, media campaigns (videos, jingles, advertisements, interviews) & FAQs.

b) Channel Selector App and Portal:

With TRAI's new Regulation for the Television and Broadcasting Sector having come into force, consumers have the freedom to select the Television (TV) Channels they want to watch. This Application will help consumers to optimize the selection of their choice and inform them about the MRP (Maximum Retail Price) of their selection. The beta version of App is available on Google Play Store. A web-based beta portal was also made available in public domain with features similar to the App.

c) Tariff Filing Portal:

Presently, Telecom Service Providers (TSPs) are filing all their tariffs on TRAI's tariff portal namely www.tariff.trai.gov.in. The consumers now see tariffs of different TSPs and different Licensed Service Areas (LSAs) at a single place. This platform benefits not only the consumers but also helps other stakeholders to do a comparative analysis. The Tariff filing and review process has been completely automated. All Tariff plans are now published on TRAI's tariff website. Recently a new reports module has been added to the portal which will assist TRAI with additional Quarterly/Yearly tariff information related to previous & existing tariff plans (prepaid/postpaid), blackout days and bulk tariff.

d) API Specifications:

TRAI is collecting various data through crowd sourcing and data submitted by service providers of Telecom and Broadcasting & Cable Services domain. The data is consumed for compliances as provisioned by regulations and made available in public domain through portals. With ever evolving IT applications, TRAI envisioned automated data collection through Data-APIs. These frameworks shall lay down the process of data integration with various service providers and other stakeholders. Accordingly, IT division has released API specifications in B&CS domain. These APIs shall provide framework for communicating with DPOs system for fetching data related to Channels/Bouquets. These APIs shall be used by Channel Selector App & Portal for communicating/fetching Channels/Bouquets data from/to Digital Platform Operators (DPOs) system.

Consumer Education Literature, Media Campaigns, Organizing Seminars and Redressal of Consumer Grievances

TRAI has published a Consumer Handbook on Telecommunications with compilation of consumer centric information on all Regulations, Directions and Orders for better understanding of consumers. The handbook is provided free of cost to consumers and CAGs to help in spreading consumer awareness. A comprehensive update of the handbook has been undertaken to cover all important regulations/orders etc. issued since then. The revised edition of the handbook is being printed in Hindi, English and 10 regional languages (Tamil, Telugu, Kannada, Malayalam, Marathi, Punjabi, Gujarati, Bengali, Odiya and Assamese). TRAI has also developed video films on 'TRAI New TV Rules' in Hindi, English and regional languages for creating consumer awareness.

Redressal of Consumer Grievances

TRAI Act, 1997 does not envisage handling of individual consumer complaints. However, complaints received in TRAI are forwarded to concerned service providers for taking appropriate action. During the period from 1 January 2019 to 31 December 2019, TRAI received 30152 complaints related to Telecom services and 21066 complaints related to Broadcasting and Cable TV services. All these complaints were forwarded to concerned service providers for appropriate action. Complaints of generic nature or requiring class action were handled to address the underlying issues.

Consumer Outreach Programmes (CoP)

To enhance consumer education and awareness, TRAI organizes Consumer Outreach Programmes (COPs) across the length and breadth of the country. These CoPs also provide a platform to consumers to raise their local issues with TRAI and telecom service providers. During the year, TRAI organized 75 Consumer Outreach Programmes (CoPs).

Registration of Consumer Advocacy Groups and their capacity building

TRAI has instituted a system for registration of consumer organizations as Consumer Advocacy Groups (CAGs). The CAGs registered with TRAI co-ordinate and articulate consumer responses to TRAI's activities and assists TRAI in consumer education and works towards protection and propagation of the interests of the consumers. Regional Offices of TRAI are interacting with the CAGs, coordinating their activities and helping them to sort out consumer related issues with the Service Providers. CAGs are actively participating in the COPs and workshops organized in their respective areas. CAGs are also members of the Advisory Committee to the Appellate Authorities of TSPs. A review of the performance of CAGs (whose tenure was due for renewal) was carried out in April 2019. Following the review exercise, tenure of 24 CAGs was renewed and 3 new CAGs were added which totaled the registered CAGs to 53.

To keep the CAGs abreast of the latest developments in the sector, TRAI conducts capacity building workshops for them. During these workshops besides the usual interaction between TRAI, CAGs and TSPs on consumer centric issues, expert sessions on important telecom issues are organised. Six such workshops were organised during the period at Dwarka (Gujarat) (18 February 2019), Mangalore (Karnataka) (15 March 2019), Pasighat (Arunachal Pradesh) (31 May 2019), and Raipur (Chhattisgarh) (19 July 2019), Varanasi (20 September 2019) and Vishakapatnam (Andhra Pradesh) (6 December 2019).

Consumer advocacy Groups (CAGs) registered with TRAI co-ordinate and assists in dissemination of information about TRAI's activities on Consumers Awareness Programs in their areas. They also participate in consumer outreach program conducted by TRAI. These CAGs also are members of the Advisory Committee to the Appellate Authorities of TSPs. A review of the performance of CAGs (whose tenure is due for renewal w.e.f. 1st April 2019 is being carried out. Some new applications have been received from consumer organisations and are being examined for fresh registration as CAG.

Recommendations

Recommendations were made to the Government on diverse subjects including management of scarce sources such as spectrum, Interconnection Cloud Services, Net Neutrality, Improving Telecom Services etc. Under this mandate, TRAI had made the following recommendations during the year.

TELECOM SECTOR

Recommendations dated 21 October 2019 on “Review of terms and conditions for registration of Other Service Providers (OSPs)”

DoT vide its letter dated 10 September 2018 had sought recommendations of TRAI on review of terms and conditions for registration of Other Service Providers (OSPs). Further, background information on certain issues was also provided by DoT vide letter dated 7 January 2019.

Authority issued a detailed Consultation Paper on “Review of terms and conditions for registration of Other Service Providers (OSP)” on 29th March 2019, in order to deliberate on various aspects related to the matter and to seek inputs from stakeholders on relevant issues. Subsequently, an Open House Discussion was held on 15 July 2019 in Delhi, to seek further views of the stakeholders on various issues.

Based on the comments/inputs received from the stakeholders and on its own analysis, TRAI has finalized its Recommendations on 'Review of terms and conditions for registration of Other Service Providers (OSPs)'. The salient features of the recommendations are as follows:

- a) Clarity in definition of OSP has been brought. Only Voice based, outsourced OSP need to have registration at par with existing process. Data/internet based OSP would need to furnish intimation only.
- b) Provision of services for captive purposes i.e. Captive Contact Centres have been kept out from the scope of OSP. They would require to furnish intimation only.
- c) The complete process of registration / intimation shall be through online portal and will be time bound.
- d) Multiple OSP centres of single company within one LSA can be registered as single OSP.
- e) Requirement of agreement bank guarantee for sharing of infrastructure between domestic and international OSP of same company has been removed.
- f) Requirement of agreement and bank guarantee for availing Work from Home (WFH) facility has also been removed. Further, the requirement of PPVPN has been removed and any commercial VPN can be used to establish connectivity for WFH.
- g) Internet obtained at one OSP centre can be shared with other OSP centres of same company (provided the ISP has geographical jurisdiction)
- h) International OSP may have EPABX at foreign location.
- i) Contact Centre Service Provider (CCSP)/ Hosted Contact Centre Service Provider (HCCSP) providing platform as a service are brought under registration. The CCSP/ HCCSP involved in reselling of telecom resources would require VNO license.
- j) CCSP/HCCSP to be given 3 months' time to get themselves necessary registration / license after declaration of the policy by DoT.

Recommendations dated 25 October 2019 on “Allotment of Spectrum to Indian Railways for Public Safety and Security services”

DoT through its letter dated 27 February 2019 informed that Indian Railways has proposed to install an Ultra-high-speed LTE based communication corridor along their network for Train ground and Train-Train communication. In this connection, Indian Railways requested DoT to reserve 15 MHz of spectrum in 700 MHz band for the purpose and to begin with 10 MHz to be allocated free of cost as the proposal is devoid of any commercial gain, but only for enhancing security and passenger amenities. Through the said letter, DoT requested TRAI to provide its Recommendations on administrative allotment of spectrum to Indian Railways and the quantum, price, appropriate frequency band (including 450-470 MHz band) and any other related issue.

In this regard, a Consultation Paper (CP) on “Allotment of spectrum to Indian Railways for Public Safety and Security services” was issued on 24 June 2019.

Based on the comments/inputs received from the stakeholders and on its own analysis, TRAI finalized its Recommendations on “Allotment of spectrum to Indian Railways for Public Safety and Security services”. The salient features of the recommendations are as follows:

- a) Out of the 35 MHz (paired) spectrum available in 700 MHz band, 5 MHz (paired) spectrum may be allocated to Indian Railways for implementing ETCS Level-2, MC PTT + Voice, IoT based asset monitoring services, passenger information display system and live feed of Video Surveillance of few coaches at a time. The remaining 30 MHz (paired) in 700 MHz band may be put to auction in the forthcoming auction.
- b) To implement the Video Surveillance System for all coaches of the Train (Security services), Indian Railways may explore other communications means such as-
 - i. Dumping the Video Surveillance data to the system using high capacity WiFi when the train reaches a station.
 - ii. Using Public Telecommunication Network (TSPs network) for sending continuous video surveillance data streams to its control center.
- c) Efficient and timely utilization of spectrum be ensured through a process of periodical monitoring. Further, the 1.6 MHz spectrum already assigned to IR in 900 MHz band may be taken back from IR upon migration to LTE based network.
- d) As Indian Railways would be using the assigned spectrum along its railway track network and stations only, DoT may explore the possibility of assigning the same spectrum in other areas for area-specific limited use to other entities for captive use. However, it should be ensured that there is no interference to the Railways’ network from such use.
- e) Spectrum may be assigned to Indian Railways on administrative basis for captive use only and not to offer any commercial services such as Wi-Fi onboard.
- f) Spectrum charges may be levied based on formula basis as prescribed by DoT for Royalty Charges and License Fee for captive use.

TRAI’s response to DoT’s back reference

TRAI’s response dated 8 July 2019 to DoT’s back reference dated 1 July 2019 on Recommendations on "Auction of Spectrum in 700 MHz, 800 MHz, 900 MHz, 1800 MHz,

2100 MHz, 2300 MHz, 2500 MHz, 3300-3400 MHz, 3400-3600 MHz Bands dated 1st August 2018"

The Department of Telecommunications (DoT), through its letter dated 19 April 2017, informed that the Government is planning to auction the right to use of spectrum in 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz, 2500 MHz, 3300-3400 MHz and 3400-3600 MHz bands in the next auction. Through the said letter, DoT also requested the Authority to provide its recommendations on applicable reserve price, quantum of spectrum to be auctioned and associated conditions for auction of spectrum in these bands for all service areas under the terms of TRAI Act 1997 as amended.

After a detailed consultation process, the Authority submitted its recommendations on 1 August 2018 on "Auction of Spectrum in 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz, 2500 MHz, 3300-3400 MHz, 3400-3600 MHz Bands".

DoT, through its letter dated 1 July 2019, informed that the above-mentioned TRAI recommendations dated 1 August 2018 have been considered by the Digital Communications Commission (DCC) and on some of the issues there is a need to seek clarification/reconsidered recommendations. Accordingly, some of the recommendations were referred back to the Authority by DoT for clarification/reconsideration.

After examining these issues, TRAI sent its response to the reference back through its letter dated 8 July 2019. The clarification / reconsideration of the recommendations is available in the TRAI website www.trai.gov.in.

Authority's response to DoT reference received in TRAI on 21 June 2019 on Authority's recommendations dated 21 October 2016 regarding Violation of the provisions of License Agreements and the Standards of QoS of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service Regulations, 2009 by M/s Bharti Airtel Limited, M/s Vodafone India Limited and M/s Idea Cellular Limited

The Authority had made its Recommendations dated 21 October 2016 regarding violation of the provisions of License Agreements and the Standards of QoS of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service Regulations, 2009 by M/s Bharti Airtel Limited, M/s Vodafone India Limited and M/s Idea Cellular Limited. Subsequently, the Authority sent its further recommendations on 24 May 2017 in response to DoT's reference back dated 5 April 2017.

The Department of Telecommunications through its reference, received in TRAI on 21 June 2019, sought TRAI's recommendations on the quantum of the penalty keeping in view the present financial health of the sector.

After due deliberation, the Authority in its response dated 21 June 2019 stated that the Central Government has to take a final decision in the matter and in view of this, the Authority constrained from offering any further comments in this regard.

TRAI's response dated 24 December, 2019 to DoT's back-reference dated 10 October, 2019 on Recommendations on 'Licensing framework for Audio Conferencing /Audiotex/ Voice Mail Services dated 16 December, 2016.

The Department of Telecommunications through its letter dated 10 October, 2019 informed that the TRAI recommendations on 'Licensing framework for Audio Conferencing / Audiotex / Voice Mail Services' dated 16 December, 2016 have been considered and accepted by the Government except recommendation no. 4 which reiterates TRAI's earlier recommendations dated 6 January, 2015 on "Definition of Revenue Base (AGR) for the Reckoning of License Fee and Spectrum Usage Charges", which is a separate recommendation hence is to be dealt separately. DoT has also noted that to give effect to these recommendations some additional information is required in reference to TRAI's recommendations dated 16 December, 2016.

DoT solicited TRAI's recommendations on the points related to (i) Financial Bank Guarantee (ii) Penal Provision and (iii) TEC Specification in the existing Audiotex / Voicemail / UMS license agreement/license. The Authority after due deliberations, finalized its response and forwarded the same to DoT on 24 December, 2019.

BROADCASTING SECTOR

Recommendation dated 22 July 2019 on “Entry Level Net worth requirement of Multi system Operators in Cable TV services”

TRAI issued its recommendations dated 22 July 2019 on “Entry Level Net worth requirement of Multi-system Operators in Cable TV services”.

The salient features of the recommendations are:

- a) The Authority recommends that there is no necessity for fixation of a minimum entry level net worth for MSO registration. As at present, any individual, company, Corporate firm or LLP that fulfils provisions of the Cable TV Rules, may be granted MSO registration.
- b) The Authority recommends that there is no basis for introducing minimum net worth classification based on the area of operation for MSO registration. The DAS system enables subscription-based billing and there is no rationale of introducing area-wise registration.
- c) As the area-wise minimum net worth classification for registration of MSO is not required, there is no need to prescribe minimum net worth for remote areas of Jammu & Kashmir or North-East region.
- d) The Authority recommends that there is no merit in introducing minimum net worth for registration of MSOs based on network cost criteria.
- e) The Authority recommends that MIB may prescribe a standard proforma for self-declaration of net worth by applicants seeking registration as MSOs.

- f) The Authority recommends that MIB may consider skill development requirement of the sector and take appropriate action so that trained manpower is available to perform specialised tasks.

Recommendations dated 24 October 2019 on “KYC of DTH Set Top Boxes” •

TRAI on 24 October 2019, released the Recommendations on “KYC of DTH Set Top Boxes”. The salient features of the recommendations were: -

- a) The Authority recommended that: (a) DTH operator should install the DTH connection at the address mentioned in the Customer Application Form (CAF) only and the address of such installed set top box must be verified by the representative of the DTH operator and record of such installation shall be maintained by the DTH operator. (b) DTH operator should ensure identity of the subscriber by sending the one-time password (OTP) to his registered mobile number. (c) In cases where registered mobile number is not provided by the subscriber/ corporate body, DTH operator should collect Proof of Identity or any other similar document which can establish the identity of the user either in physical or electronic form before provisioning of DTH connection.
- b) The Authority recommended that there is no need to mandate physical verification at regular intervals as it will incur huge cost burden to the DTH operators and inconvenience to the consumers. However, for existing set top boxes, which are not attached to any mobile number of the subscribers, efforts should be made by the DTH operator to associate such set top boxes issued by them to link with a mobile number within a period of two years. Further in case where it is not possible to link with a mobile number, document for proof of identity of the subscriber should be collected by the DTH operator.
- c) The Authority recommended that there is no need to mandate DTH operators to incorporate Location Based Services (LBS) in DTH set top boxes.

Recommendations dated 13 November 2019 on “Platform Services offered by DTH Operators”

TRAI on 13 November 2019, released the Recommendations on Platform Services offered by DTH Operators. The salient features of the recommendations were:-

- a) The Authority reiterates the definition of PS as recommended in "Regulatory Framework for Platform Services" dated 19 November 2014. The definition of platform services (PS) for DTH operators shall be:
“Platform services (PS) are programs transmitted by Distribution Platform Operators (DPOs) exclusively to their own subscribers and does not include Doordarshan channels and registered TV channels. PS shall not include foreign TV channels that are not registered in India.”
Registered TV channels or television channels means a channel, which has been granted downlinking permission by the Central Government under the policy

guidelines issued or amended by it from time to time and reference to the term "channel" shall be constructed as a reference to "television channel".

- b) The programme transmitted by the DTH operator as a platform service shall be exclusive and the same shall not be permitted to be shared directly or indirectly with any other Distribution Platform Operator (DPO).
- c) Programme transmitted by the DTH operator as a platform service shall not directly or indirectly include any registered TV channel or Doordarshan channel or foreign TV channel. Time-shift feed of registered TV channels (such as +1 services) shall not be allowed as a platform service.
- d) DTH operator shall ensure and provide an undertaking to the Ministry in the format prescribed by the Ministry that the programme transmitted is exclusive to their platform and not shared directly or indirectly with any other DPO.
- e) In case the same programme is found available on the PS of any other DPO, MIB/TRAI may issue direction to immediately stop the transmission of such programme. MIB also reserves the right for cancellation of registration of such PS of the DTH operator.
- f) The total number of permitted PS for a DTH operator shall be capped to 3% of the total channel carrying capacity of the DTH operator platform and' subject to a maximum of 15 platform services channels.
- g) A one-time non-refundable registration fee of Rs 10,000 per PS channel shall be charged from a DTH operator.
- h) The platform services channels shall be categorized under the genre 'Platform Services' in the Electronic Programmable Guide (EPG) subject to orders/directions /regulations issued by TRAI from time- to-time.
- i) The respective maximum retail price (MRP) of the platform service shall be displayed In the EPG against each platform service subject to orders/ directions/regulations issued by TRAI from time-to-time.
- j) A provision for putting a caption as 'Platform Services' may be required to distinguish the platform services from the linear channels. Government may decide the caption in a size which is visually readable by the consumers.
- k) The authority recommends that the DTH operator shall be bound by orders / directions / regulations issued by TRAI in respect of DTH services including platform services provided by the operator.

TRAI's response to DoT's back reference

TRAI's response dated 29 March 2019 to back reference of MIB on TRAI recommendations on "Ease of doing Business in Broadcasting Sector" dated 26 February 2018

The Authority duly examined the response and the comments from the Ministry of Information and Broadcasting (MIB) received vide their letter no. 1401/02/2018-TV(I)(Part)/24 dated 19/11/2018 on TRAI Recommendations titled, "Ease of doing Business in Broadcasting Sector" dated 26 February 2018. The Authority has reconsidered the issues keeping in consideration of the following:

- a) Reasons and background provided by MIB.
- b) Comments/ counter-comments of stakeholders during consultative process;
- c) Analysis carried out while making the recommendations;
- d) The reasons enunciated by the ministry; and
- e) The coherent re-analysis of all the aspects together.

TRAI's response dated 4 April 2019 to back reference of MIB on TRAI Recommendations on “Issues relating to Uplinking and Downlinking of Television Channels in India” dated 25 June 2018

Ministry of Information and Broadcasting (MIB) vide letter dated 22 January 2019 referred back TRAI's Recommendations dated 25 June 2018 on "Issues relating to Policy Guidelines for Uplinking & Downlinking of Television Channels in India" as per proviso to section 11 of the TRAI Act 1997, for reconsideration vis-a -vis views of this Ministry especially in respect of those with which Ministry is not in full agreement.

In response, TRAI on 4 April 2019 issued Recommendations on “Issues relating to Policy Guidelines for Uplinking& Downlinking of Television Channels in India”.

TRAI's response dated 24 December 2019 on Recommendations on “Licensing framework for Audio Conferencing Audiotex/ Voice Mail Services”

Department of Telecommunication vide its letter No. 846-53/2015-CS dated 19 January 2016 sought Recommendations of TRAI on "Review of terms and conditions for issue of licenses for Audiotex/ Voice Mail/ Unified Messaging Services (UMS)". In this regard, TRAI issued a Consultation Paper on “Review of Voice Mail/ Audiotex/ Unified Messaging Services Licence” on 14 June 2016. Based on the written comments received from stakeholders and views of stakeholders on OHD held on 30 September 2016, the Authority issued its recommendations on "Licensing framework for Audio Conferencing/ Audiotex/ Voice Mail Services" vide its letter dated 16 December 2016.

Recently, DoT vide letter dated 10 October 2019 informed that the TRAI's recommendations on “Licensing framework for Audio Conferencing/ Audiotex/ Voice Mail Services” dated 16 December 2016 have been considered and accepted by Government except recommendation no. 4 which reiterates TRAI's earlier recommendations dated 6 January 2015 on "Definition of Revenue Base (AGR) for the Reckoning of License Fee and Spectrum Usage Charges" which is a separate recommendation, hence is to be dealt separately. Therefore, DoT solicited TRAI's recommendations on the points related to (i) Financial Bank Guarantee (ii) Penal Provision and (iii) TEC Specification in the existing Audiotex/ Voice Mail/ UMS license agreement/license.

In this regard, a presentation on the DoT's reference back on recommendations on “Licensing framework for Audio Conferencing/ Audiotex/ Voice Mail Services dated 16 December 2016” was made to the Authority on 16 December 2019. The Authority after deliberations, approved the proposed response to the reference back TRAI's Recommendations on “Licensing framework for Audio Conferencing/ Audiotex/ Voice Mail Services”.

REGULATIONS Telecom Sector

Notification extending the date of implementation of Telecommunication Mobile Number Portability (Seventh Amendment) Regulations, 2018 dated 12 June 2019, 27 September 2019 and 8 November 2019

TRAI had issued Telecommunication Mobile Number Portability (Seventh Amendment) Regulations, 2018 on 13 December 2018. As per these regulations, the revised Mobile Number Portability (MNP) process was scheduled to be in force w.e.f. 13 June 2019.

TRAI on 29 April 2019 issued a letter to all the Telecom Service Providers (TSPs) and Mobile Number Portability Service Providers (MNPSPs) to furnish status of readiness of process developments and specifications so that adequate time is available for testing before the implementation.

In response to the TRAI's letter, most of the stakeholders (TSPs and MNPSPs) cited various reasons including significant changes in their network and IT elements. These stakeholders, therefore, requested to extend the timeline for implementation of Telecommunication Mobile Number Portability (Seventh Amendment) Regulations, 2018.

The responses provided by TSPs and MNPSPs were examined and upon considering the requests of stakeholders by the Authority, the timeline for implementation of Telecommunication Mobile Number Portability (Seventh Amendment) Regulations, 2018, was extended from 13 June 2019 to 30 September 2019 through a notification dated 12 June 2019.

Subsequently, the MNPSPs and TSPs informed that they still have to offer the Acceptance Testing to Department of Telecommunications (DoT) in some of the Licensed Service Areas (LSAs) and; therefore requested that additional time of 2 weeks is required for robust internal and Inter Operator Testing (IOT) and additional 2-3 weeks will be required for the testing to be carried by respective TERM Cells of DoT. Further, an email received from TERM Cell, DoT Maharashtra LSA had indicated paucity of time to complete the testing before the 30 September 2019.

Keeping in view of the submissions of MNPSPs and TSPs, the date of implementation was extended to 11 November 2019 through notification dated 27th September 2019. As the testing could not be completed till 31 October 2019 the date of implementation was further extended through notification dated 8th November 2019 to 16 December 2019.

“Telecommunication Mobile Number Portability Per Port Transaction Charge and Dipping Charge (Second Amendment) Regulations, 2019” dated 30 September 2019

TRAI issued "Telecommunication Mobile Number Portability Per Port Transaction Charge and Dipping Charge (Second Amendment) Regulations, 2019" on 30 September 2019.

TRAI notified "Telecommunication Mobile Number Portability Per Port Transaction Charge and Dipping Charge Regulations, 2009" on 20 November 2009. As per these principal

regulations, TRAI had fixed Rs. 19/- as 'Per Port Transaction Charge (PPTC), for mobile number portability services offered by mobile number portability service providers (MNPSPs).

The Authority revised the Mobile Number Portability (MNP) process by issuing the "Telecommunication Mobile Number Portability (Seventh Amendment) Regulations, 2018" on 13 December 2018 (7 Amendment) following a detailed public consultation. Subsequently, the Authority initiated a public consultation for review of the per port transaction charge and other related charges for mobile number portability by issuing a consultation process on 22 February 2019 (subsequently updated on 1 April 2019), inviting written comments on the issues raised in the consultation from stakeholders. An Open House Discussion in this regard was also held on 27 May 2019.

Based on the comments and counter comments received during the consultation process, the deliberations of open house discussion and comments received afterwards from MNPSPs and other stakeholders, the Authority issued draft "Telecommunication Mobile Number Portability Per Port Transaction Charge and Dipping Charge (Amendment) Regulations, 2019" and invited comments from the stakeholders till 28 August, 2019.

After considering all the comments and other information available on record, the Authority issued "Telecommunication Mobile Number Portability Per Port Transaction Charge and Dipping Charge (Second Amendment) Regulations, 2019" prescribing the PPTC of Rs. 6.46 for each port request on 30 September 2019. These regulations have come into effect from 11 November 2019.

The Telecommunication Tariff (Forty-Ninth Amendment) Order, 2009 prescribed the Per Port Transaction Charge, as provided under the Telecommunication Mobile Number Portability Per Port Transaction Charge and Dipping Charge Regulations, 2009 (as amended from time to time), as ceiling for the tariff that could be charged from subscriber by the recipient operator for availing MNP services. Now, with notification of this amendment to the aforesaid regulations, the ceiling for the tariff that could be charged from subscriber by the recipient operator stands automatically reduced. However, the recipient operators are free to charge a lesser amount from the subscribers availing mobile number portability services.

“Telecommunication Mobile Number Portability (Eight Amendment) Regulations, 2019” dated 30 September 2019

TRAI issued the "Telecommunication Mobile Number Portability (Eighth Amendment) Regulations, 2019" on 30 September 2019 and came to be in force w.e.f. 11 November 2019.

The Authority while issuing the “Telecommunication Mobile Number Portability (Seventh Amendment) Regulations, 2018” on 13 December, 2018 had mentioned that on the aspects of the associated costs, review of Per Port Transaction Charges shall be taken up separately and these charges shall include the cost of generating Unique Porting Codes by Mobile Number Portability Service Providers and sending SMSs at various stages.

TRAI issued a Consultation Paper (CP) on “Review of Per Port Transaction Charge and Other Related Charges for Mobile Number Portability” dated 22 February 2019 (subsequently updated on 1 April 2019). Through the Consultation Paper, TRAI inter-alia sought comments on whether the total number of MNP requests received by MNPSP or successfully ported numbers be considered while calculating ‘Per Port Transaction Charge’?

Upon examination of the data, it has been observed that the gap between total porting requests and successful porting has been reducing over the years and is likely to reduce further after the 7th Amendment comes into force. Besides, the MNPSPs have to incur costs even on unsuccessful porting requests. Further, in many cases, the failure of a porting request could be due to reasons beyond the control of the MNPSPs. Through the comments received in response, most of the stakeholders have also suggested to consider total number of port requests. Accordingly, the Authority decided to take each porting request into consideration for determining the Per Port Transaction Charge.

Through this amendment, besides other minor changes, the provision of Telecommunication Mobile Number Portability Regulations, 2009 has been aligned with the Telecommunication Mobile Number Portability Per Port Transaction Charge and Dipping Charge (Second amendment) Regulations, 2019.

“The Standards of Quality of Service of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service (Seventh Amendment) Regulations, 2019” dated 1 November 2019

TRAI on 1 November 2019 notified the “Standards of Quality of Service of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service (Seventh Amendment) Regulations, 2019” to specify duration of alert for the called party.

The details are as given below:

- a) Access Providers would have to maintain the time duration of alert for an incoming voice call, which is neither answered nor rejected by the called party, to thirty seconds for Cellular Mobile Telephone Service and sixty seconds for Basic Telephone Service,
- b) The terminating network shall, on expiry of thirty seconds in case of Cellular Mobile Telephone Service and sixty seconds in case of Basic Telephone Service, release the incoming voice call and transmit the call release message to the originating network. However, originating network may release an unanswered call after ninety seconds in case the call release message is not received from the terminating network.
- c) The regulation came into force after fifteen days from the date of its publication in the Official Gazette.

“The Telecommunication Interconnection Usage Charges (Fifteenth Amendment) Regulations, 2019” dated 17 December 2019

TRAI issued “The Telecommunication Interconnection Usage Charges (Fifteenth Amendment) Regulations, 2019” on 17 December, 2019 which prescribes revision in the date

of applicability of Bill and Keep (BAK) regime in respect of wireless to wireless domestic call termination charges.

Key features of the Regulations are as follows:

- a) For wireless to wireless domestic calls, termination charge would continue to remain as Re.0.06 (paise six only) per minute up to 31 December 2020.
- b) From 1 January 2021 onwards the termination charge for wireless to wireless domestic calls shall be zero.

Broadcasting Sector

“The Telecommunication (Broadcasting and Cable) Services Register Of Interconnection Agreements And All Such Other Matters Regulations, 2019” dated 4 September 2019

TRAI on 04 September 2019, released the “Telecommunication (Broadcasting and Cable) Services Register of Interconnection Agreements and All Such Other Matters Regulations, 2019”. The objective of this regulation is to promote transparency and non-discrimination in the Broadcasting sector. As per the new Regulation, all the Reference Interconnect Offer (RIO) are required to be filed by every broadcaster and the distributor of television channels. Initially, the distributor having average active subscriber base below one lakh have been exempted from the obligation of reporting details of interconnection agreements to promote ease of business and reducing regulatory burden on such MSOs with limited resources. The new regulation envisages online filing in electronic mode. The Authority specified that the new regulations will come in force in 120 days, except as regards submission of information related to Compliance officer. The intervening period will enable the service provider to prepare for easy compliance.

“The Telecommunication (Broadcasting and Cable) Services Standards of Quality of Service and Consumer Protection (Addressable Systems) (Second Amendment) Regulations, 2019” dated 9 October 2019

TRAI on 09 October 2019, released the “Telecommunication (Broadcasting and Cable) Services Standards of Quality of Service and Consumer Protection (Addressable Systems) (Second Amendment) Regulations, 2019”. Through this second amendment, Authority is mandating the DPOs to allow the consumers to access channels/ bouquets available on its platform and have ease in selection of channels and bouquets (addition/ deletion) of their choice, view their subscription and modify the same through the TRAI's APP /Portal by sharing APIs with TRAI.

“The Telecommunication (Broadcasting and Cable) Services Interconnection (Addressable Systems) (Amendment) Regulations, 2019” dated 30 October 2019

TRAI on 30 October 2019, released the “Telecommunication (Broadcasting and Cable) Services Interconnection (Addressable Systems) (Amendment) Regulations, 2019”. Through this Regulations, the Authority amended Schedule-III of the Interconnection Regulations

2017, mainly on the (i) Scheduling and Scope of Audit (ii) Transactional capacity of Conditional Access System (CAS) and Subscriber Management System (SMS) system (iii) Support for Overt and Covert fingerprinting in Set-Top-Boxes & (iv) Water marking network logo for all pay channels.

The scheduling has been so amended that the Distributor of Pay TV broadcasting services will keep a minimum gap of six months between the two annual audits and the maximum time gap is eighteen months. Similarly, the minimum transactional capacity required for CAS and SMS systems has been revised to 5 % instead of earlier 10 %. Since implementation of the new framework, all Distributors are deploying STBs that are compliant with Covert and Overt fingerprinting. The Authority has taken a pragmatic view on this aspect owing to already existing field deployments and revised the extant provisions in schedule-III of the Telecommunication (Broadcasting and Cable) Services Interconnection (Addressable Systems) (Amendment) Regulations 2017. The amended regulations will help in establishing a fully compliant trust based Audit regime conducted as per extant regulations by the empanelled Auditors.

DIRECTIONS Telecom Sector

Direction dated 3 April 2019 issued to all Access Telecom Service Providers regarding withdrawal of provision for Publication of Tariffs

The Authority in order to maintain the prime objective of transparency in tariffs of telecommunication services, the, vide its Direction dated 16 January 2012, inter-alia, directed all the telecom access service providers,

- a) to publish, service area wise, within fifteen days of the date of issue of this Direction, all tariff plans for post-paid subscribers in the prescribed format and make available such tariff plans in the format 'A' to the subscriber at the Customer Care Centres, the points of sale, retail outlets and on the website of the telecom access service provider;
- b) to publish, service area wise, within fifteen days of the date of issue of this Direction, all tariff plans for post-paid subscribers in the prescribed format and make available such tariff plans in the format 'B' to the subscriber at the Customer Care Centres, the points of sale, retail outlets and on the website of the telecom access service provider;
- c) to ensure that the tariff plans published in prescribed formats referred to in sub-paragraphs (i) and (ii) above, are updated on the website and Customer Care Centre of the service provider every time there is a change in any of the tariff plans and make available the updated tariff plans in the prescribed formats, by 7th day of January, April, July and October at their points of sale and retail outlets;
- d) to publish, within thirty days of the date of the issue of this Direction, all tariff plans in the respective formats along with the address of the website and the contact details of Customer Care Centres at least in one regional language newspaper of the service area and one English newspaper and repeat such publication at an interval of not more than six months; and

- e) to confirm to the Authority the fact of the publications, as directed at sub-para (iv) above along with the dates and names of the newspapers, within fifteen days of such publication;

And whereas, a committee was formed, comprising of officers of TRAI and representatives of telecom service providers and their associations, to identify infructuous redundant regulations, which could be deleted and the committee discussed various aspects of the TRAI's Direction dated 16 January, 2012 mandating publication of tariff plans in newspapers;

The committee recommended removal of the mandate of publishing information in national and vernacular language newspaper after every six months as telecom service providers have started providing all the information regarding their products on their respective website and mobile applications;

During the process of consultation and open house discussion on the Consultation Paper titled "Regulatory Principles of Tariff Assessment" issued on 17 February, 2017, telecom service providers suggested that the Authority may discontinue the practice of publication of tariffs in newspapers as the same does not serve the purpose as the tariff plans are dynamic and need to be seen along with Special Tariff Vouchers (STVs)/Combo Vouchers (CVs)/Promotional offers in case of prepaid service and add-on promotional offers in case of postpaid service.

And whereas, the Authority considered the views of stakeholders during the consultation process referred above and also the recommendations of the committee referred above and has decided to discontinue the requirement of publication of tariff plans in newspapers;

The Authority withdrew clauses 7(iv) and 7(v) of the Direction dated 16 January, 2012. All other clauses from 7(i) to 7(iii) of the said direction would continue to remain in force.

Direction dated 3 April 2019 to all Access Service Providers regarding segmented offers

The Authority vide this direction, directed all the Access Service Providers to provide, within fifteen days of the date of issue of this direction, on a monthly basis, for each LSA, the details of segmented offer, from April 2018 till March 2019 in the prescribed format, including—

(a) details of rates and related terms & conditions, quantum of services, name of the tariff plan and validity period of subscription & benefits available to the subscriber (s) in the said plan in which segmented offer has been given;

(b) number of subscribers, at the end of each month, who have availed the segmented offer within each tariff plan;

(c) the declaration that the benefits of such segmented offers have been made available to all the existing customers falling in the segment/ class and the principle of non-discrimination has been strictly followed; Thereafter for each month from April, 2019 above mentioned

details of segmented offer may be submitted to TRAI within ten working days from the last day of the month.

Direction dated 10 June 2019 to M/s TTSL to facilitate refund of unspent balance of pre paid mobile subscribers and security deposit of the post-paid subscribers

M/s Tata Teleservices Limited informed pursuant to surrender of administratively allocated spectrum in 800 MHz band they would be closing their services under the CDMA Technology in the service areas, of Gujarat, Kolkata, Karnataka, Tamil Nadu, Kerala, Punjab, Uttar Pradesh (West), Uttar Pradesh (East), Rajasthan, Madhya Pradesh, West Bengal, Himachal Pradesh, Bihar and Orissa.

Accordingly, a direction was issued on 10 June 2019 to M/s TTSL to furnish details with a view to facilitate refund of unspent balance of pre-paid mobile subscribers and security deposit of the post-paid subscribers of these licensed service areas.

Direction dated 6 August 2019 regarding submission of Performance Monitoring Report to the Authority

TRAI vide its direction dated 6 August 2019 in exercise of the powers conferred upon it under section 13 read with sub-clauses (i) and (iv) of clause (b) of sub-section (1) of section 11, of the TRAI Act, 1997 and the provisions of TCCCPR Regulations, 2018, directed all Access Service Providers to submit the following compliance reports, with effect from month ending September 2019, on monthly basis, and within ten days from the end of each calendar month:

- a) Performance Monitoring Reports as per the formats specified in Annexure I & II of the direction, in writing duly signed by authorized signatory and also electronically;
- b) Performance Monitoring Reports as per the formats specified in Annexure III, IV, V & VI of the direction, to be submitted electronically.

Direction dated 17 October 2019 regarding implementation of Telecommunication Mobile Number Portability (Seventh Amendment) Regulations, 2018 for providing service area codes and service providers codes

TRAI had issued the Telecommunication Mobile Number Portability (Seventh Amendment) Regulations, 2018, on 13 December 2018, to the principal regulations of Telecommunication Mobile Number Portability (MNP) Regulations 2009.

Through these amendment regulations a major shift in the mechanism for generating Unique Porting Code (UPC) has been provisioned. Pre-validation of eligibility conditions for porting will determine generation of UPC by the Mobile Number Portability Service Provider (MNPSP). This shall ensure smooth porting in new framework, thus making the porting process faster and convenient to the mobile subscribers. Validity of UPC as per new process will be 4 days for all Licensed Service Areas (LSAs), barring the LSAs of Jammu & Kashmir, Assam and North East, where validity of UPC will still be 30 days.

Individual porting requests of Intra-Licensed Service Area (Intra-LSA) nature will be completed in 3 working days; whereas the porting requests of Inter-License Service Area (Inter-LSA) nature and all porting requests under corporate category (including Intra-LSA and Inter-LSA) will be completed in 5 working days. (For example - porting request of the mobile subscriber 'X' (individual) of Karnataka LSA who wants to change his operator within Karnataka LSA will be completed in 3 working days, whereas the service request of a person 'Y' (individual) who wishes to port his mobile number from Karnataka LSA to Delhi LSA service area will be completed in 5 days).

Direction dated 17 October 2019 to all Telecom Service Providers and MNPSs for providing final opportunity to the subscribers of Aircel Group for porting their mobile numbers by 31 October 2019

M/s Aircel Ltd. and M/s Dishnet Wireless Ltd. (both collectively referred to as M/s Aircel Group), vide their letter dated 22 February, 2018, inter-alia had requested the Authority to issue suitable direction for allotting additional codes to generate unique porting codes (UPCs) in the licensed service areas where their subscriber base is in excess of one million; allow mobile number portability to subscribers where a period of ninety days has not elapsed from the date of activation into the network of M/s Aircel Group and extend validity of UPCs up-to forty five days, to enable smooth porting.

Keeping in view the request of M/s Aircel Group and to facilitate Mobile Number Portability for the subscribers of M/s Aircel Group in the licensed service areas of Andhra Pradesh, Assam, Bihar, Delhi, Jammu & Kashmir, Karnataka, Kerala, Kolkata, Mumbai, North East, Odisha, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh (East) and West Bengal, TRAI dated 27 February 2018, issued direction allotting additional codes for generation of UPCs.

In order to ensure that the subscribers of M/s Aircel Group are able to port their existing mobile numbers to the service provider of their choice and continue to have uninterrupted mobile services after closing of its services in the above-mentioned licensed service areas, TRAI vide direction dated 17 April 2018; had directed M/s Aircel Group to extend the validity of all UPCs generated pursuant to the direction dated 27 February, 2018 and UPCs generated prior to the date of the said direction which were valid on that date, till further direction/ order. Approximately 19 million subscribers of M/s Aircel Group have availed the port-out facility from the 27 February 2018 (date of issue of the Direction) and till 31 August 2019.

TRAI has issued Telecommunication Mobile Number Portability (Seventh Amendment) Regulations, 2018 on 13 December 2018 to the Telecommunication Mobile Number Portability Regulations, 2009, whereby major changes have been incorporated in the mobile number portability process and came into force with effect from 16 December 2019.

Post issuance of the Telecommunication Mobile Number Portability (Seventh Amendment) Regulations, 2018, TRAI, on 21 December 2018 had sought nominations from all telecom service providers including M/s Aircel Group for the Committee formed for implementation of revised MNP process. And in response to TRAI's request, M/s Aircel Group informed that

since they are not operating anymore in any circle, they may be exempted in ongoing implementation activities.

As per the terms of the license, it is obligatory on the part of all the licensees including M/s Aircel Group to make necessary provisions for the implementation of the revised mobile number portability process without fail in the interest of the mobile subscribers. Accordingly, TRAI issued a letter on 23 April 2019 suggesting M/s Aircel Group to coordinate with both the Mobile Number Portability Service providers, for implementation of the revised mobile number portability process, as and when it decides to provide the services under the license in future.

Through this Press Release, subscribers of M/s Aircel Group, who are yet to port out their mobile number, in the licensed services areas of Andhra Pradesh, Assam, Bihar, Delhi, Jammu & Kashmir, Karnataka, Kerala, Kolkata, Mumbai, North East, Odisha, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh (East) and West Bengal were given final opportunity to avail the Mobile Number Portability facility to port out their mobile number by submitting their porting request on or before 31 October 2019. After the said date, UPC assigned, if any, shall become invalid for submission of the porting request.

Broadcasting Sector

Direction dated 24 January 2019 to distributors of television channels relating to implementation of New Regulatory Framework for Broadcasting and Cable Services

Through this direction, the Authority directed all the distributors of television channels [Direct to Home (DTH) operators, Multi System Operators (MSOs), Headend in the Sky (HITS) operators and Internet Protocol Television (IPTV) operators) to comply with all the provisions of the new regulatory framework 2017 from 1 February 2019.

Direction dated 24 January 2019 to broadcasters of television channels relating to implementation of New Regulatory Framework for Broadcasting and Cable Services

Through this direction, the Authority directed all the broadcasters of television channels to comply with all the provisions of the new regulatory framework from 1 February 2019.

Direction dated 22 February 2019 to distributors of television channels regarding listing of channels in electronic programme guide

Through this direction, the Authority directed all distributors of the television channels to ensure that the television channels of same genre, as declared by the broadcasters, are placed together consecutively and one channel shall appear at one place only, failing which action shall be taken against such distributors, under the provisions of TRAI Act, 1997.

Amendment dated 28 March 2019 to the Direction dated 3 December 2018 issued to all Broadcasters and Distribution of television channels regarding to display of television channels

Through this direction, the Authority directed all broadcasters and distributors of the television channels in order to protect the interest of service providers and to ensure orderly growth of the sector, decided to extend the date of compliance of the direction dated 03 December 2018 for previously entered agreements and hereby directs all the broadcasters and distributors of television channels to implement the direction dated 3 December 2018 as soon as possible but not later than 31 May, 2019.

Direction dated 16 April 2019 to M/s Fastway Transmissions Pvt Ltd to ensure compliance of various provisions of the New Regulatory Framework for Broadcasting and Cable TV Services

Through this direction, the Authority directed M/s Fastway Transmissions Pvt Ltd to submit compliance of the following issues:

- a) Regarding unavailability of choice of channels to the customer in selecting channels and forcing its own channels j packs to the consumers in violation of regulations under the new regulatory framework notified by the Authority.
- b) Reviewed their website and observed that the hyperlink for 'consumer corner' for enabling the consumers to make their choices is not available on the website which is in violation of the provisions of the QoS regulations, 2017.

Direction dated 16 April 2019 to M/s Hathway Digital Pvt Ltd to ensure compliance of various provisions of the New Regulatory Framework for Broadcasting and Cable TV Services

Through this direction, the Authority directed M/s Hathway Digital Pvt Ltd to submit compliance of the following issues:

- a) The said DPO is offering bouquets which contains both FTA and PAY channels.
- b) Subscribers who have already paid amount in advance for one year, the pay channels of such consumers have been cut without their consent and only FTA channels are being shown.
- c) Most of the times, the consumers are not able to contact the toll-free number of M/s Hathway Digital Pvt. Ltd to express their grievance.
- d) Subscribers are not able to re-exercise their choice through website and the following message is being displayed: - For any type of renewal please call your Local Cable Operator.

Direction dated 16 April 2019 to M/s SITI Networks Ltd to ensure compliance to various provisions of the New Regulatory Framework for Broadcasting and Cable TV Services

Through this direction, the Authority directed M/s Siti Networks Ltd to submit compliance of the following issues: -

- a) The said DPO is forcing the channels/packs to the consumers.
- b) Subscribers are not able to re-exercise their choice.

- c) The said DPO is not providing bill receipt of payment made in printed form to the consumers.
- d) Subscribers are not able to login to their account for selecting channels of their choice.

Direction dated 16 April 2019 to M/s IndusInd Media and Communications Ltd to ensure compliance of various provisions of the New Regulatory Framework for Broadcasting and Cable TV Services

Through this direction, the Authority directed M/s IMCL to submit compliance of the following issues: -

- a) The process of channel selection on the website of M/s IMCL is not user friendly (while selecting ala-carte channels, genre wise list of channels is not available);
- b) M/s IMCL is overcharging the subscribers in the name of service charges;
- c) M/s IMCL is forcing the channels/packs to the consumers;
- d) Subscribers are not able to re-exercise their choice.

Direction dated 16 April 2019 to M/s Den Networks Ltd to ensure compliance of various provisions of the New Regulatory Framework for Broadcasting and Cable TV Services

Through this direction, the Authority directed M/s Den Networks Ltd to submit compliance of the following issues: -

- a) The process of channel selection on the website of M/s Den Networks Ltd is not user friendly (while selecting ala-carte channels, search option is not available). After selecting the channels, it is displayed on the website that activation will be done after paying the amount to the LCO;
- b) The said DPO is forcing the channels/packs to the consumers. Subscribers are not able to re exercise their choice;
- c) The said DPO is not providing bill receipt of payment made in printed form to the consumers.

Direction dated 23 April 2019 to M/s Bharti Telemedia Ltd to ensure compliance of various provisions of the New Regulatory Framework for Broadcasting and Cable TV Services

Through this direction, the Authority directed M/s Bharti Telemedia Ltd to submit compliance of the following issues: -

- a) The said DTH operator is forcefully offering a bouquet of free-to-air channels with no choice to subscribers, without their consent and with no additional NCF. This is in addition to the channels opted by the subscribers.
- b) Most of the times, the consumers are not able to contact the toll-free number of M/s Bharti Telemedia Ltd to express their grievance.

Direction dated 24 April 2019 to M/s Dish TV India Ltd to ensure compliance of various provisions of the New Regulatory Framework for Broadcasting and Cable TV Services

Through this direction, the Authority directed M/s Dish TV India Ltd to submit compliance of the following issues: -

- a) The said DTH operator is forcefully offering a bouquet of free-to-air channels with no choice to subscribers and without their consent. This is in addition to the channels opted by the subscribers and the following message is being displayed: - This is a free to air bouquet at no extra charge. If you have selected any pay channel, then this bouquet will not impact your NCF.
- b) Most of the times, the consumers are not able to contact the toll-free number of M/s Dish TV India Ltd to express their grievance.
- c) Most of the times, the consumers are not able to contact the toll-free number of M/s Bharti Telemedia Ltd to express their grievance.

Direction dated 1 May 2019 to M/s Independent TV Ltd to ensure compliance of various provisions of the New Regulatory Framework for Broadcasting and Cable TV Services

Through this direction, the Authority directed M/s Independent TV Ltd to submit compliance of the following issues: -

- a) M/s Independent TV Ltd has migrated/ changed long term plans of the subscribers and has discontinued channels opted by the subscribers and that the operator is neither providing services to the consumers despite collecting the money in advance nor any refund has been made to the consumers.
- b) Desist from migrating long term plan subscribers to any new plan till the contracted period unless the subscriber opts out of it or the validity of the long term plan expires, whichever is earlier;
- c) Reinstate to earlier long term plans with original validity date to the subscribers who have been migrated to any new plan unless the subscriber has himself opted out for; and
- d) Submit compliance to regulations 2017 of the Telecommunication (Broadcasting and Cable) Services Standards of Quality of Service and Consumer Protection (Addressable Systems) Regulations, 2017 within 7 days from the date of issued of the direction.

Direction dated 1 May 2019 to M/s Sun Direct TV Ltd to ensure compliance of various provisions of the New Regulatory Framework for Broadcasting and Cable TV Services

Through this direction, the Authority directed M/s Sun Direct TV Ltd to submit compliance of the following issues: -

- a) Resolve the issues mentioned at para 15 above and adhere to the provisions of Telecommunication (Broadcasting and Cable) Services (Eighth) (Addressable

Systems) Tariff Order, 2017 and Telecommunication (Broadcasting and Cable) Services Standards of Quality of Service and Consumer Protection (Addressable Systems) Regulations, 2017;

- b) Desist from migrating long term plan subscribers to any new plan till the contracted period unless the subscriber opts out of it or the validity of the long term plan expires, whichever is earlier;
- c) Reinstate to earlier long term plans with original validity date to the subscribers who have been migrated to any new plan unless the subscriber has himself opted out for; and
- d) Submit compliance to regulations 2017 of the Telecommunication (Broadcasting and Cable) Services Standards of Quality of Service and Consumer Protection (Addressable Systems) Regulations, 2017 within 7 days from the date of issued of the direction.

Direction dated 1 May 2019 to M/s Dish TV India Ltd to ensure compliance of various provisions of the New Regulatory Framework for Broadcasting and Cable TV Services

Through this direction, the Authority directed M/s Dish TV India Ltd to submit compliance of the following issues: -

- a) Desist from migrating long term plan subscribers to any new plan till the contracted period unless the subscriber opts out of it or the validity of the long-term plan expires, whichever is earlier;
- b) Reinstate to earlier long-term plans with original validity date to the subscribers who have been migrated to any new plan unless the subscriber has himself opted out for; and
- c) Submit compliance to regulations 2017 of the Telecommunication (Broadcasting and Cable) Services Standards of Quality of Service and Consumer Protection (Addressable Systems) Regulations, 2017 within 7 days from the date of issue of the direction.

Direction dated 1 May 2019 to M/s Tata Sky Ltd to ensure compliance of various provisions of the New Regulatory Framework for Broadcasting and Cable TV Services

Through this direction, the Authority directed M/s Tata Sky Ltd to submit compliance of the following issues: -

- a) Desist from migrating long term plan subscribers to any new plan till the contracted period unless the subscriber opts out of it or the validity of the long-term plan expires, whichever is earlier;
- b) Reinstate to earlier long-term plans with original validity date to the subscribers who have been migrated to any new plan unless the subscriber has himself opted out for; and
- c) Submit compliance to regulations 2017 of the Telecommunication (Broadcasting and Cable) Services Standards of Quality of Service and Consumer Protection

(Addressable Systems) Regulations, 2017 within 7 days from the date of issued of the direction.

Direction dated 3 May 2019 to BhorerAlo Cable & Broadband Pvt. Ltd. to ensure compliance of various provisions of the New Regulatory Framework for Broadcasting and Cable TV Services

Through this direction, the Authority directed M/s BhorerAlo Cable & Broadband Pvt. Ltd to submit compliance of the following issues: -

- a) The said DPO is not offering subscriber corner facility in their website.
- b) The call centre of the DPO does not support IVRS.
- c) The said DPO is not publishing STB schemes on their website

Direction dated 3 May 2019 to Barasat Cable TV Network Pvt. Ltd. to ensure compliance of various provisions of the New Regulatory Framework for Broadcasting and Cable TV Services

Through this direction, the Authority directed M/s Barasat Cable TV Network Pvt. Ltd to submit compliance of the following issues: -

- a) The said DPO is not offering consumer corner & subscriber corner facility on their website.
- b) Toll Free Customer Care Number is not responding.
- c) The call centre of the DPO does not support IVRS.
- d) Customer care programming service is yet to be offered by the DPO.

Direction dated 3 May 2019 to M/s Digicablecomm Services Pvt Ltd. to ensure compliance of various provisions of the New Regulatory Framework for Broadcasting and Cable TV Services

Through this direction, the Authority directed M/s Digicablecomm Services Pvt Ltd to submit compliance of the following issues: -

- a) The said DPO is not offering Subscriber Corner facility on their website.
- b) The call centre of the DPO does not support IVRS.
- c) Customer care programming service is yet to be offered by the DPO.
- d) Subscribers are not able to choose any channel of their choice in BST.

Direction dated 3 May 2019 to GTPL Kolkata Cable & Broadband Pariseva Ltd. to ensure compliance of various provisions of the New Regulatory Framework for Broadcasting and Cable TV Services

Through this direction, the Authority directed M/s GTPL Kolkata Cable & Broadband Pariseva Ltd. to submit compliance of the following issues: -

- a) The said DPO is not offering subscriber corner facility on their website.
- b) The call centre of the DPO does not support IVRS.

- c) The said DPO is not publishing STB schemes on their website

Direction dated 3 May 2019 to M/s Multi Reach Media Pvt. Ltd to ensure compliance of various provisions of the New Regulatory Framework for Broadcasting and Cable TV Services

Through this direction, the Authority directed M/s Multi Reach Media Pvt. Ltd to submit compliance of the following issues: -

- a) The said DPO is not offering subscriber corner facility in their website.
- b) The call centre of the DPO does not support IVRS.
- c) The said DPO is not publishing STB schemes on their website.
- d) Customer care programming service is yet to be offered by the DPO.
- e) The said DPO is forcefully offering a bouquet of free-to-air channels with no choice to subscribers.

Direction dated 8 May 2019 to M/s GANAPATI CABLE to ensure compliance of various provisions of the new regulatory framework for Broadcasting and Cable TV Services

Through this direction, the Authority directed M/s GANAPATI CABLE Ltd to submit compliance of the following issues:

- (a) Authority while having an inspection of M/s Ganapati Cable, Mubarikpur Camp, Mohali, Punjab observed unavailability of website and customer care channel in violation of the provisions of the QoS Regulations, 2017 notified by the Authority.

Direction dated 22 May 2019 to Citi Cable Net (CCN Digital India) to ensure compliance of various provisions of the new regulatory framework for Broadcasting and Cable TV Services

Through this direction, the Authority directed M/s Citi Cable Net (CCN Digital India) to submit compliance of the following issues:

- (a) Authority on inspection of M/s Citi Cable Net (CCN Digital India) observed partial functionality of website, non-availability of customer care center and toll free number and non-functionality of customer care programming service in violation of the provisions of the QoS Regulations, 2017 as referred to in the preceding paragraphs.

Direction dated 22 May 2019 to M/s Chetak Cable Network to ensure compliance of various provisions of the new regulatory framework for Broadcasting and Cable TV Services

Through this direction, the Authority directed M/s Chetak Cable Network to submit compliance of the following issues: -

- (a) Authority on inspection of M/s Chetak Cable Network observed partial functionality of website, non-availability of customer care center and toll-free number and non-functionality

of customer care programming service in violation of the provisions of the QoS Regulations, 2017 referred to in the preceding paras.

Direction dated 23 May 2019 to M/s M.C. Transmission to ensure compliance of various provisions of the new regulatory framework for Broadcasting and Cable TV Services

Through this direction, the Authority directed M/s M. C. Transmission to submit compliance of the following issues: -

(a) Authority on inspection of M/s M. C. Transmission observed partial functionality of website, non-availability of customer care centre and toll-free number and non-functionality of customer care channel in violation of the provisions of the QoS regulations, 2017 referred to in preceding paras.

Direction dated 8 July 2019 issued to M/s Tata Sky Limited for ensuring compliance to Direct to Home Broadcasting Services (Standards of Quality of Service and Redressal of Grievances) Regulations, 2007

Through this direction, the Authority has directed to M/s Tata Sky Ltd to submit compliance of the following issues: -

- a) confirm whether the choice was given to the consumer to choose between the proportionate refund and alternate channels;
- b) provide the details of the communication made to subscribers for providing choice to the consumers regarding the refund or refund policy;
- c) credit the refunds to the subscribers who were not given an option to choose between the proportionate refund and alternate channels, if any;
- d) provide a list of consumers with amount of the refund credited to the consumers for the period of discontinuance of the channels;
- e) provide the list of churned out subscribers who were to be refunded for the period of discontinuance of the channels along with the details of the amount to be refunded to such subscribers;
- f) provide a copy of Interconnect Agreement of M/s Tata Sky Ltd. with M/s Sony Picture Private Limited which is in force as on date.

Direction dated 24 July 2019 to M/s Independent TV Ltd to ensure compliance of various provisions of the New Regulatory Framework for Broadcasting and Cable TV Services

Through this direction, the Authority has directed M/s Independent TV to submit compliance on the following issues: -

- a) How many connection requests are pending beyond 7 days after receipt of payments/ subscription from the consumers;
- b) How many complaints are still pending regarding refund not provided;

- c) In how many cases the refund has been provided to the consumer due to non-provision of services despite collecting the money in advance. Give the number of cases along with the amount refunded;
- d) Whether any channel has been removed from your platform without giving prior intimation to the consumer. Give details, if any;
- e) Whether the services have been resumed after the blackout issue;
- f) Whether any rebate has been provided to the affected subscribers during the blackout period. If yes, how much rebate has been provided.

Order dated 16 August 2019 to Service Providers for reporting their details on Service Provider Portal

Through this order, the Authority needs update of name, address, contact number. e-mail address, website address, area of operation. name/details of compliance officer details or permission details or registration details, issued by the Central Government on the service provider portal.

Direction dated 28 August 2019 to SITI Networks Ltd. to ensure compliance to various provisions of the New Regulatory Framework for Broadcasting and Cable TV Services

Through this direction, the Authority has directed M/s SITI Networks Ltd to ensure compliance to various provisions of the New Regulatory Framework for Broadcasting and Cable TV Services.

- a) It was found that it still does not comply with the New Regulatory Framework, on the following points: -
- b) LCOs can provide itemized invoices to consumers but most of the LCOs are not providing the same. Some LCOs are providing their own cash memo bills;
- c) IVRS facility of Siti Networks Ltd. does not have any provision for complaint registration

Direction dated 28 August 2019 to Indus Ind Media and Communications Ltd. to ensure compliance to various provisions of the New Regulatory Framework for Broadcasting and Cable TV Services

Through this direction, the Authority has directed M/s Indus Ind Media and Communication Ltd to ensure compliance to various provisions of the New Regulatory Framework for Broadcasting and Cable TV Services.

- a) LCOs are not providing the itemised invoices to the consumers. Some LCOs are providing their own Cash memo bills.
- b) Consumer portal provided by IMCL is not working
- c) IVRS facility of IMCL does not have any provision for complaint registration.
- d) LCOs without GST Registration are collecting tax amount from the subscribers but not depositing it.

Direction dated 28 August 2019 to Hathway Digital Pvt Ltd. to ensure compliance to various provisions of the New Regulatory Framework for Broadcasting and Cable TV Services

Through this direction, the Authority directed M/s Hathway Digital Pvt Ltd to submit compliance of the following issues

- a) facility of Bill generation is available in LCO portal, but the customers are not able to get itemised billing in most cases even after the request of the subscriber;
- b) LCOs without GST Registration are collecting tax amount from the subscribers but not depositing it;

Direction dated 28 August 2019 to Den Networks Ltd. to ensure compliance to various provisions of the New Regulatory Framework for Broadcasting and Cable TV Services

Through this direction, the Authority directed M/s Den Networks Ltd to submit compliance of the following issues

- a) LCO are providing their own cash memo bills using card system for payment receipts, while the subscribers are not able to get itemized bills
- b) Facility of up gradation and modification in subscription is not available on Consumer portal.
- c) LCOs without GST Registration are collecting tax amount from the subscribers but not depositing it.

Direction dated 28 August 2019 to GTPL Hathway Ltd. to ensure compliance to various provisions of the New Regulatory Framework for Broadcasting and Cable TV Services

Through this direction, the Authority directed M/s GTPL Hathway Ltd to submit compliance of the following issues

- a) IVRS facility of M/s GTPL Hathway Ltd. does not have provision for complaint registration
- b) The consumer portal of M/s GTPL KCBPL has very limited facilities. The facility of up gradation and modifications in subscription is not available on consumer portal.
- c) LCOs without GST Registration are collecting tax amount from the subscribers but not depositing it.

Direction dated 29 October 2019 issued to all distributors of television channels (DTH operators and MSOs) to ensure compliance of various provisions of the new regulatory framework for Broadcasting and Cable TV Services

TRAI on 29 October 2019 issued a direction to all distributors of television channels (DTH operators and MSOs) to ensure compliance of various provisions of the new regulatory framework for Broadcasting and Cable TV Services.

Through this direction the Authority directed all the distributors of television channels to: -

- a) Immediately implement the promotional schemes offered by the said broadcasters and modify the Distributor Retail Price (DRP) of the channels;
- b) display the modified DRPs of channels offered under promotional schemes on their website, consumer care channel and electronic programme guide;
- c) charge from their subscribers, who have subscribed to the channels offered under promotional schemes on a-la-carte basis, the modified DRPs from the date of offer of such promotional schemes i.e. 15 October 2019;
- d) refund/adjust the excess subscription amount, if any, charged from the subscribers due to non-implementation of promotional schemes;
- e) send compliance of the Direction to the Authority by 1 November 2019.

MODULE-IV

DISPUTE RESOLUTION IN INDIAN TELECOM INDUSTRY

DISPUTE RESOLUTION METHODS

In the telecom sector, both formal and informal methods are employed for dispute resolution. A reference has been made in the preceding chapter to the ITU-World Bank study that has described what constitutes formal and informal methods of dispute resolution in the telecom sector. Choice of a particular method depends upon the country specific situation, its prevailing ethos, its legal framework and the status of the telecom development in that country. For example, most countries that have liberalized and introduced competition in the telecom sector, adjudication by the regulator is the preferred method. Countries that are in the advanced stage of liberalization and facing the growing impact of new technologies as also a phenomenal rise in the number and complexity of disputes, are looking for cost and time effective options for dispute resolution. Such countries show an increasing trend to use mediation or arbitration or a hybrid of formal and informal methods for dispute resolution as complementary to the existing modalities in this respect. The court retains its primacy as the final arbiter of disputes irrespective of monopolistic or liberalized environment obtaining in a particular country. As telecommunications progress to new heights due to the impact of new technologies and competitive environment, so does the number and complexity of disputes in the sector. To cope with latter, variants of dispute resolution practices have surfaced. These are creation of specialized tribunals (e.g. India, Denmark and Malaysia) and encouraging deeper involvement of the telecom industry in the dispute resolution process. The best examples are the industry sponsored ombudsman, development of industry code and a culture of self regulation. Along side these initiatives, the policy makers are also reviewing the policy and the regulatory framework from time to time to attune the system to cope with the current and the emerging challenges in this sector.

The rapidly changing nature of disputes have their impact on the whole range of laws. Disputes in the telecom sector could attract provisions under different laws and agreements. Any breach by a signatory to the provisions relating to telecommunications under the General Agreement on Trade-in-Services (GATS) may fall in the domain of Public International Law. The decisions of regulators or disputes between public and private operators could attract provisions of Administrative Law. Anti-competitive practices may be subject to Competition Law, and quality of service issues to Consumer Protection Laws. These require the prevailing laws to be constantly updated to keep pace with the developments and changes in the sector. Furthermore, it is apt to refer here to the impact of the European Commission (EC) directives on the telecommunications services and operations in the European Union countries. These directives are aimed at liberalizing and harmonizing telecom operations and service provisions as well as promoting competition in telecom markets. The impact of these directives has been to transfer certain telecom matters from the national to the European domain, for example, the prescription in the Directive to provide for a time-limit of 4 months for resolution of a dispute in the national laws governing the telecom sector. Many member-states have incorporated this Directive in their laws.

Dispute Prevention and Adjudication by Courts :

Corporate dispute management in US has shifted focus to anticipating disputes and preventing them, not avoiding them or waiting for them to become legal actions. However, the 43rd Report (October 2003) of the Electronic Communications Committee of the European Conference of Postal and Telecommunications Administrations (CEPT) looks at the issue from the angle of dispute avoidance. It outlines guidelines in this respect which are a) clarity in license/contract agreements as regards obligations of the parties involved; b) informal arrangements, as distinct from a business contract between parties, for building up working relations to maximize their business interests and minimize the scope for conflict; and c) the use of a facilitator, who understands the industry and is an expert in group dynamics, to intercede among the parties involved. These are time-tested principles and could serve the telecom sector well if these are adhered to.

Adjudication per se involves interpretation of statutes and law and eschewing any extraneous considerations. Decisions based on such interpretations, which are binding in nature, are usually given by courts when a dispute is brought before them. The defining characteristic is the binding nature of such decisions and could even apply to decisions arrived through ADR processes if such decisions assume this characteristic. Another feature of adjudication relates to its adversarial character, where parties to disputes appear as plaintiffs or defendants and are represented by lawyers in the adjudicatory process. The result in such a process is usually in favor of one party and the decision is binding on both parties unless the decision is overturned on an appeal to a higher court.

Adjudication by courts is a formal process where a third party invariably a public official decides a dispute between the two or more parties on the basis of facts brought forward and the interpretation of relevant laws and statutes as applicable in the case. An elaborate procedure has been prescribed that has to be followed in this method of adjudication. There is usually a provision for appeal to a higher court by the party aggrieved by the court's decision. Advocacy, evidence, case laws and precedents help the judge in interpreting laws and statutes and to come to a decision in a rational manner.

In a monopolistic telecom environment, recourse to courts is a favoured option. The other options could be arbitration subject to the provision of such an option in the contract.

Advantages and disadvantages of court-based adjudication:

The court-based adjudication has both advantages and disadvantages. The courts are creatures of law and the constitution and enjoys a pre-eminent and visible status to deliver justice and adjudicate disputes in accordance with the law. Its decisions are enforceable but does not preclude aggrieved parties to appeal to a higher court for obtaining the desired outcome. Another advantage of this method is its openness and its adherence to the principle of natural justice and transparency involved in the decision making process. The decision-makers in a court-based adjudication are perceived as neutral, knowledgeable and competent entities and inspire confidence among the disputing parties. The outcome of decisions serves a wider social purpose by informing the public at large about their import.

On the negative side, the disadvantages of adjudication through courts are as follows:

- a) It is regarded as a time-consuming and costly process;
- b) The adjudicatory process is adversarial in character and does not contribute to maintaining long-term commercial relationships;
- c) Resolution of complex issues in telecommunications may not be amenable to a purely legalistic approach as followed in courts;

Very often success in court litigation depends upon the financial muscle of a disputants who can prevail over their weak counterpart by protracting litigation thereby eventually forcing the latter to compromise on favourable terms.

Judicial Mediation:

The concept of judicial mediation that integrates ADR process in a formal judicial process is another important hybrid variant of dispute resolution process. Quebec's justice system provides a good example of this practice. According to Louise Otis and Eric H. Reiter (2006), Quebec's justice system "integrates adjudicative and mediational justice at every level and in virtually every area of law, including family matters, civil and commercial law, administrative matters, and, recently, criminal law." They further point out that "the system at the Quebec Court of Appeal work on the basis of a joint request for mediation that the parties present to the court by which they agree to mediate their dispute before a judge and to keep the proceedings confidential. The initiative can come from the parties themselves or from lawyers and from a suggestion by a judge that the case is amenable to mediation, but at all times the process is voluntary. In addition, either party can abandon mediation at any time and return to the adjudicatory stream.". Judicial mediation is generally used for a process where the court encourages the litigants to try mediation for resolution of a dispute. An additional merit of this process is its non adversarial character and flexibility in regard to procedures to be followed.

Such a trend is also seen in India and the case laws are gradually building up in this area. In Salem Advocate Bar Association V. Union of India, the Supreme Court, cited section 89 of the Civil Procedure Code 1908 which provides for settlement of disputes outside the court in cases where, in the Court's view, there exist elements of a settlement which may be acceptable to the parties. The Court further observed that in such a situation, the Court shall formulate the terms of settlement and give them to the parties for their observation. Upon receiving the observations of the parties, the court may reformulate the terms of a possible settlement and recommend either arbitration, conciliation, judicial settlement or mediation. For mediation, the court shall effect a compromise between the parties and follow such procedures as may be prescribed. The Court held that all the four alternatives "are meant to be the action of persons or institutions outside the court and not before the court the court is not involved in the actual mediation/conciliation." Interpreting Clause (d) of section 89(2), the court held that when mediation succeeds, the mediator will report to the court. The court in turn will hear the parties out and then "effect" a compromise and "pass a decree in accordance with the terms of settlement accepted by the parties." This, however, does not

preclude the court (which has referred the matter to mediation) from hearing the matter where a settlement is not reached. Some high courts have also set up court-annexed mediation and conciliation centers to counter the procedure-laden adversarial process of more traditional court systems. In the United States, court annexed mediation programme has shown significant results. A report of Judicial Council of California, a policymaking body of the California courts, published in 2004 establishes that such mediation programme has yielded good results for courts by reducing case loads as well as for the litigants by reducing litigation costs and disposition times. There are similar other studies that show growing use of alternative dispute resolution mechanism, particularly, mediation, for various types of disputes in the corporate sector of the United States. The increasing propensity to opt for ADR route for resolution of disputes has implications for judicial system as well as citizenry. There are obvious positive fall-outs in terms of time taken and the costs involved in the resolution of disputes. One of the other important consequences of this growing trend, according to Professor Deborah Hensler (2003) is to deflect public adjudication from its role as a catalyst for social change and articulator of legal norms.

Adjudication by Regulators:

The concept of Regulation has its root in the common desire to pursue activities, social, political or economic in nature, in an orderly manner in accordance with well settled norms. The nature of regulation depends upon the nature of activities to be regulated and such other considerations like laws, traditions and specific needs that have a bearing on the said activities. In a monopolistic environment it is the government which acts as a regulator in different spheres of activities. In a liberalized environment where promoting healthy competition and protection of consumer interest are the objectives, the government's regulatory role diminishes and the institution of independent regulators emerge to ensure a level playing field and meet the other objectives of a competitive environment. Closely linked with regulation is the adjudicatory role of a regulator. This role takes into account inevitability of conflicts/disputes in a competitive environment and desirability of having in place an impartial and independent regulatory body to lay down the ground rules, ensure their compliance and resolve issues arising in a particular sector.

Since the eighties, following liberalization of economy in various countries of the world, there is an increasing trend to have independent regulators in place. Infrastructure sector, particularly, electricity and telecommunications have a huge impact on the competitiveness of a country and therefore have seen regulation of these sectors by an independent regulator. The strength of a regulatory body, according to Douglass North(1990) , depends upon the necessary institutional endowments of a country. Douglass North defines institutional endowments in terms of five main attributes. These are I) the country's legislative and executive institutions; ii) the country's judicial institutions; iii)the country's customs and norms of behavior; iv) the character of contending social interests within the society; and v) the administrative capabilities of the nation and its institutions. These attributes define the innate strength of a country in varying degrees and determine effectiveness or otherwise of regulatory institutions.

The role of a regulator in terms of its functions, powers and responsibilities are spelt out in the statute which establishes such a body. In most liberalized countries, the regulator in the telecom sector has two main responsibilities; first, to regulate the sector in all its aspects in a fair and transparent manner as required under the statute and secondly, to adjudicate disputes arising in the sector. It is the second role of the regulator that needs our attention here. The efficacy of a regulatory body in performing its adjudicatory role depends upon various factors: the extent of independence that it enjoys; whether it is manned by professionals and experienced persons; the security of their tenure; and the source of its funding, to name a few. Adjudicatory proceedings by regulators like courts follow established procedures and involve disputants as well as a third party (which is regulator in this case) ..

Advantages:

Adjudication by a regulator has certain inherent advantages. These are:

- a) A regulator is perceived as a neutral, knowledgeable and professional person who is well-equipped to do justice to complex issues arising in the telecommunications field;
- b) A regulatory body follows well established procedures for adjudication of disputes where the disputants have an opportunity to air their view points;
- c) A regulatory body is equipped with professional staff and has a well structured channel for decision making. This inspires confidence among the stakeholders;
- d) The decision of regulator is appealable. An aggrieved disputant has the opportunity to approach higher court to pursue his interest. This encourages consistency in the regulator's decision making process that acts as a check on corruption and political partisanship in decision making process (2004);
- e) Regulators hold periodic consultations on important telecom issues with the stakeholders. The inputs available from such consultations are usually reflected in framing regulations. This reduces tension in the sector;
- f) Regulatory decisions have legal potency as these are based on powers conferred by the statute; and
- g) Regulatory decisions produce outcomes that are supposed to be consistent with the objective of promoting market efficiency with social values. It strikes a balance between the private interest group's penchant for seeking decisions economically beneficial to them and the public interest group's looking for regulatory decisions that has a "widely dispersed economic or social effects ... ".

Disadvantages:

There are also certain disadvantages inherent in adjudicatory role of a regulatory body. These are:

- a) multilayered examination of issues and adherence to lengthy and cumbersome procedures like courts that account for delay in disposition time;
- b) There is no finality about the decision of a regulatory body. A large number of issues finally land up in courts for adjudication. This is, however, desirable in the sense that the process of judicial review reduces the scope for arbitrary decisions ;

- c) The regulator's functioning is bounded by statutory provisions which reduces its flexibility in tailoring a solution to the needs of the situation;
- d) Statutory status does not make the regulator impervious to subtle political interference/influence or undue influence from industry in handling important issues. Richard J. Pierce(2004)⁷ has in this context mentioned about the phenomenon of "agency capture" which occurs when the regulator "favours the concerns of the industry it regulates, which is well- represented by its trade groups and lawyers over the interests of the general public, which is often under represented."

A growing concern over the inadequacies of the regulatory institutions is reflected in a OECD document (2000) on Telecommunications Regulations. This document , written in the context of European countries, cites initiatives taken by some countries "to examine and revise their existing regulatory structures in the context of convergence." This document also draws attention towards increasing interference of competition authorities that "raises the issue of inconsistent jurisdiction in the sector which may create problems for market participants in making business decisions." The conflict of jurisdiction between competition authorities and telecom regulatory authorities in resolving competition issues is a serious problem and requires quick resolution. Some other countries have given serious thought to improving adjudicatory role of regulatory bodies in the telecom sector. In Canada, for instance, the regulatory body sets up panels to conduct public hearings on competition issues on an expedited basis. Parties to a dispute take all relevant documents for a brief oral hearing where parties are cross examined and thereafter, the panel issues written decisions. In Australia, negotiations are encouraged for timely resolution of issues before they acquire the dimension of a dispute. In the U.K., the Communications Act of 2003 lays considerable emphasis on the use of alternative means for dispute resolution before the regulatory body decides to intervene in the matter.

Adjudication by Tribunals:

Some countries are also experimenting with tribunal model for the resolution of telecom disputes. This mechanism substitutes the role of regulator in the dispute resolution process and is to be found in India, Denmark and Malaysia. There are important differences in the working of this mechanism in these countries in structural and functional aspects which we shall go into in the chapter dealing with current country practices.

Advantages and Disadvantages of Specialized Tribunal:

The biggest strength of a specialized mechanism in the telecom sector is the assurance that the issues will receive a focused treatment by a panel, which is well versed with the issues in the sector. A second advantage is the character of the body which is seen as non partisan and follows a transparent procedure affording opportunities to the litigants to present their respective view points. A third advantage is its decision making process which is comparatively faster than the judicial process. A fourth advantage is in terms of greater consistency and uniformity in interpretation of rules and laws as compared to civil courts. Finally, its decisions are legally enforceable.

However, there are some disadvantages as well. It follows court-like procedures entailing delay in dispensing decisions as also higher costs to the disputing parties. There is less flexibility in its approach to issues and its procedures bound parties to their written submissions thus introducing rigidity in the dispute resolution process. The disputing party with greater financial power than its adversary can prevail by prolonging litigation and by engaging well-established lawyers to present its case. Furthermore, there is also a view that a specialized mechanism for dealing with telecom disputes also undermines the authority of telecom regulators.

Alternative Dispute Resolution (ADR) Processes: Negotiation, Mediation and Arbitration:

ADR as an alternative or complementary to regulatory-based and court-based adjudication has emerged as an efficient and potent method of dispute resolution since the seventies. . Disputants favour this method for two reasons, first, it is both time sensitive and cost effective, and secondly, it is not adversarial in character and conducive to long term collaboration. Fogel (2006) maintains that ADR "has become a standard option for litigants and lawyers in courts and communities across the [United States]" and has also grown qualitatively "with the emergence of new modes of practice and of sophisticated, professional and highly trained arbitrators and mediators." According to Jeremy D. Fogel, "ADR has begun to transform both the ways in which people think about the conflict and the manner in which conflicts are resolved." A major drawback of ADR methods like mediation and arbitration is that the outcome achieved through these processes is not legally enforceable in all cases. If, however, an agreement is the result of negotiation or mediation, it is enforceable as a contract. Similarly, what distinguishes a contractual arbitration from judicial arbitration is its binding nature. An arbitration award may be binding according to the terms of the contract /arbitration clause.

Negotiation:

It underlines the mutual interests of parties to reach a settlement themselves without involvement of a third party. It is a voluntary and consensual process. The negotiation process is predicated on a problem-solving approach and requires parties to maintain confidentiality of negotiation proceedings. One of the pre-requisites of successful negotiation process is to provide for an agreed time frame to ensure no party derives an undue advantage from a protracted negotiation process. All disputes are not amenable to negotiation and hence, requires a judicious selection of only such disputes which can be resolved through this process. Negotiations are often seen between governments as a prelude to signing an agreement. Negotiation also occur between government and operators over the terms and conditions of license or before signing a contract. One of the major weaknesses of negotiation process is that the outcome achieved through this process, unless it results in an agreement, is not legally enforceable. To offset such weaknesses, regulators in some countries like the U.K have made regulatory intervention in a dispute conditional to disputants furnishing evidence of failure of commercial negotiations undertaken by them in the first instance. In Australia and Canada, courts favour negotiation between the disputing

parties before taking up such cases for consideration. The credibility of negotiation process is enhanced through such oversight by the courts. Negotiation process becomes a credible tool when relative strengths of disputing parties are evenly balanced. Negotiation process has an added advantage of yielding results in a much shorter time without at the same time being expensive to disputing parties. The parties in a negotiation process retain the option of approaching the court in the event of failure of negotiations. The extreme privacy and the absence of openness in a negotiation process do not allow the public to assess the wider impact of its outcome.

Mediation:

Mediation like negotiation, is also a voluntary and consensual process but involves a third party and can be enforced as a contract if it results in an agreement. The third party has a good understanding of the relative strengths and weaknesses of disputing parties' case. He can use this knowledge to narrow the gulf between the parties and suggest a mutually acceptable solution but does not impose a solution. The process followed is flexible in character and allows parties to disengage at a time of their choosing. In mediation, the process followed is structured unlike in the case of negotiation. It ensures a better understanding in an adversarial situation. The success of mediation depends to a large extent on a genuine desire on the part of disputing parties to reach an agreement. Mediation can be made more effective in various ways like giving legal teeth to mediation proceedings, providing a time frame for the mediation process, validity of consent of the disputing parties, and proper training of mediators to enable them to play this role effectively. Other steps that can be taken to improve the credibility of mediation process and the mediators include availability of an approved panel of trained mediators, introducing a code of conduct for them as also some accountability for conducting mediation process in a fair and objective manner. Disputants should be encouraged to use mediation processes for dispute resolution. A scheme for incentives may encourage disputants to increasingly use this process for dispute resolution.

Arbitration:

Arbitration, like mediation, is an informal and a consensual process involving a mutually agreed third party who acts as an arbitrator in a dispute. The procedures followed in arbitration are court like but more flexible. The arbitration procedure can be customized to suit the parties' needs which makes it speedy and cost-effective as compared to the judicial process. The usual process in an arbitration proceeding involves appearance of lawyers on behalf of their clients to present evidence in support of the case of disputing parties which are taken into consideration by the arbitrator in deciding the case. According to Stephen Goldberg et al., (2003) private arbitration generally provides for "joint selection and payment of the arbitrator; procedural rules to be applied by the arbitrator and objective standards on which the arbitrator's decision is to be based." According to them, there are distinct advantages of arbitration over court adjudication that include expertise of the decision maker; privacy of the proceedings; procedural informality; and speed. Furthermore, it is less expensive than the judicial process and the outcome of an arbitration proceeding is generally

binding unless it is perverse and vitiated. Courts recognize such decisions and are generally loathe to review them.

The disadvantages of arbitration mainly stem from play of personal factors in the choice of an arbitrator; the consideration is not whether he has the necessary expertise but whether he is sympathetic to the disputing parties' position and disinclination on the part of courts to interfere with arbitration award, and the potential for the arbitrator to look for a solution in order to ingratiate himself to the parties.

Success of arbitration depends to a large extent on a competent arbitrator, and the disputing parties must devise appropriate procedures to ensure a focus on the issues entrusted to arbitrator. In telecom licensing agreements, there is usually a clause providing for arbitration in case of a dispute. In Australia, there is a great deal of emphasis on timely resolution of issues before they become disputes. In the USA, arbitration takes different forms. In contractual arbitration (usually binding, cannot be appealed except in narrow circumstances), parties agree either pre-dispute or post dispute, to submit disputes to arbitration. (Many consumer financial agreements, perhaps telecom agreements include such a clause). In the United States, courts give deference to the parties' agreement to arbitrate (per Federal Arbitration Act). Thus, the arbitrator's decision (award) is enforceable through the court. Judicial arbitration, offered through the court, is usually nonbinding, as parties cannot be forced to give up rights in court. Parties can be mandated to try mediation, but cannot be required to pursue mediation to agreement. Once a mediated settlement is reached, that agreement can be submitted to the court for enforcement. Besides, negotiation, mediation and arbitration, other methods are also employed for dispute resolution in the telecom sector.

Ombudsman:

The institution of Ombudsmen, generally an industry initiative, is efficacious in dealing with consumer-related disputes. In the U.K., the ombudsman for the telecom sector (OTELo) and Internet Services Adjudication Scheme(CISAS), are industry sponsored bodies which provide "a free, independent and effective service" to customers who do not succeed in resolving their complaints through direct communication with their service providers. In Australia, the Telecom Industry Ombudsman(TIO) also deals with complaints by end-users, hears parties to a dispute, makes an independent assessment and thereafter makes its decisions. The complaints cover issues like billing, mobile phone services, standard telephone services, internet access, privacy matters and breaches of customer services. Its determinations are binding on service providers and it can award compensation up to a maximum of AU\$10,000. TIO has established various complaint categories based on severity, and also advises the regulator on industry codes and practices. Similarly, Denmark's Consumer Ombudsman ensures compliance by the trade, business and public enterprises through the Danish Marketing Practices Act, using negotiation to enforce the provisions of the Act.

Other Initiatives:

Apart from Ombudsman, some countries have other industry-focused institutions for resolving disputes. In Australia, the Australian Communications Industry Forum(ACIF), established by the telecommunications industry in 1997, implements and manages communication self-regulation among service providers. It develops and administers technical and operating arrangements, serves the interests of end-users and also promotes international competitiveness of the Australian communication industry. It develops standards and codes of practice to support competition and protect consumers, and also coordinates resolution of industry's strategic and operational issues. ACIF also specifies minimum standards for complaints-handling procedures. Similarly, Canada also has an Industry Committee representing the telecommunications industry. This Committee has been set up by the Canadian regulatory body .. Under this Committee, there are various working groups and sub-groups dealing with specific telecom issues. The Committee resolves most of the issues. Issues on which no consensus is reached are passed on to the regulator.

TELECOM DISPUTES SETTLEMENT AND APPELLATE TRIBUNAL (TDSAT)

A. Background

Before embarking on an analysis of the mode of functioning of the TDSAT, it is useful to have a brief overview of the background to this Tribunal's establishment (1), its structure and composition (2), as well as its jurisdiction and powers (3).

1. History and Rationale

The TDSAT was established through amendments to the Telecom Regulatory Authority of India ("TRAI") Act, 1997 ("the Act") introduced by the TRAI (Amendment) Act, 2000 ("the Amendment Act"). The changes introduced under the Amendment Act were intended to remove certain difficulties that had arisen in implementation of the Act. Specifically, the desired objective in introducing a separate dispute settlement body was to regulate telecommunication service, adjudicate disputes, and dispose of appeals with a view to protect the interests of service providers and consumers of the telecom sector, to promote and ensure orderly growth of the sector.

The TDSAT was set up under Chapter IV of the TRAI Act, as introduced under the Amendment Act, with new provisions *inter alia* governing its composition, powers, qualifications of Members, and the Tribunal's relationship with other courts. It came into existence on 29 May 2000 and began hearing cases from January 2001.

2. Structure and Composition

The TDSAT is composed of a Chairperson and not more than two Members. Subject to the provisions of the TRAI Act, the jurisdiction of the TDSAT may be exercised by its Benches. A Bench may be constituted by the TDSAT Chairperson with one or two Members as the Chairperson may deem fit. The Benches shall ordinarily sit at New Delhi and at such other

places as the Central Government may notify, in consultation with the TDSAT Chairperson. However, in practice, the Tribunal functions as a single Bench at New Delhi.

3. Jurisdiction and Powers

The TDSAT adjudicates disputes between (a) a licensor and licensee; (b) two or more service providers; or (c) a service provider and a group of consumers. This includes the power to entertain counterclaims. It also has the power to hear and dispose of appeals against any direction, decision or order of TRAI under the Act. The Supreme Court has held that the TDSAT, being an expert body, is entitled to exercise its appellate jurisdiction both in fact and in law over a decision or order or direction of TRAI. It has thus been held to have wide powers to examine the correctness, legality or propriety of the order passed by TRAI, as it has in relation to the dispute.

The Supreme Court has also ruled that the TDSAT's jurisdiction extends to adjudicating on matters between a licensor and licensee relating to demands raised by one party against another, but not the validity of the terms and conditions of contract.

The jurisdiction of the TDSAT is, however, excluded in the following cases:

- (1) Monopolistic, restrictive and unfair trade practices subject to the jurisdiction of the Monopolies and Restrictive Trade Practices ("MRTP") Commission established under section 5(1) of the MRTP Act, 1969;
- (2) Complaint of an individual consumer maintainable before the National and various State Consumer Dispute Resolution Commissions and District Consumer forums established under section 9 of the Consumer Protection Act, 1986; and
- (3) Disputes between telegraph authority and any other person referred to in section 7B(1) of the Indian Telegraph Act, 1885.

The Supreme Court has held that in exercise of the power vested in the TDSAT under section 14(b) of the TRAI Act, it does not have the jurisdiction to entertain challenges to the regulations framed by TRAI under section 36 of the TRAI Act.

The jurisdiction and the powers of the TDSAT and the rationale for its establishment suggests that it is supposed to supplement the jurisdiction of the High Court, insofar as its review of TRAI decisions is concerned, and also replace the jurisdiction of the civil court insofar as consumer disputes and contractual disputes between licensors and licensees, and between service providers is concerned. It has been set up with the explicit intention of providing not just speedy, but also specialised dispute resolution of telecom disputes.

B. Analysis

In this Chapter, we assess the functioning of the TDSAT specifically with respect to its independence (1), efficiency (2) and efficacy (3), based on parameters mentioned earlier.

1. Independence

As described in the previous Section, the TDSAT's 'independence' has been assessed both in a normative or formal sense (a), as well as from the functional perspective (b).

(a) **Formal Independence**

The formal independence of the TDSAT may be discerned from its Chairperson and Member appointments (i), the terms and conditions of service (ii), and grounds of removal and suspension of Chairperson and Members (iii).

(i) Appointments

The Chairperson and Members of the TDSAT are appointed, by notification, by the Central Government, in consultation with the Chief Justice of India. The consultation process seems to begin with the Chief Justice of India recommending the name of a suitable candidate to the Government, with the Government indicating its approval or disapproval of the name. There has been at least one reported instance of the Central Government expressing disapproval of the Chief Justice of India's recommendation. In this case, the recommendation was reconsidered and a fresh name proposed.

A TDSAT Chairperson must be a sitting or retired judge of the Supreme Court or Chief Justice of a High Court. All TDSAT Chairpersons so far have been retired judges of the Supreme Court. A TDSAT Member must have held the post of Secretary to the Government of India or any equivalent post in the Central Government or the State Government for a period of not less than two years or be a person well-versed in the field of technology, telecommunication, industry, commerce or administration. Among the past and present non-judicial Members, apart from fulfilling the minimum requirements, few have had specific experience in the technical area, though almost all have worked previously in the Department of Telecommunications ("DoT").

As mentioned above, TDSAT Chairpersons and Members are appointed by the Central Government in consultation with the Chief Justice of India. A list of the professional background of all previous and current TDSAT Members, as available on the website of the TDSAT is reproduced in Annex I to this Section.

In the context of appointment, therefore the questions are answered as follows:

(1) Is the Executive required to consult with the Judiciary in the appointment of Members to the TDSAT?

Ans: Yes, it is required to by virtue of section 14B(1) and this has been carried out in practice as well.

(2) If the TDSAT is required to review the decisions of the Executive, does such 'consultation' also mean concurrence?

Ans: Since the jurisdiction of the TDSAT does not extend to the review of decisions taken by the Department of Telecommunications, but only to review decisions of the TRAI, which is itself a regulatory authority separate from the Executive, such a requirement is not necessary.

(3) Are the qualifications of the expert Member to the TDSAT with Government service sufficient to ensure independence of the TDSAT?

Ans: Yes, since the basic qualification for a Member who has been a Government Servant is that he or she has served at the rank of Secretary to the Government of India.

(ii) Terms and Conditions of Service

The term of office of the Chairperson and Members of TDSAT expires after 3 (three) years from the date of entering office, subject to maximum age limit of 70 (seventy) years for the Chairperson and 65 (sixty five) years for other Members. The salary and allowances of the Chairperson and the Member are not provided for in the TRAI Act itself, but may be prescribed by Rules made by the Central Government. Under the TRAI Act, the Rules are subject to Parliamentary veto within a month of being placed before Parliament.

Under the TRAI Act, the terms and conditions of service, including the pay and allowances cannot be varied to the disadvantage of the Chairperson or the Members during their tenure.

The salary and terms and conditions of service have been fixed at present under the Telecom Disputes Settlement and Appellate Tribunal (Salaries, Allowances and other Conditions of Service of Chairperson and Members) Rules, 2000 ("the TDSAT Salaries Rules"). Under the TDSAT Salaries Rules the pay and emoluments of the Chairperson of the TDSAT is linked to that of a sitting Supreme Court judge. A Member of the TDSAT on the other hand receives pay and emoluments at par with a Group 'A' officer of the Central Government.

While it would have been ideal to have the salaries and emoluments fixed in the legislation itself, as it is for High Court judges, the aim of protecting the Tribunals from Executive interference will also be equally served if there was sufficient Parliamentary oversight over Executive action built into the law itself. However, the issue of whether or not terms and conditions of service can be varied to the disadvantage of the Members is more important than *who* actually determines the salaries and emoluments.

In the context of terms and conditions of service, therefore the questions are answered as follows:

(1) Do the provisions of the parent statute provide sufficient protection from Executive interference in the terms and conditions of service in the course of engagement as a Member of the Tribunal?

Ans: Yes, the Rules providing for salaries and emoluments are subject to Parliamentary oversight.

(2) Is there any protection from unfair variation to disadvantage of a Member?

Ans: Yes, the TRAI Act prevents the variation of salaries and emoluments from being varied during the tenure of the Member or Chairperson to their disadvantage.

(iii) Removal and suspension

Under the TRAI Act, the Central Government may remove from office, the Chairperson or any Member of the TDSAT, who:

- 1) has been adjudged an insolvent, or
- 2) has been convicted of an offence which, in the opinion of the Central Government, involves moral turpitude, or
- 3) has become physically or mentally incapable of acting as Chairperson or Member; or
- 4) has acquired such financial or other interest as is likely to affect prejudicially his functions as the Chairperson or a Member; or
- 5) has so abused his position as to render his continuance in office prejudicial to the public interest.

However, the Chairperson or a Member of the TDSAT shall be removed from his office on the ground specified in clause (iv) or (v) above only if the Supreme Court on a reference being made to it in this behalf by the Central Government, has, on an enquiry, held by it in accordance with specified procedures, reported that the Chairperson or a Member ought to be removed on such grounds. The Central Government may suspend from office the Chairperson or a Member of the TDSAT in respect of whom a reference has been made to the Supreme Court under the above terms until the Central Government has passed an order on receipt of the report of the Supreme Court on such reference.

So far no Chairperson or Member has been removed under any of the grounds mentioned in section 14G.

Therefore to answer the question in the context of removal:

Are there sufficient procedural safeguards in ensuring that the removal and suspension are not within the sole discretion of the Executive?

Ans: Only to the extent that the Chairperson or Member has to answer to the specific charges in an enquiry proceeding conducted by the Supreme Court on a reference made to it for the express purpose by the Executive itself. However, the process of initiating the removal itself is concomitant with the power of suspension, as with other Government servants, this puts the TDSAT Member and Chairperson at par with an employee of the Government.

(b) Functional Independence

The TRAI Act mandates that the Central Government will provide the TDSAT with such officers and employees as it may deem fit, with their salaries and terms and conditions governed by the rules prescribed by the Central Government in this respect. However, the TRAI Act also prescribes that the said officers and employees will work under the supervision of the Chairperson.

In relation to the financial independence of the TDSAT, the budget for the TDSAT is determined by the DoT with little or no input from the Chairperson of the TDSAT. The funding for the TDSAT therefore comes directly from the DoT's budget. For instance, the budget of 2013-14 has allocated a 'grant' of Rupees 13.01 crores earmarked for the TDSAT to the DoT, *inter alia* among other heads under which sums of money are allocated to the DoT. In Budget 2012-13, the amount allocated to the TDSAT was Rupees 11.99 crores and later revised downwards to Rupees 11.91 crores. Unlike the High Courts therefore, the expenses for the TDSAT are being essentially met out of the budget allocated for the DoT.

In infrastructure terms, the TDSAT presently functions out of two floor of the Hotel Samrat located in Chanakyapuri. Although Hotel Samrat is Government owned, nevertheless the TDSAT does not have separate premises of its own, occupied and used solely for the purposes of the TDSAT.

(1) Does the TDSAT have the power to hire and fire its own staff?

No, TDSAT does not have the power to hire staff on its own, though the staff work under the superintendence of the Chairperson and may be removed by him.

(2) Is the TDSAT entirely dependent on the Executive for its funds?

Ans: Yes, the TDSAT is entirely dependent on the Executive for its funding and also does not have independent infrastructure of its own.

2. Efficiency

Based on the figures publicly available, the following table provides an annual break-up of the number of cases filed before the TDSAT, the number of cases disposed and the yearly pendency, until the end of 2013. The number of cases includes petitions, review petitions, appeals, cases transferred from TRAI (only in the first year), transferred from the High Court, cases remanded from the Supreme Court and execution applications. All the data has been obtained from the website of the TDSAT which provides a running table of cases filed, disposed and the pendency position dating back to the year 2000.

TABLE 1

Year	Field	Disposed	Cumulative Pendency	Disposal Rate %
2001	57	57	0	100
2002	37	37	0	100
2003	55	55	0	100
2004	70	70	0	100
2005	174	174	0	100
2006	374	374	0	100
2007	402	395	7	98.26
2008	297	293	11	98.65
2009	322	303	30	94.1
2010	496	492	34	99.19
2011	563	538	59	95.56
2012	1068	537	590	50.28
2013	534	131	993	24.53

The table demonstrates an excellent disposal rate, almost a hundred percent until a sharp increase in petitions filed and therefore of pendency, in 2012. This can be attributed to the large number of petitions filed due to cancellation of several 2G spectrum licenses by the Government, as a result of a judgment of the Supreme Court.

Since 2001, the TDSAT has managed to dispose 76.8 percent of the cases filed before it. This compares very unfavourably to the 90.50 percent disposal rate of the High Court which it was supposed to supplement, let alone the 97 percent disposal rate of Civil Courts. However, while this reflects the overall figures, we find that up to the year 2011 the disposal rate was actually 99.2 percent with a pendency of only 25 out of 2498 cases filed since 2001. Up to the end of 2011, it is evident that the TDSAT was functioning efficiently disposing of cases filed before it with only a negligible number of cases pending. This suggests that the TDSAT was handling cases within its capacity up to 2011.

To what therefore, can we attribute the sudden spike in pendency and the reduction in the percentage of cases disposed in a year?

One obvious answer seems to be the frequency and extent of vacancies in the TDSAT, which could have contributed to the increasing pendency. The Central Government is required to appoint a Chairperson or Member in the event of any vacancy in the TDSAT, apart from temporary vacancy. However, this does not seem to have been done on a systematic basis.

The TDSAT has often not been filled to its capacity, with a vacancy of one non-judicial Member being common across several periods, if not two as seen in 2002-03, 2006-07 and in 2013. For six months between October 2003 and March 2004, and for almost a year between September 2007 and July 2008, there were no non-judicial Members on the TDSAT. The absence of the non-judicial Member however, does not seem to have affected the disposal of

cases as the disposal rate rarely slipped below 95 percent in any given year up to 2011 and the pendency was therefore minimal.

A notable vacancy in the position of the Chairperson was between November 2012 and the middle of June 2013, for a period of seven months and a half. This coincided with the period when a large number of petitions were pending before the Tribunal, and has therefore most likely contributed to a significant delay in disposing of cases. Indeed, the only Member on the Tribunal at that time had postponed final hearings on several matters, thus delaying their disposal.

Since the TDSAT was supposed to replace the civil court and the High Court, to answer the question:

Does the TDSAT function more efficiently than the court it was supposed to replace?

Ans: No, at present it does not. While it was functioning efficiently till 2011, its efficiency in disposing cases has been seriously hampered by the delays in appointment over the last three years and the sudden spurt in litigation.

3. Efficacy

Efficacy of the TDSAT has been analysed on the basis of an assessment of select judgments of the Tribunal (a), and the rate of success of appeals from its orders and judgments (b).

(a) Assessment of select judgments

In this part, we have analysed a representative sample of judgments delivered by the TDSAT, with the object of assessing the nature of reasoning adopted in TDSAT decisions.

(i) Loop Mobile v Bharti Airtel, 2 January 2013

This was an Order by a non-judicial Member, disposing of a preliminary question in two petitions at the same time. The petitioner sought to declare as null and void, an agreement for payment of 10 paise per SMS under the SMS Termination Service entered into between the parties. According to the petitioner, it was coerced into signing the impugned agreement by the respondents who threatened to disconnect the SMS termination services by virtue of their dominant position. The respondents maintained on the other hand that the TDSAT had no jurisdiction in the instant case, and denied allegations of duress as well.

The Tribunal held that although it had no jurisdiction to decide the validity of the terms and conditions of the agreement, it did possess the jurisdiction to decide any dispute between the parties on the interpretation of the terms and conditions of the contract. Whether or not the agreement had been signed under coercion could be examined by the TDSAT in terms of its jurisdiction under section 14(a)(ii) of the TRAI Act. At the preliminary stage, it could not determine whether the petitioner had been coerced. Only at the merits stage, it would be possible to adjudicate on the existence of coercion. Accordingly, the respondent's plea of lack of jurisdiction was rejected and the petition was admitted by the Tribunal.

The reasoning of the Tribunal seems sound. When it has been set up to replace the jurisdiction of civil courts, it would be absurd and self-defeating if the Tribunal refused certain kinds of issues from being raised in a dispute before it where it would otherwise have had jurisdiction. In addition, the Tribunal has also applied the well-established principle of law that a tribunal is competent to determine its own jurisdiction. The Tribunal's Order in this case seems well reasoned and in accordance with the law laid down.

(ii) *Reliance Communication Ltd. v Union of India*, 1 November 2012

This judgment was delivered by the Chairman and a Member of the TDSAT. In this case, the petitioner was a licensee for the Rajasthan Circle. A distributorship agreement was entered into between the petitioner and the Arihant Trading Company. Clause 5.1.1 of the agreement stipulated full compliance with all regulations issued by TRAI, the DoT, and all other regulatory authorities with regard to acquisition and verification of telecom subscribers. The Government issued two circulars dated 24.12.2008 and 18.11.2010 wherein penalty was to be levied with respect to those cases where the licensee had failed to provide subscriber verification on the graded scale and where the scheme for levy of financial penalty in such cases other than monthly audit of Customer Application Forms ("CAF") was provided respectively. The petitioner approached the TDSAT, aggrieved by the demand of an amount of Rs. 88,50,000/- for non submission of 177 CAFs relating to the aforementioned circulars.

The TDSAT was of the opinion that the petitioner was guilty of violating the circular issued by the Government, particularly in view of the fact that (i) the CAFs had not been sent to the petitioner's office in Jaipur for a long time which demonstrated that the distributors of the petitioner company had been violating the circulars with impunity; (ii) the petitioner had been activating SIM cards without actually receiving original CAF forms; (iii) the conduct of the Petitioner's Witness No. 2 in not signing the seizure memo was not sufficiently explained and the attempt on the part of the petitioner to provide an explanation subsequently by purporting to file a *bona fide* report was not contemplated by the circulars; (iv) the petitioner could not on the one hand, accept the guilt of its distributor and on the other hand, question the imposition of penalty on the ground of the purported *bona fide* on its part. The petitioner was also bound to explain the conduct on the part of its distributor forthwith and had been taking time to file its show cause without adequate reasons. The Tribunal ruled that the petitioner was not entitled to any relief. However it applied the principle of proportionality in determining the quantum of penalty, relying on a previous petition before it.

This was an instance of a straightforward application of the relevant circulars in determining the fault of the licensee in the present case. The facts were more or less undisputed, and the TDSAT's reasoning applying the natural consequences under the prevailing agreement cannot be found fault with. However, what is problematic is the application of the principle of proportionality to the facts of the present case. Proportionality, as a principle evolved under criminal law, labour law and administrative law for different reasons, would not be applicable in the case of a contractual dispute between the licensee and the Central Government. The standard of review of the imposition of a penalty under a contract, or for

that matter any action taken under a contract by the Government would be to see if the same would be so unreasonable and unfair as to amount to a violation of Article 14 of the Constitution. The TDSAT in this case, seems not to have taken note of this well settled position of law only on the aspect of penalty.

(iii) *Tata Teleservices (Maharashtra) Ltd. v Union of India*, 18 December 2009

This case was decided by the Chairperson and a Member of TDSAT. The petitioner in this case was the holder of two licenses – one for providing basic services commonly known as Unified Access Service (“UASL”) and the second for being an Internet Service Provider (“ISP”). The petitioner introduced a service commonly known as Push-To-Talk (“PTT”) service. Prior to introducing the service, the petitioner held discussions with Members of TRAI and with its letter dated 26 May 2004 enclosed a brief write-up, covering technical aspects, network architecture diagram and highlights of PTT service. According to the petitioner, the new application was based on internet protocol under the category of ISP license and its service area being throughout the territories of India, it was eligible to provide the said services throughout India. On 18 February 2005, the Government asked the petitioner to cease the PTT service and thereafter, a show-cause notice was issued. A second notice was issued asking the petitioner to show cause as to why a penalty of Rs. 50 crore should not be levied. Through the impugned order dated 21 January 2006, a penalty of Rs. 50 crore was imposed on the petitioner.

According to the TDSAT’s findings, the Government proceeded on a wrong premise. If no amount of penalty was specified in terms of the ISP License, the Government did not have the power to initiate a proceeding for imposition of penalty for a sum of Rs. 50 crore. A provision for levy of penalty of such a large amount must meet the requirements of law. The petitioner had shown cause in response to both the notices. Before issuance of the second show-cause notice, no opportunity of personal hearing was granted. The Government’s conduct clearly established that before the penalty was imposed, which would have to be preceded by determination of the question as to whether the petitioner was guilty of violation of conditions of license, an opportunity of personal hearing had not been given. Moreover, GSM Hutch services had been providing the said services on its UASL license and the Government had not levied any penalty on the providers of services of similar nature. The impugned Order, therefore, was in violation of Article 14 of the Constitution of India. The petition was thus allowed, setting aside the impugned Order.

Here, the TDSAT was concerned more with the manner in which the decision was taken, playing the supplemental role to the High Court rather than purely examining the contractual nature of the dispute as a civil court would. While undoubtedly it was correct in holding that the power of the Government to impose the penalty under a contract was limited expressly by the terms of the contract, its subsequent finding that there was a violation of Article 14 seems to be in excess of its jurisdiction since unlike a tribunal such as the Central Administrative Tribunal, it has not been given the power to strike down Governmental actions for violation of the Constitution.

(iv) *Radio Mid Day West (India) Ltd. v Union of India, Ministry of Information & Broadcasting*, 18 October 2006

This case was decided by a full Bench of the TDSAT – the Chairperson as well as two Members. The petitioner in this case had challenged the allocation of a new frequency to the petitioner in place of the frequency it was allocated earlier for broadcast on the FM Radio Broadcasting Channel in Mumbai by the Union of India under sections 14 (a)(i) and 14(A)(1) of the TRAI Act. According to the petitioner, in the FM Broadcast business the identity of a FM Station is built around its broadcast frequency and every broadcaster is recognized and accessed at its known spot frequency. In other words the number of spot frequency is identified with the broadcaster and is sacrosanct to it. In support of the argument that the impugned action is permissible only if it is in public interest or it is in interest of national security, the petitioner relied on clause 11 of the License Agreement. The Government drew attention to Schedule A to the license granted in favour of the petitioner according to which ‘Channel Identity’ means the name of the FM Station as approved by the licensor for the particular station. On this basis, the Government submitted that it is the name which is important in the trade and not the number of the frequency.

According to the Tribunal, the petitioner had failed to demonstrate that the Government’s action had been mala fide. The power to regulate and change frequencies had been given in the licence itself and the same could not be disputed. With respect to the question of exercise of power, the Government had provided its justification for the course of action adopted by it – expansion of the broadcast regime in Phase II and resultant entry of several players into the field. The TDSAT was unable to find any fault with the stated objective which the Government had tried to achieve. Further, the Tribunal stated that the delay on the part of the petitioner in approaching the TDSAT for readjustment of frequencies had rendered such an exercise impossible. Therefore, the petition was dismissed.

Although on the surface of it, the present dispute seems to relate to judicial review of the Government’s action, it is in fact a pure contractual dispute which is being decided upon by the TDSAT. The Tribunal has carefully drawn the distinction between merits review of the Government’s action (which would be outside the scope of its powers) and validity of the Government’s actions under the Licence Agreement. Finding that Government’s action was permissible under the terms and conditions of the agreement, the Tribunal, in line with its jurisdictional limits, refused to review the merits of the Government’s policy which was being followed in exercising this contractual right.

Broadly, we find that the TDSAT’s judgments and orders in the issues which come within its jurisdiction are well reasoned and traverse the facts in detail and apply the law correctly. While the TDSAT has correctly appreciated the scope of its jurisdiction and the limit of its powers under the TRAI Act, on the issue of review of Governmental action, it has had the tendency to conflate the contractual power of the Government with the executive powers of the Government resulting in some overreach, especially in the area of imposition of penalty under the licence agreement upon the licensees.

(b) Success of Appeals

An assessment of the efficacy of TDSAT judgments is also possible by a review of the success of appeals made to the Supreme Court from this tribunal. The TRAI Act provides that notwithstanding provisions of the Civil Procedure Code, 1908 (“CPC”) or any other existing law, an appeal lies against any order of the TDSAT, not being an interlocutory order, to the Supreme Court on one or more of the grounds specified in section 100 of the CPC. Appeals can only be made within a period of ninety days from the date of the decision or order appealed against, which time may be extended by the Supreme Court given sufficient cause.

The table below provides a list of judgments of the Supreme Court which have been considered on appeal from the TDSAT. Our research has revealed seventeen instances where judgements of the TDSAT were appealed to the Supreme Court. Out of the seventeen cases considered below, in seven, appeals have been allowed and in nine, dismissed (one was withdrawn soon after some arguments had taken place). This demonstrates a fairly average rate of success on appeal, the data not indicating a strong inclination either in saying that the Supreme Court shows deference to the reasoning of the TDSAT or has consistently refused to uphold the reasoning of the TDSAT.

TABLE 2

	Year of Appeal	Date of Judgment	Name of Case	Outcome
1.	2002	17 December 2002	<i>Cellular Operators Association of India v Union of India</i> , (2003) 3 SCC 186	Appeal allowed, Order set aside, remitted to TDSAT
2.	2002	4 March 2003	<i>Department of Telecommunication v Cellular Operators Association of India</i> , (2003) 4 SCC 477	Appeal dismissed (however relief granted by the TDSAT was modified)
3.	2002	31 March 2005	<i>Bharti Telenet Ltd. v Union of India</i> , (2005) 4 SCC 72	Appeal allowed, Order of TDSAT rejecting the case on grounds of delay set aside, case remitted to TDSAT for fresh hearing on merits.
4.	2006	28 April 2006	<i>Union of India v Millennium Mumbai Broadcast Pvt. Ltd.</i> , (2006) 10 SCC 510	Appeal dismissed.
5.	2006	24 November 2006	<i>Hotel and Restaurant Assn. v Star India Pvt. Ltd.</i> , (2006) 13 SCC 753	Appeal allowed.
6.	2005	3 April 2007	<i>Star India Pvt. Ltd. v Sea TV Network Ltd.</i> , (2007) 4 SCC	Appeal dismissed.

			656	
7.	2004	23 August 2007	<i>Union of India v Tata Teleservices (Maharashtra) Ltd.</i> , (2007) 7 SCC 517	Appeal allowed, case remanded to TDSAT for a fresh adjudication and disposal after appropriate counter-claim is allowed to be filed (which was not allowed earlier)
8.	2006	30 April 2008	<i>Reliance Infocomm Ltd. v Bharat Sanchar Nigam Ltd.</i> , (2008) 10 SCC 535	Appeal dismissed.
9.	2005	30 April 2008	<i>Tata Teleservices Ltd. v Bharat Sanchar Nigam Ltd.</i> , (2008) 10 SCC 556	Appeal dismissed.
10.	2003	14 May 2008	<i>Bharat Sanchar Nigam Ltd. v BPL Mobile Cellular Ltd.</i> , (2008) 13 SCC 597	Appeal dismissed, since no substantial question of law had arisen.
11.	2003	5 October 2010	<i>Sistema Shyam Teleservices Ltd. v Union of India</i> , (2010) 10 SCC 165	Appeal dismissed.
12.	2003	5 October 2010	<i>Bharti Cellular Limited v Union of India</i> , (2010) 10 SCC 174	Appeal dismissed.
13.	2010	29 November 2010	<i>Bharat Sanchar Nigam Ltd. v Reliance Communication Ltd.</i> , (2011) 1 SCC 394	Appeal allowed, remitted to the TDSAT for hearing in accordance with the interpretation given by the SC to a clause in an agreement.
14.	2011	30 May 2011	<i>Assam Cable Communications P. Ltd. v Zee Turner Ltd.</i> , 2011 (4) UJ 2108	Appeal withdrawn.
15.	2007	11 October 2011	<i>Union of India v Association of Unified Telecom Service Providers of India</i> , (2011) 10 SCC 543	Appeal from all impugned orders allowed after settling all substantial questions of law involved.
16.	2012	5 December 2012	<i>Aircel Ltd. and Ors. v Bharti Aircel Ltd.</i> , (2012) 13 SCC 398	Appeal dismissed.
17.	2011	17 April 2014	<i>Association of Unified Tele Services Providers and Ors. v Union of India</i> , Civil Appeal No. 4591 of 2014	Judgement of TDSAT set aside, allowing DoT's appeal.

The table below provides a list of judgments from the Delhi High Court that review TDSAT Orders. Out of the twelve decisions that our research revealed, in ten, the Court dismissed

the Writ petition. In seven of these dismissed petitions, it stated that there was no procedural infirmity on the grounds of which interference was called for and it would not enter the merits and act as a court of appeal, and in three of them, it agreed with the findings of the TDSAT and hence found no reason for interference. In one case, the petition was allowed and the case was remanded to the TDSAT for fresh adjudication since it was a non-speaking Order. In another decision, a writ was attempted to be revived but the Court found an alternative solution which was to be available soon, and thus did not revive it.

TABLE 3

	Date of Judgment	Name of Case	Outcome
1.	22 January 2013	<i>Reliance Communications Ltd. v. Bharti Airtel Ltd.</i>	No procedural infirmities with reasoning of TDSAT in interim order, thus writ set aside.
2.	20 December 2012	<i>Yakesh Anand v. Union of India</i>	TDSAT had delivered a split verdict and the imbroglio could not be resolved since it did not have a third Member. Court noted that the Government had served show cause notices to the respondents on the same subject matter, which had been challenged in a separate writ petition. Court gave orders to make this other adjudication time bound. Since the imbroglio would be resolved once the latter judgement was delivered, the Court did not enter the issues of the writ petition here. Petition disposed of, not revived.
3.	21 February 2011	<i>MSM Discovery Pvt. Ltd. v New Delhi Television Ltd.</i>	TDSAT had given detailed orders giving adequate reasons, there was no procedural irregularity or illegality or acting in excess of jurisdiction. The order thus did not warrant interference and the writ petition was dismissed.
4.	22 December 2010	<i>MSM Discovery Pvt. Ltd. v. Union of India</i>	High Court agreed with finding of TDSAT, passing interim order which had adequate reasons, therefore saw no ground for interference and dismissed writ petition.
5.	11 August 2010	<i>MSM Discovery Pvt. Ltd. v Viacom 18 Media Private Ltd.</i>	High Court dismissed writ petition against interlocutory order of TDSAT.
6.	27 October 2009	<i>Intermedia Cable Communication Pvt. Ltd v Zee Turner Ltd.</i>	Court held that the TDSAT interim order was a non-speaking order, passed without stating any reasons. Hence the matter was remanded to

			TDSAT for fresh adjudication.
7.	16 September 2009	<i>ICOS Entertainment v. Zee Turner Ltd.</i>	Court held that there was no ground for interfering with the TDSAT interim order under the given facts, although the case could be reopened if a new disclosure was made. Hence, the writ petition was dismissed.
8.	29 July 2009	<i>Digicable Network India Pvt. Ltd. v. Star Den Media Services Pvt. Ltd.</i>	High Court, on writ petition against TDSAT interim order, refused to enter into merits of the argument and sit as a court of appeal. Thus directed both petitioners and respondents to cooperate with the interim orders of the Tribunal. Writ petition dismissed.
9.	16 April 2009	<i>Entertainment Network (India) Ltd. v Union of India</i>	Certain modified interim orders of the TDSAT were challenged, whereby it was contended that the modifications had been made in error without looking into all the facts offered by the petitioner. High Court stated that the TDSAT was entitled to modify its own orders and the same was not procedurally irregular nor had it overlooked substantive provisions of the law. Thus an interference was not called for under Article 226 which only deals with matters of procedure. Writ petition dismissed.
10.	28 February 2005	<i>Star India Pvt. Ltd. v Shanskardhani Cable Network</i>	Writ petition to review/modify interim order passed by TDSAT. High Court observed that TDSAT had given orders to adjourn the matter and hear the Government's decision at a date in the near future. Thus there was no point in entertaining the petition at this stage. Moreover, even if the decision was not communicated to the TDSAT on time, it would be the task of the Tribunal to pass an order accordingly, not the High Courts. Writ petition dismissed.
11.	16 December 2005	<i>Intermedia Cable Communication Pvt. Ltd v Zee Turner Ltd.</i>	TDSAT interim orders, in the nature of mandatory injunctions, were challenged. These are granted in the rarest of cases. High Court noted that TDSAT was mindful of all relevant concerns while passing the orders. Thus, petition was dismissed and

			TDSAT was directed to proceed without being influenced by any observation in the High Court's judgement.
12.	1 February 2005	<i>Music Broadcast Pvt. Ltd. v Union of India</i> , (2005) 4 Comp LJ 565 (Del)	Interference with interim orders of TDSAT sought but Court noted that they had acted after reasonable inspection of facts and law and thus with no procedural infirmity, there was no ground for interference. Petition dismissed.

There have been a few decisions by other High Courts as well. In one case, the Bombay High Court dismissed a petition on the ground that procedural infirmity giving cause for interference had not been established. In another, the Andhra Pradesh High Court rejected the claim that the TDSAT had acted in excess of its jurisdiction and without consideration of natural justice, and thereby dismissed the writ petition. In yet another decision, the Madras High Court quashed the TDSAT's order in exercise of its writ jurisdiction.

TABLE 4

Name of Case	Date of Judgment and Court	Outcome
<i>Indusind Media and Communication Ltd. v. TDSAT</i>	Bombay High Court, 2013 (4) Bom CR 766	Petition against TDSAT's refusal to grant interim orders as requested. Court held that there was no procedural infirmity and thus it would not interfere. Writ petition dismissed.
<i>Sun TV Ltd. v. Tata Sky Ltd. and TDSAT</i>	Madras High Court, (2007) 5 MLJ 277	On the issue of challenge to jurisdiction of the Court to entertain the petition: Held, even if a fraction of a cause of action has arisen within the territorial jurisdiction of a Court, that is sufficient for the Court concerned to entertain a petition. Petitioner had its registered office and business in Chennai, even if the first respondent had its office in Delhi and the TDSAT which has passed the impugned Orders was housed in Delhi – whatever relief if was granted from Delhi would have an effect on Sun TV, Chennai. Therefore, there is jurisdiction under 226 to review

		the TDSAT's orders. On the merits: The TDSAT had passed an interim order granting a final relief, after having discussed exhaustively certain issues that were to be discussed only at the stage of final hearing for final order. By this the TDSAT had violated the settled legal proposition that the final relief cannot be granted at the interim stage. Thus its order was liable to be quashed.
<i>Akash Cable T.V. Network Pvt. Ltd. v TDSAT</i>	Andhra Pradesh High Court, 6 July 2006, W. P. Nos. 27978 of 2005 and 768 of 2006, 2006 (2) APLJ 291	TDSAT final order challenged as being arbitrary and without jurisdiction. Court interpreted the definition section of the TRAI Act to hold that the parties to the dispute before TDSAT who are cable operators are also service providers as envisaged by the Act and therefore the dispute lay within the jurisdiction of the Tribunal and not the MRTTP Commission as claimed, and it had not acted in excess of its jurisdiction. Court also held that there was no violation of natural justice by TDSAT. Thus, the petition was dismissed.

Unlike the Supreme Court however, we notice a discernible deference towards the TDSAT from the High Courts. There is a marked reluctance to interfere with the orders of the TDSAT unless they found that there was breach of the principles of natural justice or principles of civil procedure. Most of the writ petitions here were presented against the interim orders of the TDSAT and in all but three instances, were dismissed. Therefore, in twelve out of fifteen cases the High Courts did not interfere in the orders of the TDSAT. This could be attributed in one respect to the quality of the judgments from the TDSAT. The jurisdiction of the High Court under Article 226 not encompassing the width of the appeal jurisdiction of the Supreme Court under the TRAI Act, and the average TDSAT judgment being well reasoned and based on law, the High Courts therefore seem to have deferred to the TDSAT's reasoning in all but rare instances.

(1) Do the judgments of the Tribunal reflect sound reasoning and proper application of law to the facts?

Ans: Yes, the sample of judgments examined by us indicate that the TDSAT examined and appreciated the facts and relevant law in detail before passing the order, though there seems to be some confusion on the nature of review being undertaken. However, a larger sample of judgments will have to be examined for more definite conclusions in this respect.

(2) How do the superior courts deal with findings of law and fact made by tribunal in appeal or in review?

Ans: We find that there is no discernible trend in the way in which the Supreme Court has examined the TDSAT judgments in appeal. On the other hand, in all but the rarest cases, the High Courts show deference to TDSAT orders and judgments in judicial review.

4. Analysis of Tribunals, Appellate Tribunals and Other Authorities Bill, 2014 in context of TDSAT

The Tribunals Bill was introduced in the Rajya Sabha on 17 February 2014. The Bill seeks to provide for uniform service conditions with regard to retirement age, tenure of appointment, accommodation for Members and Chairpersons of tribunals, appellate tribunals and authorities performing quasi-judicial functions. The Bill seeks to include the TDSAT within its purview, as specified in the First Schedule to the Bill.

In the event that this Bill is passed by Parliament in its present form, a few provisions of this law will affect the TDSAT. A minor point of difference is the increased term of office for Chairperson and Members – increased from three years to five. There are also minor alterations in the age of retirement, though not substantial. For a Chairperson or other Member who has been a Judge of the Supreme Court, the age of retirement is seventy years, whereas for those who have been a Chief Justice or Judge of a High Court, the corresponding age is sixty seven years, and for all other Chairpersons or Members, the retirement age is sixty five years. Most provisions of the Bill are concerned with allowances and medical benefits, pension and conditions for suspension of pension, conditions for grant of leave, prohibition of arbitration or practice, and the like. None of these provisions are addressed in the TRAI Act, and are governed under the TDSAT Salaries Rules. This Bill will thus not substantially affect the functioning of the TDSAT or address some of the problems we have highlighted above.

MODULE-V

MEDIA, INTERNET & TELECOM LAWS

TELECOMMUNICATIONS AND INTERNET PRIVACY IN INDIA

Today in India, privacy is threatened perhaps the most by the internet and telecommunications. On one hand the increased use of these technologies allows individuals to become more visible, accessible, and interconnected. On the other hand, the same technologies allow governments, corporations, and other entities unrestricted access into the lives of the public. For example, individuals are plagued with spam messages and unsolicited marketing calls/text messages, risk fraud and phishing attacks as they transact online, have personal information gathered, used, and sold without permission or knowledge, and risk having service providers retain user data and history.

Furthermore, online privacy is threatened as the users often do not have control over the information that they generate and the line between what is private information, and what is public information is often fuzzy. This has created a situation where information displayed on social networking sites can be used as evidence against an individual or to make decisions about the individual. Employers now look into an individual's Facebook profile as part of the process for deciding whether to hire or promote a person and law enforcement agencies make decisions based off of social media content. For example, in 2012 a number of individuals were arrested in India for comments tweeted or posted on Facebook. This included two girls, one of whom had posted a comment on the death of politician Bal Thackeray, and her friend who liked the comment. Among other questions, these incidents raise the question of whether speech on social media is private or public.

Another large component of privacy on the internet is with regards to how law enforcement can access online communications and habits through interception, access, or monitoring. The legitimacy for interception in India hinges on its conformance with constitutional provisions that allow reasonable restrictions on the exercise of fundamental rights to India's citizens. The interception of private or personal communications involves restrictions on the right to freedom of expression and the right to privacy. While the Constitution does not explicitly guarantee a right to privacy, the courts in India have consistently read that right into the definition of the fundamental right to life and personal liberty. These rights are not absolute and the courts have held that parliament may impose reasonable restrictions on the exercise of fundamental rights.

Countries around the world have taken steps to address privacy issues that arise from the internet, including adopting legislation implementing do not track standards, the right to be forgotten, breach notification, standards around lawful access, and data retention policies. This chapter will explore what legislation and protections India has in place to protect the privacy of individuals' communications and online behavior, what case law has added to the understanding of communication and internet privacy, how these policies and legislation are being implemented, and what the international best practices are.

Legislation

The Information Technology Act, 2000

In India the Information Technology Act, 2000 (ITA) was passed as a law addressing digital content and to grant legal recognition to transactions carried out by means of electronic communication. The ITA contains a number of provisions that can, in some cases, safeguard online and computer related privacy, or in other cases, can dilute online and computer privacy. For example, the ITA contains interception provisions for authorized agencies, allows the government to set the national encryption standard, regulates what content can and cannot be put online, and prohibits the anonymous use of the internet. On the other hand, the ITA creates penalty for child pornography, hacking, and fraud, and lays out data protection standards for corporates conducting digital or online business. The Information Technology Act applies to any offence or contravention of the Act committed in or outside of India if the offence involves a computer, computer system, or computer network located in India. Below is a description and analysis of provisions that relate to privacy.

Digital Signatures: The ITA provides for the use of digital signatures for authenticating electronic records. This is done through the use of asymmetric encryption, so that the electronic record can be verified using the public key of the subscriber. In India, the issuance of Digital Signatures is the responsibility of the Controller of Certifying Authorities, who can either issue digital signatures to End Users directly, or through the Registration Authorities/Local Registration Authority. A few Certification Agencies in India include: National Informatics Centre, Institute for Development & Research in Banking Technology, TCS, MtnlTrustline, GNFC, SafeScript, e – MudhraCA.

Hacking: The ITA does not define the term ‘hacking’ activities such as accessing a computer, downloading copies or extracts of data, introducing a computer virus in the system, etc. are made punishable under the ITA.

Voyeurism: The ITA clarifies that a “private area” means the naked or undergarment clad genitals, pubic area, buttocks or female breast”, “publishes” means reproduction in the printed or electronic form and making available to the public, “under circumstances violating privacy” means circumstances in which a person can have a reasonable expectation that he or she could disrobe in privacy, without being concerned that an image of his private areas was being captured or, any part of his or her private area would not be visible to the public, regardless of whether that person is in a public or private place.

Section 354C of the IPC provides a similar protection, but provides varying penalties for the first and second offense. When comparing the two, the penalties are different – as the IPC provides for two levels of penalty for offenders. 66E also includes the publishing and transmission of a picture of any persons, whereas the IPC includes watching or capturing the image of a woman engaged in a private act. When reading the two provisions together, it is not clear if an individual can be punished for the first time under ITA 2008 and for the second time under IPC.

Interestingly, there have been many sex and MMS scandals in India which have not been heard under section 66E, presumably because the section only came into being in the year 2008. According to a note issued by the Ministry of Home Affairs in 2012, section 66E can also be used for cases of cyber bullying and cyber stalking.

Child Pornography: The ITA prohibits the publishing and transmission of digital material that depicts children in a sexually explicit way. This includes: publishing, transmitting, creating text or images, collecting, seeking, browsing, downloading, advertising, promoting, exchanging, or depicting the same. Furthermore, cultivating, enticing, or inducing children into a sexually explicit act online is prohibited. The term ‘children’ is defined as any person under the age of 18.

Breach of Confidentiality and Privacy: The ITA prohibits the disclosure of information that is obtained without consent of the relevant individual.

Regulations for Intermediaries: The Intermediaries due diligence requirements are provided in the Information Technology (Intermediary Guidelines) Rules, 2011 (“**Intermediary Guidelines**”) and lay down the regulations for intermediaries to follow concerning the content that passes through their systems. The rules also establish what content is and is not allowed to be posted by individuals, and holds intermediaries responsible for ensuring that websites are in compliance with the provisions.

Regulations for Cyber Café: The Information Technology (Guidelines for Cyber Café) Rules, 2011 provide regulations for the maintenance of user records by cyber cafés. Critical information under the Rules includes forms of identification and user browsing information.

Encryption Standards: There are two places in Indian law which lay down regulations for encryption in India. The ITA, provides the Central Government with the power to set the nationally permitted standard for encryption. The Internet Service Providers License, currently sets this limit at 40 bit (even though the ISP License is issued under the Telegraph Act, 1885 and not the ITA. Additionally, the ISP License restricts service providers from employing bulk encryption of their networks, and requires that any individual or entity using encryption over 40 bit must seek permission from the Department of Telecommunications and deposit the key with the Department.

Electronic Service Delivery: In April 2011 the Electronic Service Delivery Rules to the Information Technology Act were notified. The Rules enable state governments to deliver public services through electronically enabled kiosks and other electronic service delivery mechanisms. In doing so the Rules maintain that state governments must create a system for the electronic delivery of services, and the appropriate authorities must create and maintain repositories of electronically signed records.

Interception of Communications: The interception powers laid out in the ITA were amended in 2008, and in 2009 the *IT Procedure and Safeguards for Interception, Monitoring, and Decryption of Information Rules*, 2009 (“**IT Interception Rules**”) were notified.

Monitoring and Collection of Traffic Data: The collection and monitoring of traffic data is legalized through rules notified under 69B.

Provisions in the ITA that relate to the privacy principles include:

Oversight

o *Monthly Reporting for Cyber Cafes:* The cybercafé must submit hard and soft copies of the monthly report of the log register by the 5th day of every month to the person or agency specified by the Department of Telecommunications.

o *Inspection of Cyber Cafes:* Any officer authorised by the registration agency may check and inspect any cybercafé and the computer resource or established network at any point of time for the purpose of ensuring compliance. The cybercafé owner must provide every related document, register, and necessary information to the inspecting officer on demand.

This provision dilutes individual privacy as there are no safeguards such as court order, official rank, and specified circumstance to protect against undue access to information by law enforcement.

· *Investigatory powers for the Controller:* The ITA creates the Controller of Certifying Authorities, who is responsible for a number of functions including, but not limited to: supervising the activities of the Certifying Authorities, certifying public keys of the Certifying Authorities, laying down standards for Certifying Authorities. When section 28 is read with the Information Technology (Reasonable security practices and procedures and sensitive personal data or information) Rules, 2011 the CCA is empowered to obtain information from any company or body corporate. According to the statute, the body corporate is required to give the information to the CCA or be penalized under section 44(a). The Controller or any officer authorized by him, will have the power to undertake investigation of any contravention of the provisions of the ITA. The Controller or any person authorized by him shall, if he has reasonable cause to suspect that any contravention of the provisions of Chapter 6 (Regulation of Certifying Authorities) of the ITA, Rules or Regulations has been committed, have access to any computer system, any apparatus, data or any other material connected with such system, for the purpose of searching and obtaining any data contained in or available to such computer system. Furthermore, the Controller or any person authorized by him may, by order, direct any person in charge of, or otherwise concerned with the operation of, the computer system, to provide him with such reasonable technical and other assistance as he considers necessary.

· *Competent Authority to authorize interceptions:* According to the IT Interception Rules, the Secretary of the Ministry of Home Affairs has been designated as the "competent authority" to issue directions permitting the interception, monitoring, and decryption of communications. At the State and Union Territory level, the State Secretaries respectively in charge of the Home Departments are designated as "competent authorities" to issue interception directions. In unavoidable circumstances the Joint Secretary to the Government of India, when so authorised by the Competent Authority, may issue an order. In further

cases of emergency the interception, monitoring, or decryption of information may be carried out with approval from the head or the second most senior officer of the security and law enforcement agency at the central level and an authorised officer at or above the rank of police inspector general or equivalent at the state or union territory level. According to the 2008 amendment, the Central Government or State Government, or any of its officers specially authorised, may issue directions for interception.^{xix} According to the unamended 2000 statute, only the Controller, who was an individual empowered by the Central Government, was given the authority to give direction for interception. The IT Interception Rules serve as a dilution from the original 2000 statute, as they appoint multiple authorities capable of issuing interception orders at the State level and in unavoidable circumstances.

· *Agencies of the government to intercept:* If authorised by the competent authority, any agency of the government may intercept, monitor, or decrypt information transmitted, received, or stored in any computer resource only for the purposes specified in section 69(1) of the ITA.^{xxi} The IT Interception Rules further provide that the competent authority may give any decryption direction to the decryption key holder.

· *Review committee to validate interception directions:* Every two months, a review committee is required to meet and record its findings as to whether the direction is valid. If the review committee is of the opinion that it is not, it can set aside the direction and order the destruction of all information collected. A copy of every direction issued by the competent authority must be forwarded to the review committee within a period of seven working days.

· *Nodal officer to authenticate directions:* The agency authorised by the Secretary of Home Affairs will appoint a nodal officer (not below the rank of superintendent of police or equivalent) to authenticate and send directions to service providers or decryption key holders.

· *List of interception orders:* Every fifteen days the officers designated by the intermediaries are required to forward to the nodal officer in charge a list of interceptions orders received by them. The list must include the details such as reference and date of orders of the competent authority.

Accountability

· *Interception Orders:*

- *No interception order without permission of competent authority:* Every act of interception, monitoring or decryption of any information generated, transmitted, received or stored in any computer resource shall require an order of approval issued by the competent authority.
- *Information required in interception order:* The reasons for ordering interceptions must be recorded in writing, and must specify the name and designation of the officer to whom the information obtained is to be disclosed, and also specify the uses to which the information is to be put.

- *Reasons for interception:* Any direction issued by the competent authority must contain the reasons for direction, and must be forwarded to the review committee seven days after being issued.
- *Consideration of alternate means:* In the case of issuing or approving an interception order, in arriving at its decision the competent authority must consider all alternate means of acquiring the information.
- *Period for interception directions to stay in force:* The directions for interception will remain in force for a period of 60 days, unless renewed. If the orders are renewed they cannot be in force for longer than 180 days.
- *Interception in case of emergencies:* Any approved interception order in the case of an emergency must be communicated to the competent authority within three days of its issue, and approval must be obtained from the authority within seven working days. Failing that, the order lapses.
- *Interception beyond jurisdiction:* If a state wishes to intercept information that is beyond its jurisdiction, it must request permission to issue the direction from the Secretary in the Ministry of Home Affairs.
- *Agency officer to issue order to nodal officer:* The officer of the security agency issuing an order for interception is required to issue requests in writing to designated nodal officers of the service provider.
- *Provision of facilities and assistance:* Upon receiving an order for interception, service providers are required to provide all facilities, co operation, and assistance for interception, monitoring, and decryption. This includes assisting with: the installation of the authorised agency's equipment, the maintenance, testing, or use of such equipment, the removal of such equipment, and any action required for accessing stored information under the direction. Additionally, decryption key holders are required to disclose the decryption key and provide assistance in decrypting information for authorized agencies.

Though the 2000 statute required a subscriber, intermediary or any person in charge of a computer resource to extend assistance and facilities and technical assistance to decrypt information, the 2008 Amendment expanded these orders by requiring the above.

Openness

- *Mandatory privacy policy for intermediaries:* All intermediaries are required to publish a mandatory privacy policy and user agreements. The intermediary must inform its users that in the case of non-compliance with the established rules and regulations, the intermediary has the right to terminate the access or usage rights of the user and remove non-compliant information.

Security

- *Security protocol for intermediaries:* Intermediaries are required to provide any authorised governmental agency with information that is requested in writing for the purpose of: verification of identity; the prevention, detection, investigation, and

prosecution of cyber security incidents; and punishment under any law currently in force. The broad reasons for which law enforcement are permitted to access information, particularly for the purpose of verifying identity could be used to facilitate tracking and invasion of privacy.

- *Security protocol for cyber cafes:* Cybercafés must take all precautions necessary to ensure that their computer systems are not used for illegal activities. This includes having in place safety/filtering software so as to prevent access to web sites relating to pornography, obscenity, terrorism, and other objectionable materials.
- *Physical layout in cyber cafes:* Cybercafés must install partitions that are no higher than four and half feet and all screens must be installed to face outward. Additionally, the screens of all computers other than those situated in partitions or cubicles, must face outward into the common open space of the cybercafé. This requirement serves to detract from the physical privacy of cyber cafe users, as it is not possible to use a computer without one's screen being open to viewing by other users.
- *Encryption of sensitive records held by companies delivering services electronically:* The appropriate government is allowed to determine the manner of encryption and confidentiality for sensitive electronic records while they are electronically signed.
- *Security procedures for maintenance of electronic data held by companies delivering services electronically:* The appropriate government must specify the security, management, and storage procedures for maintenance of electronic data, information, applications etc. stored in the repository by companies delivering services electronically.
- *Internal checks to prevent unauthorized interception:* The service provider must put in place adequate internal checks to ensure that unauthorised interception does not take place, and to ensure that secrecy of intercepted information is maintained. This includes ensuring that the interception and related information are handled only by the designated officers of the service provider.

Disclosure

- *Surveilled material to be disclosed only for intended purpose:* The contents of intercepted, monitored, or decrypted information will not be used or disclosed by any agency, competent authority, or nodal officer for any purpose other than its intended purpose and to the intended recipient.
- *Prohibition of unauthorized disclosure for companies providing the electronic delivery of services:* All companies providing services electronically must submit a declaration stating that the data of every individual transaction and citizen will be protected. If unauthorized disclosure without consent takes place, the service provider will be debarred from providing that service any further.
- *Required disclosure to law enforcement by intermediary:* Intermediaries are required to provide any authorised governmental agency with information relating to the removal of content prohibited under the ITA, that is requested in writing for the purpose of: verification of identity; the prevention, detection, investigation, and prosecution of cyber security incidents; and punishment under any law currently in

force. The broad reasons for which law enforcement are permitted to access information, particularly for the purpose of verifying identity could be used to facilitate tracking and invasion of privacy.

- *Required Disclosure for companies providing the electronic delivery of services:* Records maintained by Service Providers must be disclosed to any agency or person nominated by the appropriate government for inspection and audit.
- *Disclosure of intercepted material by security agencies:* Authorised agencies are prohibited from using or disclosing contents of intercepted communications for any purpose other than investigation, but they are permitted to share the contents with other security agencies for the purpose of investigation or in judicial proceedings. Furthermore, security agencies at the union territory and state level will share any information obtained by following interception orders with any security agency at the centre.

Purpose Limitation

o *Prohibition of content to be hosted by intermediary:* Among other content, individuals are not allowed to host, display, upload, modify, publish, transmit, update or share information that:

- Belongs to another person and to which the user does not have any rights;
- Is grossly harmful; harassing; blasphemous; defamatory; obscene; pornographic; pedophilic; libellous; invasive of another's privacy; hateful or racially/ethnically objectionable; disparaging; related to money laundering; harmful to minors;
- Violates another's intellectual property rights or any law in force;
- Is deceptive or misleading; impersonates another;
- Contains software viruses or any other computer code designed to interrupt, destroy, or limit the functionality of a computer resource .

If a notice is served to an intermediary concerning prohibited information under the ITA, the intermediary must respond within 36 hours.

This provision could potentially serve to protect the privacy of individuals, as it prohibits content that is privacy infringing, and could be used by individuals to take down personal information, yet the broad terminology also places the freedom of expression at risk.

o *Surveillance for specified purposes:* Any authorised agency or body is permitted to intercept, monitor, or decrypt information that is generated, transmitted, received, or stored in any computer resource for the specified purpose.

These permitted actions originate from the 2008 amendment, lvi but diverge from the 2000 statute, which originally provided for only the interception and decryption of information that was transmitted from any computer resource.lvii Thus, the 2008 amendment has expanded surveillance in two ways: 1. by additionally allowing for the monitoring of any information 2. by allowing for surveillance on information that is generated, transmitted,

received, or stored in any computer resource— rather than information that is only transmitted.

o *Permitted conditions for surveillance:* Conditions in which interception, monitoring, and decryption is permitted include: in the interest of the sovereignty or integrity of India, the defence of India, the security of the state, friendly relations with foreign states, or public order, or to prevent incitement to the commission of any cognizable offence relating to the same, or for investigation of any offence.

Of these, the 2008 amendment added 'defense of India' and 'or for investigation of any offence', and the competent authority may additionally issue directions to any agency of the government to monitor and collect traffic data for a range of "cyber security" purposes including, *inter alia*, "identifying or tracking any person who has breached, or is suspected of having breached or being likely to breach, cyber security". Thus, the 2008 amendment expanded the circumstances for interception, monitoring, and decryption.

Collection Limitation

- *Retention of Information by Intermediaries:* Any information removed by the intermediary upon notice will be preserved for a period of 90 days for the purposes of investigation. This provision is a potential threat to privacy because of the large amount of (sensitive) information that could be taken down, stored by the intermediaries, and used by law enforcement agencies.
- *Retention of records by Cyber Cafes:* Cybercafés must record, maintain and prepare four types of records:
 - Copies of identity documents which have either been scanned or photocopied are to be maintained securely for a period of one year.
 - A log register containing the required information for a period of one year. Online copies of the log register are to be maintained and must be authenticated with an electronic or digital signature.
 - Cybercafés must also prepare a monthly report of the log register showing dated details on the usage of their computer systems that is to be submitted to the person or agency as directed by the registration agency.
 - The cybercafé owner must store and maintain backup register logs for at least six months. These logs must include:
 - history of websites accessed using computer resource at cyber cafe
 - logs of proxy servers installed at cyber café.
- *Mandated proof of identity at Cyber Cafes:* The rule establishes seven acceptable forms of identification, at least one of which must be presented before an individual is allowed to use the cyber café's facilities. In addition, the individual may also be photographed for establishing his/her identity. All children must also carry a proof of identity or be accompanied by an adult when using a cybercafé.
- *Data Retention of licenses and permits by companies electronically delivering services:* All authorities that issue a license, permit, certificate etc. must create a repository of the signed records and retain these records. The manner in which these

documents must be retained will be established by the appropriate government. Additionally, the appropriate government has the authority to direct any service provider to retain records of the transactions, receipts, and vouchers collected from payments.

- *Destruction of interception records:* All records, including electronic records, pertaining to interception must be destroyed by the government agency every six months, except when required for functional purposes. In addition, all records pertaining to directions for interception and monitoring are to be destroyed by the service provider within a period of two months following discontinuance of interception or monitoring, unless they are required for any ongoing investigation or legal proceedings.

Notice

· *Notice of non-compliance with terms:* The intermediary must provide notice to users that in the case of non-compliance with the provisions of the Rules, user agreement and privacy policy, the intermediary has the right to take down non compliant information and prevent access to the information.

This provision of notice is limited in many ways. Most importantly, intermediaries are not required to provide notice that content has been taken down, and the Rules do not require that users are notified of the presence of cookies and do-not track options.

Quality/Verification

· *Verification of changes to records held by companies delivering services electronically:* All changes made to records held by companies delivering services electronically, held in a repository, including updating or correcting the record, must be signed by the person authorized to make the changes along with time stamps of the original creation and modification.

Penalty/Offenses/Liability/Remedy

· *Grievance Officer for complaints pertaining to content online hosted by intermediaries:* The intermediary must publish the name and contact details of the grievance officer as well as mechanism by which users can notify their complaints. The grievance officer must redress the complaints within one month of the date the complaint was received.

Though the provision of a grievance mechanism protects privacy it does not provide for any compensation to be paid to the aggrieved individuals whose privacy was infringed for before the information was taken down.

· **Hacking**

Offense	Fine	Imprisonment
Any person who without permission of the owner of a computer, computer system accesses or secures access to, downloads, copies or extracts any data from, introduces or causes to be introduced any computer contaminant or computer virus into, damages, disrupts, denies access to such computer system or charges services availed of by one person to another person.	Damage upto 1 crore	

Whoever with the intent to threaten the unity, integrity, security, or sovereignty of India or strike terror in the people denies authorised personnel access to computers, attempts to penetrate or access a computer resource without authorisation, or introduces malware to any computer, is considered to be committing an act of cyber terrorism.		Imprisonment for life
---	--	-----------------------

· **Voyeurism**

Offense	Fine	Imprisonment
Whoever, intentionally or knowingly captures, publishes or transmits the image of a private area of any person under circumstances violating the privacy of that person, and without consent.	Not exceeding two lakh rupees	Up to three years

· **Child Pornography**

Offense	Fine	Imprisonment
The publication or transmission of explicit or sexual material pertaining to children in an electronic form is prohibited. Any person who creates text or digital images, collects, seeks, browses, downloads, advertises, promotes, exchanges, or distributes material in any electronic form that depicts children in a sexually explicit manner, cultivates entices or induces children to online relationship with one or more children for a sexually explicit act, facilitates abusing children online, or records in electronic form sexual abuse of children.	May extend to ten lakh rupees	Five Years

· **Breach of Confidentiality and Privacy**

Offense	Fine	Imprisonment
Disclosure of information accessed without consent.	May extend to one lakh rupees	Up to two years

· **Disclosure of information in breach of lawful contract**

Offense	Fine	Imprisonment
Disclosure of information by a person or intermediary with the intent of causing wrongful loss or wrongful gain, without the consent of the person concerned, or in breach of a lawful contract.	May extend to five lakh rupees	Up to three years

· **Interception**

Offense	Fine	Imprisonment
Service providers that do not comply with interception requests from authorised agencies.	Amount not specified	Seven years

Intermediaries or any employee of the same who intentionally and without authorisation attempts to intercept, authorise, or assist any person to intercept information in transmission at any place within India	May extend to one lakh rupees	Two years
--	-------------------------------	-----------

Case Law: Information Technology Act 2000

Shashank Shekhar Mishra v. Ajay Gupta

In the case of *Shashank Shekhar Mishra v. Ajay Gupta*, Delhi High Court, 5-09-2011 Shashank Shekhar's laptop was stolen along with all the data in it when the defendant, barged into Shashank's premises and snatched his laptop, which contained confidential and personal information including vital financial data relating to the bank account of his mother and credit card account of his cousin, all of which had the potential of being misused as well as personal messages and private photographs. The Court recognized the limitations of Section 43 of the ITA, which provides penalty for damaging a computer or computer system, and held that in this case, where the laptop was snatched and contained personal and confidential information, the civil court has the right to award damages, despite section 61 of the ITA which requires that when possible, cases must be heard only by the Cyber Appellate Tribunal constituted under the Act. Discussing this issue the High Court held:

"9. Coming to damages, as noted earlier, the laptop stolen by the defendant contained vital and important data as also the computer programme authored by [Shashank]The plaintiff must have suffered a lot of mental agony and anxiety on account of theft of the computer programme authored by him as well as all important data which was stored in the laptop. He would always remain apprehensive and live under a constant fear that the data which he had stored in the laptop may be misused either by the defendant or any other person who is able to have access to it, causing substantial financial loss to him besides mental trauma, agony and anxiety, which he is bound to suffer in case that data is used. The anxiety and mental trauma of the plaintiff on account of his being deprived of the work authored by him needs to be appreciated taking into consideration the tremendous effort which he must have made in developing that computer programme.

11. Though Section 43 of the Information Technology Act, 2000 provides for payment of damages by way of compensation in case of theft of a computer source Code....., it does not provide for payment of damages for theft of any other type of data other than computer source Code used for a computer resource. Hence, the jurisdiction of a Civil Court is not excluded under Section 61 of the Act."

In its final decision the Court proceeded to award the plaintiff exemplary damages of Rs. 10 lakh, which is a significant amount of compensation for mental agony. The court also discussed how the defendant's actions violated the privacy of the plaintiff:

“8.The privacy of the plaintiff has already been invaded by the defendant snatching the laptop containing the above-referred private information since he thereby had access to that private information of the plaintiff. The defendant has no right to part with that information to any person and thereby give them an opportunity to invade the privacy of the plaintiff. The

plaintiff, therefore, is entitled to an injunction restraining the defendant from parting with the aforesaid information to any person as also from using it in any manner.”

Case Highlights

Because section 43 of the Information Technology Act 2000 only provides for damages in case of theft of computer source code, it does not take away the power of a court to award damages for mental agony, etc. caused by the theft of a laptop containing personal and sensitive information.

K.N. Govindacharya v. Union of India

There are a number of criticisms of the Intermediary Guidelines such as the lack of an independent authority to judge whether the content is objectionable before taking it down, shifting of the burden to prove that the content is damaging on the person putting up the content rather than the person alleging that its objectionable, shifting the blame on the intermediaries for third party content, lack of proportionality, vague requirements and standards, etc. Another problem with the Intermediary Guidelines stems from Section 1(2) of the Information Technology Act, 2000 which makes the Act applicable to “any offence or contravention thereunder committed outside India by any person” thereby giving it extra territorial jurisdiction, i.e. makes this Indian law applicable to people outside India as well, whether they are Indians or foreigners. The implications of this extra territorial jurisdiction came to the fore in a recent interim order dated August 23, 2013 in a Public Interest Litigation (PIL) *K.N. Govindacharya v. Union of India*,^{lxxxiii} where the Hon’ble Delhi High Court held that even websites such as Google and Facebook will have to comply with the Intermediary Guidelines since they fall within the definition of the term “Intermediary”.

However the implications of applying such onerous obligations on non Indian citizens are not discussed anywhere in the order. This could mean that the Intermediary Guidelines can possibly be applied to any website which is accessible from India irrespective of who runs it, from where or for what purpose. Furthermore in the same PIL it was urged by the petitioners that minors should not be allowed to open facebook and orkut accounts since they are not allowed to enter into contracts. The Court agreed with this argument and held that:

“there is no dispute that children below the age of 13 years are not permitted to open such accounts. It is not in dispute that if it comes in the knowledge of any person that a child below the age of 13 years has opened such an account he may make a complaint to the social networking site who shall then take appropriate action, after verification, for deletion of that account.”

On the other hand the websites have argued that not allowing minors to open accounts would limit their right to freedom of speech and expression. The PIL is still pending in the Delhi High Court and a final decision on this issue is yet to be taken.

Case Highlights

The provisions of the Information Technology Act apply to citizens and non citizens. This could possibly protect privacy of foreigners, by extending privacy protections under the act to foreigners, but could also dilute privacy by permitting governmental access to foreign data.

Indian Telegraph Act 1885

The Indian Telegraph Act, 1885 (TA) was passed to govern telegraphy, phones, communication, radio, telex and fax in India. The Act allows any authorized public official to intercept communications. In 2007 interception rules were issued under Rule 419 of the Indian Telegraph Rules. The TA allows any authorized public official to intercept telephonic communications. Provisions that relate to the privacy principles include:

Oversight

- *Authorization of Interception Orders:* Interception may only be authorised by the Secretary of the Ministry of Home Affairs in the case of the Central Government and the Secretary of the Home Department in the case of the State Government or an officer at or above the rank of a Joint Secretary, who has been authorised by the Union Home Secretary.
- *Approval of interception orders for emergent cases:* In the case of remote areas or where for operational reasons obtaining directions for interception is not feasible, interception will take place with authorisation from the head or the most senior officer of the security agency at the Central level or officers not below the rank of Inspector General of Police. For emergent cases, the tapping order must be sent to the competent authority for approval within three days. If the order is not approved within seven days, the interception must cease.
- *Constitution of a Review Committee:* The review committee should be constituted of: a Cabinet Secretary, Secretary to the Government of India incharge Legal Affairs, Secretary to the Government of India of the Department of Telecommunications. At the State level, the review committee must consist of: Chief Secretary, Secretary Law, Secretary to the State Government other than the Home Secretary.

Accountability

Chain of Custody for Interception:

- *Designated authorities in security agencies to send interception orders:* All security agencies must designate an official not below the rank of Superintendent of Police to authenticate and send interception orders to the designated officers of the service providers.

- *Orders to be sent to review committee:* A copy of every order issued by the competent authority must be sent to the review committee within seven working days.
- *Designated officer to convey interception order:* Directions for interception must be conveyed to the designated officer of the service provider by an officer not below the rank of Superintendent of Police or Additional Superintendent of Police or the officer of the equivalent rank.
- *Designated officer of service provider to handle interception orders:* The service provider must designate two senior officers in every licensed service area as nodal officers to receive and handle interception orders.
- *Service provider officer to maintain records:* The designated officer authorized to intercept any message must maintain records including: the intercepted message, the particulars of the person whose message was intercepted, the name and details of the officer who intercepted the message, the number of copies that were made of the message, the mode and method of the copies made, and the date of destruction of the copies, and the duration within which the orders remain in force.
- *Service provider officer to acknowledge receipt of interception order:* The officers appointed by the service providers must acknowledge the receipt of an order for interception within two hours of receiving the order. Every 15 days the nodal officer of the service provider must forward a list of interception authorisations to the nodal officers to confirm its authenticity. The list must include the date of the orders, the date and time of receiving the orders, and the date and time of implementation.

Security

- *Internal checks:* Service providers must put in place internal checks to ensure that unauthorized interceptions of messages do not take place and the secrecy of messages is maintained.
- *Handling of intercepted messages:* Service providers must ensure that intercepted messages are only handled by the appointed nodal officer.

Disclosure

• *Specified disclosure required:* The interception order should specify the name and the designation of the officer of the authority to whom the intercepted message will be disclosed to and the use of the intercepted message.

Purpose Limitation

- *Circumstances for Interception:* Communications can be intercepted under the TA during public emergencies or in the interest of public safety provided that certain other grounds also apply, namely, such interception is in the interest of sovereignty and integrity of India, the security of the State, friendly relations with foreign states, public order and the prevention of incitement of offences.

- *Reasons for interception to be stated:* Interception orders must contain the reasons for the order.
- *Specific interception orders:* Interception orders must describe a specific individual and specific address or premises.
- *Duration of Interception Order:* Each order unless, canceled earlier, is only valid for 60 days and can only be extended to a maximum of 180 days.

Collection Limitation

- *Other means for collection:* While issuing directions for interception the competent authority must determine if it is possible to obtain the information through other means.
- *Destruction by security agencies:* Records of directions for interception must be destroyed every six months by the relevant competent authority and the authorized security and Law Enforcement Agencies – unless they are required for 'functional requirements'.
- *Destruction by Service Providers:* Service providers must destroy records pertaining to directions for interception within two months of discontinuing the interception.

Quality/Verification

• *Review committee to validate legality of wiretap:* A review committee is to meet every two months at the central/state level and must validate the legality of the wiretap. When the review committee finds that an order is not legal, they may set aside the order and have any intercepted messages destroyed.

Liability/Remedy Penalty/Offenses

• *Liability:* Service providers are to be held responsible for the actions of their employees, and if a violation of the IT Rules takes place, action will be taken against the service provider.

• *Unauthorized Interception*

Offense	Fine	Penalty
Unauthorized interception	Amount not specified	Imprisonment for up to three years.

Case Law: Indian Telegraph Act 1885

People's Union for Civil Liberties v. Union of India

It is interesting to note here that although the power of interception had always existed under the Telegraph Act, no rules or regulations were prescribed regarding the procedure to be

followed for interception nor any safeguards were laid down. This issue was taken note of by the Supreme Court in the case of *People's Union for Civil Liberties v. Union of India*, Supreme Court of India, 18-12-1998 which is one of the most influential cases in the entire privacy paradigm because it was due to the efforts of the Supreme Court in this case that the Central Government issued Rules under the Telegraph Act, 1885 regarding interception of communications.. It is also significant that the principles and safeguards developed in this case have been followed in most Indian legislations regarding interception of communications ever since. Discussing the right to privacy, the Supreme Court in the *PUCCL* case held:

“Telephone - Tapping is a serious invasion of an individual's privacy. With the growth of highly sophisticated communication technology, the right to hold telephone conversation, in the privacy of one's home or office without interference, is increasingly susceptible to abuse. It is no doubt correct that every Government, howsoever democratic, exercises some degree of subrosa operation as a part of its intelligence outfit but at the same time citizen's right to privacy has to be protected from being abused by the authorities of the day.

The right privacy - by itself - has not been identified under the Constitution. As a concept it may be too broad and moralistic to define it judicially. Whether right to privacy can be claimed or has been infringed in a given case would depend on the facts of the said case. But the right to hold a telephone conversation in the privacy of ones home or office without interference can certainly be claimed as "right to privacy". Conversations on the telephone are often of an intimate and confidential character. Telephone conversation is a part of modern man's life. It is considered so important that more and more people are carrying mobile telephone instruments in their pockets. Telephone conversation is an important facet of a man's private life. Right to privacy would certainly include telephone-conversation in the privacy of one's home or office. Telephone-tapping would, thus, infract Article 21 of the Constitution of India unless it is permitted under the procedure established by law.

Right to freedom of speech and expression is guaranteed under Article 19(1) (a) of the Constitution. This freedom means the right to express ones convictions and opinions freely by word of mouth, writing, printing, picture, or in any other manner. When a person is talking on telephone, he is exercising his right to freedom of speech and expression. Telephone tapping unless it comes within the grounds of restrictions under Article 19(2) would infract Article 19(1)(a) of the Constitution.”

It is interesting to note that in *People's Union for Civil Liberties v. Union of India*, Supreme Court of India, 18-12-1998 the Supreme Court also discussed the meaning of the term “public emergency” under section 5(2) of the Telegraph Act noting that:

*“26. Learned counsel assisting us in this case have not seriously challenged the constitutional vires of Section 5(2) of the Act. In this respect it would be useful to refer to the observations of this Court in *Hukam Chand Shyam Lal vs. Union of India & Ors.* 1976 (2) SCC 128:-*

28. Section 5(2) of the Act permits the interception of messages in accordance with the provisions of the said Section. "Occurrence of any public emergency" or "in the interest of public safety" are the sine qua non for the application of the provisions of Section 5(2) of the Act. Unless a public emergency has occurred or the interest of public safety demands, the authorities have no jurisdiction to exercise the powers under the said Section. Public emergency would mean the prevailing of a sudden condition or state of affairs affecting the people at large calling for immediate action. The expression "public safety" means the state or condition of freedom from danger or risk for the people at large. When either of these two conditions are not in exercise, the Central Government or a State Government or the authorised officer cannot resort to telephone tapping even though there is satisfaction that it is necessary or expedient so to do in the interests of sovereignty and integrity of India etc. In other words, even if the Central Government is satisfied that it is necessary or expedient so to do in the interest of the sovereignty and integrity of India or the security of the State or friendly relations with sovereign States or public order or for preventing incitement to the commission of an offence, it cannot intercept the messages or resort to telephone tapping unless a public emergency has occurred or the interest of public safety or the existence of the interest of public safety requires. Neither the occurrence of public emergency nor the interest of public safety are secretive conditions or situations. Either of the situations would be apparent to a reasonable person."

At the end the Supreme Court laid down various safeguards to be followed before an order for interception could be passed under the Telegraph Act and these directions were later adopted and incorporated into the interception rules promulgated by the ministry by way of an amendment to the Telegraph Rules, which we shall discuss below.

State of Maharashtra v. Bharat Shanti Lal Shah and others

As mentioned above, the safeguards for the interception provisions in most legislations in India follow the directives laid down by the Supreme Court in *PUCL's* case and incorporated in the Telegraph Rules. This is also true of anti-terrorism legislations such as the Maharashtra Control of Organized Crime Act, 1999 (MCOCA) which contain interception provisions in Sections 13 to 16. The legislative competence of the state to enact these provisions was challenged in front of the Supreme Court in the case of *State of Maharashtra v. Bharat Shanti Lal Shah and others*, 1-9-2008. The Supreme Court while deciding on the constitutional validity of the impugned sections, observed that though the interception of communications is an invasion of an individual's right to privacy, the right to privacy is not absolute, thus the court is required to see that the procedure itself is fair, just, and reasonable. In the case, the Court held:

"44. The interception of conversation though constitutes an invasion of an individual right to privacy but the said right can be curtailed in accordance to procedure validly established by law. Thus what the Court is required to see is that the procedure itself must be fair, just and reasonable and non arbitrary, fanciful or oppressive.

45. *The object of the MCOCA is to prevent the organised crime, and a perusal of the provisions of Act under challenge would indicate that the said law authorizes the interception of wire, electronic or oral communication only if it is intended to prevent the commission of an organised crime or if it is intended to collect the evidence to the commission of such an organized crime. The procedures authorizing such interception are also provided therein with enough procedural safeguards, some of which are indicated and discussed hereinbefore. In addition under Section 16 of the MCOCA, provision for prohibiting and punishing the unauthorized use of information acquired by interception of wire, electronic or oral communication has been made. Thus as the Act under challenge contains sufficient safeguards and also satisfies the aforementioned mandate the contention of the respondents that provisions of Section 13 to 16 are violative of the Article 21 of the Constitution cannot also be accepted.*”

Interception provisions also exist in some of the more significant anti crime and anti terror legislations in India such as the Terrorist and Disruptive Activities (Prevention) Act, 1987, the Maharashtra Control of Organised Crimes Act, 1999, the Prevention of Terrorism Act, 2002, etc. These provisions lay down the conditions as well as safeguards required for legal and lawful interception of telecommunications and also deal with the evidentiary and investigative value of such intercepted conversations. In the case of *State (N.C.T. of Delhi) v. Navjot Sandhu @ Afsan Guru (Afsan Guru case)* the Supreme Court of India considered the legality and validity of intercepted conversations in the following manner:

“The legality and admissibility of intercepted telephone calls arises in the context of telephone conversation between Shaukat and his wife Afsan Guru on 14th December at 20:09 hrs and the conversation between Gilani and his brother Shah Faizal on the same day at 12:22 hrs. Interception of communication is provided for by the provisions contained in Chapter V of the POTO/POTA which contains Sections 36 to 48. The proviso to Section 45 lays down the pre-requisite conditions for admitting the evidence collected against the accused through the interception of wire, electronic or oral communication. Chapter V governing the procedure for interception and admission of the intercepted communications pre-supposes that there is an investigation of a terrorists act under the POTA has been set in motion. It is not in dispute that the procedural requirements of Chapter V have not been complied with when such interceptions took place on 14th December, 2001. But, as already noticed, on the crucial date on which interception took place (i.e. 14th December), no offence under POTA was included whether in the FIR or in any other contemporaneous documents. We have already held that the non- inclusion of POTO offences even at the threshold of investigation cannot be legally faulted and that such non-inclusion was not deliberate. The admissibility or the evidentiary status of the two intercepted conversations should, therefore, be judged de hors the provisions of POTO/POTA. On the relevant day, the interception of messages was governed by Section 5(2) of the Indian Telegraph Act read with Rule 419-A of the Indian Telegraph Rules. The substantive power of interception by the Government or the authorized officer is conferred by Section 5. The modalities and procedure for interception is governed by the said Rules. It is contended by the learned senior counsel appearing for the two accused Shaukat and Gilani, that even the Rule 419A,

has not been complied with in the instant case, and, therefore, the tape- recorded conversation obtained by such interception cannot be utilized by the prosecution to incriminate the said accused. It is the contention of learned counsel for the State, Mr. Gopal Subramaniam, that there was substantial compliance with Rule 419A and, in any case, even if the interception did not take place in strict conformity with the Rule, that does not affect the admissibility of the communications so recorded. In other words, his submission is that the illegality or irregularity in interception does not affect its admissibility in evidence there being no specific embargo against the admissibility in the Telegraph Act or in the Rules. Irrespective of the merit in the first contention of Mr. Gopal Subramaniam, we find force in the alternative contention advanced by him.

In regard to the first aspect, two infirmities are pointed out in the relevant orders authorizing and confirming the interception of specified telephone numbers. It is not shown by the prosecution that the Joint Director, Intelligence Bureau who authorized the interception, holds the rank of Joint Secretary to the Government of India. Secondly, the confirmation orders passed by the Home Secretary (contained in volume 7 of lower Court record, Page 447 etc.,) would indicate that the confirmation was prospective. We are distressed to note that the confirmation orders should be passed by a senior officer of the Government of India in such a careless manner, that too, in an important case of this nature. However, these deficiencies or inadequacies do not, in our view, preclude the admission of intercepted telephonic communication in evidence. It is to be noted that unlike the proviso to Section 45 of POTA, Section 5(2) of the Telegraph Act or Rule 419A does not deal with any rule of evidence. The non-compliance or inadequate compliance with the provisions of the Telegraph Act does not per se affect the admissibility. The legal position regarding the question of admissibility of the tape recorded conversation illegally collected or obtained is no longer res integra in view of the decision of this Court in R.M. Malkani v. State of Maharashtra, [(1973) 1 SCC 471]. In that case, the Court clarified that a contemporaneous tape record of a relevant conversation is a relevant fact and is admissible as res gestae under Section 7 of the Evidence Act.”

Thus it seems from the above that the Supreme Court is of the view that even if the procedure prescribed under the Telegraph Act and Rules for interception of conversations is not followed even then the intercepted communications would be admissible in evidence since the Telegraph Act and the Rules thereunder do not lay down any rule regarding the evidentiary value of illegally intercepted communications.

Case Highlights

- Interception of conversation, though constitutes an invasion of individual privacy, this right can be curtailed in accordance with procedure validly established by law.
- This procedure for intercepting communications must be fair, just and reasonable and not arbitrary, fanciful or oppressive.

Comparison of interception provisions under ITA and TA:

- **Grounds for interception:** The TA creates two levels of circumstances that must met before the interception of communications can take place: 1. A public emergency must be in force or in the interest of public interest or safety 2. If the former is satisfied, interception may take place if it is found to be in the interests of the sovereignty and integrity of India, the security of the State, friendly relations with foreign States or public order, or for preventing incitement to the commission of an offence. The ITA expands these powers by removing the condition of 'public emergency, public interest, public safety' and allowing for interception to additionally take place for the investigation of any offence.
- **Types of interception:** The ITA allows for the interception, monitoring, and decryption of information, while the TA allows only for the interception of communications.
- **Types of information:** The ITA allows for the interception of information that is generated, transmitted, received or stored in a computer resource, while the TA allows for interception of information from any message or class of message brought for transmission by or transmitted or received by any telegraph.
- **Provision of facilities:** The ITA requires that intermediaries must provide all facilities, co-operation, and assistance for the interception, monitoring, or decryption of information. Such a requirement is not found in the TA.
- **Disclosure of decryption key:** The ITA requires that if requested by the nodal officer decryption key holders must disclose decryption keys and provide decryption assistance. No such a requirement is found in the TA.
- **Intermediary to provide technical assistance:** The ITA requires that the intermediary must provide technical assistance and the equipment including hardware, software, firmware, stores, interface, and access to the equipment wherever requested for the purposes of installing interception equipment, maintaining interception equipment, removing interception equipment, or performing any action required for access to stored information.^{cxvi} Such a provision is not found in the TA.
- **Destruction of records by service providers/intermediaries:** The ITA requires that the intermediary should destroy records pertaining to an interception within a period of two months of discontinuance unless required for an ongoing investigation, criminal complaint, or legal proceeding. Under the TA the service provider is required to destroy records two months after discontinuance of the interception order. Thus there does not seem to be any requirement on the service provider under the TA to keep the records beyond two months even if required for an ongoing investigation.
- **Security:** The ITA allows any person authorized by the service provider to access the communications system for the purpose of installing a computer resource, maintaining a computer resource, installing a communication link for the intermediary, accessing stored information relating to the maintenance etc. of the communication link, accessing or analyzing information from a computer resource for the purposes of: implementing information security practices, determining any security breaches, undertaking forensics as part of an investigation or audit, accessing

information for the purpose of tracing a computer resource of someone who has contravened or is suspected of contravening the provisions of the Act. An equivalent provision is not found in the TA.

- **Sharing with concerned agencies:** Whenever asked by a concerned agency at the Central level, the state level agencies will share any information that they have obtained while following directions for interception. An equivalent provision is not found in the TA.
- **Interception, monitoring, or decryption beyond the state jurisdiction:** If a State Gov. etc. requires interception beyond its jurisdiction the Secretary in charge of the Home Department will request permission from the Secretary of Ministry of Home Affairs.

Policies/Licences

In India interception powers are also given to the government through the Internet Services License (ISP) Agreement and the Unified Service Agreement License (UASL) for service providers. In practice, both licenses afford the government expansive access to communication data held and processed by service providers. It must be noted that since both the ISP and the UAS License Agreements are issued under the TA, technically the interception of messages under both these licenses can only be done if the conditions specified under the TA and the interception rules are satisfied. However, because of the additional obligations imposed upon the Service Provider under these licenses there is a very high risk of interception of messages in violation of the relatively stricter conditions enumerated in the TA and the interception rules issued under it since these additional obligations make the actual act of interception very easy for the authorities.

License Agreement for Provision of Internet Services

According to the Agreement for Provisions of Internet Services, the Government is afforded expansive access to communication data held by ISPs. Aspects that relate to the privacy principles include:

Oversight

· *Authorization for monitoring:* Monitoring shall only be by the authorization of the Union Home Secretary or Home Secretaries of the States/Union Territories.^{cxxii}

· *Types of access permitted to law enforcement, licensor, or authorized officials:*

o *Access to log books by the licensor:* The licensor or its authority will have access to record files and logbooks stored by service providers.^{cxxiii}

o *Access to subscriber list by authorized intelligence agencies and licensor:* The complete and up to date list of subscribers will be made available by the ISP on a password protected website – accessible to authorized intelligence agencies.^{cxxiv} Information such as customer name, IP address, bandwidth provided, address of installation, data of installation, contact number and email of leased line customers shall be included in the website.^{cxxv} The licensor

or its representatives will also have access to the Database relating to the subscribers of the ISP which is to be available at any instant.cxxvi

· *Circumstances for monitoring:*

o *Right to monitor by the central/state government:* The designated person of the central/state government or the licensor or nominee will have the right to monitor telecommunications traffic in every node or any other technically feasible point in the network. To facilitate this, the ISP must make arrangements for the monitoring of simultaneous calls by the Government or its security agencies.cxxvii

o *Right of DoT to monitor:* DoT will have the ability to monitor customers who generate high traffic value and verify specified user identities on a monthly basis.cxxviii

· *Inspections to be carried out:*

o *Inspection of premises:* Periodic inspections will also be carried out on the premises of Internet leased line customers to check for possible misuse.cxxix

· *Right of the licensor to take over network:* The licensor has the right to take over the service equipment and networks of the ISP in the case of the public interest, national emergency, low intensity conflict, or any other reason when ordered to do so by the government.

Accountability

· *Provision of information by the ISP to defined authorities:*

- *Provision of mirror images:* Mirror images of the remote access information should be made available online for monitoring purposes. A safeguard provided for in the license is that remote access to networks is only allowed in areas approved by the DOT in consultation with the Security Agencies.
- *Provision of information stored on dedicated transmission link:* The ISP will provide the login password to DOT and authorized Government agencies on a monthly basis for access to information stored on any dedicated transmission link from ISP node to subscriber premises.
- *Provision of location details of equipment provided:* The ISP will also provide the licensor with location details of the equipment provided by the ISP.
- *Provision of subscriber identity and geographic location:* The ISP must provide the traceable identity and geographic location of their subscribers, and if the subscriber is roaming – the ISP should try to find traceable identities of roaming subscribers from foreign companies.

· *Provision of facilities by ISP*

- *Facilities for monitoring:* The ISP must provide the necessary facilities for continuous monitoring of the system as required by the licensor or its authorized representatives.

- *Facilities for tracing:* The ISP will also provide facilities for the tracing of nuisance, obnoxious or malicious calls, messages, or communications. These facilities are to be provided specifically to authorized officers of the Government of India (police, customs, excise, intelligence department) when the information is required for investigations or detection of crimes and in the interest of national security.
- *Facilities to counteract espionage:* ISPs should also provide facilities to the government from time to time to counteract espionage, subversive acts, sabotage or any other unlawful activity.
- *Facilities and equipment to be specified by government:* The types of interception equipment to be used will be specified by the government of India. This includes the installation of necessary infrastructure in the service area with respect to Internet Telephony Services offered by the ISP including the processing, routing, directing, managing, authenticating the internet calls including the generation of Call Details Record, IP address, called numbers, date, duration, time, and charge of the internet telephony calls.cxl
- *Facilities for surveillance of mobile terminal activity:* The ISP must also provide the government facilities to carry out surveillance of Mobile Terminal activity within a specified area whenever requested.
- *Facilities for monitoring international gateway:* As per the requirements of security agencies, every international gateway location having a capacity of 2 Mbps or more will be equipped will have a monitoring center capable of monitoring internet telephony traffic.
- *Facilities for monitoring in the premise of the ISP:* Every office must be at least 10x10 with adequate power, air conditioning, and accessible only to the monitoring agencies. One local exclusive telephone line must be provided, and a central monitoring center must be provided if the ISP has multiple nodal points.

· *Anonymous Access:* Logins where the identity of the user is not known should not be permitted by the ISP.

Security

· *Protection of privacy:* There is a responsibility on the ISP to protect the privacy of its communications transferred over its network. This includes securing the information and protecting against unauthorized interception, unauthorized disclosure, ensure the confidentiality of information, and protect against over disclosure of information except when consent has been given.

Collection Limitation

· *Records to be maintained and retained by ISP*

- *Log of users:* Each ISP must maintain an up to date log of all users connected and the service that they are using (mail, telnet, http, etc). The ISPs must also log every

outward login or telnet through their computers. These logs as well as copies of all the packets must be made available in real time to the Telecom Authority.

- *Log of internet leased line customers:* A record of each internet leased line customer should be kept along with details of connectivity, and reasons for taking the link should be kept and made readily available for inspection.
 - *Log of commercial communications:* The ISP will maintain a record with regard to all commercial communications exchanged on the network. These records must be archived for at least one year for scrutiny by the licensor or security agencies.
 - *Log of remote access activities:* The ISP will also maintain a complete audit trail of the remote access activities that pertain to the network for at least six months. This information must be available on request for any agency authorized by the licensor.
- **Monitoring requirements:** The ISP must make arrangements for the monitoring of the telecommunication traffic in every MSC exchange or any other technically feasible point, of at least 210 calls simultaneously.
- **Records to be made available:**
- **CDRS:** When required by security agencies, the ISP must make available records of i) called/calling party mobile/PSTN numbers ii) time/date and duration of calls iii) location of target subscribers and from time to time precise location iv) telephone numbers – and if any call forwarding feature has been evoked – records thereof v) data records for failed call attempts vi) CDR of roaming subscriber.cli
 - **Bulk connections:** On a monthly basis, and from time to time, information with respect to bulk connections shall be forwarded to DoT, the licensor, and security agencies.
 - **Record of calls beyond specified threshold:** Calls should be checked, analyzed, and a record maintained of all outgoing calls made by customers both during the day and night that exceed a set threshold of minutes. A list of suspected subscribers should be created by the ISP and should be informed to DoT and any officer authorized by the licensor at any point of time.
 - **Record of subscribers with calling line identification restrictions:** Furthermore, a list of calling line identification restriction subscribers with their complete address and details should be created on a password protected website that is available to authorized government agencies.

Collection Limitation

- *Provision of ID:* Mobile phone subscribers must register the SIM card that they are using.

Case Law

Amar Singh v. Union of India and others,

In *Amar Singh v. Union of India and others*, Supreme Court of India, 11-05-2011 the petitioner claimed that his privacy had been invaded by interception of his calls. The

importance of this case lies in the fact that here the Supreme Court discussed the duties of a service provider when it receives an official request for interception, and held that if the request is full of procedural mistakes, then it is the duty of the service provider to simultaneously verify its authenticity while at the same time acting upon it. Discussing these duties the Court held:

“39. Therefore, while there is urgent necessity on the part of the service provider to act on a communication, at the same time, the [service provider] is equally duty bound to immediately verify the authenticity of such communication if on a reasonable reading of the same, it appears to any person, acting bona fide, that such communication, with innumerable mistakes, falls clearly short of the tenor of a genuine official communication. Therefore, the explanation of the service provider is not acceptable to this Court. If the service provider could have shown, which it has not done in the present case, that it had tried to ascertain from the author of the communication, its genuineness, but had not received any response or that the authority had accepted the communication as genuine, the service provider's duty would have been over. But the mere stand that there is no provision under the rule to do so is a lame excuse, especially having regard to the public element involved in the working of the service provider and the consequential effect it has on the fundamental right of the person concerned.

40. In view of the public nature of the function of a service provider, it is inherent in its duty to act carefully and with a sense of responsibility. This Court is thus constrained to observe that in discharging the said duty, respondent No. 8, the service provider has failed.

41. Of course, this Court is not suggesting that in the name of verifying the authenticity of any written request for interception, the service provider will sit upon it. The service provider must immediately act upon such written request but when the communication bristles with gross mistakes, as in the present case, it is the duty of the service provider to simultaneously verify its authenticity while at the same time also act upon it. The Central Government must, therefore, frame certain statutory guidelines in this regard to prevent interception of telephone conversation on unauthorised communication, as has been done in this case.”

Case Highlights

- Service provider is duty bound to verify the authenticity of a request for interception if on a reasonable reading it falls short of a genuine official communication.
- It is the duty of the service provider to act carefully and with a sense of responsibility.
- Service provider must immediately act upon a request for interception, but if it seems to be full of mistakes, should simultaneously verify its authenticity.

Rayala M. Bhuvaneswari v. Nagaphanender Rayala,

Since the right to privacy is a fundamental right guaranteed by the State one might be tempted to ask whether it is at all possible to safeguard it against a non state actor or a purely

private entity. This question was partially addressed by the case of *Rayala M. Bhuvaneswari v. Nagaphanender Rayala*, Andhra Pradesh High Court, 20-12-2007 where in a matrimonial dispute, the Court discovered that the husband had tape recorded telephone conversation of his wife with her friends and parents, without her consent. Subsequently, he had been using this as evidence, in the divorce case between the parties. The Court held that the act of the husband was illegal and unconstitutional and infringing upon the privacy of the wife, and that even if the tapes are true, they cannot be admissible as evidence. Discussing the spouse's right to privacy the High Court held:

"3.There should be some trust between husband and wife and in any case, in my view, the right of privacy of the wife is infringed by her husband by recording her conversation on telephone to others and if such a right is violated, which is fundamental, can such husband, who has resorted to illegal means, which are not only unconstitutional, but also immoral, later on, rely on the evidence gathered by him by such means. Clearly, it must not be permitted."

The Court then referred to various cases on the right to privacy and the right to order medical examination in matrimonial disputes and held:

"13. For all these reasons, I believe that the act of tapping itself by the husband of the conversation of his wife with others was illegal and it infringed the right of privacy of the wife. Therefore, these tapes, even if true, cannot be admissible in evidence. Hence, Ex.P-18 itself is not admissible in evidence and there is no question of forcing the wife to undergo a voice test and then ask the expert to compare the portions denied by her with her admitted voice."

The importance of this case lies in the fact that the Court has acknowledged that the protection of the right to privacy under Article 21 of the Constitution of India is not only enforceable against the State but also against individuals including their own spouses.

Case Highlights

- Tapping the phone of the spouse without consent is illegal and an infringement of the spouse's right to privacy. Information that is collected through the illegal interception of communications cannot be used as evidence in a court of law.

TRAI Regulations on Unsolicited Marketing Calls

Unsolicited telemarketing calls and text messages, which are sent in bulk pose a threat to privacy, because besides causing disturbance and irritation, bulk text messaging can be used as a tool for phishing. For many years the Government has been cracking down on unsolicited calls. In 2007 the Telecom Unsolicited Commercial Communications Regulations, 2007 were issued. Among other things, the regulations established a National Do Not Call Register and a Private Do Not Call List. According to data released by TRAI in 2007, 6.7 million subscribers were registered with the 'Do Not Call' Registry, yet 3,685 of the subscribers still received unsolicited calls. Since the passing of the 2007 Regulations, new Regulations were passed in 2010 known as the "Telecom Commercial Communications

Customer Preference Regulations, 2010” (CCCP Regulations). Between 2010 and 2011 eight subsequent amendments were passed. The CCCP Regulations work to regulate 'unsolicited commercial communications', which have been defined as any message which is transmitted for the purpose of informing, soliciting, or promoting any commercial transaction in relation to goods, investments or services etc. Excluded from this definition are 'transactional messages', which relate to:

- Information pertaining to the account of a customer and sent by a licensee, bank, insurance company, credit card company, or depositories registered with Securities and Exchange Board of India, or Direct to Home Operators
- Any information given by Airlines or Indian Railways or its authorized agencies to its passengers regarding travel schedules, ticket booking, and reservation,
- Information from a registered educational institution to parents or guardians of its students,
- Any other message as may be specified by the Authority from time to time as a “transactional message”.

To facilitate regulation of unsolicited commercial communications, the 2007 guidelines established a 'National Do Call Register', and a 'Private Do Not Call List', which are applicable under the CCCP Regulations as well. In addition to the “National Do Not Call Register” and the “Private Do Not Call List”, the CCCP Regulations establish the following facilities and categories:

- 'Provider Customer Preference Registration Facility'
- 'Fully blocked' and 'partially blocked' categories
- 'National Customer Preference Register'
- 'National Telemarketers Register'
- 'Provider Customer Preference Register'.

Features of the CCCP Regulations that relate to the privacy principles include: **Oversight**

· The TRAI has the right to constitute an inquiry committee to look into the contravention of the CCCP Regulations.

Accountability

· It will be the responsibility of the service provider to ensure that no telecom resource is provided to a telemarketer unless it has registered itself with the Authority. The Service Provider must also ensure that the telemarketer scrubs the telephone number of the subscriber with the database received from the NCPR before sending any SMS to a telecom subscriber. Every Service Provider must ensure that commercial communications including SMSs are sent to the customer only between 9am and 9pm. However even these measures were not enough to curb the menace of unsolicited marketing calls since most people were using unregistered telemarketers to get around the regulatory framework. Therefore amendments were made to the Regulations in August 2013 which make even the service provider liable for unsolicited calls even if the calls have been made by an unregistered

telemarketers. The Regulations further require the service provider to investigate complaints of unsolicited marketing calls and if they find that a call has originated from an unregistered number then the service provider has to disconnect all telecom resources allotted to the number.

Security

- All service providers must put in place appropriate mechanisms to protect the privacy of communications and subscriber information.

Access and Correction

- Subscribers have the option to change their preference after three months of initial registration in the NPCPR.

Purpose Limitation

- **SMS Limit and charge:** The number of permitted SMS's to be sent per day per SIM is a contested issue, and has not been decided yet. In the past, SMS's had been limited to both 100 and 200 SMS's per day. Currently the regulations provide for a limit of 100 SMS's per day on a concessional scheme and anything above that to be charged at a minimum of 50 paise per SMS.

Choice and Consent

- **Provider Customer Preference Register (PCPR):** Every service provider or agency will set up a toll free Customer Preference Registration Facility that will be identified by the code 1909 and will contain a list of subscribers preferring to be fully blocked and partially blocked. The PCPR must include: the name of each subscriber making the request, the telephone and area code of each subscriber, the date and time of making the request, and details of the option chosen by the subscriber, and the unique registration number. A duplicate copy of the PCPR list will be maintained in at least two places for security purposes. The Private Do Not Call List, as established under the 2007 regulations will be included in this register.

- **National Customer Preference Register (NPCPR):** The NCPR will be maintained by any agency authorized by the Authority. The Register will contain the telephone number and area code of the subscriber indicating their preference, the details of the preference, and any other information specified by the Authority. The NCPR should be updated every 24 hours.

- **National Telemarketer Register:** A National Telemarketer Register shall be set up and maintained by an agency authorized by the Authority. The Register should contain a) details of the telemarketers like registration date, application number, and registration number b) details of the fees deposited by the telemarketer, c) details of the telecom resources allotted to a telemarketer d) the number of notices, along with the date of such notices, served upon the telemarketer by the Access Providers for sending unsolicited commercial communications e) the date of blacklisting of the telemarketer f) other details specified by

the Authority. For registration, a fee must be paid by the telemarketer, and resources will not be given to the Telemarketer unless it is registered. What resources will be given to the telemarketer is not made clear. Every Telemarketer, after registration, will be identified by the numbers '140' and '70'.clxxiv Telemarketers will be black listed if they fail to furnish additional security information, or if they have received and failed to comply with six notices for sending unsolicited commercial communications.

Quality/Verification

- After receiving a request to be placed in the NCPR register from a subscriber, the Service Provider must verify the communication and send a unique registration number to the subscriber within 24 hrs.

Penalty/Offenses/Liability/Remedy

- Complaint mechanism: If an individual still receives unsolicited commercial communications 7 days after registering in the PCPR, he/she may issue a complaint using the code 1909. While making the complaint, the subscriber must provide the particulars of the telemarketer, the telephone number of the unsolicited commercial communications, the date & time, and a brief description of the unsolicited commercial communication. The Terminating Access Provider must acknowledge the complaint with a unique complaint number, and within seventy two hours forward the complaint to the National Telemarketer Register and to the Originating Access Provider from whose network such unsolicited commercial communications originated and take needed action.

- Penalty:

Offence	Fine
If an inquiry is conducted and the service provider is found to have contravened the provisions.	One lakh rupees and in the case of the second contravention five lakh rupees and on the third and each subsequent contravention ten lakh rupees.

Case Law: TRAI Guidelines

Despite having in place guidelines for the regulation of Unsolicited Commercial Communications, implementation has been a challenge. For example, beginning in 2006 and lasting through 2010, a Supreme Court division bench issued a notice against Cellular Operators Association of India, Bharati Airtel, ICICI Bank, and American Express Bank seeking explanation from them as to whether they should be penalized for unsolicited calls/messages on a petition filed by Nivedita Sharma. The State Consumer Commission (Delhi), imposed a fine amounting to Rs 50 lakh on telecom companies and Rs 25 lakh on private banks along with Rs 50,000 to Sharma on account of mental harassment suffered by her. However, the costs were set aside by Delhi High Court. Thus, the State Consumer

Commission ordered TRAI to put in place a 'do not call' register and bring in a number portability rule. Later, in contravention to the fine imposed by State Consumer Commission and the TRAI policy, ICICI bank failed to pay the fine to Nivedita Sharma, whereupon a contempt proceeding was filed before the commission by her. On an application preferred by ICICI to the Delhi High Court bench, the High Court refused to stay the contempt proceedings and said, "You think you are above the law? Every day we receive calls at all times of the day from ICICI for loans, credit cards...now you face the music"

For example, in 2006 the issue of telemarketing practices was brought before the courts as a Public Interest Litigation. The case argued that indiscriminate calls made by companies constituted an invasion of privacy. During the hearing, the bench was clear about the need to regulate and curtail telemarketers' unlimited and free access to mobile numbers. Out of the hearing came the first suggestions for a 'do not disturb' register in India, and the assignment of a prefixed number for telemarketers, enabling easy identification. In Problem is all we know about this case is from news reports, I tried to access the orders in this case but I could only get hold of one order (there have been many orders issued in this case) and that one also wasn't very helpful, it was only half a page. Its probably best not to mention it specially since it's an old case.

Projects and Practices

.IN Registration

An individuals ability to use the Internet anonymously is also limited by the .IN requirements for registration of a domain name. Unlike many countries, .IN, which is regulated by the National Internet Exchange, does not allow for anonymous registration. For example, the Terms and Conditions for Registrants require registering individuals to provide contact details including their full name, postal address, email address, voice & telephone number, and fax number. Registering individuals are also not allowed use proxy services, and are held liable for breaches of the terms and conditions.

Phishing, Hacking, and Fraud

According to statistics, India is among the top three countries which is a target of phishing attacks. Commonly, the targets are various banks and government organizations such as the Income Tax Department. It was reported by CERT-In that there were 3 cases of phishing in the year 2004, and 392 cases of phishing in 2007.^{clxxxii} According to additional government data, there were 386 phishing incidents reported to the CERT-In between January and October, 2011.

One of the first cases of phishing was registered with the Cyber Crime Investigation Cell in the year 2005 by a financial institute. It was alleged that the accused was involved in sending e-mails which appeared to be sent by ICICI Bank. The e-mail requested personal and confidential information from clients. Out of 120 customers that were targeted with the fraudulent email, 80 divulged their banking details, under the impression that it was a genuine request. The accused was charged under Section 66 of the ITA and Sections 419,

420, 465, 468, 471 of the IPC read with Section 51, 63 and 65 of the Copyright Act, 1957^{clxxxiv} Similarly, in 2007, the website of Bank of India was hacked and malware was planted on the site. The malware installs itself on the computers of the visitors and sends sensitive information to the hacker. In another case, a Malaysian national hosted a website which was a replica of the Axis Bank website, duping the customers to part with their confidential passwords and other details.

In 2008, Mr Gulshan Rai, Director General in the Union Ministry of Communication and Information Technology said that the Government has made an effort to define spam and phishing and online frauds. However, it was not defined by the Information Technology (Amendment) Act, 2008. Mr. Rai also noted that, “[t]he number of phishing cases is also increasing among the Indian banks. Almost 7-8 cases of phishing are being reported on an average daily and most of them are hosted from outside ... hosted in one country, registered in another country”.

The problem of phishing is widely recognized by banks in India, though it appears as though they do not like to take responsibility for phishing attacks. In 2011, a former top official of the India Overseas Bank conceded that "most of the time banks pass the responsibility of recovering the money to the customers. They also avoid accepting the incidence of such cases as it may result to damage to its reputation and good will." It was also reported that RBI has laid down certain guidelines banks must follow when they experience fraud, but most of the banks do not follow the guidelines.

In 2012, six foreign nationals were arrested suspected of defrauding people by using text message and email scams. The victims of the scam were told that they have won lottery. "These people have software generating e-mail ids and mobile numbers. They would randomly select them and send thousands of SMSes and e-mails every day," said Joint Commissioner of Police of Mumbai, Himanshu Roy. Also in 2012 a press statement from the Ministry of Communications & Technology alleged that the website of Bharat Sanchar Nigam Limited had been hacked in 2011, and from December 2011-February 2012 112 Government websites were hacked. The statement also noted that according to the Reserve Bank of India, for the years 2009, 2010, and 2011 5,288 internet frauds took place for amounts ranging between Rs. 1 lakh and above.

National E-Governance Plan (NeGP)

In May 2006, the Indian government approved the National E-Governance Plan (NeGP), which was conceptualized as a comprehensive approach towards making government services available to people in their specific localities while meeting goals of efficiency, transparency, reliability, and affordability. Broadly speaking, the infrastructure, governance, and implementation of the National E-Governance plan has many privacy implications. For example, it is proposed to create State Data Centres in order to allow States to consolidate services. The State Data Centre will facilitate services such as: Citizen Information/Services Portal, State Intranet Portal, Disaster Recovery, Remote Management and Service Integration etc. The Department of Information and Technology (DIT) has created guidelines

for the Technical and Financial Support for Establishment of State Data Centres Among other things, the guidelines envision a data retention plan that would be formulated by the State, mechanisms that ensure physical and network security, and puts in place security audits for every six months. The DIT has also created a best practices and guidelines document outlining best practices in data security that the State must develop and enforce when running a State Data Center. Broadly, the guidelines place the obligation on the State to develop and implement trust and identity management policies, security posture assessments, data privacy policies, ensure confidentiality and monitor access to data, and implement disaster recovery and business continuity plans.

The NeGP also envisions the development of Common Services Centers (CSC). CSC's are computer resource centers designed to provide an accessible facility for the delivery of e services in rural and remote areas. Services that will be provided at CSC's include information relating to health, education, agriculture, and employment. Individuals will also be able to complete payments like NREGA, utility payments, and access online banking services. As envisioned, the project has a three tiered governance framework that includes 1.

State Designated Agencies involved in monitoring and supervising the CSC at the state level.

2. A Service Centre Agency – meant to provide the required investment budget and the functional specifications for the CSC 3. Village Level Entrepreneur in charge of running daily operations at the CSC. An example of how CSC's could be used can be seen through DIT's proposal to leverage the CSC network for the carrying out of the NPR project by capturing and entering data at centers.

Public Information Infrastructure

In 2009, Prime Minister M. Singh appointed Sam Pitroda to the cabinet-level position of Adviser to the Prime Minister for Public Information Infrastructure and Innovations, tasked with developing a unified policy for information standards and practices incorporating both intra-government affairs and citizens' services. In June 2010, Mr. Pitroda's office uploaded an online slide presentation on "Strengthening Democracy and Governance: Public Information Infrastructure." The presentation provides a basic overview of his proposal for a robust information system. Included in the scheme is the development of a national repository of information on people, including citizenship, resident, and household data; places, including villages, towns, streets, schools, hospitals, government offices, factories, officers, residences, stations, mines, minerals, dams, plants, rivers, parks, forests, farms, etc.; and programs and other government offices, such as the National Rural Employment Guarantee Scheme, the Public Distribution System, girl child benefit schemes, pensions, the judiciary, police and prisons, treasuries, land records, universalize elementary education, and the National Rural Health mission, among others. Applications hosted on the PII will include a shared Geographic Information System (GIS) for the Survey of India; the National Disaster Management program; the Urban Ministry; the Departments of Space, Security, Environment, Health, and Rural Development; the Planning Commission; as well as private enterprises. Data from these entities will be publicly available on a single portal accessible by a variety of clients, including PCs and mobile phones. The portal will also incorporate

applications, communities, mash-ups, and allow for a variety of analyses on data including survey, remote sensing data, census, education, and health data, as well as forest, land use and groundwater data.

National Data Sharing and Accessibility Policy

This policy was approved by the Union Cabinet on February 9th 2012. The policy is a broad framework that applies to all data and information created, generated, collected and archived using public funds provided by the Government of India for the purposes of enabling *ready access to valuable data is essential for a number of decisions and tasks including development planning, controlling disasters, and national security*. The policy focuses on integrating all governmental databases to facilitate governmental access to information, and is based off of principles like: Openness, Flexibility, Transparency, Legal Conformity, Protection of Intellectual Property, Formal Responsibility, Professionalism, Standards, Interoperability, Quality, Security, Efficiency, Accountability, Sustainability, and Privacy. A data warehouse will be set up to house current and historical data so that this information is in one place.

The policy divides types of data between shareable data and non shareable data, and creates multiple levels of access to data including: open access, registered access, and restricted access. It is also envisioned that all departments will prepare a list of data that is not to be shared within six months of notification. All other data sets will be considered safe to be opened to the public. Meta Data would also be provided which would allow people to know what data is available. Different steps for implementation of the scheme have been outlined such as making data available on an “as-is where-is” basis, and requiring that all valuable data sets be uploaded by the end of three months, all data sets be uploaded by the end of this year, and after that – be updated on a quarterly basis etc. Privacy concerns associated with the policy include possibility of function creep and misuse of data from the integration and sharing of data across governmental departments. Furthermore, the lack of clarity over which authority will be responsible for allowing or restricting access to data creates a vulnerability in the security of the policy.

National Knowledge Commission recommendations

In June 2005, Prime Minister M. Singh constituted the National Knowledge Commission (NKC), an advisory body to the Office of the Prime Minister, with the mandate to recommend policy reforms in the areas of “access to knowledge, creation and preservation of knowledge systems, and dissemination of knowledge and better knowledge services.” After three years of review, the NKC issued a series of reports in the “National Knowledge Commission Final Report 2006-2009.” In its Final Report, the NKC made two recommendations particularly relevant to implementing open government data in India. First, the NKC “recommended the establishment of a high-end National Knowledge Network connecting all ... knowledge institutions in various fields and at various locations throughout the country, through an electronic digital broadband network with gigabit capacity”. Second, the NKC proposed that the government create a series of “national web based portals on

certain key sectors such as Water, Energy, Environment, Teachers, Biodiversity, Health, Agriculture, Employment, Citizens Rights etc. that would serve as a single window for information on the given sector for all stakeholders” . The NKC also recommended that government departments should make data sets they have available in a digital format. It is unclear to what extent this recommendation has been followed.

Private Public Partnerships

As governments move towards implementing e-governance projects, they engage with private entities through Public Private Partnerships (PPPs) to help in the design, implementation, and delivery of services. Though these businesses help in designing and implementing various projects, privacy becomes a concern when the private sector collects personal information, as often the information is protected only through contract. An example of how PPP's challenge privacy can be seen through the project developed between Tata Consultancy and the Indian Government. In October 2008, Tata Consultancy Services a prominent software services company in India was awarded a Rupees 1000 crore project to “provide passport-related services to Indian citizens in a speedy, convenient and transparent manner.” In the absence of anything in the Passport Act prohibiting the outsourcing of essential functions, the task of safeguarding of citizens’ privacy falls to the domain of contract law – assuming the contract between the state and the company contained a standard confidentiality clause - and the limited provisions of the IT Act dealing with data protection. The contractual option does not provide reliable privacy safeguard since it is only enforceable by the state against the private company and the state has had, at best, a patchy record of defending its contractual rights against private companies. The following extract, from a newspaper account about the outsourcing of biometric data collection illustrates the fluidity with which data sharing across databases occurs today between governments and contracted companies. *“The project, conceived by WFP in 2007, was started a year ago with Hyderabad-based 4G Identity Solutions Pvt. Ltd as technology partner. Using its 125-member team, the firm digitized old ration card registers and mapped these with the database of the 1997 BPL survey and 2002 household survey. The gram panchayat target beneficiary database was then transferred to some 6,000 enrollment stations in 2,445 villages, 41 wards and three urban local bodies where people queued up to get their biographic and biometric data recorded. Data from enrollment stations were sent to the 4G data centre for aggregation where de-duplication was done using a multi-modal biometric engine to check for fake enrollments. A final database of unique card holders was generated and stored in a centralized citizen database. Rural households have been given laminated bar-coded ration cards and coupons since point-of-sale machines cannot be used in villages, several still without electricity.”* Indian Express, August 2003. Though PPP's can greatly help in the delivery and development of infrastructure and services, it is important that the project is regulated by more than just a contract in order to protect the privacy of the data.

State wide E-Governance infrastructure

Increasingly, various states have taken initiatives to transform entire government services and infrastructure to be digital. For instance, in 2012 the State of Kerala announced that it would soon making the state 'fully digital'. This will include providing every citizen with an e-mail ID that would be based on their UID number, thus allowing all communications, transactions, and applications between the government and the citizen would take place through e-mail. Pensions and scholarships would be distributed to entitled individuals via the banks, and all government files will be converted to the digital mode. The underlying architecture to these plans include the establishment of a department wide network which will connect governmental departments and public offices. This network will allow all connected departments to access data, voice, and video services. The department wide network will then be connected to the Kerala State Wide Area Network. Questions related to privacy that the initiative raises include: how will the State ensure that citizens email connections are secure and not accessible by different government departments, how will the state ensure accuracy in converting documents to the digital form, and what security measures will be put in place to ensure that as governmental databases are created – unauthorized access, collation, data mining, and tracking do not take place.

MCA21

In 2006 the Ministry of Corporate Affairs (MCA), Government of India, began to put in place plans for a project known as MCA21. In 2012, the Government has pushed to finish the project. The project aims to convert processes, transactions, and legal requirements found under the Companies Act to the digital. The objective of the service is to allow for transparency and tracking of corporate activities in order to identify and resolve suspicious and fraudulent corporate transactions. Components of the project that impact privacy and that are still unclear include: the extent of information that will be collected, how this information will be stored/secured/deleted, and who will have access to the information.

TAGUP

In February 2011 the Unique Identification Authority of India (UIDAI) Chairman, Nandan Nilekani, submitted a seven-member group's report detailing specific recommendations for IT-intensive projects such as the Tax Information Network (TIN), New Pension Scheme (NPS), National Treasury Management Agency (NTMA), Expenditure Information Network (EIN) and Goods and Service Tax (GST). Among the recommendations, the TAGUP has envisioned that to handle all aspects of IT systems for governmental projects, a National Information Utilities (NIU) will be put in place. The report calls for the use of open data, open standards, using open source, and envisions an interoperable system. Among other things, the report recommends that designers of e-gov projects should take pro-active actions in deciding what information to share publicly, as most information held by the government is required to be shared under the RTI Act. The report also broadly recognizes the need to protect the privacy of data entered into the system and recommends guidelines

that could be included in a privacy legislation. The recommended guidelines include the following:

- *Solution architecture and privacy:* A privacy legislation should put in place rules that can be implemented and incorporated into IT systems and projects from the very start of the project.
- *Personal Identifiable Information:* Personal Identifiable information should be stored separate from other data and in an encrypted form. Separate access controls should be defined for personal identifiable information, and unauthorized access should be penalized.
- *Anonymization of Data:* Data should be anonymized when released to the public. The method of anonymization should follow the logic of k-anonymity – where each record is indistinguishable from k-1 other records.
- *Data Retention:* Data retention policies should be well defined. If records are needed to be retained for long periods of time, personal identifiable information should be scrubbed from logs after a pre-defined time. Individuals should be able to access personal data stored in the IT system after authenticating their identity.
- *Balancing the Right to Privacy with Public Interest:* In the case of national security, economic offenses, tax evasion, and other specified circumstances, Government agencies will need to access or share data. This access should be permitted, but should be carefully regulated by a data protection regime.

Bhoomi

Bhoomi is an e-governance initiative that works to computerize land records. The project was started in Karnataka and designed by the National Informatics Centre (NIC). It focuses on enhancing the delivery and management of land records. The objective of BHOOMI is to reduce the discretion of public officials by allowing for individuals to issue a mutation request online. This allows any individual (farmer & non farmers) to access the database. Individuals who apply online can obtain a printed copy of the RTC by providing the name of the owner or plot number at computerized land record kiosks in taluk offices. A second computer screen faces the clients to enable them to see the transaction being performed. A farmer can check the status of a mutation application on Touch Screen Kiosks. If the revenue inspector does not complete the mutation within 45 days, an individual can approach a senior officer with their grievance.

Important features of the project related to privacy:

- *Security:* The Bio-logon metrics authenticates various users on the Bhoomi software on the basis of fingerprints. This measure ensures that no one can hack into the system by imitating other users.
- *Authenticity:* Original mutation orders of the revenue inspector (who is the authorized person to pass orders in the mutations in the field) and notices served on interested parties are scanned to ensure authenticity and accuracy.

- *Access:* The Bhoomi system is open to all individuals who have a 'revenue number.' The implication of this is that persons who are not the owners of the land are able to collect RTC papers from a Bhoomi Kiosk by quoting a 'revenue no.' Though access is important to facilitate the transparency that the system hopes to achieve, it is possible for this information to be misused.
- *Transparency:* The system makes all division, buying, and selling of land transparent to the public. This gives individuals the ability to follow the transactions of bureaucrats and public officials and monitor the amount of their accumulated wealth. On the other hand, because of the transparency of the system privacy infringing circumstances can come about. For example, Banks who are performing 'due diligence' checks have the ability to access client land records without obtaining prior consent.

Interception

In India, reports of state-sponsored surveillance did not begin to emerge until the 1970s, during Prime Minister Indira Gandhi's declared 'State of Emergency'. The state-sponsored wiretapping that took place during the Emergency changed the nature and justification of surveillance in India from monitoring foreign countries and actors so as to protect citizens and the Government, to monitoring citizens to protect citizens and the Government. This change in the justification for surveillance has influenced subsequent Indian legislation and foreign intelligence policies. India has had a long history of conflicts - from the Kashmir conflict (1962), to the Indo-Pakistani war (1971), to the Kargil war (1999), to the multiple terror attacks throughout the country. In conformance with global surveillance trends, the Indian Government too has responded to these conflicts and acts of violence by reforming local and state law and enforcement, through the creation of niche intelligence agencies, and through a steady expansion of intelligence powers at the Central and State levels. In democracies, because of the freedom of speech that wiretapping seemingly threatens, governments and civil society are usually in constant renegotiation over the details of the wiretapping regime. These negotiations are usually precipitated by the introduction of a new generation of telecommunication technology or laws enacted which conflict with personal liberties. For instance, in India during the 1980's, the People's Union for Civil Liberties (PUCI) staged protests asking for the repeal of certain clauses in Indian interception law.

That said, the Indian Government has a long history of conducting authorized and unauthorized interceptions of communications. For example, during the 'Sikh Terrorism' in 1986, the Government declared nearly half of Punjab as "disturbed" zone. Because of this declaration, the police, under the Terrorist and Disruptive Activities (Prevention) Act, 1987 had the power to open private mails, tap telephones, listen into conversations, and take control of telephones on subjective satisfaction that the said telephone is being used to aid terrorism/communication with people assisting terrorists. The Act empowered the police to take measures without prior approval. With the development of technology, the Government has passed laws which legitimize the interception of all forms of communication including e-mails, sms's, mobile phone calls, instant messaging, etc.

REGULATION OF OTT STREAMING SERVICES IN INDIA

In the past three or four decades, the law rested on a perception of technology that is often inaccurate and that changes slowly as technology changes fast. The technological advances in the audiovisual field have occurred at a fast pace in the last century. The world has moved from films as a sole medium of dissemination of moving pictures to television and now to the internet.

There is a causal link between the changes in the medium used to disseminate audiovisual content and the changes in society. The effect that a medium has on society forms the basis of its regulation by the state. The ongoing digital disruption in the media landscape changed people's perceptions of time and space, bringing about new habits of content consumption that were triggered mostly by the increased accessibility, portability and freedom of choice.

Specifically, the television-watching experience has been revolutionized by the over-the-top (OTT) media services. In India, this revolution has led to a policy vacuum. India currently does not have any guidelines or policies for content regulation on OTT services, a regulatory vacuum that has led to complaints in court and self-regulatory action taken by the industry players.

The Indian media landscape has traditionally been very dynamic. With a diverse population in terms of religion, economic status, caste and language, the issue of content regulation has always been important in India. Government in India has been known for its attempts in the past to censor content on grounds of public morality, communal harmony or the need to protect history, among various reasons.

The OTT services created a parallel medium to disseminate such content. That has led to a situation where the same content might be censored in cinemas and on television, but not on streaming platforms as regulation of content on paid OTT services does not exist.

This brings into question the issue of how the government perceives content regulation, prompting various experts to wonder whether digital disruption can help dilute censorship in India.

India's government, which traditionally tends to maintain its paternalistic role over the distribution channels, usually has an offhand attitude when it comes to bringing policy up to speed with technology.

This paper explores possible patterns of content regulation in India at a time of major technological changes, with the goal to identify good practices in content regulation that take stock of changes in accessibility, portability, cultural disruption and freedom of speech.

Advent of Cinema in India: Emergence of Content Regulation

The first films were exhibited in India during 1896 as the Indian film industry was embarking on a rapid expansion with both imported films and indigenous productions available to the

public. That increasing popularity turned cinema into a medium with impact on the mass audience.

As a result, the Indian Cinematograph Act was introduced in 1918 in India. It was accompanied by the establishment of censorship boards, operational in various provinces, whose task was to judge content based on prevalent, socially accepted standards of morality.

In 1928, during the British rule, the government commissioned the first report about the censorship framework and issues of distribution and exhibition of films in India. The inquiry was prompted by concerns among authorities regarding the effect of cinema on the Indian audience. The report presents a detailed account of the censorship practices and the influence of cinema as a medium on the Indian population. It also explores the influence dynamics between western and indigenous content. The report argued that censorship was needed as cinema as a medium had a much larger effect on the audience than other media: films have a special appeal, creating a vivid impression on the spectator. The Indian Cinematograph Committee (ICC), which was set up in 1928 by the Governor General of India to monitor censorship of cinema films in India, stated that the public opinion in India was not developed and, as the public could not be left to decide what is appropriate or not for the society, censorship was needed.

The main concerns expressed in the report were related to the potential of the western content to alienate the Indian youth from the Indian cultural values and customs. Nevertheless, the committee felt that western content, in fact, helped the Indian audience to get more exposed to diverse content and become better educated. The committee, on the other hand, encouraged exhibition of more Indian content by introducing a quota system that would force cinemas to show a certain amount of local content. The committee found existing censorship framework introduced by the Indian Cinematograph Act of 1919 to be sufficient although, the committee said, some room for improvement remained. The committee added that a centralized body like a cinema department was needed to replace provincial censors.

The 1928 report concluded that sexually explicit content should not be allowed and films that present propaganda by other countries should be censored, regulations that were already in place. The committee concluded that the standards in place were satisfactory but that there was room for improvement. During the colonial period, films that promoted nationalist ideas were subjected to censorship. They included *Bhakta Vidur* (Devotion of Vidura), a 1921 Indian silent film directed by Kanjibhai Rathod, in which the Hindu mythological character Vidura is built on the personality of Mohandas Karamchand Gandhi, India's anti-colonial, nationalist hero. It was the first film banned in India. Other films such as *Battleship Potemkin* and *Orphans of the Storm*, which promoted ideas of fraternity, liberty and freedom inspired by the French Revolution, were also banned. After 1930, with the emergence of the sound film, the demand for Indian films exceeded that for western films.

A new film enquiry committee submitted a report in 1951, after India's independence and one year before the adoption of a new Cinematograph Act. The report found that films in India were watched on average by some 1.6 million people, which was more or less equal to

the reach of daily press. As content regulation was seen as an evolving concept and the social and moral fabric of the Indian society was changing fast, one of the report's recommendations was to renew certification of films every five years, but the new legislation did not include provisions in this direction. The committee also noted in the report that film producers were guided by rather shallow motives related to entertainment than public interest.

The Indian Cinematograph Act of 1952 introduced censorship as a way to arguably protect the audience from immorality in films. Such thinking was similar to the practices from the colonial times. The newly introduced legal provisions reaffirmed the power of the state over the film as a medium. In constitutional debates about whether the exhibition of cinema films should be considered a state or a union subject, policymakers agreed that films were considered an important educational medium that has a major role in building the national character. Apart from that, films were considered an important means of expression, which justified the active role that the central government wanted to play in controlling cinema. As a result, it was eventually decided that exhibition of films was to be regulated at union level, only the central government having the power to sanction films.

The Cinematograph Act of 1952 introduced a rating system for films that included the following categories: U (universal exhibition), A (adult exhibition), UA (with permission after 12 years of age) and S (for professionals). The industry lobbied for a centralized system of film certification as they believed that once a central authority was established, the certification of films would be easier and faster. In short, the industry wanted a change in the philosophy of censorship.

One of the first cases of censorship in the post-independence era was *K.A Abbas vs Union of India*. In this case, the courts considered the justification for censorship and the importance of films as a medium in India. The petitioner was a journalist who produced a short film named *A Tale of Four Cities* that depicted realities of life in four major Indian cities. The request of the producer for a UA certificate from the Censor Board was not approved. The board granted instead a certificate restricting the public viewing to an audience of adults, saying that a UA certificate could be awarded if a scene showing prostitution was removed from the film. The petitioner filed a writ petition before the Supreme Court, claiming that his right to freedom of expression was violated and that the Indian Cinematograph Act of 1952, which empowered the censors, was unconstitutional.

While examining the subject matter the court relied on a report of Khosla Committee, appointed in 1968 to assess the model of censorship in India. The committee had pointed out that India had one of the strictest models of censorship in the world and that there was need for a more liberal form of content regulation. The court observed that motion pictures could not be considered at par with other media as motion pictures serve the lowest denominator of the society and stir emotions and sensitivities in a different way.

The court thus held that categorization and censorship of films based on age and content is a valid classification based on public decency, morality and interest. Although the court stated

that it was the responsibility of parliament to adopt policies and introduce standards for filmmakers, it decided that a list of rules on what may not be shown on cinema, dating back to the colonial times, had to be followed. The amendment of the Indian Cinematograph Act of 1952 was pending in parliament at the time of writing.

In summary, the state control, in one form or another, has been considered justified in the film exhibition industry because, since the early days of cinema in India films were considered a powerful medium that can influence society. As the film industry grew, calls for more liberal forms of censorship and for a more independent censorship board have intensified. Those objectives have not yet been achieved.

Transition to Television in India: Evolution of Content Regulation

While the rise of cinema prompted the government for the first time to act as a content regulator, another powerful medium emerged in India in 1959. Television was introduced in India as an educational project that was initially supported by UNESCO and Ford Foundation. Television as much as radio was largely controlled by the government.

To assess the use of television as a medium in India, the government appointed Chanda Committee to draft guidelines for the broadcasting sector. The report issued by the committee stated that there were growing expectations from television after the government had allocated INR 100bn (the equivalent today of nearly US\$ 1bn) for the development of television over a period of 25 years. The committee's report was released in 1965. It stated that the power of television as a disseminating medium was speculation, similar to the claims that sound broadcasting would become a powerful medium. Like sound broadcasting, television is likely to fade away, the committee claimed. They argued that television was a luxury that served the entertainment interest of the Indian society elites. But the committee also concluded that television could be used as an educational medium to serve the public interest by disseminating relevant information to the general public.

The committee said that television, by showing violent images or degrading characters, could also have an adverse impact on young minds, but if controlled properly such impact can be curbed. Such observations indicated the government's early intent to regulate television content. The committee recommended the government to expand television and bring in more foreign investors to acquire the necessary equipment. According to the committee, television should be expanded to reach out to 113 towns and 2.1 million villages, which would cover 47% of India's total territory. The committee much favored the use of television for promoting development programs related to health and hygiene, agriculture, family planning and techniques of industrial production, among other things.

One of the first major educational programs on television came about as a cooperation between the Indian Department of Atomic Energy and the National Aeronautical and Space Administration (NASA) of the U.S. in 1975. The aim of this program was to provide India's rural population with informal education related to agriculture, family planning, health, children education and recreational programs. The program was initially rolled out in 2,400 Indian villages. It was one of the first experiments used to assess the power of satellite

communication through television as a medium. An impact assessment conducted at the time found that television made people more engaged and aware about the government's various development programs.

Television at the time was still in its nascent stage and was highly manipulated by the government because of its monopoly over broadcasting. Until the 1980s, the sole television content distributor in India was Doordarshan, the country's state broadcaster. One of the few instances where the state demonstrated its power to control the medium was when "Bobby," an Indian Bollywood romance film was aired on television to prevent people from joining an anti-government protest organized by a political leader at exactly that time. During the same period, Doordarshan exhibited more films that promoted Mrs. Gandhi, then Prime Minister of India, as a great political leader with progressive ideas, such as "Indus Valley to Indira Gandhi", "New Students" and "Giton Bhari Sham." At the same time, the television was devoting generous coverage to events organized by the government.

An emergency imposed in India during the time of Indira Gandhi in 1975 brought some of the major concerns of content regulation on the table as the government had the potential to control the people through mass media. When the emergency was over, the government published a white paper that highlighted the misuse of mass media in India as mentioned above through favoring the government. The control of television by the government began to be questioned.

The B.G Varghese Committee was formed to recommend policy guidelines that would ensure autonomy in broadcasting. The committee recommended the creation of the National Broadcasting Trust, which would independently regulate the broadcast sector. The Prasar Bharati Bill of 1979, which was designed to establish a public broadcast service in India, was presented to parliament, but the government fell before the law was adopted. Following Indira Gandhi's return to power in 1980, the government did not support the bill.

A major technological development, the launch of the satellites INSAT-1 A and B by NASA in 1983 had a major impact on television in India as they helped expand the reach of television and at the same time allowed the introduction of color television in India. Hosted by India in 1982, the Asian Games (a continental multi-sport event known as Asiad) were aired on television at the suggestion of S.S. Gill, the secretary general of the committee that organized the games. The games had boosted the public appeal of television. The success also prompted the broadcaster to diversify its content by adding some new popular programming types such as soap operas and mythological drama.

In 1980, discussions in parliament touched on the impact of color television on society, with some of the MPs saying that such a strong medium was not fit for a poor country. Other MPs argued that the government had to expand television to many more Indian states that do not have access to it.

Following these debates, in 1985 the government set up a working group to look into a software development plan for Doordarshan. The original premise behind this initiative was that television advanced at such a fast pace that the society was not able to use it in an

efficient way. The group made recommendations to improve television as a medium that could be used for education, public awareness and development, also exploring issues related to content regulation. Among other things, the group found that the heavy reliance of television on cinema content had a negative effect on the image of women in society. Hence, the group recommended the creation of a programming advisory and monitoring committee that would prevent importation of foreign films and programs that negatively affected the image of women. It also recommended the B.G Varghese Committee to establish an autonomous body in charge of managing television broadcasting.

By 1988 about 12% of the Indian population watched television regularly. As the viewership increased, the Doordarshan came to be increasingly scrutinized by the courts as it became a medium not only promoting public interest but also increasingly critical of the government. One of the first controversial cases involving *Doordarshan was Ramesh vs Union of India*, in which the appellant demanded that the broadcast of “Tamas,” an Indian television series, be halted because it showed communal riots between different religious groups. The court had already concluded that series had been checked by the censorship board and Doordarshan’s management, which both found it suitable for public viewing.

In another case, *Odyssey Communication Pvt. Ltd vs Lokvidyan Sanghtan*, the broadcast of the series “Honi Anthoni” was questioned as critics claimed that it induced fear among people and spread blind faith. The court in this case established that the series was not prejudicial to the community and did not hinder public morality. It concluded that the producer has the right under freedom of expression to exhibit films on Doordarshan.

In yet another case, the broadcast of “Beyond Genocide,” an award-winning documentary related to Bhopal gas tragedy, a leak incident in 1984 that affected nearly half a million people, turned into a controversy. A petition was filed by Professor Manubhai Shah with the Delhi High Court as Doordarshan refused to air the documentary. Following an unfavorable ruling by the High Court, the government appealed to the Supreme Court. Both courts held the view that Doordarshan does not have the right to halt broadcasting the documentary based on its guidelines because such a decision curtailed freedom of speech and expression.

In 1989, when the new government reintroduced the Prasar Bharati Bill to give autonomy to the Indian public service broadcaster, for the first time they defined broadcasting as “dissemination of content through any form of wireless transmission.” In its 1989 form, the bill suffered some alterations. First, the provision on protection of freedom of speech and expression was removed. Another provision led to the creation of a parliamentary committee consisting of members from both houses to oversee the operation of Prasar Bharati.

As television became a heavily regulated medium, for economic reasons the broadcast sector was liberalized, the market opening up to private players and foreign content. Many corporations saw a great potential in the Indian market. The market liberalization led to a massive increase in the number of television channels in India. By 1996, 14.2 million households had access to cable television.

As the broadcast market expanded and foreign content gained momentum, concerns related to content regulation also grew. In 1995, in a landmark judgement, the Supreme Court of India stated: “[...] most people obtain the bulk of their information on matters of contemporary interest from the broadcasting medium. The television is unique in a way in which intrudes into our homes. The combination of picture and voice makes it an irresistibly attractive medium of presentation. It has tremendous appeal and influence over millions of people. Television is shaping the food habits, cultural values, social mores and what not of the society in a manner no other medium has done so far.” Furthermore, the court held that airwaves are public property and government must establish an autonomous body to regulate the frequency spectrum. The court noted that the Indian Telegraph Act was obsolete and inadequate for the impact that broadcasting creates.

Thereafter the government passed the Cable Television Networks (Regulation) Act of 1995, aimed at curbing the cultural invasion caused, it said, by the emergence of western content in India through the proliferation of satellite channels. The act put forward a set of guidelines inspired by the regulation of films through the Cinematograph Act of 1952 that had to be followed in television as well. The act introduced a program code with guidelines for prohibited content. Companies interested in broadcasting in India had first to obtain a broadcast license from the state by bringing guarantees that they were going to adhere to these content requirements. Furthermore, a Broadcasting Bill was introduced by parliament in 1997. The Prasar Bharati Bill, which was passed earlier, was also amended.

As television has grown in popularity and the media space was fully liberalized, the government was increasingly showing a tendency to regulate content. As television viewership increased, cultural sensitivities among people came to the forefront. The government tried to turn television into its own mouthpiece, but that became increasingly difficult because of technological advances and liberalization policies that changed the television landscape from a government monopoly to a competitive broadcasting market.

The government in India controls television content through a program code and by imposing its own interpretation of public order and morality, which is derived from earlier film regulations. While television became popular in India, regulators still felt that foreign content and actors were dominating over indigenous content as foreign players kept entering the television market.

Shift to OTT Video Streaming Services. The Arrival of Architectural Censorship?

The OTT services have a hybrid character as they combine the passive consumption mode of television and the consumer choice of the web. The latter, in fact, has created a massive demand for it.

The first OTT video service in India was BigFliX launched by Reliance Entertainment in 2008. Eight years later, U.S.-owned Netflix and Amazon started their operations in India. Many traditional broadcasters also started their own OTT services in the meantime. The OTT market in India is supposed to grow to \$218m by 2020.

Censorship rules related to the online space are likely to be applicable on content provided by OTT service companies as such content is accessible over the internet. In the case *Shreya Singhal vs Union of India*, the Supreme Court ruled that user-generated content (USG) cannot be censored online, but delegated the question of on-demand video content, like that provided by OTT services, to the Information Technology Act of 2000, which has a content regulation provision that empowers the government to regulate intermediaries, including OTT platforms.

In one of the first cases regarding the release of censored content online, the court ordered the Ministry of Information and Broadcasting (MIB) to draft policies to regulate content that is censored on other media, but not online (precisely because of the lack of a regulatory framework). In 2015, the Telecom Regulatory Authority of India (TRAI) released a consultation paper on regulation of OTT services, but no consensus on a regulatory framework had been reached by September 2019. The legislature in 2019 was working on amending the Cinematograph Act of 1952, taking in recommendations from the Mukul Mudgal Committee and Shyam Benegal Committee, two committees set up by MIB to find ways to improve the existing regulatory framework for cinema and to propose new standards for content regulation. According to the reports drafted by the two committees, the relevance in the digital age of the Central Board of Film Certification (CBFC) and of the universal rating system were questioned by the public as technology allows film producers today to release their films through online platforms. Because of the policy vacuum, people resort to the judiciary when they have concerns related to vulgar content on online media.

In the United States, policy experts argued that the government can't maintain its paternalistic role in technology if they want the society to benefit from technological development. The Electronic Freedom Foundation argued, for example, that the same content cannot be governed by different laws because that would simply make the law obsolete. Similar concerns were raised in India in the past year as viewership of OTT video streaming services has been on the rise.

A public interest litigation (PIL) against OTT services including Netflix, Amazon Prime and Hotstar was filed in 2019 with the Supreme Court by Justice Rights Foundation, which claimed that, without any policy or law to regulate online content, sexually explicit and vulgar content is widely accessible online. The foundation referred to shows like “*Scared Games*,” “*Vikings*” and “*Game of Thrones*”. The petitioner stated that these platforms are profit-driven and do not consider the cultural sensitivities and the moral fabric prevalent in the society. The matter is sub judice as the court asked the government to reply. Earlier on, in the same matter, the Delhi High Court concluded that, in the absence of legal provisions on licensing OTT platforms, the government cannot censor them, advising that the petitioner's complaints should be considered under the Information and Technology Act. A similar ruling was made in a separate case that involved the television series “*Sacred Games*.”

Prompted by these growing concerns, the Mobile and Internet Association of India drafted a code of ethics for the regulation of content on OTT services. The code, however, has not drawn support from all the OTT services. Netflix, for example, signed it, but Amazon and

few others were still not on board at the time of writing. In 2018, MIB also set up a committee to draft regulations for online content, but no output has been made public to date. A public consultation on OTT regulation, launched in May 2019 by TRAI, was ongoing at the time of writing.

Content Regulation in India: Looking Ahead

In India, content regulation has been shaped by the shifts in technology and three key policy players: the government, courts and the industry. The regulation of content in India from the rise of the cinema to today's on-demand media has been characterized by a paternalistic state and a disconnect between policy and technology, with policies badly lagging behind the technology.

The popularity of films and the engagement they created with the audience prompted the government to contain the effect of the cinema. With television, accessibility took a new turn as broadcast transmission could now be made from one place to multiple places. The government saw television as a powerful medium to spread propaganda and publicize government-led initiatives. Television was initially controlled by the government, but with the market liberalization, it came to be deregulated. Private players disrupted the broadcasting landscape and played a leading role in leading the policy towards deregulation. Nevertheless, the government has maintained its influence in content regulation mainly through the program code.

The advent of OTTs has changed viewing habits, but the most significant concern is related to the infrastructure they use to operate. The open internet, which has immensely changed viewing habits in India, makes it difficult for the government to impose regulations. Internet has made it possible for anybody who has access to digital devices to also gain access to content. The government can no longer regulate the timing of the shows being broadcast or to enforce classification of content.

Thus, accessibility and portability brought about by digital technology led to a situation where the same content is available on different platforms or media, which are regulated differently. Netflix's slogan, "TV got better," is the best illustration of that trend. As India is primed to become the second largest video viewing population in the world by 2020, the government is likely to design new regulations. In history, major technological shifts forced state regulators to adopt laws as a way to also save themselves from losing control over content.

But today, as in the past, the industry is pushing back. The CEO of Netflix, Reed Hastings, argued in 2019 that self-regulation should be the way forward because nobody wants government regulation, but also because the internet gives users total freedom to choose the content they want.

But because of the regulatory tradition in India, a model combining state censorship and self regulation is likely to be more accepted. It will likely lead to a system of co-regulation whose impact on freedom of speech and expression is still hard to predict. Debates about OTT

content regulation tend to be influenced by both film and cable TV regulatory thinking because the OTT brings in curated content from both. On the other hand, the regulation of film and television goes in different directions in India. On the one hand, the Central Board of Film Certification regulates films in India. In contrast, television is moving towards self-regulation but under the larger umbrella of the state that already set guidelines under the Cable Television Networks Regulation Act of 1995.

The powerful effect of films in India prompted the government to introduce regulations, especially in the post-independence era when the film industry grew at a much larger scale, forcing the government to take on a paternalistic role as a way to protect the ideals of public morality. The television content regulation in India saw a shift of control from the public to private sphere. The government tried to control television completely as it served political interests thanks to its access to households. The difference in approach to content regulation for films and television can be explained by the different type of promoters: cinema was introduced by individuals as a source of entertainment whereas television was introduced by the state as a form of education and public awareness. An individual with a camera could make a film, without the government getting involved. But television was controlled by the government since its inception because the technology used for signal transmission was in the hands of the government.

However, regulations always came much later than technology. For example, the government introduced legal provisions for private television channels in 1995, 12 years after they began operating in the country.

The judiciary played a key role in regulation of television content mostly by making the government aware of the lack of policy in this sector. The courts generally left their judgments open-ended, asking parliament to perform its policymaking role. In one important decision, though, the judiciary contributed to freeing television from the state monopoly by ruling that airwaves for television transmission are a public resource and must be used in a way that would ensure protection of free speech and expression.

The television regulation in India has moved towards a more self-regulatory approach in recent years, a significant step in that regard being the establishment of the Indian Broadcasting Association as a response to the industry's discontent with existing regulations enforced by ministry bureaucrats.

One major concern for content regulators throughout the past century, in both television and films, was the influence of foreign content on society. In one of the first assessments, the state's film censors found that foreign content was beneficial for Indian audiences. Nevertheless, committees appointed by the government to find content regulation models for television repeatedly said that foreign content affected cultural sensitivities. Such concerns are now aggravated as OTTs are flooding India with content from all around the world.

The theory of media determinism seemed to have influenced the government in its content regulation policies, but at the same time, the political ideology of the ruling government and liberalization policies also had a significant effect on regulations. The effects of the medium

that disseminated content usually shaped the attitude of the government in policymaking, an effect arguably of the “soft technological determinism.”

The changes in the dissemination medium from film to television to satellite transmission expanded the reach of technology in people’s lives, prompting the government to take a paternalistic role in controlling the medium, which had an impact on content regulation. Sociological factors, nevertheless, played a role in it as well. They include cultural sensitivities such as concerns regarding sexually explicit and vulgar content, economic policies such as allocations of state subsidies for the expansion of television, liberalization policies that allowed the entry of foreign television channels and various political events, such as the time of emergency state when the government could exploit mass media.

In summary, the paternalistic attitude of the Indian government in content regulation is likely to lead to new forms of content regulation that would rely on existing regulatory models as well as self-regulation patterns (as in television broadcasting). The courts have pushed the government towards a policy framework aligned, and possibly in pace, with technological change.

As no regulations of OTT services exist, courts are pushing the government to address the effects of OTT services. TRAI has circulated a consultation paper and a committee was created by the government to look into regulatory options for online content. However, the government has no concrete plans in this respect. Industry players, on the other hand, have made attempts to draft a code of ethics to guide their work.

History shows though that the government will attempt to introduce legislation expanding its content control ambit when a tipping point in technology is reached. That would mean that although attempts of self-regulation coming from the industry can go in the right direction, it will be the government who will ultimately formulate the regulations.

That doesn’t mean bad. It could be an opportunity for the government to build a convergence based regulatory model that could align policy with technological change. Nonetheless, the ideological bias in this process is hard to gauge or forecast. If the government properly understands the freedom of choice that the internet gives to people, it could go for a regulatory model entrenched in a more liberal paradigm, which is the one that would best serve society.

Recommendations

The history of content regulation in India shows the importance of technology in shaping the environment in which content is created and disseminated. However, since the introduction of cinema through the rise of television, policymaking and content regulation have not been at all technology-centric in India. But in the digital times, because of the internet, a rapidly changing dissemination medium allowing more people than ever before to participate, content regulation must focus on technology as the architecture of regulation. The effect that the medium has on consumers (listeners and viewers) must be a primary consideration when

internet content regulations are designed. At the same time, the right to freedom of speech and expression must be enforced in such regulations.

A technology-centric approach allows policymakers to properly assess the economic conditions of the industry's new business models, the changes in consumer behavior and the influence of distribution platforms. The government should treat the internet as a marketplace of ideas that transgresses geopolitical considerations, and therefore, should adopt policies anchored and following the logic of the technological change. The government should also take into account the future of free speech regime in India, which will play a major role in the impact of content regulation. Any kind of content regulation on OTT video platforms is likely to directly affect the power of the states to regulate other forms of online content and to create a snowball effect for other OTT services. Because of the networking effects that the internet triggers, any kind of content regulation should be carefully thought and designed with a long-term approach.

The analysis in this paper has unearthed a set of indicators and parameters that should be considered when content regulation is adopted. They have to do with accessibility, portability, cultural disruption and freedom of choice, four areas on which the following recommendations are based.

Self-Regulation as an Alternative

Given the nature of OTT services and their growing reach, self-regulation presents itself as a strong alternative to state censorship. Existing self-regulatory attempts are far from satisfactory.

Some OTT services embrace self-censorship models as a reaction to existing legal framework, suppressing critical content. The codes of ethics adopted by some OTT players are incipient forms of private censorship. Given the tradition of government's intervention in regulation in the past, it is likely that authorities will try to introduce state censorship or a co-regulation model where the state will have an upper hand.

Hence, a multi-stakeholder approach to self-regulation is expected to be the most adequate for India. Such a model should be adopted through stakeholder exchanges and discussions, agreed by the industry itself without interference from the government.

The Convergence Model

Another potential regulatory regime could be based on a convergence model, which means a single framework for content regulation that would cover different platforms of dissemination. That would require the government to adopt a new law that covers content on all platforms and in all formats. An earlier attempt to introduce such a convergence model in India was the Communication Convergence Bill drafted in 2001, but never passed.

If such a model is preferred, the government should resume the due legal process, but the old bill should be completely rewritten to take stock of the latest technological shifts. As the power of technology as a liberating medium should not be curbed, legislation should move away

from content regulation towards content enablement. The government should draft this legislation in collaboration with industry players. As in the self-regulation model, a multi-stakeholder approach to content regulation should also guide the policy process if convergence is preferred. The convergence model should not lead to the emergence of new regulatory institutions, but be based on coordination between existing regulators. Such a convergence model would ensure uniform regulation. However, the main risk related to it is the potential to overpower the government in internet regulation.

Global Ratings

Another policy proposal floated at international level is to develop global content ratings to be followed by all OTT players. Global OTT players tend to bring foreign content to India, heightening red flags that have been raised since 1928 with advent of films. However, proliferation of foreign content in India must be contextualized as people's cultural sensitivities have become more diluted thanks to the internet, which expose us to more realities in more countries. The global ratings proposal aims at introducing a standard rating system for content and quotas for indigenous content on OTT platforms. Some of the OTT service providers have reacted negatively to the proposal. Netflix, for example, expressed concerns that such ratings would directly affect the choice presented to consumers.

This regulatory model would ensure consistence as it will employ the same standards for all players, but its form should be decided by the industry rather than governments of different countries. Although this model is probably the most advanced for the networked and globalized world we live in, the risk of being challenged by various governments is high.

Internet usage has been growing in India, becoming a marketplace for ideas, an opportunity for content creators to reach more people than ever before and a new medium for entertainment and education. In light of this, both the government and the industry should appreciate the new space that the internet has given to free speech in India and, as a result of it, the need to adopt a more regulatory and freedom-oriented regulatory approach. Therefore, self-regulation by the industry alone, without the interference of the government, seems to be the right approach to OTT regulation in India: it gives the industry a chance to grow and empowers consumers while protecting the internet as a medium from political scrutiny and ensuring freedom of expression.

Theoretical Framework

Content Regulation as an Evolving Concept

Content regulation as a concept has constantly evolved due to rapid modernization and advancement in technology along with changes in economy, politics, culture and institutions. The concept of content regulation is related to censorship, a practice going back to the "censors", people who during Roman times were responsible for assessing the morale of the citizens. Censorship in a modern society, where there are technical means of communication able to reach a mass audience, is a practice of prescribing regulations or determining, based on political, economic, religious and cultural circumstances, the content that should or should

not be disseminated. Censorship may also involve modifying the content so that its effect can be limited or to ensure the content complies with prescribed guidelines.

Content regulation was developed with the aim of protecting the masses from harm in the interest of public welfare. The meaning of censorship also depends on the case to which it is applied. The construction of its meaning and purpose relies on three factors: the reasons for censorship, the medium or parties subjected to it and the means used for enforcing it. Hence, in most cases, censorship either involves state actors prescribing laws and rules for content exhibition, or, in some cases, it becomes self-censorship wherein content providers themselves put limitations on the circulation of their own content, depending on certain factors. Another form of censorship is societal censorship, the case where societal norms prescribe the nature of the content being disseminated.

Censorship as a concept cannot be reduced to one set of institutions as the practice of censorship constantly shifts within different narratives creating new dynamics and power relations amongst various actors.

Censorship is perceived as a threat to free speech and, as technologies change, it brings different variations to the concept of content regulation. With the change in technology, a new form of censorship, architectural censorship, has emerged. Architectural censorship limits speech through the medium or the technology used for dissemination.

Technology and Media Determinism

With the emergence of new ways of dissemination, there is need to rethink the power relations between the state, the public and media as perceptions of society and culture are changing.

In the framework of regulation, laws and norms are used to regulate behavior. In economics, prices regulate behavior. But, with the technological advances, the basis of regulation is also moving more towards the physical medium. Lessig says that technology as an architecture introduces a new way to regulate the physical medium by moving the emphasis to context and environment. Thus, the regulatory framework in the digital era should consist of laws, norms, price and architecture. Especially in cyberspace, the role of technology as an architecture of regulation is becoming increasingly pertinent.

The term “technology determinism” was coined by the American sociologist Thorstien Veblen who said that transformation in society is triggered by the change in technology. As technology develops and new media appear, the society needs to adapt itself to such technology. The adaption could mean changing the way regulation, rules or norms govern the society. A soft form of technology determinism accepts technology as a major driver for change, but also recognizes the role of other factors. The latest wave of technology determinism is linked with the advent of the internet that has fundamentally changed the pace of life.

The technological determinism found its critics. Technology plays a major role in forming the basis of regulation, they say, but it cannot be the sole factor as different technologies are

perceived and responded to in different ways in different societies. Therefore, to understand the policy habitat of regulation, both technological and sociological factors need to be understood. Hence, in choosing the right framework for the future of content regulation, it is important to take into consideration the role of technology in determining the relations between the regulatory regime and the society.

Another theoretical framework relevant for content regulation is the media determinism theory, established by Marshall McLuhan, anchored in his famous “medium is the message.” This theory says that it is the medium through which content is communicated that impacts people rather than the content itself. McLuhan considers media as the extension of human sense and personal energies, and a force that alters our perception of social realities.

In conclusion, the medium can be understood as the driving force for policy changes, but, at the same time, it is also important to explore the political, cultural and economic tipping points related to the changing medium and to look at the medium in the context of socio-cultural realities. To understand the relation between media and society there are two questions that need to be answered: a) what does new technology do to people?; b) what do people do with new technology?

Changing Media and Sociological Factors Affecting Content Regulation

McLuhan divides media into two broad categories: hot and cold media. The hot media category encompasses high-definition media like radio and films that provide many details within one frame. By providing a lot of detail, hot media leave little room for audience imagination, the audience being more a receiver of the information. Soft media are low-definition, giving less information and thus increasing the imaginative scope of the audience to fill in the missing details. The categorization of media in hot and cold is also related to the type of effect they have on the audience, which is closely linked with the type of regulation such media will be subjected to.

Films as a Medium

In 1895, the Lumiere brothers invented the cinematograph that led to the creation of moving pictures. The film as a medium exhibits the process of change in an entertaining format to the audience. It could transport the viewers from their reality to the world that is created through

moving images. Oftentimes, these realities are constructed in moving images in the form of dreams desired by the audience, which increases the impact of movies on the audience. This compelling effect on the audience creates the demand for it, which led to the emergence of a billion-dollar industry in the 20th century. Its uses have not been only limited to entertainment. Film has also been used for propaganda or to raise awareness about societal issues and education.

In India, films have traditionally been a powerful medium of communication. Since the introduction of films in India, cinema has grown in reach and impact. The Indian film industry grew into a large scale sector during the post-independence era with the introduction

of new technologies in film production and distribution, which helped it gain recognition at global scale.

British colonizers in India understood at the time that cinema as a medium had a different effect on people compared to print media. There was also an inherent idea within the censorship policy of the colonizers that the colonized were less rational people and hence more vulnerable to the effect of moving images, an illustration of the power dynamics during that time. The British brought their conflicting ideas of cinema control and censorship to India. During the advent of cinema in India, the policy of content regulation was largely dictated by the need of the British to control the spread of nationalist fervor and of socialist ideas. They, however, masked such censorship policies under the need to prioritize public interest and morality. Even in the post colonial context many of those archaic ideas of censorship justified by the need to protect public morality were perpetuated through legislation and policies. On a different note, Mazzarella wrote that the effect of cinema in India has created the need for its censorship in a period he described as cultural emergency when exhibition of Hollywood films in Indian cinemas raised concerns. The censorship policy on films is still implemented through the Cinematograph Act of 1952.

Television as a Medium

Television is defined as a low-definition medium as it offers little details within one frame, increasing the scope of the involvement by the audience. It is more consumer oriented. The emergence of television and radio together created broadcasting as a social institution whose initial use was controlled by the state. The main benefit of the broadcast technology was its capacity to connect all the households, which is why the term "mass communication" appeared.

Television as a medium of mass communication, with an educational agenda, was introduced in India in 1959 as the government realized its potential to educate and entertaining people. As broadcasting was recognized as a powerful medium of communication, the judiciary in India said that the government should not have a monopoly over its use. The 1990s saw a series of technological developments in the broadcasting sector including the rise of cable and satellite television. The influence of television as a medium grew particularly as a result of a series of liberalization policies coupled with the introduction of satellite television in India. Satellite television brought new content, turning television into a personal entertainment device present in most of the Indian households. The market was also influenced by the shift in the operation of television broadcasting from the public to the private sphere at a time when the telecommunications market was opening to foreign distributors and imported content.

The broadcasting sector in India was marked by power struggles around content between the government and the private sector, each trying to assert their dominance. The television as a medium affected government policies, but, at the same time, policies of liberalization influenced the technological advancement of the broadcasting sector in India.

The increasing influence of television in the lives of people and proliferation of television content prompted the government to introduce a range of policies that covered the new forms of television transmission including cable and satellite television, and Direct-to-Home service (DTH). In the policy debates, concerns that liberalization and introduction of foreign content through broadcasting do not serve well the cultural values of the Indian society were raised. As always, these debates were influenced by the ideals of public morality and cultural sensitivity characterizing the Indian context.

Internet as a Medium

The arrival of Web 2.0 revolutionized media in many ways. The reception of information through the digital medium has expanded manifold in recent years. Internet is seen as a new liberation force driving ideas, thoughts and content across border and societies. It has led to the emergence of new actors and allowed consumers to be in charge of selecting the content they want to receive and view. The internet has revolutionized the means of communication and exchange of information. It has brought to the forefront a new medium of expression.

Digitization has created a new social order where differences of time and space have become increasingly blurred. It has converged the different media that existed earlier in the form of library, with films and television stored on our computer screens. The force of internet as a medium has led governments and policymakers all around the world to rethink the way content can be regulated.

User-generated content has proliferated across online video portals. Internet Protocol Television (IPTV) and OTT services fundamentally changed the broadcasting sector. The Internet has brought about a new wave of content, providing consumers with the freedom to choose the time and space for the reception of the content. One of the leading OTT services, Netflix was developed on a movie rental format, but it then grew into a new form of television. Although theorists view in OTT the death of television, streaming seems more like a transition to a new medium of watching audiovisual content. Video streaming services create a more engaging environment. But the shift from cable television to OTT services has forced regulators to think about the patterns of regulation that most fit this new form of broadcasting.

OTT services do not have one universally accepted definition. The Internet Telecommunication Union (ITU) defines OTT service as an “internet application that may substitute or supplement traditional telecommunication services, from voice calls and text messaging to video and broadcast services.” The Indian communications regulator, Telecom Regulatory Authority of India (TRAI), borrows the same definition.

Internet and mobile penetration have experienced an immense growth in the past decade in India, making OTT services available to masses. The number of digital subscriptions to OTT services has boomed and the penetration of the audiovisual traffic was expected to grow to 82% of the total digital traffic. In 2017, the user base of Netflix and Amazon Prime (the video streaming services of the e-retail giant Amazon) grew by 5.37 million and 12.64 million, respectively.

The Indian government and other regulatory bodies have not tried to adjust policies to the change in technologies. The debate in India about digital content regulation has varied between calls for state censorship and self-regulation. The dilemma that authorities have been faced with is whether to subject the OTT media platforms to broadcast or films policies or to include it in the larger internet regulation frameworks.

MODULE-VI

CONTEMPORARY ISSUES & CHALLENGES

TELECOM SERVICES / LICENSES AND INFRASTRUCTURE IN INDIA

There have been some important regulatory changes which were introduced post liberalization which have provided an immense boost to development of this sector. These regulatory changes by and large trace their roots to the objectives and vision set out by the Government in NTP 99.

I. Universal Service Obligations

It is an accepted fact that improved rural penetration is a key priority area for most developing countries. The concept of Universal Service Obligation (“USO”) has been mooted by many developing countries and is grounded on the principle that effective means of communication is a must for economic and social development. NTP 99 envisaged the provision of basic telecommunications services to all at affordable rates. Keeping in line with NTP 99 and the recommendations of the Telecom Regulatory Authority of India on the issues relating to the Universal Service Obligation the Universal Service Support Policy was framed and came into effect from April 2002. The Indian Telegraph (Amendment) Act, 2003 gave statutory status to the Universal Service Obligation Fund (“USOF”). USOF is used to subsidise developments in the telecom sector in the rural areas such as:

- increasing wireless network;
- providing public access through public or community phones;
- providing individual household telephones.

The resources for meeting the USOF are to be generated through a Universal Service Levy (“USL”), which would be a percentage of the revenue earned by the operators under various licenses. The USL presently is 5% of the Adjusted Gross Revenue earned by all operators except pure value added services providers like voice mail and e-mail.

II. Interconnection

India today has a plurality of service providers and service networks. In such a situation, efficient interconnection between a variety of access networks (such as fixed, mobile, national long distance and international long distance) has to interconnect to make national and international connectivity possible. In 2003 TRAI implemented the Telecommunications Interconnection Usage Charges Regulation to fix terms and conditions of interconnectivity between service providers and to regulate arrangements among service providers for sharing their revenue derived from provision of telecommunication services.

III. Unified License

Further to NTP 2012, the DoT introduced the much awaited and much delayed Unified License in August 2013. The Unified License paves the way for the implementation of DoT’s One Nation - One License plan by consolidating license terms for different telecom services under the ambit of one license, i.e. the Unified License. The Unified License replaces the old regime of a telecom operator applying for separate licenses for separate services proposed to be offered by bringing all the major telecom services under one license.

The Unified License includes within its ambit the following services:

- Access Service (Land Line Telephony Service along with Mobile Phone Telephony Service);
- Internet Service;
- National Long Distance Service (“**NLD Service**”);
- International Long Distance Service (“**ILD Service**”);
- Global Mobile Personal Communication By Satellite Service (“**GMPCS Service**”);
- Public Mobile Radio Trunking Service (“**PMRTS Service**”);
- Commercial Very Small Aperture Terminal Closed User Group (“**Commercial VSAT CUG Service**”);
- INSAT Mobile Satellite System-Reporting Service (“**INSAT MSS-R Service**”); and
- Resale of International Private Leased Circuit Service (“**Resale of IPLC Service**”).

The Unified License is a sort of umbrella document which all companies seeking to provide telecom services will need to obtain. Apart from this, the company would also need to obtain separate authorization from the DoT for specific services which the company wishes to provide. One company can have only one Unified License, but the same company can apply for authorization for more than one service and / or service area subject to fulfillment of all the conditions of entry, simultaneously or separately at different times. At the time of applying for Unified License, the applicant has to apply for authorization of at least one service that is listed in the Unified License.

The Unified License shall be issued on a non exclusive basis for a period of 20 years. The license may be renewed by the DoT for an additional period of 10 years at a time upon request of the service provider, if made during the 19th year of the license period.

The Unified License covers a variety of services for which authorizations can be obtained. We have discussed two of main services being covered by the Unified License; Access Service and Internet Services

A. Access Services

Access Service providers can provide, within their area of operation, wireline (basic) as well as wireless (cellular) services in a service area. Access Service providers have also been permitted to provide internet telephony, internet services including IPTV, broadband services and triple play i.e voice, video and data.

Importantly, Access Service is the only authorization which is permitted to provide full fledged Internet Telephony, i.e. they are permitted to interconnect Internet Telephony network with the PSTN network.

In order to provide the above mentioned services, licensees will have to separately acquire spectrum once a license has been acquired, rather than spectrum being bundled with the license as was the norm under the erstwhile licensing regime.

Existing UAS Licensees are permitted to migrate to Unified License regime. The service providers migrating to Unified License will continue to provide wireless services in already allocated/ contracted spectrum and no additional spectrum will be allotted under the migration process.

Access Service providers are required to pay a certain percentage of Adjusted Gross Revenue (“**AGR**”)¹⁶ as license fee apart from paying spectrum charges. Specifically for those entities holding spectrum, the Unified License has introduced the concept of presumptive AGR which places a premium on spectrum even where the spectrum holder does not utilize the spectrum made available to them. A spectrum holder is required to pay license fees in the form of a percentage of notional revenues or a percentage of the actual revenues, whichever is higher. Notional revenue which is essentially a minimum amount of revenue for this purpose will be calculated in accordance with the relevant provisions of the Notice Inviting Application document of the auction of spectrum or conditions of spectrum allotment depending on the service and service area. Therefore, unlike the previous regime whereby license fee was determined on the basis of revenue generated by an operator, spectrum holders will now have to pay a minimum pre determined percentage as license fee or actual AGR or the minimum license fee whichever is higher.

B. Internet Service Licenses (ISP)

ISP licensees are primarily allowed to provide services such as internet access (through any method including IPTV) and internet telephony (which is a service to process and carry voice signals offered through the internet by the use of personal computers (“**PC**”) or internet protocol based equipment). Currently the ISP license allows limited internet telephony by permitting connections between the following:

- PC to PC (within or outside India).
- PC / a device / Adapter conforming to standard of any international agencies like ITU or IETF etc in India to PSTN/PLMN abroad.
- Any device / Adapter conforming to standards of International agencies like ITU, IETF etc. connected to ISP node with static IP address to similar device / Adapter within or outside India.

Thus, ISP Licensees offering Internet Telephony are not allowed to interconnect Internet Telephony network with the PSTN network. Further, ISP Licensees are not permitted to offer Virtual Private Network (“**VPN**”) / Closed User Group services to its subscribers.

IV. Mobile Number Portability (“MNP”)

MNP allows mobile subscribers to retain their existing telephone numbers when they switch from one telecom operator to another irrespective of mobile technology. India has long felt the need for MNP. The TRAI introduced the Telecommunications Mobile Number Portability Regulations, 2009 in September 2009. As per the regulations, the subscribers would be allowed to retain their mobile number while moving from (within the same service circle):

- one access provider to another irrespective of the mobile technology / platform; or
- one cellular mobile technology to another of the same access provider.

Thus effectively a subscriber can move from a CDMA service provider to a GSM service provider in a seamless manner. Nevertheless, a big drawback of the current MNP regime is that it is restricted to intra-circle transfers and prohibits porting of a number from one circle to another.

However, the Government seems to have recognized this need, considering that one of the objectives of the NTP 2012 is to achieve One Nation - Full Mobile Number Portability. News reports suggest that the TRAI has suggested that pan-India MNP should be introduced by April 2014, which would mean that subscribers can use the same number while moving from one mobile circle to another, regardless of the service provider.

India is one of the world's fastest growing telecom markets and it continues to be amongst the world's lowest telecom tariff destinations. As such the implementation of MNP will ensure that every telecom mobile service provider offers mobile number portability to all its subscribers both post paid and pre-paid on a non-discriminatory basis. The telecom operators on their part, would have to incur huge expenses by way of capital expenditure and operational expenses in order to effectuate and operationalize MNP. With the Indian tariff structure already at the lowest in the world, the revenues of the telecom operators are likely to be affected with the implementation of MNP with subscribers having the freedom to migrate to better service providers. This in turn is likely to compel the telecom service providers to improve the quality of their service to avoid losing subscribers. This can be seen as maturing element of the Indian telecom industry and a natural step for the industry to go forward.

V. Anti – Spamming Regulations

The Telecom Commercial Communications Customer preference Regulations, 2010 (“**SMS Regulations**”) have completely come into force from September 27, 2011 and prohibit Unsolicited Commercial Communications (“**UCC**”) and in turn require all telemarketers to register under the SMS Regulations.

The SMS Regulations have mandated the creation of a National Customer Preference Register, a national database with a list of the telephone numbers of all subscribers who have registered their preferences regarding receipt of commercial communications. Subscribers have been given the option of indicating their preference by registering either under the fully blocked category or the partially blocked category.

In the fully blocked category, a subscriber opts not to receive any type of commercial communication, while the partially blocked category enables subscribers to receive commercial communications only in the categories they have chosen. Subscribers under the partially blocked scheme may choose from a selection of categories including: banking, insurance, financial products and credit cards; real estate; education; health; consumer goods and automobiles; communication, broadcasting and entertainment; IT; and tourism.

However, transactional messages, i.e. messages that represent a transaction undertaken by the subscriber have been exempt from the purview of these regulations. After the much litigated¹⁸ cap of 200 messages per day per sim, the TRAI introduced a rule whereby any person, other than a registered telemarketer or an entity sending transactional messages, which sends more than one hundred SMS per day per SIM will have to pay an additional charge over the regular applicable SMS rates. Thus, while consumers have been allowed to send any number of messages, the TRAI has tried to de - incentivize unregistered telemarketers from using normal SIM Cards by levying an additional charge for more than 100 messages per day per sim.

VI. Audiotex / Voicemail / Ums License

This license is a notable exclusion from the realm of the Unified License., thus a person desirous of providing such services, would need to obtain a separate Audiotex / Voicemail / UMS license before providing these services. While the Audiotex / Voicemail / UMS license does not define the services to be provided under this license, however, it is understood to include the authorization to provide, voicemail services or call conferencing services or unified messaging services. With 100% foreign investment being permitted for this license, an applicant can provide the aforementioned services upon obtaining the requisite ‘Audiotex / Voicemail / UMS’ license from with the DoT. However, it is pertinent to note that a prerequisite of obtaining a UMS license is having an ISP Authorization under the Unified License. In our view it will make technical and operational sense to include this license within the scope of the Unified License.

VII. Other Services Providers (OSP)

Other Service Providers (OSPs) do not require a specific license; however a registration process is required to be fulfilled subject to fulfilling certain criteria. The most important of which is the Other Service Providers registration.

Call centers (international and domestic), BPOs, Network Operation Centers, Vehicle Tracking Systems, services with respect to tele-banking, tele-medicine, tele-education are allowed to operate (with 100% FDI) upon registration as “Other Service Provider” or “OSP” with the DoT. These OSP’s operate the service using the telecom infrastructure provided by licensed telecom service providers. There are various security related obligations imposed on various telecom licensees (as discussed later in this paper). As security related conditions are applicable to all licensed telecom service providers, the security conditions shall not be separately enforced on OSPs. An interesting development in the OSP registration policy is the amendment that was announced in August 5, 2008 which officially recognized the “work from home” provided certain financial guarantees are provided.¹⁹

VIII. Telecom Infrastructure

The telecom sector is a very capital intensive sector and requires large investments. The telecom licenses permit the telecom operators to share passive infrastructure such as building, tower, dark fibre, etc. However the procurement and maintenance of active

infrastructure proves to be a very expensive affair for operators. With the robust growth in the telecom sector, the government recognized that infrastructure sharing would greatly reduce costs for the operators. The DoT accepted TRAI's recommendations and issued Guidelines on sharing of Infrastructure. Consequently, the Unified License permits sharing of infrastructure, subject to the specific conditions laid down for different authorizations. Sharing of "passive" infrastructure viz., building, tower, dark fiber, duct space, etc. between licensees is permitted for Access Services. However, sharing of active infrastructure amongst licensees shall be governed by the license conditions/amendments issued by the DoT. Similarly, ISPs, NLD and ILD authorization holders have been permitted to share "passive" infrastructure namely building, tower, dark fiber, duct space, Right of Way owned by other authorization holders.

As a result of this policy, new entrants who are allotted spectrum by the WPC can easily launch their telecom services within a short period by taking the assistance of the existing active infrastructure of other telecom service providers will not have to incur huge infrastructural costs.

Over the years, Bharti Airtel had made huge investments to create the cellular infrastructure across the country. Soon it hived off its mobile tower business into a separate subsidiary to become a major player in the tower sharing business. Another major player, Reliance Communication (RCom), has already hived off its tower business into a separate subsidiary. With increasing operational and infrastructure costs, many telcos are now joining hands to share their existing infrastructure. Some of the deals include the following:

- In December 2007, Quippo Telecom acquired 1000 towers from Spice Telecom.
- In January 2009, Quippo Telecom and Tata Teleservices Limited merged its passive infrastructure businesses to create one of India's largest Independent Telecom Infrastructure Company, i.e. Viom Networks.
- Vodafone, Bharti Airtel and Aditya Birla Group (Idea) have come together to form a joint venture in the form of the world's largest tower company 'Indus Towers'.
- Bharti Airtel in addition to its stake in Indus Towers recently went public via an initial public offering ("IPO") for its tower business subsidiary, i.e. Bharti Infratel raising around \$800 million) from the sale of 10% of its paid up equity in December 2012.
- Reliance Jio a new entrant into the telecom market has entered into an agreement for leasing 32,000 telecom towers owned by Reliance Infratel Limited ("RITL"), a subsidiary of Reliance Communications Limited.
- In addition to tower companies which are owned by telecom companies other independent telecom infrastructure sharing companies like American Tower Corporation and GTL Infrastructure have expanded their reach in the past few years.

IX. Government Departments to Grant Preferential Market Access to Indian Telecom Equipment Manufacturers

Following the lead of Department of Information Technology²⁰, the DoT on October 5, 2012 issued a notification²¹ granting preferential market access to domestic telecom

manufacturers. The notification, mandates that domestically manufactured telecom products must be given preference, when the same is being procured by Government departments and agencies (with the exception of the Ministry of Defense which has been exempted) for their own use and not with a view to commercially resell or with a view to use in the production of goods for commercial sale. It is proposed that the policy will be in force for a period of 10 years from the date of its notification in the official gazette.

Each Government ministry or department will now have to procure minimum percentage of their telecom product requirement fulfilling minimum value addition prescribed against each item.

The main object of the government behind this notification appears to be to protect Indian security interest as well as to give an impetus to manufacturing of high quality domestic products in India thus, lowering the effective cost of the products and elevating local innovation. Foreign vendors have voiced concerns on this proposal and it may be challenged as a non-tariff barrier for market access.

SPECTRUM MANAGEMENT

Spectrum refers to the use of radio waves or frequencies in telecommunications. Since spectrum is the cornerstone of telecom services worldwide and is by its very nature a scarce resource, spectrum management has become very important in recent times. In this chapter we discuss some of the important aspects of spectrum management in India as well as internationally.

I. Ownership of Spectrum

It was once believed that spectrum is the property of the government, and hence the government could use it in a manner that suited it and that the government had exclusive rights to regulate and allocate spectrum. But post 1995 this belief has changed. This has been possible due to a historic judgment given by the Hon'ble Supreme Court of India in 1995 in the case of Secretary, Ministry of Information and Broadcasting, Govt. of India v. Cricket Association of Bengal which decided that spectrum is actually public property. This judgment has changed the perception of ownership of spectrum in India and the way the government handles and manages spectrum in today's scenario.

Specifically, the Supreme Court in the aforementioned case held as follows:

There is no doubt that since the airwaves/ frequencies are a public property and are also limited, they have to be used in the best interest of the society and this can be done either by a central authority by establishing its own broadcasting network or regulating the grant of licences to other agencies, including the private agencies.

This view of the Supreme Court was further propounded by the Supreme Court in the case of Reliance Natural Resources Limited v. Reliance Industries Ltd whereby it was observed that natural resources are vested with the Government as a matter of trust in the name of the people of India, thus it is the solemn duty of the State to protect the national interest and

natural resources must always be used in the interests of the country and not private interests.

Most recently, the Supreme Court in the case of Centre for Public Interest Litigation and Ors. Vs. Union of India (UOI) and Ors held that “In conclusion, we hold that the State is the legal owner of the natural resources as a trustee of the people and although it is empowered to distribute the same, the process of distribution must be guided by the constitutional principles including the doctrine of equality and larger public good.”

India is not the only country to hold the view that the spectrum is public property. Most of the developed countries like USA, Canada, UK, etc, hold the same view that spectrum is public property and the government is only the caretaker of this public property.

A. Management of Spectrum in India

Spectrum management is the combination of administrative and technical procedures with legal connotations necessary to ensure efficient operation of radio communication services without causing harmful interference. There are two levels at which spectrum is managed:

- a) National
- b) International

i. International Management of Spectrum

Humans have divided territory into countries and continents, but spectrum knows no such bounds. Thus there has to be international co-operation in the management of spectrum. There are various international organizations for the purpose of harmonizing the use of spectrum between countries. The organizations that are addressed are ITU and APT. The role played by these organizations have already been discussed earlier.

ii. National Management of Spectrum

Every country has different agencies managing the spectrum of that particular country. It is also a very important task as it involves an issue that affects almost the entire population of that country, the business of that country and indeed the social structure, harmony and the unity of that country.

In the Indian context, the Indian Telegraph Act, 1885 and the Indian Wireless Telegraphy Act, 1933 and Rules and Procedures made under these Acts provide the legal basis for spectrum management.

II. Note on National Frequency Allocation Plan (“NFAP”)

The NFAP is the basis on which spectrum frequencies are allocated in India. The ITU issues the international frequency table for the purpose of giving the member countries a basis on which they can formulate their own frequency allocation plan. The NFAP is the frequency allocation plan of India. This plan clearly allocates different frequency bands for different radio communication services. Although it allocates frequency bands for certain services, it

does not give ownership rights to those services. NFAP-81 was in force till December 31, 1999 for commercial and other uses. NFAP-81 was formulated for a time, when usage of frequency bands was primarily done by the government agencies with some exploitation by private parties for their dedicated networks. However with the proliferation of new technologies in the country and the entry of the private sector in the telecommunication field the government decided it was prudent to revise NFAP-81. Accordingly, from January 1, 2000 the NFAP-2000 replaced NFAP-81 in order to better manage the increased use of spectrum. Later NFAP 2008 which was made effective from April 1, 2009 replaced NFAP 2000. NFAP 2011 has been developed with special emphasis to encourage / promote indigenous manufacturing / technologies by provisioning of small chunk of spectrum in certain frequency band ²⁵/ sub-bands in limited geographical area.

The WPC Wing of the DoT is now amidst reviewing / revising NFAP 2011 to come out with the NFAP 2013 in line with the decisions taken in the World Radio communication Conference – 2012 of the ITU.

The NFAP 2013 is not only expected to take into account the decisions of the World Radio communication Conference and the NTP 2012 but also account for the introduction of new technologies in the form of LTE, 3G and digitization of broadcasting (TV and Radio).²⁶

III. Standing Advisory Committee on Frequency Application (“SACFA”)

SACFA is a wing of the DoT which gives approval for radio frequency (spectrum) used by telecom service providers. Obtaining a telecom license is not enough for the operator to begin rolling out the services; a no objection from SACFA is required. This involves a detailed technical evaluation including field studies in order to determine inter alia possible aviation hazards and interference (Electro Magnetic Interference (EMI)/Electro Magnetic Compatibility (EMC)) to existing and proposed networks.

Functions of SACFA:

- (i) To recommend on major frequency allocation, issues requiring co-ordination amongst the various wireless users in the country.
- (ii) To formulate/review the National Frequency Allocation Plans.
- (iii) To formulate national proposals for international conferences/ meetings and to co ordinate nationally all activities pertaining to the ITU, etc.
- (iv) To deal with frequency co-ordination problems referred to the committee by the administrative Ministries/Departments.
- (v) To clear sites of all wireless installations in the country.

At present, spectrum is managed through WPC Wing, SACFA and NFAP, all of which have already been discussed earlier.

A. Auction of Spectrum

It should be noted that the government is bound to ensure that its licensing decisions are rational, transparent and free from arbitrariness. The courts have time and again upheld this

principle of transparency. In the case of *Delhi Science Forum v Union of India*,²⁸ the decision of the government to invite tenders from non-governmental and private entities for license to provide telecommunications services was challenged in a writ petition wherein it was contended that the sensitive nature of telecommunications mandated that it should not be placed in the hands of the private sector and any step in this direction would not only endanger the national security of the country but would not serve the economic interest of the country. The Supreme Court dismissed the writ and categorically held that the privatization policy adopted by the government is a necessary consequence of liberalization and the grant of telecommunications licenses to non-governmental organizations would greatly improve telecom services. However the Supreme Court also emphasized the procedures adopted for such grant should be “reasonable, rational and in conformity with the conditions which have been announced.”

The Supreme Court of India in the case of *Centre for Public Interest Litigation and Ors. Vs. Union of India (UOI) and Ors.* concluded that spectrum was a natural resource and national asset and belonged to the public at large. The Apex Court criticized the first come first served policy of the government for distribution of 2G spectrum and held that a duly publicized auction is the best way of disposing public property. Consequently, the Supreme Court delivered an order against thirteen respondents holding that such respondents had been favored by the government and had been illegally granted telecom licenses. The Supreme Court consequently issued an order cancelling 122 telecom licenses granted in various service areas for 2G spectrum. The Supreme Court also imposed financial penalties ranging from 50 lakhs (approximately USD 8333.3) to 5 Crores (approximately USD 83333.3) on the grounds that such respondents had benefited at the cost of public exchequer by a wholly arbitrary and unconstitutional decision taken by the DoT for grant of licenses and spectrum. Further, the Court also ordered the re-auction of the spectrum that had been made available due to the cancellation of the telecom licenses.

Thus, going forward the disposal of spectrum will only be done via a duly publicized auction.

FOREIGN INVESTMENT

I. Foreign Investment Regime in India

India's foreign investment regime is governed by the Foreign Direct Investment (“**FDI**”) policy. As per the FDI policy, there are certain sectors wherein 100% FDI is allowed (such as software development and telecom), whereas there are certain sectors wherein no FDI is allowed at all (such as gambling).. Furthermore some investments can be made under the automatic route (i.e. without any government approval) whilst others require prior approval of the government. The Department of Industrial Policy & Promotion (“**DIPP**”) is responsible for formulation and implementation of promotional and developmental measures for growth of the industrial sector, keeping in view the national priorities and socio-economic objectives.

The telecom sector in India has always been a sensitive and regulated sector and the government has been wary of allowing foreign participation. However the outlook of the government and the industry is fast changing. For the longest time, the intention of the government was that the majority of the shares of a telecom licensee company should be held by Indian shareholders; as a result foreign companies and investors were only allowed to hold up to 49% of the equity of a telecom licensee. Since liberalization, every successive government has encouraged FDI. In 2005, in pursuance of the government's commitment to further liberalize the FDI regime, the government revised the percentage sectoral cap to allow total foreign equity in telecom licensee companies to as much as 74%.

In 2013, the government in an attempt to attract additional foreign investment has allowed 100% foreign investment into the telecom sector. This move is expected to give an impetus to funding, consolidation, restructuring and exits for telecom operators and their shareholders including private equity investors.

II. Calculation of FDI

Foreign Investment can be direct or indirect.

- Direct foreign investment means investing directly into the investee (licensee) company; and
- Indirect foreign investment means foreign investment in the company/companies holding shares of the investee (licensee) company and their holding company/companies or legal entity (such as mutual funds, trusts, etc).

Both direct and indirect foreign investment in the licensee company shall be counted for the purpose of FDI ceiling. The FDI Policy further lays down that Foreign Investment shall include investment by:

- i. Foreign Institutional Investors (FIIs);
- ii. Non-resident Indians (NRIs);
- iii. Foreign Currency Convertible Bonds (FCCBs);
- iv. American Depositary Receipts (ADRs);
- v. Global Depositary Receipts (GDRs); and
- vi. Convertible preference shares held by foreign entity.

Calculation of FDI in the telecom sector shall be calculated in the following manner:

- i. Both direct and indirect foreign investment in the Licensee Company shall be counted for the purpose of FDI ceiling. Foreign Investment shall include investment by Foreign Institutional Investors (FIIs), Non-resident Indians (NRIs), Foreign Currency Convertible Bonds (FCCBs), American Depositary Receipts (ADRs), Global Depositary Receipts (GDRs) and convertible preference shares held by foreign entity.
- ii. All investments directly by a non-Indian resident entity into the Indian investee company would be counted towards foreign investment.

- iii. Though indirect investment would continue to be considered and included for the purpose of calculating FDI in the company, for the purpose of calculating indirect foreign investment, foreign investment through the investing Indian company would not be considered in case the investing Indian company is 'owned and controlled' by resident Indian citizens on a look through basis.
- iv. The indirect foreign investment in 100% owned subsidiaries of operating-cum-investing/ investing companies, will be limited to the foreign investment made in the operating-cum investing/ investing company.
- v. An investing company is said to be 'owned' by resident Indian citizens when more than 50% of the equity interest of such investing company is beneficially owned by (a) resident Indian citizens and (b) companies which are owned and controlled by resident Indian citizens.
- vi. An investing company is said to be 'controlled' by (a) resident Indian citizens and (b) Indian companies which are owned and controlled by resident Indian citizens are which if such Indian citizens and Indian companies have the power to appoint the majority of the directors of the investing company.

The Unified License, requires licensee to declare the Indian and Foreign equity structure (both direct and in-direct) in the licensee company and submit a compliance report regarding compliance with FDI norms and security conditions on 1st day of January and 1st day of July of every year to the DoT certified by Company Secretary or Statutory Auditor, countersigned by duly authorized Director of such company.

III. Down Stream Investments

The government has also introduced guidelines for downstream investment by Investing Indian Companies 'owned or controlled by non-resident entities' which states that if FDI is provided to a company ("**Investing Company**") 'owned' or 'controlled' by non-resident entities, any downstream investment made by such Investing Company would require FIPB approval, irrespective of the amount of investment. The intention of the government is very clear that they want to control the activities of foreign owned or controlled investment holding companies in India and their downstream investments. Therefore even though FIPB approval is required only if FDI exceeds 49% in the telecom sector, in the aforesaid example, any amount of FDI would require the prior approval of the government. As an exception the indirect foreign investment in only the 100% owned subsidiaries of operating cum investing/ investing companies will be limited to the foreign investment in the operating cum investing/ investing company. This exception is made since the downstream investment of a 100% subsidiary of the holding company is akin to investment made by holding company and the downstream investment should be a mirror image of the holding company. This exception however is strictly for those cases where the entire capital of the downstream subsidiary is owned by the holding company.

Illustration: Telecom Company A has FDI of 74%. If Company B is 100% held by Telecom Company A, then 74% of Company B would be treated as indirect foreign equity and the balance would be treated as resident held equity.

IV. License Provisions

The licenses themselves have a number of provisions which can be seen as quite restrictive. These are mostly security driven restrictions and have not led to any dampening of foreign interest in this sector. Some of these restrictions are discussed as follows:

- i. Telecom licenses are only granted to companies which are registered in India;
- ii. The majority of directors of the board of the company have to be Indian citizens;
- iii. Certain positions which are instrumental to the operations of the company such as Chief Officer in charge of technical network operations, Chief Security Officer and Officials dealing with lawful interception of messages have to be occupied by resident Indian citizens;
- iv. Certain key positions (such as chairman, managing director, chief executive officer and/or chief financial officer), if held by foreign nationals are required to be security vetted by the Ministry of Home Affairs.

A. Other Security Related

Requirements

- Details of infrastructure/network diagram could be provided on a need basis only to telecom equipment suppliers/manufacturers and affiliate/parent of licensee company. Clearance of DoT would be required if such information is to be provided to anybody else.
- Licensee company should ensure that the information transacted through their network is secure and protected.

MERGERS AND ACQUISITIONS IN THE INDIAN TELECOM SECTOR

With the liberalization of the Indian economy, the telecom sector has become very attractive for mergers and acquisitions. Some of the big deals that have taken place in the Indian telecom include the following:

- SingTel increasing its stake in Bharti telecom from 30.8 % to 32.34 % in 2013;
- Reliance Industries Limited acquiring 95% of the equity shares of Infotel Broadband Services to gain access to the BWA spectrum won by Infotel Broadband Services.
- Aditya Birla Telecom acquiring Spice Telecom
- Providence's investment into Aditya Birla Telecom in 2009
- Vodafone taking over Hutchison-Essar in 2007
- Malaysia Telekom's 49% stake in Spice Telecom
- Temasek Holdings' 9.9% stake in Tata

Teleservices through its wholly-owned subsidiary Aranda Investments Mauritius M&A in India is subject to various laws the principle of them being The Companies Act 1956, Income Tax Act 1961 and the Takeover Code (for public listed companies). Regulatory considerations are also equally important to take note of in telecom M&A.

I. DoT Guidelines on M&A

The much awaited merger guidelines in the telecom sector were issued by the Ministry of Communications and Information Technology, Department of Technology (“**DoT**”) on February 20, 2014. The ‘Guidelines for Transfer/Merger of various categories of Telecommunication service licences/authorisation under Unified Licence on compromises, arrangements and amalgamation of the companies’ dated February 20, 2014 (“**M&A Guidelines**”) supersede the earlier ‘Guidelines for intra service area merger of Cellular Mobile Telephone Service (CMTS)/ Unified Access Services (UAS)’ dated April 22, 2008 (“**Old M&A Guidelines**”).

These M&A Guidelines follow in the wake of the decision of the DoT to remove foreign investment limits in this sector, introduction of the Unified License regime and TRAI’s recommendations³⁵ on this subject.

We have analyzed some important aspects of these guidelines:

A. Prior Approval of the DoT

The Unified License requires prior written approval of the DoT before transfer or assignment of any existing license. The Unified License has clarified that with respect to court approved mergers and acquisitions, any scheme of amalgamation or restructuring filed with the court must be drafted in a manner that the transaction requires the prior written approval of the DoT.

Presently neither the Unified License nor the M&A Guidelines provide clarity as to when the DoT needs to be approached for its approval, i.e. whether such approval may be sought simultaneously with the court approval process or if one would need to seek such approval from the DoT after the completion of the court approval process.

The M&A Guidelines also state that the DoT must provide its recommendations / objections to a scheme for compromise, arrangement or amalgamation of a company within 30 days of receipt of notice of such compromise, arrangement or amalgamation. This is a welcome step as it seeks to bind the DoT in providing a time bound response to any application placed before it. However the M&A Guidelines do not provide guidance as to grounds on which the DoT may reject the scheme. As such there are no guidelines which interested parties may keep in mind while drawing up the scheme for compromise, arrangement or amalgamation. Given this position, it may be worthwhile for parties to consider approaching the DoT before approaching the Courts.

B. Validity of the License

Consequent to a merger or amalgamation the acquired company’s license is subsumed into the resultant entity. The term of the resultant entity’s license will be the higher of the two periods of the former licenses.

Importantly it has been clarified that the validity period of the spectrum shall remain unchanged regardless of any merger. This is in line with the government's policy of delinking spectrum from the license which has also been specifically included in the Unified License. The implication is that the resultant entity's cannot piggy back on the (longer) license term of the acquired entity and claim to have longer spectrum validity – since spectrum is considered a separate asset, it will have a life of its own.

C. Lock In on Sale of Shares

Under the Old Guidelines, mergers were only allowed after completion of 3 years from the effective date of the license. While the M&A Guidelines do not contain any such express restriction they mandate that any lock in imposed on an entity pursuant to any spectrum auction shall also be applicable on the shares issued pursuant to an amalgamation or merger. This basically means that there would be no easy exit for new entrants. Before the Unified License was announced, the provisions of the old UAS license contained a three year lock in restriction for the sale of shares on persons whose share capital in the company was 10% or more and whose net worth has been taken into consideration while determining the eligibility of the company for the UAS license.³⁶ At that time, spectrum was bundled with the license and such restriction were necessary in order to restrict non serious players from acquiring UAS licenses (and therefore the spectrum that came along with the license) with the sole purpose of profiting from trading in spectrum. However in today's scenario where spectrum is de linked from the license and operators have to pay dearly to acquire spectrum, it may be argued that there is a presumption that only serious players would enter this market. In such a case, operators may find such a restriction very onerous. Additionally, this change in policy also seems to be in line with the Government's proposed strategy of allowing spectrum trading,³⁷ whereby telecom operators will be allowed to buy and sell spectrum. Guidelines for spectrum trading are expected to be announced soon.

D. Easing of Rules to Avoid Monopoly in the Market

i. No Prohibition on Number of Service Providers in the Market

The Old Guidelines prohibited any mergers or, amalgamations if the number of service providers fell below 4 in any circle where such merger or amalgamation was being proposed. There is no such prohibition in the M&A Guidelines. This cap on minimum number of players in a particular market was prohibitive towards consolidation activity since it would lead to multiple players having a small share of the market. Additionally, it appears that the introduction of an anti trust regulator in the form of the Competition Commission of India would in turn assuage concerns of market concentration which was one of the primary reasons for having a minimum number of players in the market.

ii. Cap on Spectrum the Resultant Entity can hold in an Area and the Cap on Total Spectrum Holding

The M&A Guidelines lay down that the resultant entity cannot hold more than 25 % of the total spectrum assigned for access services and 50 % of spectrum assigned in a given band in

every circle. The guidelines further lay down that companies will be given a period of one year to surrender the excess spectrum over the above mentioned threshold failing which suitable action may be initiated by the DoT.

iii. Cap on Market Share of the Resultant Entity Raised to 50%

The Old Guidelines stated that a merged entity could not hold more than 40% of the revenue or users in any particular telecom circle. Under the M&A Guidelines, the merged entity will now be allowed to have up to 50 % market share in any circle calculated on the basis of the subscriber base and Adjusted Gross Revenue. Entities which exceed this threshold have a window of one year to reduce their market share to 50% failing which DoT would have the liberty to take suitable action against the entity.

India has one of the most fragmented telecom industries in the world with 10 to 12 operators in each of the country's 22 telecom circles.³⁸ It was long felt that the stringent anti-monopoly rules in the Indian telecom sector were proving to be a roadblock to consolidation efforts. In an effort to boost consolidation the Government has removed the requirement to have a minimum number of operators in a circle. However the increase in the market cap from 40% to 50% may not prove to be a very significant increase for the bigger players since any acquisition by them may breach these caps. However smaller companies may find it

easier to enter into acquisitions either by being acquired by larger companies or merging with each other. Airtel recently announced its intention of acquiring Loop Mobile's assets in Mumbai by virtue of which Airtel would become the largest operator by subscriber base beating the existing market leader, Vodafone.³⁹

E. Acquirer to Pay Difference Between the Market Price of Spectrum and the Entry Fee Paid by the Target

One of the most stringent guidelines introduced is when a company acquires another company which holds spectrum, allotted to it under the old regime (i.e. spectrum bundled with license). In such a situation, the resultant entity must pay the Government the difference between the entry fee paid by the target and actual market price of spectrum. The amount to be paid is to be calculated from the date of approval granted by the relevant authority till the remainder of the license, on a pro-rata basis. This basically means that acquirers will need to pay a huge amount as spectrum fees to the government in addition to consideration that it would anyways have to pay for the acquisition. Acquirers may argue that this is an attempt to retrospectively apply auction prices to spectrum that was allocated as part of license as per the prevailing law at that time. However the governments could support their stand by their commitment to create a level playing field, especially in the background of the spectrum scam.

The guidelines have set out a mechanism for calculation of market price, i.e. SBI PLR to be added to the last auction determined price. Such calculation shall be done only after one year since the auction determined price of spectrum is valid for one year.

Such fees will not be applicable to spectrum acquired through auction such as the valuable 3G spectrum. Further if there any disputes with respect to such one-time fee, the M&A Guidelines have laid down that pending resolution of the dispute, the amount computed as the one-time fee must be deposited with the DoT in the form a bank guarantee. Therefore, this would effectively mean that companies will not be able to use the funds set aside for the bank guarantee until their dispute is finally resolved, which in the Indian context may take considerable time. However, this may also mean that if the dispute is solely with respect to the computation of the one-time fee, the company should be allowed to use the spectrum as soon as it has deposited the bank guarantee and should not be precluded from using the same until the resolution of the dispute.

II. Unified License

The Unified License, has introduced a clarification that has been made with respect to court approved merger and acquisitions which provides that any scheme of amalgamation or restructuring filed with the court must be drafted in a manner so that such amalgamation or restructuring shall be effective only after the written approval of the DoT for such transaction. It should be noted that there have been various rounds of litigation wherein the DoT's role has been challenged vis-à-vis approval from the Courts in the case of a court approved merger.⁴⁰ As such this clarification makes clear the DoT's position in this issue.

However, there is no clarity on when the DoT will need to be approached for such approval. It is not clear whether such approval may be sought simultaneously with the court approval process or if one would need to seek such approval from the DoT after the completion of the court approval process.

III. Competition Act, 2002

In the context of discussing SMPs it would also be relevant to keep in mind the provisions of the Competition Act 2002 which provides that no company shall abuse its dominant position. It should be noted that dominance per se is not illegal; its abuse is. The aim of the Competition Act is to prevent enterprises taking advantage of their market strength to abuse their dominance by using anti competitive business practices. The Competition Act (Section 4(2)) prescribes a list of practices which are broadly classifiable into exploitative and exclusionary, engaged by a dominant enterprise, alone or in concert, which are prohibited;

- i. Imposing of unfair or discriminatory price (including predatory price) or condition, directly or indirectly, in purchase or sale of goods or services; or
- ii. Indulging in practices resulting in denial of market access in any manner; or
- iii. Making conclusion of contracts of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts; or
- iv. Using the dominant position in one relevant market to enter into, or protect, another relevant market; or
- v. Limiting or restricting the production or provision of, or the technical or scientific development relating to, goods or services.

It is pertinent to note that the practices prohibited under Section 4(2) of the Competition Act are only with respect to abuse by enterprises which enjoy a dominant position. The Competition Act defines “dominant position” as a position of strength enjoyed by an enterprise in the relevant market in India, which enables it to:

- i. Operate independently of competitive forces prevailing in the relevant market; or
- ii. Affect its competitors or consumers or the relevant market in its favour.

Further, the Competition Commission of India (“CCI”) on May 11, 2011 issued the Competition Commission of India (Procedure in regard to the transaction of business relating to combinations) Regulations, 2011 (“**Combination Regulations**”). These Combination Regulations will now govern the manner in which the CCI will regulate combinations which have caused or are likely to cause appreciable adverse effect on competition in India (“AAEC”).

NATIONAL DIGITAL COMMUNICATIONS POLICY, 2018

Preamble

1. Digital infrastructure and services are increasingly emerging as key enablers and critical determinants of a country’s growth and well-being. With significant capabilities in both telecommunications and software, India, more than most countries, stands poised to benefit from harnessing new digital technologies and platforms to unlock productivity, as well as to reach unserved and underserved markets; thus catalysing economic growth and development, generating new-age jobs and livelihoods, and ensuring access to next generation services for its citizens.

2. The task before India’s policy makers is to ensure that the advantages of the new technologies are accessible to all equitably and affordably; while securing them against existing and emerging threats. India needs to particularly ensure that its communications infrastructure supports the entire population, whose demographic profiles vary widely across various indices such as literacy, economic conditions and urbanisation. It is important for India to remain sensitive to these factors and promote policies that increase opportunities for their social and economic development. Accordingly, this policy aims for Universal Coverage rather than revenue maximisation.

3. Digital India is already unfolding. India’s digital profile and footprint is one of the fastest growing in the world. With over a billion mobile phones and digital identities and half a billion internet users, India’s mobile data consumption is already the highest in the world. Over 200 million Indians regularly use social media and in the last year alone, over 200 million Indians took to mobile banking and digital payments. At the current pace of digitisation and digitalisation, it is estimated that India’s digital economy has the potential to reach one trillion USD by 2025. The rapid and unprecedented proliferation of the mobile phone, the internet, social media platforms, and the rapid expansion of digital payments, data consumption and generation across India indicate that the data economy and digital technologies and services are no longer the prerogative of the privileged few; but that they

have indeed evolved into widespread instruments of access and empowerment for more than a billion Indians.

4. The objective of this document is to lay out a consistent policy and principles framework, that will enable creation of a vibrant competitive telecom market to strengthen India's long term competitiveness and serve the needs of our aspiring nation. It has been broadly estimated that a 10% increase in broadband penetration in a country could potentially lead to an over 1% increase in GDP. However, studies in India estimate that the impact could be significantly higher for the country, given the increased productivity and efficiency gains that are likely to accrue to the economy.

5. Currently, India has approximately 1.5 million kilometres of OFC, and less than one-fourth of the towers are fibre-connected. In order to expand mobile and broadband connectivity across the country, it is necessary to explore and utilise the opportunities presented by next generation-networks like 5G and other pioneering network access technologies including satellite communications. It would be critical to focus on Digital Communications infrastructure development initiatives related to fibre deployment and Right of Way clearances, for both overground and underground infrastructure, that will form the bedrock of next generation technologies.

6. While India has embarked on one of the world's largest rural optic fibre roll-outs in the world, aiming to connect 600,000 of its villages to broadband through its flagship initiative called 'BharatNet'; the convergence of a cluster of revolutionary technologies including 5G, the cloud, IOT and data analytics, along with a growing start-up community, promise to accelerate and deepen its digital engagement, opening up a new horizon of opportunities. As the world prepares for what is increasingly being called as the fourth industrial revolution, India, and indeed every single sector of its economy, need to be readied to embrace this opportunity.

7. A robust, competitive landscape, which ensures availability of new communications technologies, services and applications, is central to the growth of GDP, productivity and creation of new jobs in the economy. For consumers, competition leads to innovation, access to new technologies, improved quality, affordable prices and wider choice. Indian consumers need and deserve the widest range of services at competitive rates. The Policy seeks to promote and protect fair competition across the communications and digital economy sector.

8. Improvement in regulation and ongoing structural reforms are the pillars of a sound policy initiative. Regulatory reform is not a one-off effort, but a dynamic, long-term and multi disciplinary process. The Policy recognises the importance of continued improvement in the regulatory framework for attracting investments and ensuring fair competition, to serve the needs of Indian citizens. Given the sector's capital-intensive nature, the Policy aims to attract long-term, high quality and sustainable investments. To serve this objective, the Policy further aims to pursue regulatory reforms to ensure that the regulatory structures and processes remain relevant, transparent, accountable and forward-looking. Additionally, the Policy aims to remove regulatory barriers and reduce the regulatory burden that hampers

investments, innovation and consumer interest. The Policy also identifies steps to strengthen the sector's institutional mechanism and legislative framework, to ensure that India's economy and citizens can derive the full potential of its digital communications sector.

9. If India's economic, social and political interests in the emerging data economy are to be effectively secured, its 'digital sovereignty' encompassing the data privacy, choice and security of its citizens must be a prime consideration while participating in the global digital economy.

10. The objective of a national policy on digital communications is to prepare the country and its citizens for the future. Achieving these goals would require that the key stakeholders – namely the Centre, the States, local governments and agencies, Telecom Service Providers, Internet Service Providers, Infrastructure Providers, handset and equipment manufacturers, the academic community, the innovators and start-ups come together to forge a coalition to deliver this national policy and its missions.

11. Keeping in view the changes and advancements in the digital communications ecosystem, the National Telecom Policy will hereinafter be referred to as '**National Digital Communications Policy**'. To ensure effective implementation and monitoring of the Policy, it is proposed to re-designate the Telecom Commission as the Digital Communications Commission, to ensure that the high aspirations are achieved within stipulated time.

The National Digital Communications Policy, 2018

The National Digital Communications Policy, 2018 seeks to unlock the transformative power of digital communications networks - to achieve the goal of digital empowerment and improved well-being of the people of India; and towards this end, attempts to outline a set of goals, initiatives, strategies and intended policy outcomes.

The National Communications Policy aims to accomplish the following Strategic Objectives by 2022:

1. Provisioning of Broadband for All
2. Creating 4 Million additional jobs in the Digital Communications sector
3. Enhancing the contribution of the Digital Communications sector to 8% of India's GDP from ~ 6% in 2017
4. Propelling India to the Top 50 Nations in the ICT Development Index of ITU from 134 in 2017
5. Enhancing India's contribution to Global Value Chains
6. Ensuring Digital Sovereignty

Vision

To fulfil the information and communication needs of citizens and enterprises through the establishment of a ubiquitous, resilient, secure, accessible and affordable Digital Communications Infrastructure and Services; and in the process, support India's transition to a digitally empowered economy and society.

Missions

In pursuit of accomplishing these objectives by year 2022, the National Digital Communications Policy, 2018 envisages three Missions:

1. **Connect India:** Creating Robust Digital Communications Infrastructure

To promote Broadband for All as a tool for socio-economic development, while ensuring service quality and environmental sustainability.

2. **Propel India:** Enabling Next Generation Technologies and Services through Investments, Innovation and IPR generation

To harness the power of emerging digital technologies, including 5G, AI, IoT, Cloud and Big Data to enable provision of future ready products and services; and to catalyse the fourth industrial revolution (Industry 4.0) by promoting Investments, Innovation and IPR.

3. **Secure India:** Ensuring Sovereignty, Safety and Security of Digital Communications

To secure the interests of citizens and safeguard the digital sovereignty of India with a focus on ensuring individual autonomy and choice, data ownership, privacy and security; while recognizing data as a crucial economic resource.

1. **Connect India: Creating a Robust Digital Communication Infrastructure**

2022 Goals:

- a) Provide Universal broadband connectivity at 50Mbps to every citizen
- b) Provide 1 Gbps connectivity to all Gram Panchayats of India by 2020 and 10 Gbps by 2022
- c) Enable 100 Mbps broadband on demand to all key development institutions; including all educational institutions
- d) Enable fixed line broadband access to 50% of households
- e) Achieve 'unique mobile subscriber density' of 55 by 2020 and 65 by 2022
- f) Enable deployment of public Wi-Fi Hotspots; to reach 5 million by 2020 and 10 million by 2022
- g) Ensure connectivity to all uncovered areas

Strategies:

1.1 Establishing a 'National Broadband Mission – Rashtriya Broadband Abhiyan' to secure universal broadband access

(a) Implementation of the following broadband initiatives, to be funded through USOF and Public Private Partnerships:

- i. **BharatNet** – Providing 1 Gbps to Gram Panchayats upgradeable to 10 Gbps
- ii. **GramNet** – Connecting all key rural development institutions with 10 Mbps upgradeable to 100 Mbps

- iii. **NagarNet** – Establishing 1 Million public Wi-Fi Hotspots in urban areas
- iv. **JanWiFi** – Establishing 2 Million Wi-Fi Hotspots in rural areas

(b) Implementing a ‘**Fibre First Initiative**’ to take fibre to the home, to enterprises and to key development institutions in Tier I, II and III towns and to rural clusters:

- i. According Telecom Optic Fibre cables the status of Public utility
- ii. Promoting collaboration models involving state, local bodies and private sector as necessary for provision of shared duct infrastructure in municipalities, rural areas and national highways
- iii. Facilitating Fibre-to-the-tower programme to enable fiberisation of at least 60% of telecom towers thereby accelerating migration to 4G/5G
- iv. Leveraging existing assets of the broadcasting and power sector to improve connectivity, affordability and sustainability
- v. Incentivising and promoting fibre connectivity for all new developmental construction
- vi. By making requirement for telecom installations and the associated cabling and in-building solutions mandatory in all commercial, residential and office spaces by amending National Building Code of India (NBC), through Bureau of Indian Standards (BIS).

(c) Establishment of a **National Digital Grid** by:

- i. Creating National Fibre Authority
- ii. Establishing Common Service Ducts and utility corridors in all new city and highway road projects, and related elements
- iii. Creating a collaborative institutional mechanism between Centre, States and Local Bodies for Common Rights of Way, standardisation of costs and timelines; and removal of barriers to approvals
- iv. Facilitating development of Open Access Next Generation Networks

(d) Facilitate the establishment of Mobile Tower Infrastructure by:

- i. Extending incentives and exemptions for the construction of telecom towers
- ii. According accelerated Rights of Way permissions for telecom towers in government premises
- iii. Promoting and incentivizing deployment of solar and green energy for telecom towers

(e) Improve international connectivity and reduce the cost of international bandwidth by facilitating setting up of International Cable Landing Stations by rationalising access charges and removing regulatory hurdles; and by benchmarking international bandwidth to global trends.

(f) Encourage and facilitate sharing of active infrastructure by enhancing the scope of Infrastructure Providers (IP) and promoting and incentivizing deployment of common sharable, passive as well as active, infrastructure.

(g) Enabling Infrastructure Convergence of IT, telecom and broadcasting:

- i. Amending the Indian Telegraph Act, 1885 and other relevant acts for the purpose of convergence in coordination with respective ministries
- ii. Establishing a unified policy framework and spectrum management regime for broadcast and broadband technologies
- iii. Restructuring of legal, licensing and regulatory frameworks for reaping the benefits of convergence
- iv. Allowing benefits of convergence in areas such as IP-PSTN switching

(h) Creating a Broadband Readiness Index for States/ UTs to attract investments and address RoW challenges

(i) Encouraging investment in broadband infrastructure through fiscal incentives, including accelerated depreciation and tax incentives; and incentivizing fixed line broadband

(j) By encouraging innovative approaches to infrastructure creation and access including through resale and Virtual Network Operators (VNO)

(k) Promoting broadband connectivity through innovative and alternative technologies

1.2 Recognizing Spectrum as a key natural resource for public benefit to achieve India's socio-economic goals, ensure transparency in allocation and optimise availability and utilisation by:

(a) Developing a transparent, normative and fair policy for spectrum assignments and allocations

(b) Making adequate spectrum available to be equipped for the new broadband era:

- i. Identifying and making available new Spectrum bands for Access and Backhaul segments for timely deployment and growth of 5G networks.
- ii. Making available harmonized and contiguous spectrum required for deployment of next generation access technologies
- iii. Further liberalizing the spectrum sharing, leasing and trading regime
- iv. Coordinating with Government departments for freeing underutilised/ substitutable spectrum, and its assignment along with unutilised spectrum for efficient and productive use
- v. Optimal Pricing of Spectrum to ensure sustainable and affordable access to Digital Communications
- vi. Simplifying the process of obtaining permissions from various agencies such as WPC and SACFA in order to promote efficiency
- vii. Enabling Light Touch licensing/ de-licensing of spectrum for broadband proliferation
- viii. Promoting the co-use/ secondary use of spectrum
- ix. Constituting a Spectrum Advisory Team (SAT) consisting of experts, industry and academia to facilitate the identification of new bands, applications and efficiency measures to catalyse innovation and efficient spectrum management

(c) Efficient spectrum utilisation and management:

- i. Ensuring the optimum utilisation of spectrum by management of interference free spectrum and encouraging new technologies and consolidation
- ii. Monitoring efficient utilization of spectrum by conducting systematic audits of the spectrum allocated to both commercial and government organizations
- iii. Deploying dynamic database systems for allocation/ interference management
- iv. Publishing annual spectrum utilization and availability roadmap for communication needs including those of aircraft and vessels

(d) Promoting **Next Generation Access Technologies** in India through the following actions:

- i. Encouraging licensed service providers to utilise next generation access technologies to ensure cost optimization, service agility and new revenue streams
- ii. Recognising mid-band spectrum, particularly the 3 GHz to 43GHz range, as central to India's strategy for Next-Generation Networks
- iii. Promoting the effective utilisation of high capacity backhaul E-band (71-76/ 81-86 GHz) and V-band (57-64 MHz) spectrum in line with international best practices
- iv. Rationalizing annual royalty charges for microwave links for backhaul connectivity

1.3 Strengthening Satellite Communication Technologies in India

(a) Review the **regulatory regime for satellite communication** technologies, including: Revising licensing and regulatory conditions that limit the use of satellite communications, such as speed barriers, band allocation, etc.

- i. Simplifying compliance requirements for VSAT operators to ensure faster roll out
- ii. Expanding scope of permissible services for the effective utilisation of High Throughput Satellite systems through appropriate licensing mechanism.

(b) **Optimise Satellite communications** technologies in India, by:

- i. Reviewing SATCOM policy for communication services, along with Department of Space, to create a flexible, technology-neutral and competitive regime, keeping in view international developments and social and economic needs of the country
- ii. Making available new spectrum bands (such as Ka Band) for satellite based commercial communication services.
- iii. Rationalizing satellite transponder, spectrum charges and charges payable to WPC
- iv. Assessing the bandwidth demands across various spectrum bands used for satellite communications, in consultation with stakeholders
- v. Prioritising international engagement with ITU on spectrum management issues, including satellite communications in India.

(c) Develop an **ecosystem for satellite communications** in India, with focus on:

- i. Streamlining administrative processes for assignment and allocations, clearances and permissions related to satellite communication systems
- ii. Promoting local manufacturing and development of satellite communications related infrastructure through appropriate policies
- iii. Promoting participation of private players, with due regard to national security and sovereignty

1.4 Ensuring Inclusion of uncovered areas and digitally deprived segments of society by:

(a) Channelizing the Universal Service Obligation Fund (USOF) for:

- i. Ensuring connectivity for all uncovered areas in the North Eastern States, Himalayan region, LWE areas, Aspirational Districts, Islands and Border Areas
- ii. Marginalised communities, women and persons with disabilities
- iii. Promoting innovative, effective and scalable alternate technologies for remote areas
- iv. Enabling access provision by any entity capable of fulfilling the Universal Service Obligation

(b) Reviewing the scope and modalities of USOF:

- i. Redesigning the USOF and broadening its objectives to enable universal broadband access including for economically and socially weaker sections in urban pockets
- ii. Strengthening institutional capacity of USOF to ensure effective rollout of services in uncovered, remote and rural areas

1.5 Ensuring Customer Satisfaction, Quality of Service and effective Grievance Redressal

(a) Establishing effective institutional mechanisms to protect consumers' interests including:

- i. Telecom Ombudsman
- ii. A centralised web based complaint redressal system

(b) Focussing on public health and safety standards to promote the well-being of citizens:

- i. Framing a comprehensive policy to encourage the adoption of environmental and safety standards and building trust by enabling self-certification
- ii. Generating awareness around Electro Magnetic Fields Emissions based on international experience and global best practices
- iii. Generating awareness on hazards of e-waste and encouraging proper disposal management of equipment used

(c) Incentivising the use of renewable energy technologies in the communications sector, including:

- i. Encouraging the utilisation of small cell fuel batteries, lithium-ion batteries or other similar technologies to improve energy consumption efficiencies
- ii. Promoting research and development of green telecom through active participation of stakeholders across government, industry and academia
- iii. Rationalising of taxes and levies on the manufacture, production and import of such equipment for digital communication technologies.

2. Propel India: Enabling Next Generation Technologies and Services through Investments, Innovation, Indigenous Manufacturing and IPR Generation

2022 Goals:

- a) Attract investments of USD 100 Billion in the Digital Communications Sector
- b) Increase India's contribution to Global Value Chains
- c) Creation of innovation led Start-ups in Digital Communications sector
- d) Creation of Globally recognized IPRs in India
- e) Development of Standard Essential Patents (SEPs) in the field of digital communication technologies
- f) Train/ Re-skill 1 Million manpower for building New Age Skills
- g) Expand IoT ecosystem to 5 Billion connected devices
- h) Accelerate transition to Industry 4.0

Strategies:

The recent past has witnessed an unprecedented transformation in the Digital Communications Infrastructure and Services sector with the emergence of new technologies, services, business models and players. There is hence an imperative need to review the existing licensing, regulatory and resource allocation frameworks to incentivize investments and innovation to optimise new technology deployments and harness their benefits.

2.1 Catalysing Investments for Digital Communications sector:

- (a) According Telecom Infrastructure the status of Critical and Essential Infrastructure
 - i. By recognizing communication systems and services as essential connectivity infrastructure at par with other connectivity infrastructure like Roadways, Railways, Waterways, Airlines etc. for development of India, and, in the process, enable low cost financing for development of communication infrastructure
- (b) Reforming the licencing and regulatory regime to catalyse Investments and Innovation, and promote Ease of Doing Business by:
 - i. Reviewing of levies and fees including LF, SUC and the definition of AGR and rationalisation of Universal Service levy

- ii. Reviewing the concept of pass through charges to align the same with the principles of input line credit thereby avoiding double incidence of levies.
- iii. Reviewing the rationalization of license fees on fixed line revenues to incentivise digital communications
- iv. Rationalising taxes and levies on Digital Communications equipment, infrastructure and services
- v. Enabling unbundling of different layers (e.g. infrastructure, network, services and applications layer) through differential licensing
- vi. Promoting Open Public Wi-Fi access through Wi-Fi / Public Data Office Aggregators and Public Data Offices
- vii. Introducing various fiscal and non-fiscal benefits for development of telecom clusters around cable landing stations to foster innovation in Digital Communications Technologies

(c) Simplifying and facilitating Compliance Obligations by:

- i. Reducing license and regulatory compliance requirements keeping in view best international practices
- ii. Simplifying existing systems and procedures for grant of licenses, approvals, clearances, permissions and developing a comprehensive end-to-end online platform
- iii. Specifying timelines within which various types of licenses, permissions and clearances shall be provided by the relevant administrative offices
- iv. Improving the Terms and Conditions for ‘Other Service Providers’, including definitions, compliance requirements and restrictions on interconnectivity
- v. Reforming the Guidelines for Mergers & Acquisitions, 2014 to enable simplification and fast tracking of approvals
- vi. Reorganizing Wireless Planning and Coordination (WPC) Wing to facilitate Ease of Doing Business
- vii. Reviewing the penalty provisions to ensure proportionality and reasonableness
- viii. Creating a regime for fixed number portability to facilitate one nation – one number including portability of toll free number, Universal Access numbers and DID numbers
- viii. Simplifying ETA (Equipment Type Approval) process for low powered (< 1 watt) radio devices
- ix. Simplifying import licensing requirements of Wireless Planning and Coordination (WPC) Wing

2.2 Ensuring a holistic and harmonised approach for harnessing Emerging Technologies

(a) Synergising deployment and adoption of new and emerging technologies by:

- i. Creating a roadmap for emerging technologies and its use in the communications sector, such as 5G, Artificial Intelligence, Robotics, Internet of Things, Cloud Computing and M2M

- ii. Simplifying licensing and regulatory frameworks whilst ensuring appropriate security frameworks for IoT/ M2M / future services and network elements incorporating international best practices
 - iii. Earmarking adequate licensed and unlicensed spectrum for IoT/ M2M services
 - iv. Encourage use of Open APIs for emerging technologies
- (b) Promoting innovation in the creation of Communication services and network infrastructure by Developing a policy framework for ‘Over The Top’ services
- (c) Ensuring the Transition to IPv6 for all existing communications systems, equipment, networks and devices
- (d) Enabling Hi-speed internet, Internet of Things and M2M by rollout of 5G technologies:
- i. Implementing an action plan for rollout of 5G applications and services
 - ii. Enhancing the backhaul capacity to support the development of next-generation networks like 5G
 - iii. Ensuring availability of spectrum for 5G in <1 GHz, 1-6 GHz and >6 GHz bands
 - iv. Reviewing industry practices with respect to traffic prioritisation to provide 5G enabled applications and services
 - v. Developing framework for accelerated deployment of M2M services while safeguarding security and interception for M2M devices
 - vi. Defining policy for EMF radiation for M2M devices, with accompanying institutional framework to coordinate government-funded and India-specific research in this regard
- (e) Ensuring adequate numbering resources, by:
- i. Allocating 13-digit numbers for all M2M mobile connections
 - ii. Developing a unified numbering plan for fixed line and mobile services
- (f) Establishing India as a global hub for cloud computing, content hosting and delivery, and data communication systems and services
- i. Evolving enabling regulatory frameworks and incentives for promoting the establishment of International Data Centres, Content Delivery Networks and independent interconnect exchanges in India
 - ii. Enabling a light touch regulation for the proliferation of cloud based systems
 - iii. Facilitating Cloud Service Providers to establish captive fibre networks.
- (g) Leveraging Artificial Intelligence and Big Data in a synchronized and effective manner to enhance the overall quality of service, spectrum management, network security and reliability
- (h) Recognizing Digital Communications as the core of Smart Cities by:
- i. Developing, in collaboration with Ministry of Urban Development, a Common Service Framework and Standards for Smart Cities

- ii. Facilitating and supporting deployment of innovative solutions in identified Smart Cities

2.3 Research and Development

(a) Promoting research & development in Digital Communication Technologies by:

- i. Restructuring C-DOT as a premier Telecom Research and Development Centre for identification, customization, and development of digital products and services in the country as per indigenous needs
- ii. Simplifying approvals/ processes for R&D procurements/ imports
- iii. Creating a framework for testing and certification of new products and services

(b) Creating a Fund for R&D in new technologies for start-ups and entrepreneurs to enable innovation in cutting edge communications, 5G, software, content, security and related technologies and applications; and commercialization of products and services through grants, scholarships, venture capital, etc.

(c) Establishing Centres of Excellence including in Spectrum Management, Telecom Security and Next Generation Access Technologies

(d) Fostering an Intellectual Property Rights regime that promotes innovation, by:

- i. Implementing key recommendations in the National IPR Policy pertaining to Digital Communications, including a review of the legal regime around copyright, patents and trade marks
- ii. Assisting start-ups and other innovators in filing copyright, patent and trademarks applications
- iii. Providing financial incentives for the development of Standard Essential Patents (SEPs) in the field of digital communications technologies
- iv. Promoting Indian IPR through international collaborations and active participation in standard development processes and IPR related events

(e) Simplifying the process of obtaining Experimental Licenses and establishing regulatory sandboxes; viz.:

- i. Enabling creation of suitable infrastructure for testing of new products and services with due regard to safety and security concerns
- ii. Facilitating allocation of spectrum for R&D and experimentation at affordable prices
- iii. Simplifying and fast-track approvals for products and services for experimental purposes through de-licensing and other mechanisms; and promoting establishment of test beds, incubators, innovation centres, etc. in collaboration with industry and academia

2.4 Promoting Start-ups and SMEs

(a) Supporting Start-ups with various fiscal and non-fiscal benefits, including:

- i. Academic collaborations, permissions for pilots and testing, concessions on imported software, mentoring support, etc.
- ii. Promoting participation of Start-ups and SMEs in government procurement
- iii. Funding pilot deployments through USOF

(b) Reducing the entry barriers for start-ups by reducing the initial cost and compliance burden, especially for new and innovative segments and services

2.5 Local Manufacturing and Value Addition

(a) Maximising India's contribution to global value chains, by focussing on domestic production, increasing exports and reducing the import burden, by:

- i. Rationalising taxes, levies and differential duties to incentivize local manufacturing of equipment, networks and devices to the extent of domestic value addition
- ii. Introducing Phased Manufacturing Program for identified product segments in Digital Communication Technologies
- iii. Attracting and incentivizing Global OEMs and Generic Component players to setup manufacturing base in India
- iv. Ensuring the availability of essential background IPR in Fair, Reasonable And Non-Discriminatory (FRAND) terms required for promoting local manufacturing
- v. Promoting design led manufacturing in India by leveraging indigenous software/ R&D capabilities
- v. Incentivizing fab and/or fab-less design and manufacturing of chips and system on a chip (SOC) for network and devices in emerging technologies
- vi. Attracting global talent from Indian diaspora to create best in class enterprises

(b) Ensuring strict compliance to Preferential Market Access requirements:

- i. Preferring domestic products and services with domestically owned IPR in the procurement by government agencies, especially for the procurement of security related products
- ii. Incentivizing private operators to buy domestic telecom products

2.6 Capacity Building

(a) Building human resource capital to facilitate employment opportunities in Digital Communications Sector:

- i. Building national capacity and institutional capabilities in telecom security tools, standards and forensics including in manufacturing of critical telecom equipment
- ii. Creating educational resources relating to the communications sector and making them available in an open and accessible format to promote self-directed and collaborative learning through interactive formats, including audio, video and text

- iii. Promoting Industry-Academia-Government partnerships to develop capacity and skills in line with future technology needs

2.7 Strengthening of PSUs

- (a) Focus on building technical expertise and knowledge management for Public Sector Units, through the following initiatives:
 - i. Building internal capacity within PSU's to promote secure and efficient service delivery, infrastructure development and domestic manufacturing.
 - ii. Identifying and exploiting operational synergies in service provisioning, infrastructure creation, R&D, Standardization and manufacturing
 - iii. Using the training infrastructure available with telecom PSUs for skill development
 - iv. Upgrading the manufacturing PSUs under DoT to effectively harness strategic and operational synergies
 - v. Facilitating technical up gradation of PSUs

2.8 Accelerating Industry 4.0

- a) Create a roadmap for transition to Industry 4.0 by 2020 by closely working with sector specific Industry Councils
- b) Establish a multi-stakeholder led collaborative mechanism for coordinating transition to Industry 4.0
- c) Developing market for IoT/ M2M connectivity services in sectors including Agriculture, Smart Cities, Intelligent Transport Networks, Multimodal Logistics, Smart Electricity Meter, Consumer Durables etc. incorporating international best practices.

3. Secure India: Ensuring Digital Sovereignty, Safety and Security of Digital Communications

2022 Goals:

- a) Establish a comprehensive data protection regime for digital communications that safeguards the privacy, autonomy and choice of individuals and facilitates India's effective participation in the global digital economy
- b) Ensure that net neutrality principles are upheld and aligned with service requirements, bandwidth availability and network capabilities including next generation access technologies
- c) Develop and deploy robust digital communication network security frameworks
- d) Build capacity for security testing and establish appropriate security standards
- e) Address security issues relating to encryption and security clearances
- f) Enforce accountability through appropriate institutional mechanisms to assure citizens of safe and secure digital communications infrastructure and services

Strategies:

3.1 Establish a strong, flexible and robust Data Protection Regime

- a) Harmonising communications law and policy with the evolving legal framework and jurisprudence relating to privacy and data protection in India, including: i. Amending various licenses and terms and conditions, wherever necessary, to incorporate provisions with respect to privacy and data protection
- b) Addressing issues of data protection and security in digital communications sector, by:
 - i. Ensuring that core data protection and security principles are applied and enforced
 - ii. Promoting the usage of indigenous communication products and services

3.2 Provide Autonomy and Choice for every citizen and enterprise

- (a) Recognising the need to uphold the core principles of net neutrality:
 - i. Amending the license agreements to incorporate the principles of non discriminatory treatment of content, along with appropriate exclusions and exceptions as necessary
 - ii. Ensuring compliance with net neutrality principles, by introducing appropriate disclosure and transparency requirements

3.3 Assure Security of Digital Communications

- (a) Addressing security issues across layers:
 - i. Infrastructure Security (physical infrastructure, cyber-physical infrastructure, hardware & network elements), Systems Security (equipment, devices, distributed systems, virtual servers)
 - ii. Application and Platform security (web, mobile, device and software security)
- (b) Developing security standards for equipment and devices:
 - i. Telecom Testing and Security Certification (TTSC) to develop and enforce security standards and obligations for digital communications products and services
 - ii. Aligning with global standards on safety and security
 - iii. Harmonising the legal and regulatory framework applicable to security standards such as the BIS Act, Electronics & Information Technology Goods (Requirements for Compulsory Registration) Order, Indian Telegraph Act, etc.
- (c) Participating in global standard setting organizations to ensure consideration for local needs of the Indian communications industry
- (d) Strengthening security testing processes by:
 - i. Enhancing institutional capacity to perform testing, including establishing domestic testing hubs and laboratories with state-of-the art facilities
 - ii. Establishing comprehensive security certification regime based on global standards

(e) Formulating a policy on encryption and data retention, by harmonising the legal and regulatory regime in India pertaining to cryptography with global standards, as applicable to communication networks and services

(f) Facilitating Security and Safety of Citizens, Institutions and Property by:

- i. Facilitating establishment of a Central Equipment Identity Registry for addressing security, theft and other concerns including reprogramming of identity of mobile handsets
- ii. Facilitating lawful interception of all Digital Communications with state of the art lawful intercept and analysis systems for implementation of law and order and national security
- iii. Increasing awareness amongst users about security related issues concerning digital communications networks, devices and services

(g) Establishing a Security Incident Management and Response System for Digital Communications Sector by:

- i. Instituting a sectoral Cyber Security Incidence Response System (CSIRT)
- ii. Improving information sharing and coordination between various security agencies, including CERT-In and sectoral CERTs as may be necessary
- iii. Enforcing obligations on service providers to report data breaches to authorities and affected users, based on specific parameters
- iv. Strengthening the Security Audit Mechanism

3.4 Developing a comprehensive plan for network preparedness, disaster response relief, restoration and reconstruction

(a) Strengthening network resilience by:

- i. Framing and enforcing standard operating procedures to be followed during disasters and natural calamities, including sectoral guidelines for disaster response and recovery applicable to various service providers
- ii. Establishing institutional framework to promote monitoring of activities, rapid dissemination of early warning disaster notifications and better coordination and collaboration between relevant Ministries / Departments, including the National Disaster Management Authority of India

(b) Developing a Unified Emergency Response Mechanism by:

- i. Creating an institutional framework with clearly defined roles and responsibilities, Standard Operating Procedures and technical guidelines
- ii. Incorporating obligations under the license terms and conditions for implementation of Next Generation 112 services in all areas, based on geo location technologies, and provide online access to caller location and details to authorised central and state agencies

- iii. Enforcing obligations of service providers to share infrastructure, and ensure interoperability in emergency situations in a network-agnostic, operator-agnostic and technology-agnostic manner.

(c) Enhancing the Public Protection and Disaster Relief (PPDR) plan for India by:

- i. Facilitating the establishment of a Pan-India network for Public Protection and Disaster Relief (PPDR)
- ii. Making necessary spectrum available for PPDR including by establishing INSAT satellite-based mobile communication systems
- iii. Implementing global and regional harmonized spectrum Plans for PPDR

It is hoped that this policy will facilitate the unleashing of the creative energies of citizens, enterprises and institutions in India; and play a seminal role in fulfilling the aspirations of all Indians for a better quality of life.