



सत्यमेव जयते



Annual Report



2015-16






Telecom Regulatory Authority of India

(IS/ISO 9001:2008 Certified Organisation)

Annual Report

2015-16



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LETTER OF TRANSMITTAL

To the Central Government through Hon'ble Minister of Communications and Information Technology.

It is my privilege to forward the 19th Annual Report for the year 2015-16 of the Telecom Regulatory Authority of India to be laid before both Houses of Parliament. Included in this report is the information required to be forwarded to the Central Government under the provisions of the Telecom Regulatory Authority of India Act, 1997, as amended by TRAI (Amendment) Act, 2000.

The report contains an overview of the telecom and broadcasting sectors and a summary of the key initiatives of TRAI on regulatory matters with specific reference to the functions mandated to it under the Act. The Audited Annual Statement of Accounts of TRAI is also included in the Report



(RAM SEWAK SHARMA)

CHAIRPERSON

Dated: December 2016



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**OVERVIEW
OF
TELECOM & BROADCASTING SECTORS**





OVERVIEW

The year 2015-16 has been another busy and eventful year for Telecommunications and Broadcasting sector. The Authority deliberated on various issues concerning telecom sector. Recommendations were made to the Government on 'Single Number based Integrated Emergency Communication and Response System', "Delivering Broadband Quickly: What do we need to do?" 'Introducing Virtual Network Operators in Telecom Sector', 'Implementation Strategy for 'BharatNet' 'Interconnection over IP Interface'. Recommendations were also made on Valuation and Reserve Price of Spectrum in 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz and 2500 MHz. On the tariff front, TRAI continued with the general policy of forbearance in respect of most services. Effective measures in the interest of telecom consumers were also taken. In the Broadcasting sector, digitisation of the cable sector which aims at empowering the consumer and providing him better service quality and enhanced choice was continuously pursued and monitored against various odds and challenges terms. The first three phases of implementation been completed and around 50 percent of the cable TV homes have already been covered. TRAI also initiated a number of steps aimed towards bringing in a measure of stability & uniform growth of a sector that is presently undergoing a huge transformation from the erstwhile analog era. Enabling such an environment will encourage future investments and bring about even faster development in the broadcasting and cable services sector.

2. The significant events relating to Telecom and Broadcasting sectors during the year 2015-16 are detailed below:

I. TELECOM SECTOR

(i) The Telecom Sector witnessed substantial growth in the number of subscribers during the year 2015-16. At the end of the financial year, the subscriber base was 1058.86 million out of which 1033.63 million were wireless subscribers. During the year, wireless subscriber base recorded an increase of 63.74 million, while the overall tele-density increased from 79.38 to 83.36. The year also saw increase in rural tele-density from 48.37 to 51.37 while the urban tele-density also increased from 148.61 to 154.01. During the year 2015-16, 55.28 million subscribers have submitted their porting requests to different service providers for availing MNP facility. With this the Mobile Number Portability requests increased from 153.85 Million at the end of March 2015 to 209.13 Million at the end of March 2016. The Internet subscriber base in the country as on 31st March 2016 stood at 342.65 million as compared to 302.35 million as on 31st March 2015. The total broadband subscriber base of the country increased from 99.20 million as on 31st March 2015 to 149.75 Million as on 31st March 2016.

(ii) An important aspect of TRAI's functions as mandated under the TRAI Act is to make recommendations to the Government on diverse subjects including market structure and entry of new operators in the sector, the licencing framework, management of scarce resources such as spectrum, consumer safety and security.

Under this mandate, several significant policy regulatory recommendations were made during the year which include recommendations on 'Single Number based Integrated Emergency Communication and Response System', "Delivering Broadband Quickly: What do we need to do?" 'Introducing Virtual Network Operators in Telecom Sector', 'Implementation Strategy for 'BharatNet' 'Interconnection over IP Interface'. Recommendations were also made on Valuation and Reserve Price of Spectrum in 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz and 2500 MHz bands.

- (iii) The Authority vide its recommendations dated 7th April 2015 *suo moto* recommended for implementation of 'Single Number based Integrated Emergency Communication and Response System' to facilitate establishment of an efficient and robust Integrated Emergency Communication and Response System (IECRS) in India.
- (iv) The Authority recommended on 6th January 2016 acceptance and adoption of Aadhaar based e-KYC service along with Aadhaar based e-sign as a valid alternative process to the existing process for digitally signed, biometric based verification of new mobile subscribers.
- (v) Recommendations on 'Interconnection over IP Interface' were forwarded to government on 11th February 2016 recommending amendment in the license condition to explicitly provide for IP Based Interconnection.

- (vi) The Authority issued 'The prohibition of discriminatory tariffs for data services Regulations 2016' on 8th February 2016 to prevent service providers from offering discriminatory tariffs for data services on the basis of content.

II. BROADCASTING SECTOR

The significant events relating to broadcasting and cable services during this period are as follows:

- (i) The broadcasting sector consists of Television and Radio Services. India has the world's second largest TV market after China. As per industry estimates, as on March 2016, of the existing 284¹ million households, around 181¹ million have Television sets which are being served by cable TV services, DTH services, IPTV services in addition to a terrestrial TV network of Doordarshan. The pay TV universe consists of around 102¹ million Cable TV subscribers, 88.64 million registered DTH subscribers (including 58.53 million active subscribers) and around half a million IPTV subscribers. The terrestrial TV network of Doordarshan serves about 92.6² per cent of country's population through a vast network of terrestrial transmitters.
- (ii) There are 48 pay broadcasters, an estimated 60,000 cable operators, 6000 Multi System Operators (MSOs) (including 792

MSOs registered under DAS), six pay DTH operators, in addition to the public service broadcaster- Doordarshan, providing a free-to-air a DTH service. Of the 869 registered TV channels with the Ministry of Information and Broadcasting at the close of financial year 2015-16, 205 are SD pay TV channels (including 5 advertisements – free pay channels) and 58 are HD Pay TV channels.


- (iii) India's television industry grew from Rs 47,500³ crore in 2014-15 to Rs 54,200³ Crores in 2015-16, thereby registering a growth of around 14.10%. Subscription revenues account for a major share of the overall industry revenue. Subscription revenues rose from Rs. 32,000³ Crores in 2014-15 to Rs. 36,100³ crore in 2015-16. On a similar note, advertisement revenues grew from Rs.15,500³ Crores in 2014-15 to Rs. 18,100³ Crores in 2015-16. The FM (Frequency Modulation) radio broadcasting sector has also registered an impressive growth. There were 243 private FM radio stations operational by March 2016, besides the public service broadcaster- All India Radio (AIR) having a network of 418⁴ stations and 606⁴ broadcast transmitters [145⁴ MW (Medium Wave), 413⁴ FM and 48⁴ SW (Short Wave) stations]. AIR service comes around 99.20%⁴ of the geographical area of the country while serving 99.19%⁴ of the population. As regards community

¹ Source: MPA Report 2015

² Source: MIB website: www.mib.gov.in

³ Source: FICCI –KPMG Indian Media and Entertainment Report 2016

⁴ Source: AIR website – www.air.org.in



radio stations on March 2016, out of the 237 licenses issued (GOPA Signed) for the setup of such stations, 191 radio stations were operational. The radio industry is entirely dependent on advertisement revenues and has registered a growth of around 17.81 percent during the year 2015-16. Advertisement revenues have also risen from Rs. 1633 Crores in 2014-15 compared to 1923.91 Crores in year 2015-16.

- (iv) The last decade has witnessed significant changes in the dynamics of the Cable & Satellite (C&S) TV market. The most significant development has been the digitisation of the cable TV sector in India. The digitization process is underway, in a phased manner. By the end of March 2016, around 50 million STBs have already been installed. The sunset date for analog transmission is 31st December, 2016. The experience of the first three phases of digitization has been very encouraging and implementation of digitization with addressability is bound to be a game changer to drive structured growth in the broadcasting and cable TV services in the country.

REGULATIONS

- (v) TRAI notified two amendments to the Interconnection Regulations on 14th September 2015 relating to TV services for commercial subscribers wherein one was applicable for TV services being provided through analog cable TV systems in areas served by non-addressable systems while the other is applicable for TV services being

provided in areas served by addressable systems. The amendments in the interconnection regulation, amongst others, incorporated definition of 'Subscriber', 'Ordinary subscriber' & 'Commercial subscriber'.

- (vi) It was observed from the interconnection details submitted by the service providers that signals of TV channels are being provided by several broadcasters to Multi System Operators (MSOs) and MSOs to Local Cable Operators (LCOs) even in the absence of valid written interconnection agreements. Further, continuation of retransmission of TV signals in the absence of valid interconnection agreements, under the pretext of continued mutual negotiations have often resulted in disputes leading to abrupt disconnection of services that adversely affects the quality of service to the consumers. TRAI, in this regards, notified a regulation on 07th January 2016 namely the "Telecommunication (Broadcasting and Cable Services) Interconnection (Digital Addressable Cable Television Systems) (Sixth Amendment) Regulations, 2016, mandating that a pay channel broadcaster to enter into written interconnection agreements with the MSO for retransmission of its pay channels notwithstanding whether subscription fee is paid by the MSO to the broadcaster or not. It also provided for sufficient time (minimum sixty days) for entering into a new interconnection agreement before the expiry of existing interconnection agreement between the

service providers for retransmission of TV signals. As a result there is no scope in the name of mutual negotiations, for continuation in provisioning of TV signal after expiry of the existing interconnection agreement. The MSOs were additionally mandated in the event of a failure to execute a new interconnection agreement to inform the consumers, the expiry date of its existing interconnection agreement and hence, the disconnection of TV channels, fifteen days prior to the expiry of existing interconnection agreement so as to enable its consumers to take informed decision in respect of their choice.

- (vii) TRAI, on 15th March 2016, issued the Telecommunication (Broadcasting and Cable Services) Interconnection (Digital Addressable Cable Television Systems) (Seventh Amendment) Regulations, 2016 (3 of 2016) prescribing standardized formats for the Model Interconnection Agreement (MIA) and Standard Interconnection Agreement (SIA) to be signed between MSO and LCO for provisioning of cable TV services through Digital Addressable Systems (DAS). In view of the Authority, prescribing such formats for the MIA and SIA will pave the way for growth of the sector, result in reduction of disputes between the MSOs and LCOs, provide level playing field to the parties and enhance healthy competition in the sector ultimately leading to better quality of services to the subscribers.

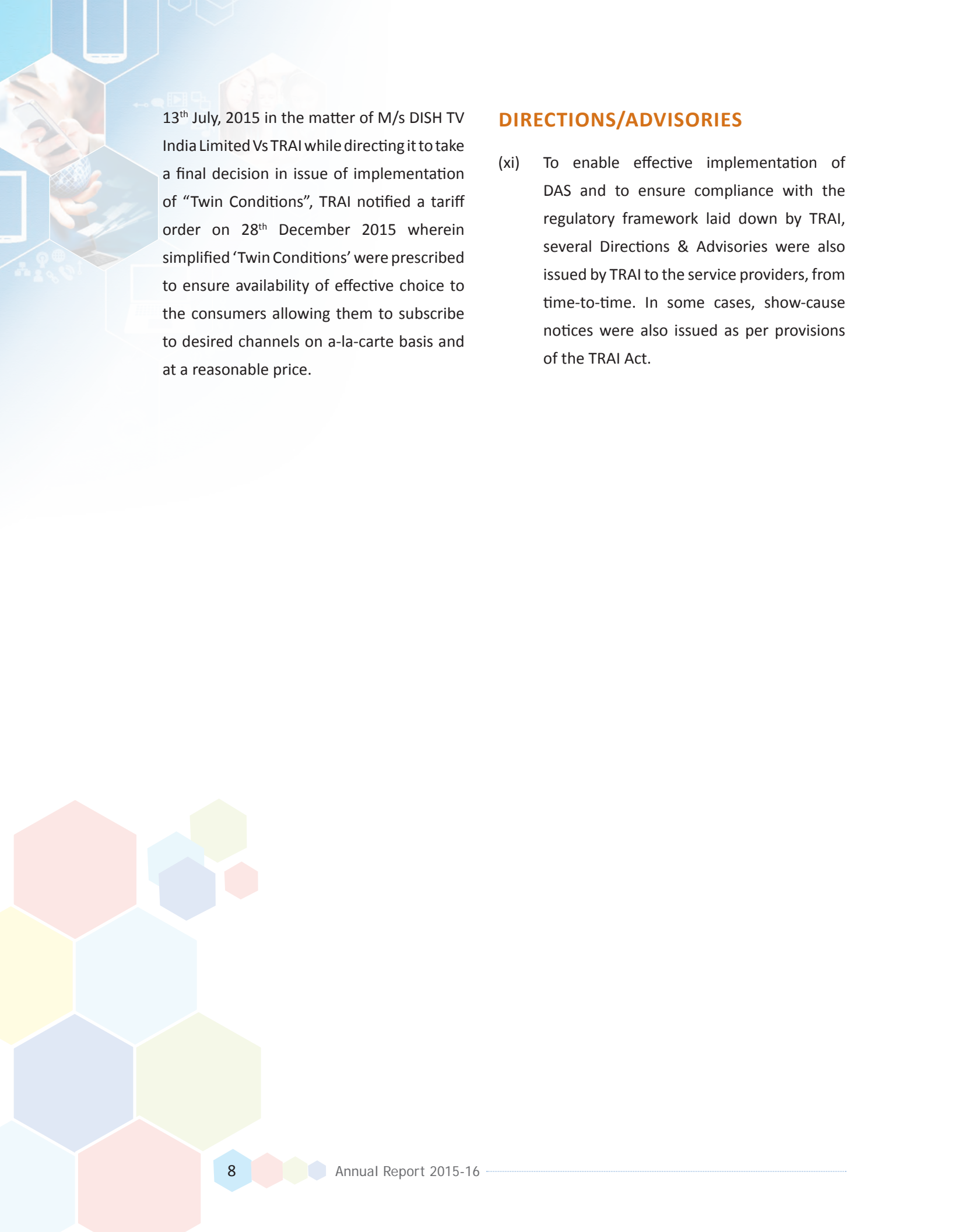
TARIFF ORDERS

- (viii) In order to ensure effective commercial interoperability in the DTH sector, TRAI

notified on 01st April 2015, a tariff order prescribing a framework for commercial interoperability of Customer Premises Equipment (CPE) offered by DTH operators to their subscribers. In view of the Authority, the interests of consumers can largely be protected through the provision of Commercial interoperability of CPEs. Commercial interoperability provides for an exit option to a DTH subscriber in case he wishes to change the operator/platform and avail the services from another DTH operator/platform for any reason.

- (ix) In view of the Hon'ble TDSAT's Order dated 9th March, 2015 in the matter of Indian Broadcasting Foundation & Ors Vs TRAI (Appeal No 7(C)/2014) TRAI on 08th September 2015, notified two tariff amendments orders relating to TV services for commercial subscribers, one applicable for TV services being provided through analog cable TV systems in areas served by non-addressable systems and the other being applicable to TV services being provided in areas served by digital addressable systems. In view of the Authority, with the changes in the regulatory framework for commercial subscribers would streamline the distribution of TV services to commercial subscribers and the services would be available at competitive rates. It was also envisaged to balance the interests of all the stakeholders in the value chain and bring in complete transparency in the business transactions.

- (x) In view of the Hon'ble TDSAT Order dated



13th July, 2015 in the matter of M/s DISH TV India Limited Vs TRAI while directing it to take a final decision in issue of implementation of “Twin Conditions”, TRAI notified a tariff order on 28th December 2015 wherein simplified ‘Twin Conditions’ were prescribed to ensure availability of effective choice to the consumers allowing them to subscribe to desired channels on a-la-carte basis and at a reasonable price.

DIRECTIONS/ADVISORIES

- (xi) To enable effective implementation of DAS and to ensure compliance with the regulatory framework laid down by TRAI, several Directions & Advisories were also issued by TRAI to the service providers, from time-to-time. In some cases, show-cause notices were also issued as per provisions of the TRAI Act.



PART – I

POLICIES AND PROGRAMMES





(A) REVIEW OF GENERAL ENVIRONMENT IN THE TELECOM SECTOR

- 1.1 The telecom sector witnessed a substantial increase in the number of subscribers during the year 2015-16. At the end of financial year 2015-16, the overall telecom subscriber base has increased to 1058.86 million as compared to 996.49 Million at the end of financial year 2015-16 an increase of 62.37 million. The overall subscriber base and teledensity is depicted in **Table-1**.

Table-1: Overall Subscriber base and Teledensity

Particulars	Wireless	Wireline	Total Wireless + Wireline
Total Subscribers (Million)	1033.63	25.22	1058.86
Urban Subscribers (Million)	588.79	20.90	609.69
Rural Subscribers (Million)	444.84	4.32	449.17
Overall Teledensity	81.38	1.99	83.36
Urban Teledensity	148.73	5.28	154.01
Rural Teledensity	50.88	0.49	51.37
Share of Urban Subscribers	56.96%	82.86%	57.58%
Share of Rural Subscribers	43.04%	17.14%	42.42%
No. of Broadband Subscribers (Million)	132.77	16.98	149.75

The details of subscriber base in Wireless, Wireline segments; requests for Mobile Number Portability; Teledensity; Internet subscribers; trends in telecom tariffs; Quarterly Telecom Services Performance Indicators; and

Financial performance of Telecom Sector are given in subsequent paragraphs

(a) Wireless

1.1.1 The wireless subscriber base was 969.89 million as on 31st March 2015 in comparison to the subscriber base of 1033.63 million as on 31st March 2016 registering a growth of 6.57% during the financial year 2015-16. The status of wireless subscriber base during the last 6 years is depicted in **Figure -1** below.

(b) Mobile Number Portability

1.1.2 During the year 2015-16, 55.28 million subscribers have submitted their porting requests to different service providers for availing MNP facility. With this the Mobile Number Portability requests increased from 153.85 million subscribers at the end of March 2015 to 209.13 Million at the end of March 2016. The service area wise cumulative porting request at the end of March 2016 is depicted in the following **Table - 2**.

Figure-1: Wireless Subscribers (in millions)

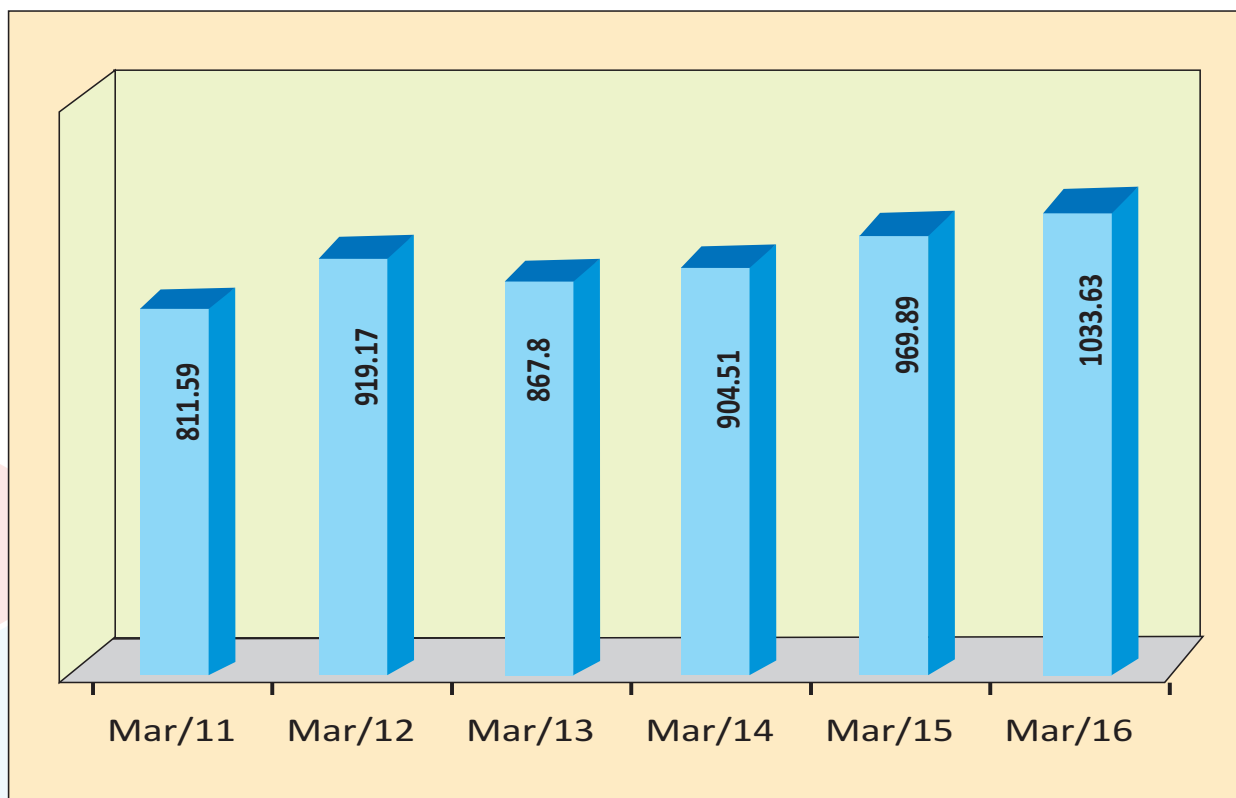


Table-2: Cumulative MNP Requests (Service Area-wise) at the end of March 2016

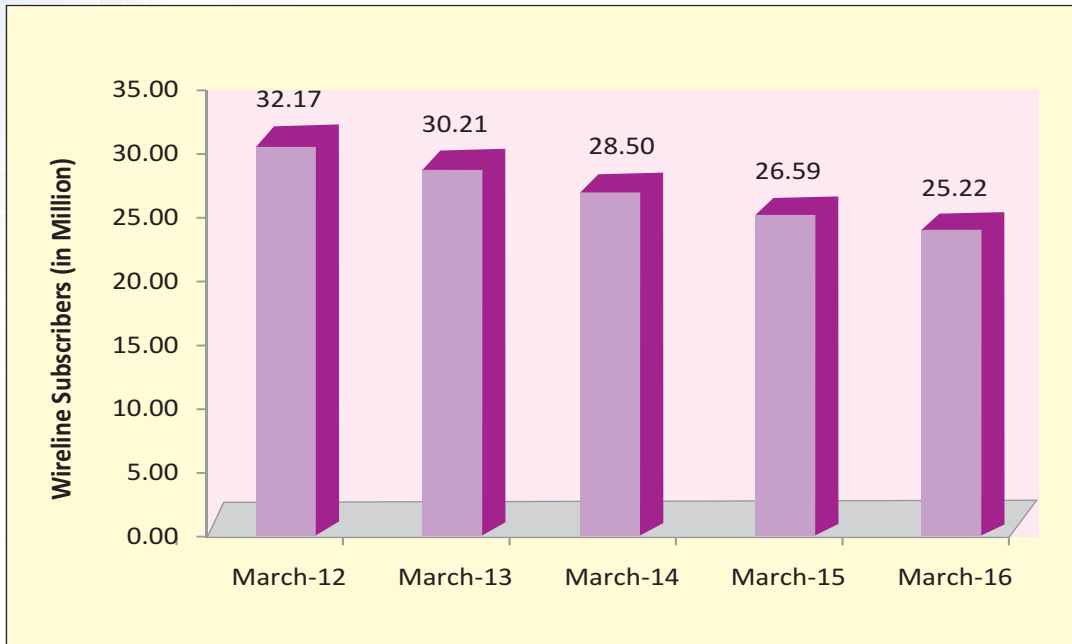
Cumulative MNP Requests (Service Area-wise) at the end of March, 2016				
	Service Area	MNP requests processed by		Total Number of Porting Requests
		Zone-I	Zone-II	
ZONE-I	Delhi	8,268,660	59,244	8,327,904
	Gujarat	16,053,851	24,601	16,078,452
	Haryana	7,423,611	9,525	7,433,136
	Himachal Pradesh	713,647	2,074	715,721
	Jammu & Kashmir	71,817	858	72,675
	Maharashtra	14,867,212	46,972	14,914,184
	Mumbai	11,431,516	47,147	11,478,663
	Punjab	7,376,317	25,776	7,402,093
	Rajasthan	18,303,498	19,200	18,322,698
	Uttar Pradesh (East)	9,782,164	15,003	9,797,167
	Uttar Pradesh (West)	9,584,813	10,090	9,594,903
ZONE-II	Andhra Pradesh	31,943	19,977,948	20,009,891
	Assam	5,040	988,947	993,987
	Bihar	66,956	7,305,146	7,372,102
	Karnataka	70,795	23,353,657	23,424,452
	Kerala	11,319	6,450,732	6,462,051
	Kolkata	13,557	4,686,837	4,700,394
	Madhya Pradesh	44,875	13,305,157	13,350,032
	North East	2,217	418,087	420,304
	Orissa	16,030	4,301,690	4,317,720
	Tamil Nadu	18,682	13,154,703	13,173,385
	West Bengal	25,921	10,741,978	10,767,899
Total	104,184,441	104,945,372	209,129,813	
Total (Zone-1+Zone-2)				209,129,813

(c) Wireline

1.1.3 The total wireline subscriber base as on 31st March, 2016 stood at 25.22 million as compared to 26.59 million subscribers on 31st March, 2015, registering a decline

of 5.15% during the year 2015-16. Out of 25.22 million wireline subscribers, 20.90 million are urban subscribers and 4.32 million are rural subscribers. The wireline subscriber base for the last five years is depicted in **Figure-2**:

Figure 2: Wireline Subscribers in last 5 years

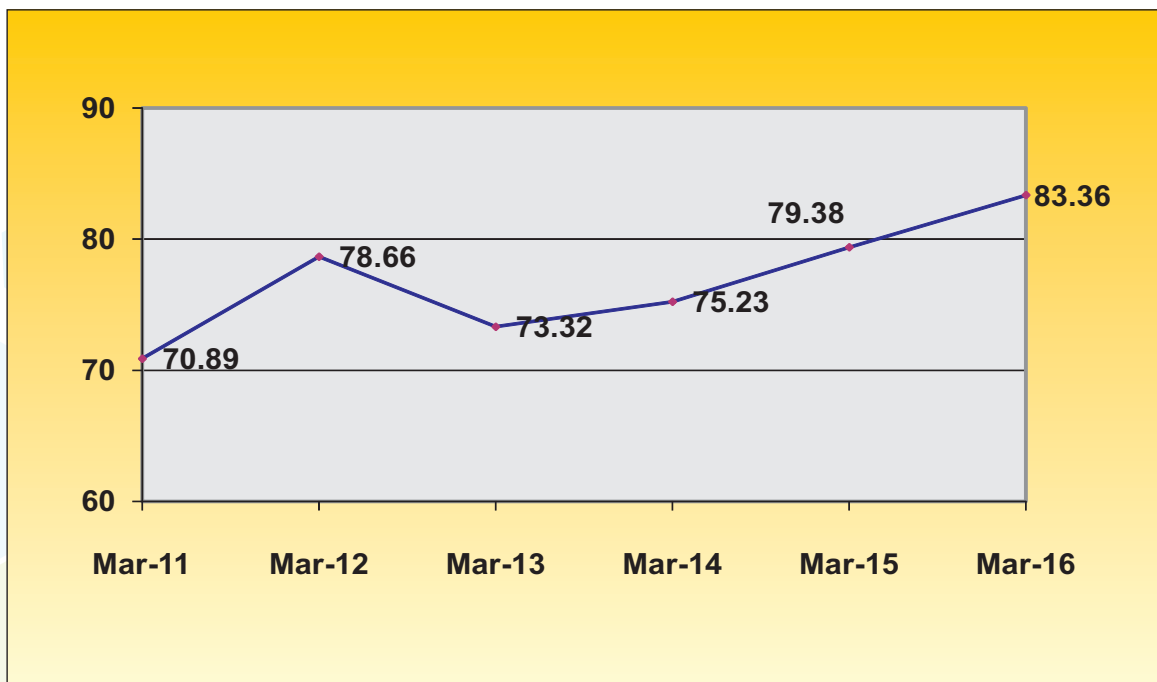


(d) Teledensity

1.1.4 The tele-density at the end of March, 2016 reached the mark of 83.36 as

compared to 79.38 at the end of previous year recording an increase of 3.98. The trend of tele-density since March 2011 is depicted in **Figure-3**.

Figure-3: Growth of Teledensity



(e) Internet and Broadband subscribers

1.1.5 The Internet subscriber base in the country as on 31st March, 2016 stood at 342.65 million as compared to 302.35 million as on 31st March, 2015. The total broadband subscriber base of the

country as on 31st March, 2016 is 149.75 million whereas it was 99.20 million on 31st March, 2015.

The details of subscription as reported by the service providers in the country as on 31st March, 2016 is indicated as

Table-3:

Table-3: Internet Subscribers

(Subscribers in Millions)

Segment		Category	Internet Subscribers		% Growth	
			Mar-2015	Mar-2016		
A.	Wired	Broadband	15.52	16.98	9.44%	
		Narrowband	3.55	3.46	-2.49%	
		Total	19.07	20.44	7.22%	
B.	Wireless	Fixed Wireless (Wi-Fi, Wi-Max, Radio & VSAT)	Broadband	0.44	0.525	18.64%
			Narrowband	0.03	0.028	-17.31%
			Total	0.48	0.553	16.11%
	Mobile Wireless (Phone + Dongle)	Broadband	83.24	132.24	58.87%	
		Narrowband	199.57	189.41	-5.09%	
		Total	282.81	321.66	13.74%	
Total Internet Subscribers		Broadband	99.20	149.75	50.96%	
		Narrowband	203.15	192.90	-5.05%	
		Total	302.35	342.65	13.33%	

Quarter-wise Internet/Broadband subscription as reported by the service

providers for 2015-16 is as **Table-4:**

Table-4: Quarter-wise Internet/Broadband Subscriber base of 2015-16

(Subscribers in Millions)

Service	June-15	Sept-15	Dec-15	Mar-16
Broadband	108.85	120.88	136.53	149.75
Narrowband	210.57	204.07	195.13	192.90
Total Internet	319.42	324.95	331.66	342.65

(f) The Indian Telecom Services Performance indicator

1.1.6 TRAI has been bringing out a monthly press release on Telecom Subscription Data for the country. This press release includes information on total subscriber base, Tele-density, service provider wise

market share, Mobile Number Portability (MNP) requests, Peak VLR data, Net Additions during the month in wireless, wireline and Broadband segments etc. As per the latest monthly press release, the highlights of telecom subscription data for the country as on 31st March, 2016 are given in **Table-5**:

Table-5: Highlights of Telecom Subscription Data as on 31st March, 2016

Particulars	Wireless	Wireline	Total (Wireless + Wireline)
Total Telephone Subscribers (Million)	1033.63	25.22	1058.86
Net Addition in March, 2016 (Million)	6.97	0.01	6.98
Monthly Growth Rate	0.68%	0.04%	0.66%
Urban Telephone Subscribers (Million)	588.79	20.90	609.69
Net Addition in March, 2016 (Million)	1.23	0.03	1.26
Monthly Growth Rate	0.21%	0.14%	0.21%
Rural Telephone Subscribers (Million)	444.84	4.32	449.17
Net Addition in March, 2016 (Million)	5.73	-0.02	5.71
Monthly Growth Rate	1.31%	-0.46%	1.29%
Overall Tele-density*	81.38	1.99	83.36
Urban Tele-density*	148.73	5.28	154.01
Rural Tele-density*	50.88	0.49	51.37
Share of Urban Subscribers	56.96%	82.86%	57.58%
Share of Rural Subscribers	43.04%	17.14%	42.42%
Broadband Subscribers (Million)	132.77	16.98	149.75

Number of active wireless subscribers (on the date of peak VLR#) in March, 2016 was 936.46 million.

The following **Table-6** depicts the percent growth in subscriber base of telephony and broadband services and tele-density in the country in the F.Y. 2015-16.

*VLR is acronym of Visitor Location Register. The date of peale VLR for various TSPs are different in different service areas.

Table-6: Percent growth in subscriber base of telephony and broadband services and tele-density in the country in F.Y. 2015-16

Particulars	As on 31.03.2015	As on 31.03.2016	% Growth in F.Y. 2015-16
Total Telephone Subscribers (in Million)	996.49	1058.86	6%
Wireless telephone subscribers (in Million)	969.89	1033.63	7%
Wireline telephone subscribers (in Million)	26.59	25.22	-5%
Urban Telephone Subscribers (Million)	577.18	609.69	6%
Rural Telephone Subscribers (Million)	419.31	449.17	7%
Overall Tele-density	79.38	83.66	5%
Broadband Subscribers (Million)	99.2	149.75	51%

TRAI has also been coming out with a quarterly report on 'The Indian Telecom Services Performance Indicators'. This report presents the key parameters and

growth trends for Telecom & Broadcasting services. The said report for the quarter ending December, 2015 has been released; a summary of the same is given in **Table-7**:

Table-7: Performance Indicator (Data as on 31st March 2016)

Telecom Subscribers (Wireless + Wireline)	
Total Subscribers	1,058.86 Million
% change over the previous quarter	2.17%
Urban Subscribers	609.69 Million
Rural Subscribers	449.17 Million
Market share of Private Operators	89.78%
Market share of PSU Operators	10.22%
Teledensity	83.36
Urban Teledensity	154.01
Rural Teledensity	51.37
Wireless Subscribers	
Total Wireless Subscribers	1,033.63 Million

% change over the previous quarter	2.25%
Urban Subscribers	588.79 Million
Rural Subscribers	444.84 Million
GSM Subscribers	989.54 Million
CDMA Subscribers	44.09 Million
Market share of Private Operators	91.30%
Market share of PSU Operators	8.70%
Teledensity	81.38
Urban Teledensity	148.73
Rural Teledensity	50.88
Wireline Subscribers	
Total Wireline Subscribers	25.22 Million
% change over the previous quarter	-1.15%
Urban Subscribers	20.90 Million
Rural Subscribers	4.32 Million
Market share of Private Operators	27.58%
Market share of PSU Operators	72.42%
Teledensity	1.99
Urban Teledensity	5.28
Rural Teledensity	0.49
No. of Village Public Telephones (VPT)	5,86,799
No. of Public Call Office (PCO)	5,88,936
Internet/Broadband Subscribers	
Total Internet Subscribers	342.65 Million
% change over previous quarter	3.31%
Narrowband subscribers	192.90 Million
Broadband subscribers	149.75 Million
Wired Internet Subscribers	20.44 Million
Wireless Internet Subscribers	322.21 Million
Urban Internet Subscribers	230.71 Million
Rural Internet Subscribers	111.94 Millionm
Total Internet Subscribers per 100 population	26.98

Urban Internet Subscribers per 100 population	58.28
Rural Internet Subscribers per 100 population	12.80
Broadcasting & Cable Services	
No. of private satellite TV channels registered with Ministry of I&B	869
Number of Pay TV Channels	263
Number of private FM Radio Stations	243
Registered DTH Subscribers	88.64 Million
Active DTH Subscribers	58.53
Number of Community Radio Stations licenced (GOPA signed)	237
Number of Operational Community Radio Stations	191
Number of Pay DTH Operators	6
Number of teleports permitted in India	90
Telecom Financial Data (QE Mar-16)	
Gross Revenue (GR) during the quarter	₹ 68,335 Crore
% change in GR over the previous quarter	4.57%
Adjusted Gross Revenue (AGR) during the quarter	₹ 48,379 Crore
% change in AGR over the previous quarter	4.97%
Share of Public sector undertakings in Access AGR	11.33%
Monthly Average Revenue Per User (ARPU) for Access Services	₹ 127
Revenue & Usage Parameters (QE Mar-16)	
Monthly ARPU GSM Full Mobility Service	₹ 125
Monthly ARPU CDMA Full Mobility Service	₹ 104
Minutes of Usage (MOU) per subscriber per month - GSM Full Mobility Service	381 Minutes
Minutes of Usage (MOU) per subscriber per month - CDMA Full Mobility Service	260 Minutes
Total Outgoing Minutes of Usage for Internet Telephony	277 Million
Data Usage of Mobile Users (QE Mar-16)	
Data Usage per subscriber per month - GSM	133.87 MB
Data Usage per subscriber per month - CDMA	433.64 MB
Data Usage per subscriber per month – Total (GSM+CDMA)	147.12 MB

(g) Financial performance of the Telecom Sector

The financial information covers 52 licensed telecom service sector companies. The information is based on audited/unaudited financial information submitted by these service providers to TRAI. The financial information mainly comprises of revenue, profitability and investment of the Indian telecom service sector.

Revenue¹

The Total Revenue² of Telecom Service

Sector went up from Rs. 2,54,547 crore in 2014-15 to Rs. 2,63,709 crore in 2015-16 indicating a growth of 3.60%. The corresponding figure of revenue based on annual accounts and after adjustment for intra-operator interconnection charges, comes to Rs. 2,42,984 crore in 2014-15 and Rs. 2,45,351 crore in 2015-16, showing a growth of 0.97%. This is indicated in **Table 8** and Revenue of Major Access Telecom Service Providers is indicated in **Figure 4**.

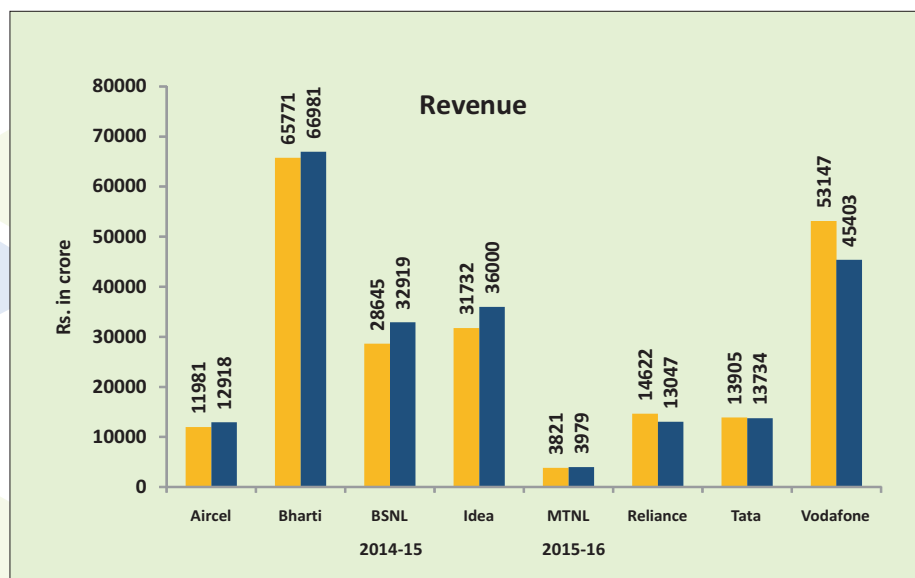
Table- 8: Sector-wise Revenue

(Rs. in Crore)

Particulars	2015-16			2014-15*		
	Public	Private	Total	Public	Private	Total
Revenue from Telecom Service	32654	202591	235246	31424	196661	228085
Total Revenue	37989	207362	245351	33333	209652	242984

* The figures for the year 2014-15 has been modified to include information of newly added companies, who started reporting to TRAI from 2015-16.

Figure-4: Revenue of Major Access Telecom Service Providers



¹ Comprises of revenue from telecom services as well as other income

² Based on Quarterly Statement on Revenue and Licence Fee submitted to DoT

EBITDA

EBITDA represents the Earnings before Interest, Tax and Depreciation & Amortization. The EBITDA of Telecom Service Sector for the year 2015-16 is Rs. 69,345 crore as against Rs. 60,431 crore for the year 2014-15 showing an increase of 14.75% over the previous year.

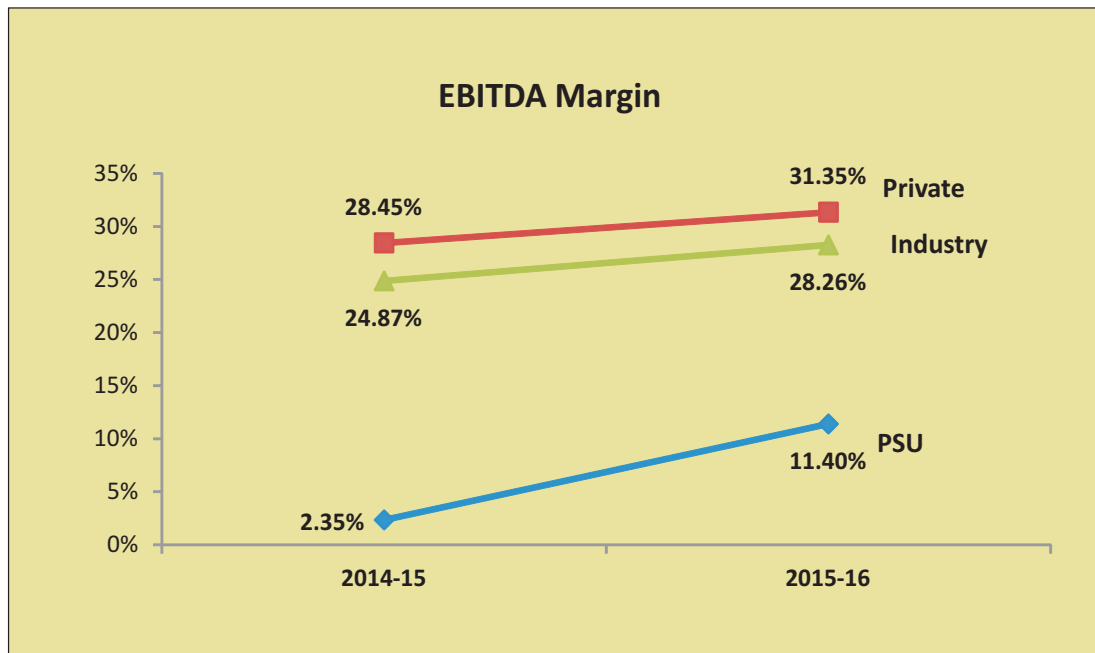
EBITDA margin of telecom service sector for 2015-16 stood at 28.26% as against 24.87% in previous year showing an increase of 3.40%. **Table 9** shows the Sector-wise Operating Expenditure and its Ratio and **Figure 5** indicates Operating Expenditure Ratio.

Table-9: Sector-wise EBITDA in 2014-15 and 2015-16

(Rs. in Crore)

Particulars	2015-16			2014-15		
	Public	Private	Total	Public	Private	Total
EBITDA	4332	65013	69345	782	59649	60431

Figure-5: EBITDA Margin of Telecom Service Sector



Operating Expenses Ratio of telecom service sector

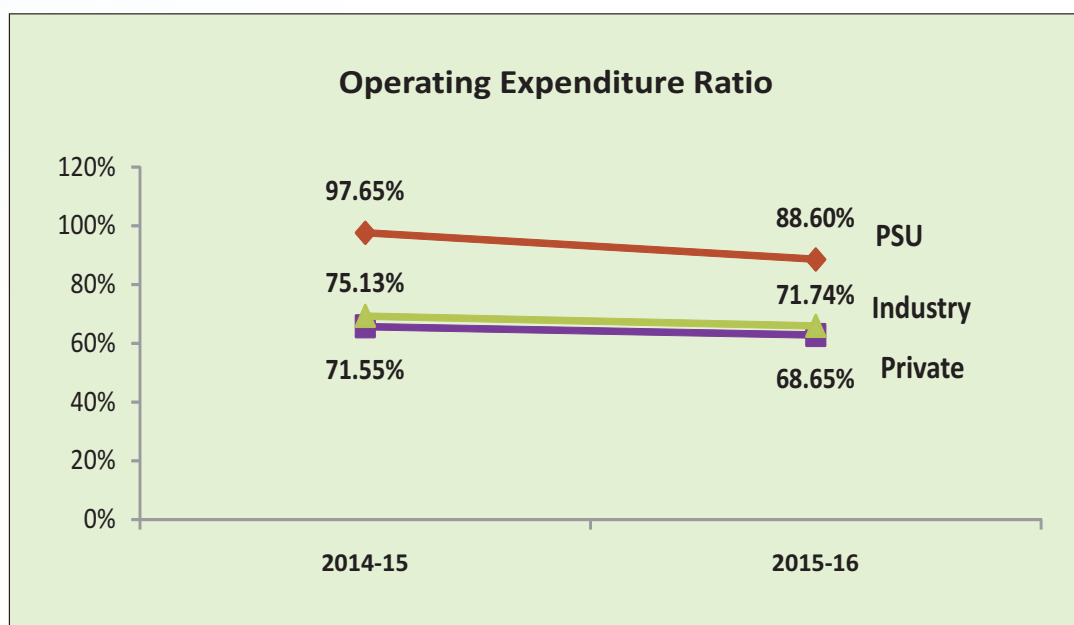
Overall Operating expenditure ratio of telecom

service sector has decreased by 3.39%. **Table 10** shows the Sector-wise Operating Expenditure and its Ratio and **Figure 6** indicates Operating Expenditure Ratio.

Table-10: Sector-wise Operating Expenditure and its Ratio

Particulars	2015-16			2014-15		
	Public	Private	Total	Public	Private	Total
Operating Expenditure (Rs. in crore)	33658	142349	176006	32551	150003	182554
Operating Expenditure Ratio (%)	88.60%	68.65%	71.74%	97.65%	71.55%	75.13%

Figure-6: Operating Expenditure Ratio



Capital Employed³

The Capital Employed represents the funds invested in a business to function or the funds deployed to operate the business.

The capital employed has shown growth of

29.46% over the previous year. The public sector has shown decrease of 1.03% and private sector has shown increase of 35%. **Table 11** shows the Capital Employed whereas the Capital Employed of telecom service sector is indicated in **Figure 7**.

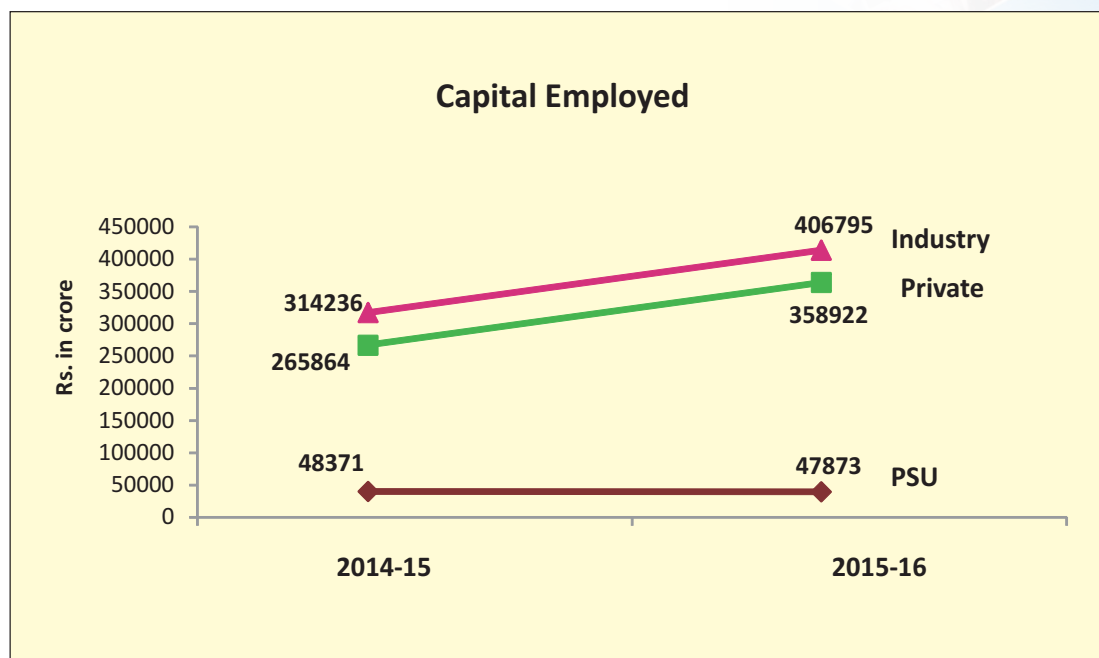
Table - 11: Capital Employed

(Rs. in Crore)

Particulars	2015-16			2014-15		
	Public	Private	Total	Public	Private	Total
Capital Employed	47873	358922	406795	48371	265864	314236

³ Represent sum of Net Block, Capital work in progress and Working Capital, where working capital is Current Assets less Current Liabilities

Figure-7: Capital Employed of telecom service sector



Capital Investment (Gross Block and Capital Work in Progress)

There is increase of 20.63% in Gross Block (Gross Fixed Assets) in telecom service sector. Public

sector has shown increase of 0.97% whereas private sector has shown growth of 29.68%. **Table 12** shows the Sector-wise Investment in Gross Block and **Figure 8** Gross Block (Fixed Assets) of major access telecom service providers.

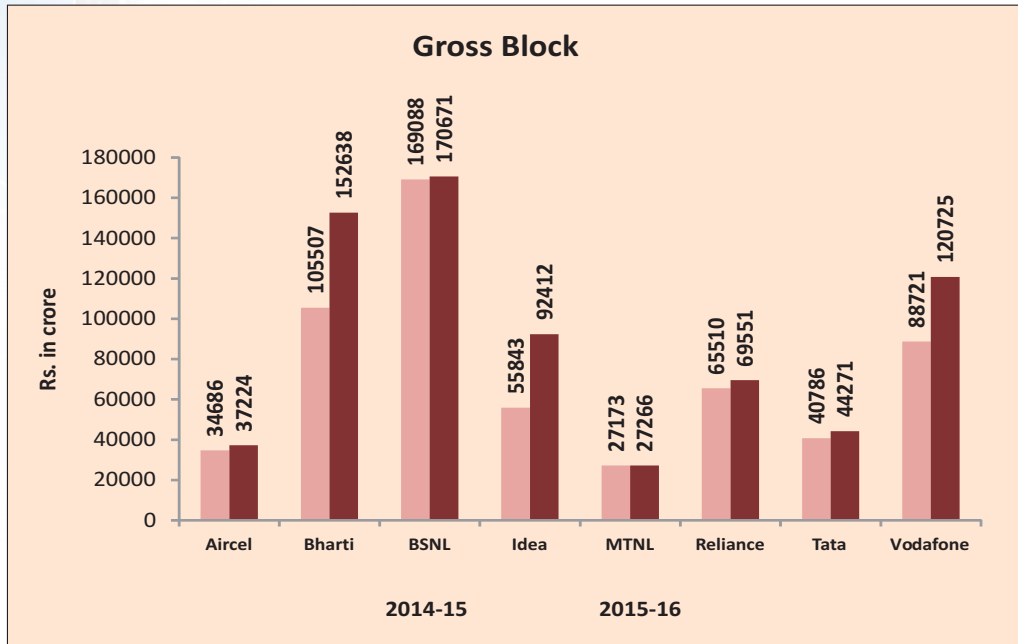
Table-12: Sector-wise Investment in Gross Block

(Rs. in Crore)

Particulars	2015-16			2014-15		
	Public	Private	Total	Public	Private	Total
Gross Block	200795	559742	760537	198859	431623	630482
Net Block*	50443	347027	397469	55646	246017	301663
Capital Work in Progress	4671	148606	153277	4545	91373	95918

* Net Block represents Gross Block less Accumulated Depreciation

Figure-8: Gross Block (Fixed Assets) of major access telecom service providers



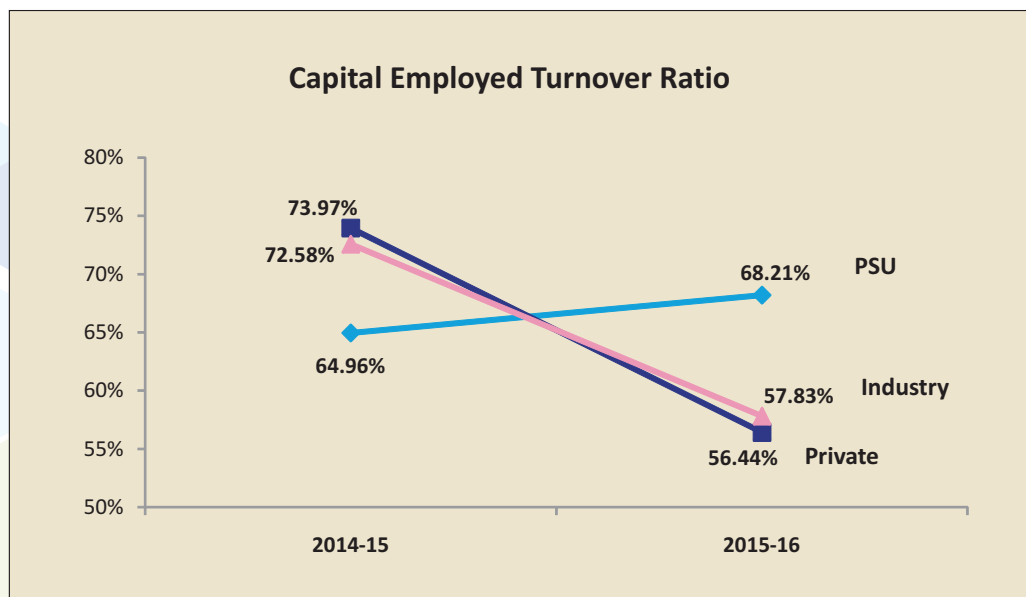
Capital Employed Turnover Ratio

Capital Employed Turnover Ratio is indicated in **Table 13** as well as **Figure 9**.

Table-13: Capital Employed Turnover Ratio

Particulars	2015-16			2014-15		
	Public	Private	Total	Public	Private	Total
Capital employed turnover ratio (in %)	68.21%	56.44%	57.83%	64.96%	73.97%	72.58%

Figure-9: Capital Employed Turnover Ratio



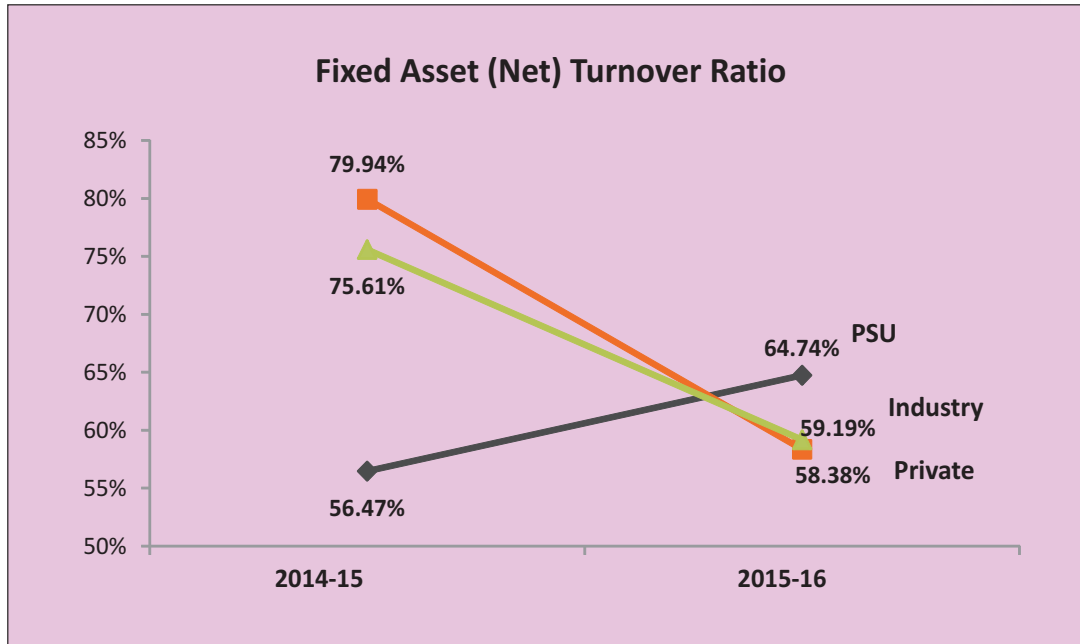
Fixed Asset (Net Block) Turnover Ratio

Fixed Asset (Net) Turnover Ratio are indicated in **Table 14** and as well as in **Figure 10**.

Table-14: Fixed Asset (Net) Turnover Ratio

Particulars	2015-16			2014-15		
	Public	Private	Overall	Public	Private	Overall
Fixed Asset (Net) Turnover ratio (in %)	64.74%	58.38%	59.19%	56.47%	79.94%	75.61%

Figure-10: Fixed Assets (Net) Turnover Ratio



Note: Capital Employed Turnover Ratio and Fixed Assets (Net) Turnover Ratio have shown declining trend for private sector due to investment made in network and spectrum acquisition in 2015-16.

Debt Equity Ratio⁴

In 2015-16, the Debt Equity ratio of telecom service sector has increased to 1.69 times from 1.33 times in 2014-15. Debt Equity ratio of private

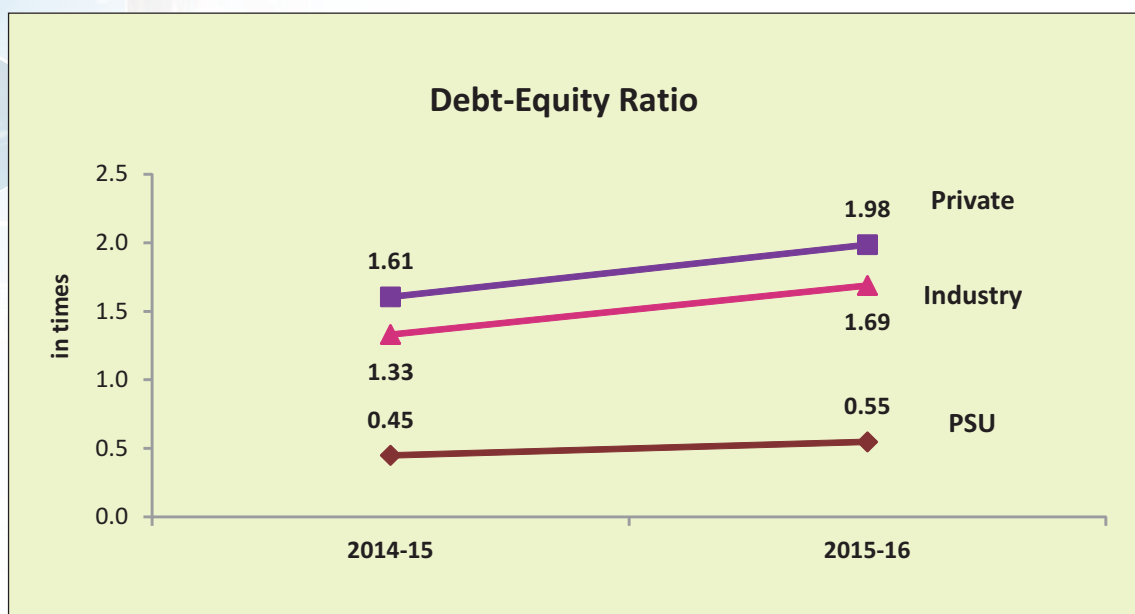
sector is quite higher in comparison to public sector. Sector-wise Debt Equity Ratio is shown in **Table 15** and Debt Equity Ratio is indicated in **Figure 11**.

Table-15: Sector-wise Debt Equity Ratio

Particulars	2015-16			2014-15		
	Public	Private	Overall	Public	Private	Overall
Debt Equity ratio (in times)	0.55	1.98	1.69	0.45	1.61	1.33

⁴ Debt includes Long Term Borrowings, Short term borrowings and Current Maturities of Long-Term Debt. Equity includes Share Capital and Reserves & Surplus.

Figure-11: Debt Equity Ratio



The service providers covered in the Financial analysis is shown in Table-16

Table - 16: Service providers covered in Financial Analysis

Private Sector Companies	
1.	Aeroway Networks
2.	Aircel Ltd.
3.	Aircel Cellular Ltd.
4.	AT & T Global Network Services India Pvt. Ltd.
5.	Atria Convergence Technologies Pvt. Ltd.
6.	Bharti Airtel Ltd.
7.	Bharti Hexacom Ltd.
8.	BT Global Communications India Pvt. Ltd.
9.	Citycom Networks Pvt. Ltd.
10.	Conjonix Technologies Pvt. Ltd.
11.	Den Networks Ltd.
12.	Dishnet Wireless Ltd.
13.	Essel Shyam Communication Ltd.
14.	Financial Technologies
15.	Hathway Cable Datacom Ltd.
16.	HCL Comnet Systems & Services Ltd.
17.	Hughes Communications India Ltd.
18.	IDEA Cellular Ltd.
19.	Infotel Satcom Pvt. Ltd.
20.	MNP Interconnection Telecom Solutions (P) Ltd.

Private Sector Companies	
21.	Nelco
22.	Nextra Teleservices
23.	NTT Communications
24.	Orange Business Services India Network Pvt. Ltd.
25.	Quadrant Televentures Ltd.
26.	Reliance Communication Ltd.
27.	Reliance Jio Infocom Limited
28.	Reliance Telecom Ltd.
29.	Shyam Internet Services
30.	Sify Technologies Ltd.
31.	Singtel Global India (Pvt.) Ltd
32.	Sistema Shyam Teleservices Ltd.
33.	Syniverse Technologies
34.	Tata Communication Ltd.
35.	Tata Teleservice (Maharashtra) Ltd.
36.	Tata Teleservice Ltd.
37.	Tatanet Service Ltd.
38.	Telenor (India) Communications Pvt. Ltd.
39.	Telstra Communications
40.	Tikona Digital Network Pvt. Ltd.
41.	Tikona Infinet Ltd.
42.	Unitech Wireless (Tamilnadu) Private Limited
43.	Verizon Communications
44.	Videocon Telecommunication Ltd.
45.	Vodafone India Ltd.
46.	Vodafone Moblie Services Ltd.
47.	You Broadband India Pvt. Ltd.
Public Sector Companies (PSUs)	
48.	Bharat Broadband Nigam Limited
49.	Bharat Sanchar Nigam Limited
50.	Mahanagar Telephone Nigam Limited
51.	Power Grid Corporation of India Ltd.
52.	Rail Tel Corporation of India Ltd.

(B) REVIEW OF POLICIES AND PROGRAMMES

- 1.2 The policies and programmes of Telecom Regulatory Authority of India in respect of telecom sector (a) Rural Telephone Network; (b) Expansion of Telephone Network; (c) Entry of private sector in both basic and value added service; (d) Technical compatibility and effective interconnection between service providers; (e) Telecommunication technology; (f) Implementation of National Telecom Policy; (g) Quality of Service; and (h) Universal Service Obligation are elaborated below.

1.2.1 Rural Telephone Network

1.2.1.1 Wireless

As on 31st March 2016, the Wireless rural [Mobile and WLL (F)] market has reached the 444.84 million mark as against 414.18 million as on 31st March 2015. As per the Performance Indicator Report, 43.04% of total wireless subscribers are now in rural areas. The rural wireless subscriber base since March 2011 is indicated in **Figure 12** below. The service provider-wise rural wireless subscriber base & their market shares are shown in **Table-17** and **Figure-13** below.

Figure 12 : Rural Wireless Subscriber (in million)

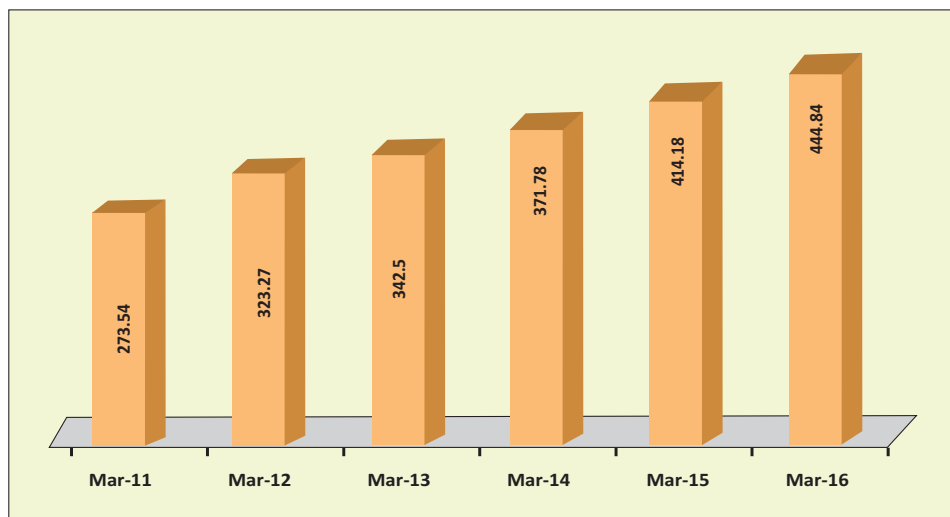
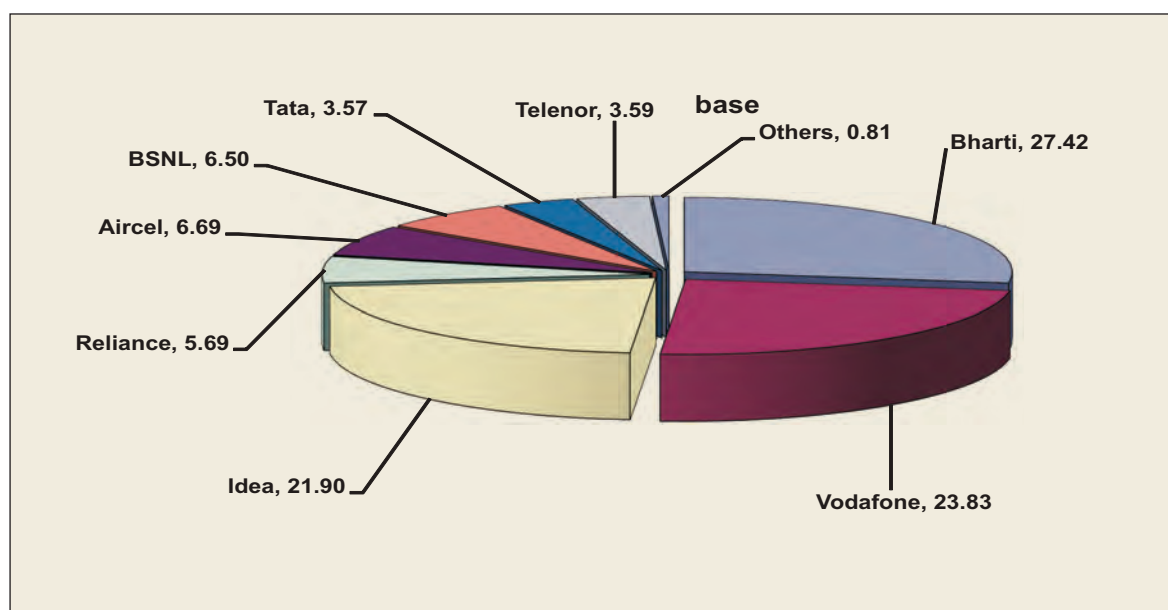


Table-17: Service Provider-wise Rural Wireless Subscribers and Market Share

Sl No	Wireless Group	Subscribers as on March 2015 (in millions)	Subscribers as on March 2016 (in millions)	Rural Subscribers as on March 2015 (in millions)	Rural Subscribers as on March 2016 (in millions)	Market Share of Rural Subscribers (as on March 2015)	Market Share of Rural Subscribers (as on March 2016)
1.	Bharti	226.02	251.24	107.61	121.98	25.98	27.42
2.	Vodafone	183.80	197.95	97.91	106.02	23.64	23.83
3.	Idea	157.81	175.07	89.29	97.41	21.56	21.90
4.	Reliance	109.47	102.41	27.75	25.32	6.70	5.69
5.	Aircel	81.40	87.09	28.65	29.78	6.92	6.69
6.	BSNL	77.22	86.35	29.52	28.90	7.13	6.50
7.	Tata	66.32	60.10	17.25	15.87	4.16	3.57
8.	Telenor	45.62	52.45	14.19	15.96	3.43	3.59
9.	Sistema	8.86	7.69	1.95	1.64	0.47	0.37
10.	Videocon	7.13	6.56	0	1.89	-	0.42
11.	MTNL	3.51	3.56	0		-	
12.	Quadrant	2.73	3.16	0.07	0.08	0.02	0.02
13	Total	969.89	1033.63	414.18	444.84	100.00	100.00

Figure -13: Market Share of service providers of Rural wireless Subscriber base



Note: Others include Sistema and Quadrant

1.2.1.2 Wireline

As on 31st March, 2016, the rural wireline subscriber base stood at 4.32 million as compared to 5.12 million at the end of

31st March, 2015, registering a decline of 15.61% over the year. The service provider-wise wireline rural subscriber base & their market share are shown in **Table-18**.

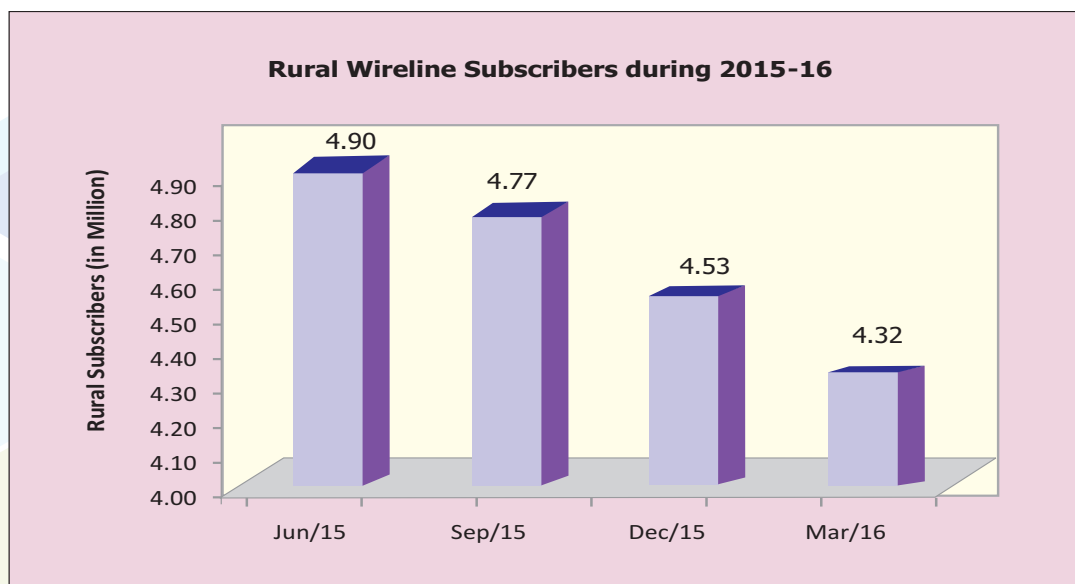
Table-18: Service Provider-wise Rural Wireline Subscriber Base and Market Share

Sl. No	Wireline Group	Total Wireline Subscribers		Rural Wireline Subscribers		Market Share of Rural Wireline Subscribers (in %)	
		March'15	March'16	March'15	March'16	March'15	March'16
1	BSNL	1,64,12,440	14,762,370	50,07,402	42,03,916	97.73%	97.23%
2	MTNL	35,51,671	3,504,088	-	-	-	-
3	Bharti	34,11,121	3,663,649	-	-	-	-
4	Quadrant	2,27,467	252,803	55,373	57,355	1.08%	1.33%
5	Sistema Shyam	57,119	59,130	9,596	10,170	0.19%	0.24%
6	TATA	16,72,789	1,722,362	49,243	50,678	0.96%	1.17%
7	Reliance	11,82,177	1,169,952	1,890	1,677	0.04%	0.04%
8	Vodafone	79,560	90,214	-	-	-	-
	Total	2,65,94,344	25,224,568	51,23,504	43,23,796	100%	100.00%

The status of rural wireline subscribers at the end of each quarter during 2015-

16 is depicted in the **Figure 14** given below:

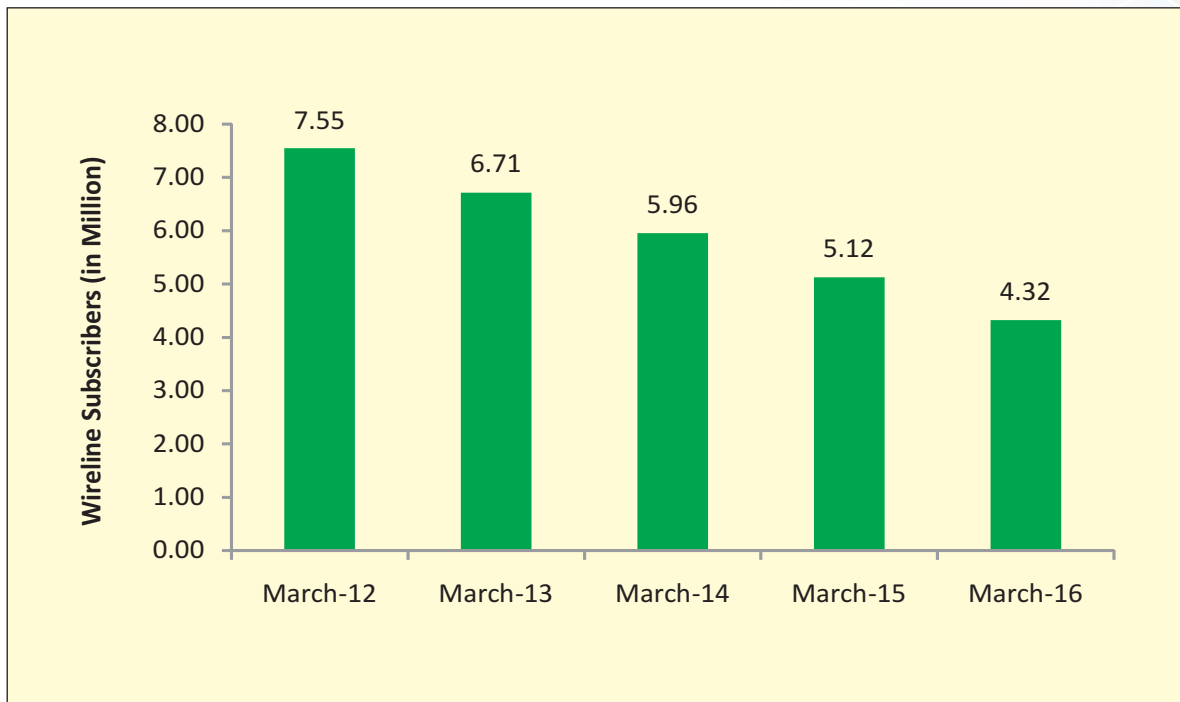
Figure 14: Rural Wireline Subscribers during 2015-16



The status of rural wireline subscribers during the last five financial years is

depicted in the **Figure-15** given below:

Figure-15: Rural Wireline Subscribers during 2012-2016



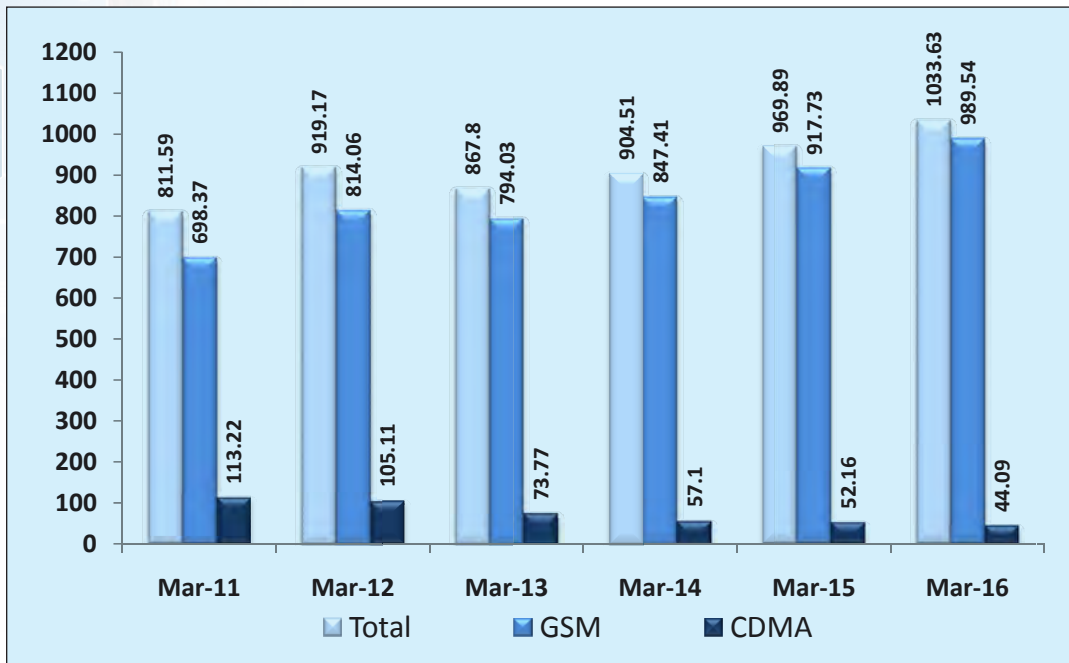
1.2.2. Expansion of Telephone Network

1.2.2.1 Wireless Services

The Wireless Subscriber base is 1033.63 million as on 31st March 2016 in comparison to the subscriber base of 969.89 million as on 31st March 2015. The subscriber base increased by 63.74 million subscribers in the financial year

2015-16. The total subscriber base of wireless services has grown from 811.59 million in March 2011 to 1033.63 million in March 2016. Out of 1033.63 million subscribers at the end of financial year 2015-16, 989.54 million (95.73%) are GSM Subscribers and 44.09 million (4.27%) were CDMA Subscribers. The trend of subscriber base from March 2011 to March 2016 is depicted in **Figure-16 below.**

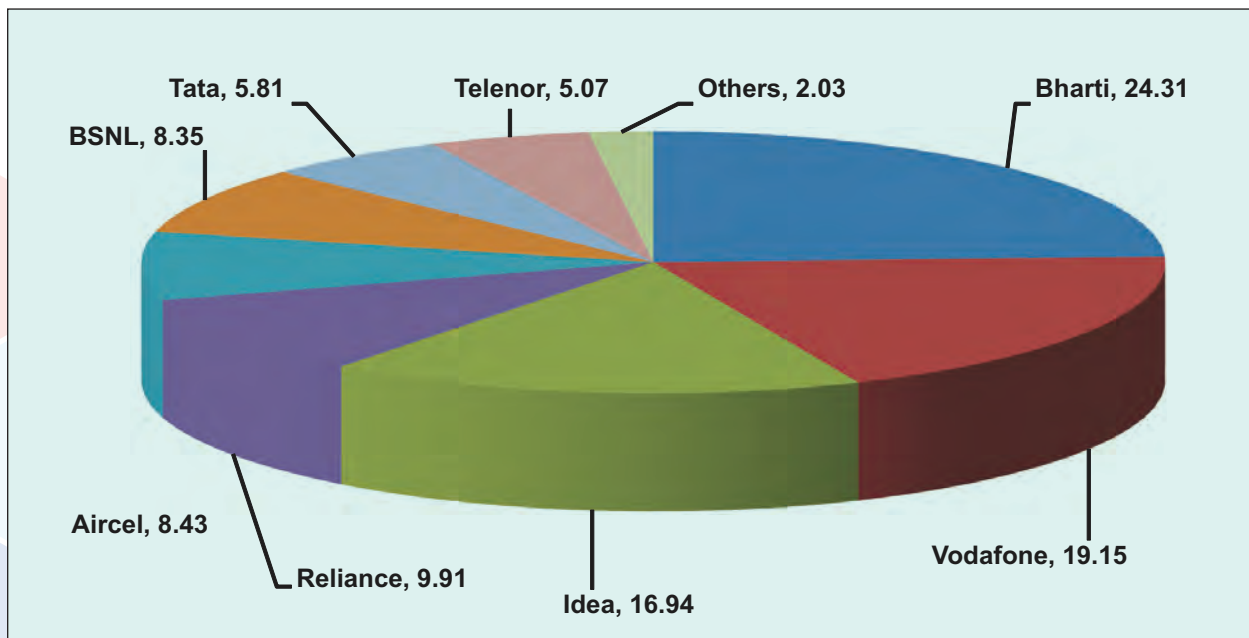
Figure-16: Subscriber base of wireless Operators (in million)



The subscriber base of individual wireless service providers (both GSM & CDMA) from 2011-12 to 2015-16 along with their percentage growth over the financial year 2013-14 is given in **Annexure-I** at the end of this part of the report. The market

share of Wireless Service Providers as on 31st March 2016 is displayed in **Figure-17 below**. The list of licensed service providers in various service areas is given in **Annexure-II** at the end of this part of the report.

Figure-17: Market Share of Wireless Service Providers (as on 31st March 2016)



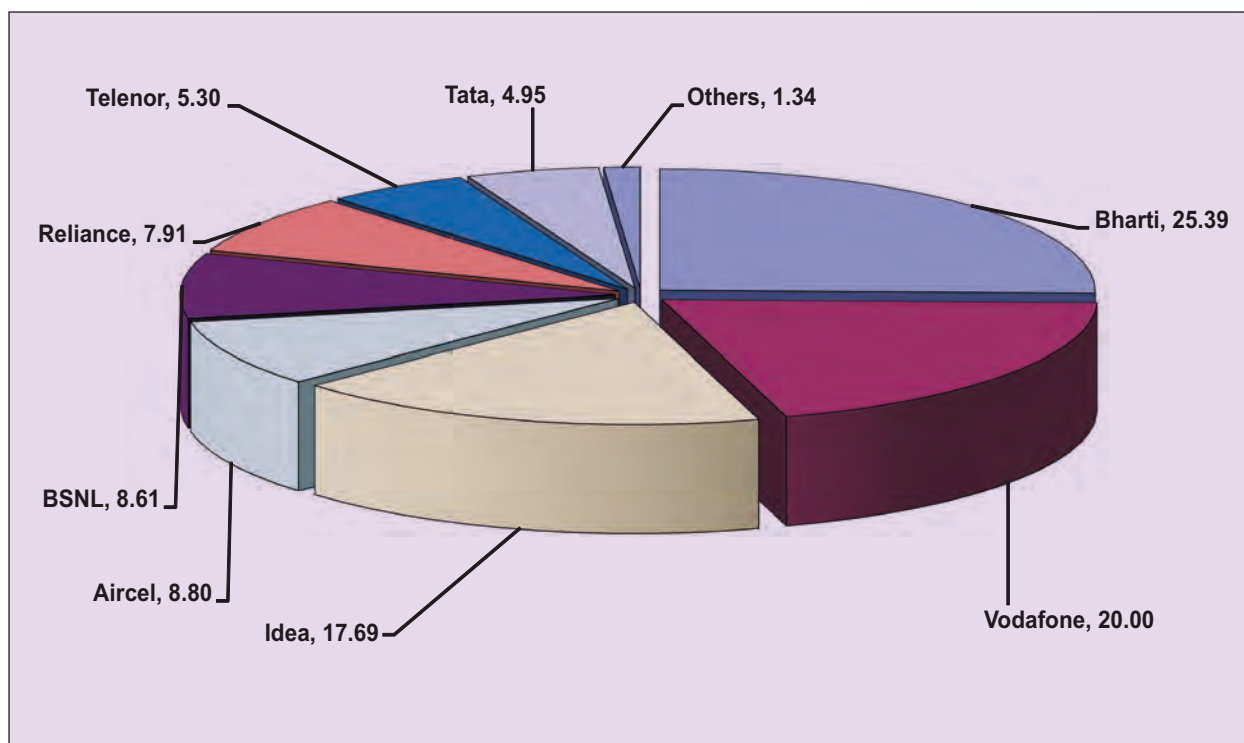
Others include Sistema, Videocon, MTNL and Quadrant

In the wireless segment, subscriber base of GSM was 989.54 million subscribers at the end of March 2016, as compared to 917.73 million at the end of March 2015. GSM subscriber base increased by around 71.81 million subscribers during the year.

In terms of subscriber base and market share

of GSM services, M/s Bharti with 251.24 million subscribers remains the largest GSM Service provider followed by M/s Vodafone, M/s Idea and M/s Aircel with 197.95 million, 175.07 million and 87.09 million respectively. The Market Share of various GSM operators as on 31st March 2016 is displayed in **Figure- 18 below.**

Figure-18: Market Share (%) of GSM Operators (as on 31st March 2016)

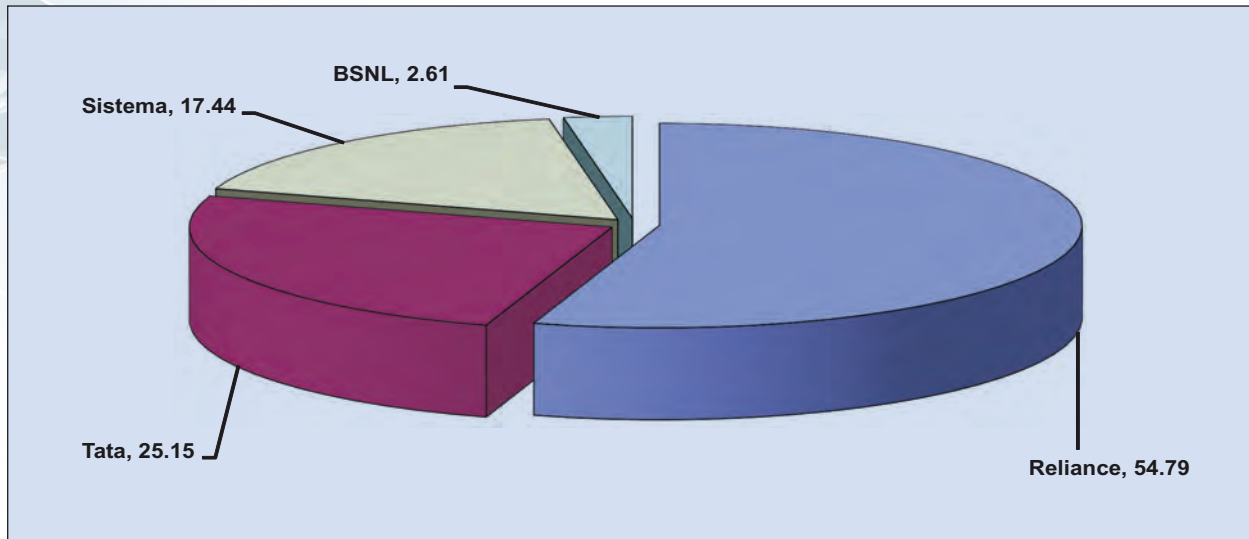


Others include Videocon, MTNL and Quadrant

In the wireless segment, the CDMA subscriber base reduced to 44.09 million during the year ending 31st March 2016 as compared to 52.16 million at the end of the year ending 31st March 2015. In Cellular CDMA Services, in terms of wireless subscriber base and market share, M/s

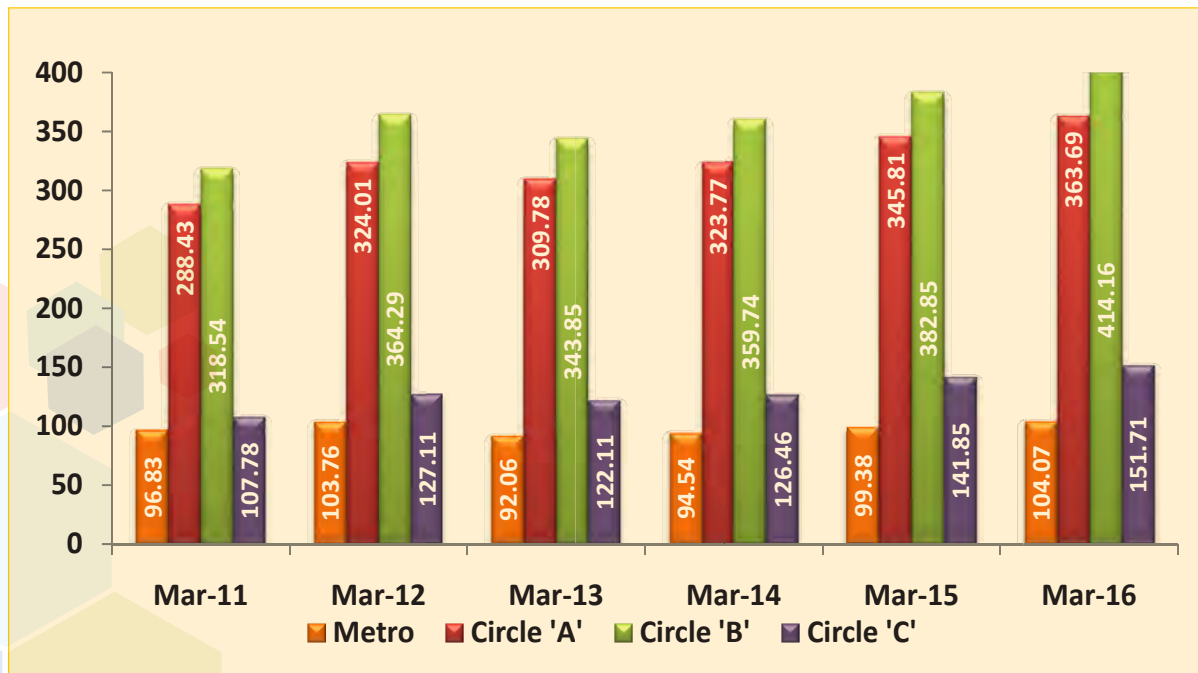
Reliance with 24.16 million subscribers remains the largest CDMA operator followed by M/s Tata and M/s Sistema with 11.09 million and 7.69 million respectively. The market share of different CDMA operators as on 31st March 2016 is shown in **Figure-19 below.**

Figure-19: Market Share (%) of CDMA Operators (as on 31st March 2016)



The subscriber base for Wireless Services in March, 2016 is indicated graphically in **Figure-20** below.

Figure-20: Subscriber Base for Wireless Services in Metros and Circles from March, 2011 to March, 2016 (Figures in million)



1.2.2.2 Wireline Services

The Service Provider wise details of Wireline Subscriber base as on 31st March, 2016, is shown in **Table-19** and the break-up in terms of rural and urban subscriber is shown in **Table-20**. The incumbents BSNL and MTNL have 58.52

% and 13.89% market share respectively in the wireline subscriber base, while all the six private operators together have 27.58% share. The share of private operators has increased from 24.93% as on 31st March, 2015 to 27.58% as on 31st March, 2016, registering an increase of 2.65%.

Table-19: Service Provider wise details of Wireline Subscriber base as on 31st March, 2016

Sl. No.	Name of the Service Provider	Area of Operation	Subscriber base (Wireline)
1	BSNL	All India except Delhi & Mumbai	14,762,370
2	MTNL	Delhi & Mumbai	3,504,088
3	Bharti Airtel Ltd	Andhra Pradesh (including Telangana), Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh (including Chattisgarh), Maharashtra, Mumbai, Punjab, Rajasthan, Tamilnadu (including Chennai), UP-East and UP-West.	3,663,649
4	Quadrant Televentures Ltd.	Punjab	252,803
5	Reliance Communications Ltd.	Andhra Pradesh (including Telangana), Bihar (including Jharkhand), Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh (including Chattisgarh), Maharashtra & Goa, Mumbai, Orissa, Punjab, Rajasthan, Tamilnadu (including Chennai), UP (East), UP (West) and West Bengal	1,169,952
6	Sistema Shyam Teleservices Ltd.	Rajasthan	59,130
7	Tata Teleservices Ltd. & Tata Teleservices (Maharashtra) Ltd.	Andhra Pradesh (including Telangana), Bihar (including Jharkhand), Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh (including Chattisgarh), Maharashtra & Goa, Mumbai, Orissa, Punjab, Rajasthan, Tamil nadu (including Chennai), UP(East), UP(West) (including Uttarakhand) and West Bengal	172,2362

Sl. No.	Name of the Service Provider	Area of Operation	Subscriber base (Wireline)
8	Vodafone	Andhra Pradesh (including Telangana), Assam, Bihar (including Jharkhand), Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh (including Chattisgarh), Maharashtra & Goa, Mumbai, North East, Orissa, Punjab, Rajasthan, Tamil nadu (including Chennai), UP(East), UP(West) and West Bengal	90,214
	TOTAL		25,224,568

Source: As per data furnished by the TSPs

Table 20: Wireline Subscriber Base of Service Providers as on 31st March, 2016

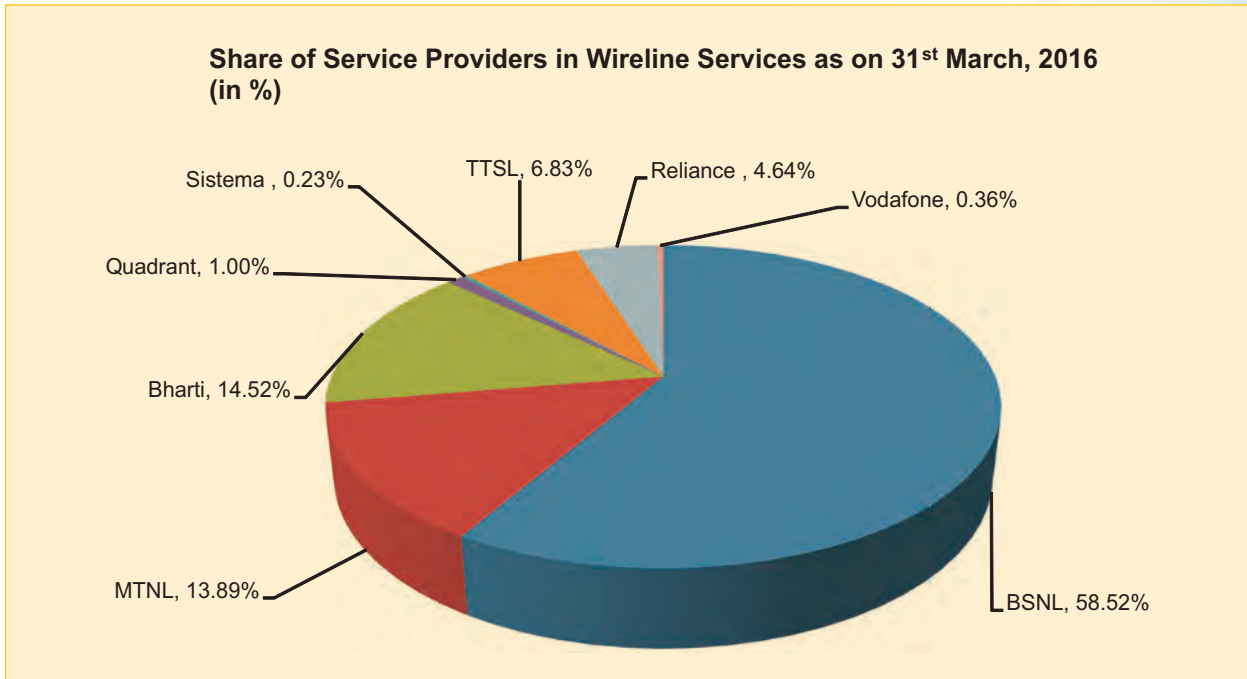
Sl. No.	Service Provider	Urban Subscribers	Rural Subscribers	Total Wireline subscribers
1	BSNL	10,558,454	4,203,916	14,762,370
2	MTNL	3,504,088	0	3,504,088
3	Bharti Airtel Ltd.	3,663,649	0	3,663,649
4	Quadrant Televenture	195,448	57,355	252,803
5	Sistema Shyam Teleservices Ltd.	48,960	10,170	59,130
6	Tata Teleservices Ltd. (incl. TTML)	1,671,684	50,678	1,722,362
7	Reliance Communications Ltd.	1,168,275	1,677	1,169,952
8	Vodafone	90,214	0	90,214
	Total	20,900,772	4,323,796	25,224,568

Share of Service Providers in wireline subscribers

About three-fourth of total wireline subscribers are connected to the networks of BSNL/MTNL

and the remaining wireline connections are provided by different private service providers. The market share of different service provider in total wireline subscriber base is shown in the **Figure-21** below:-

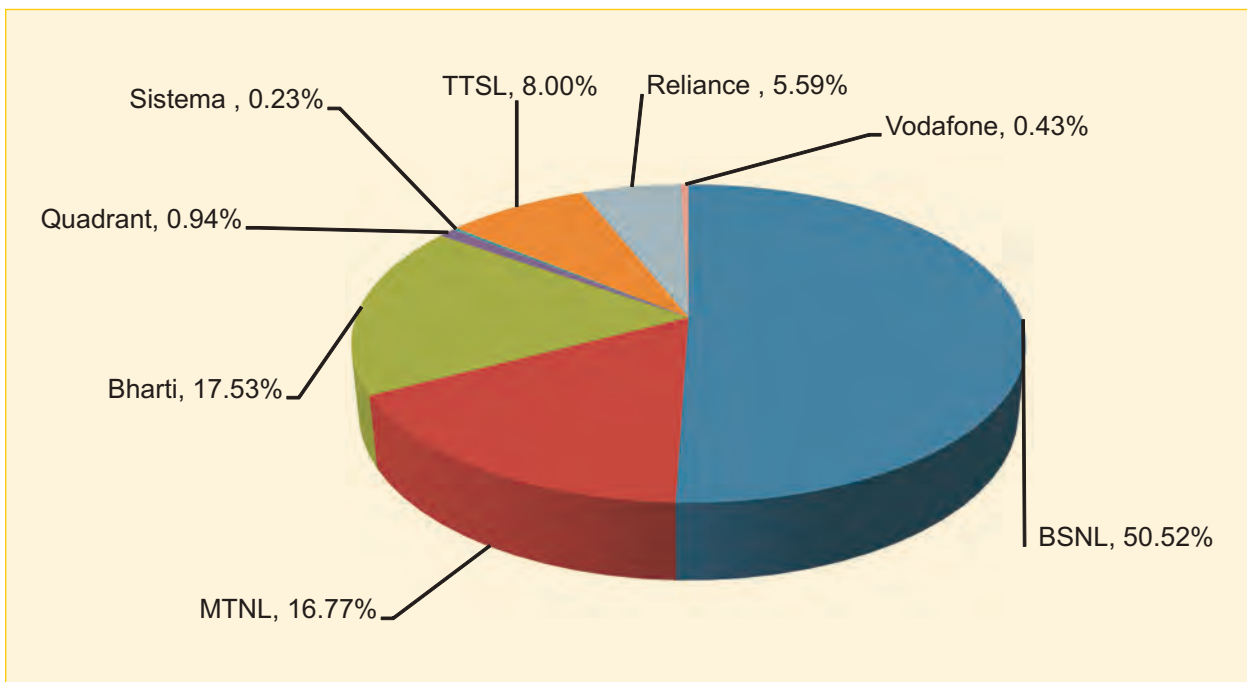
Figure -21: Composition of share of Service Providers.



As on 31st March, 2016, the total urban wireline subscribers were 20.90 million, out of which about 67.28% are provided by BSNL/MTNL. The market

share of different wireline service providers in urban areas is depicted in the **Figure-22** below:-

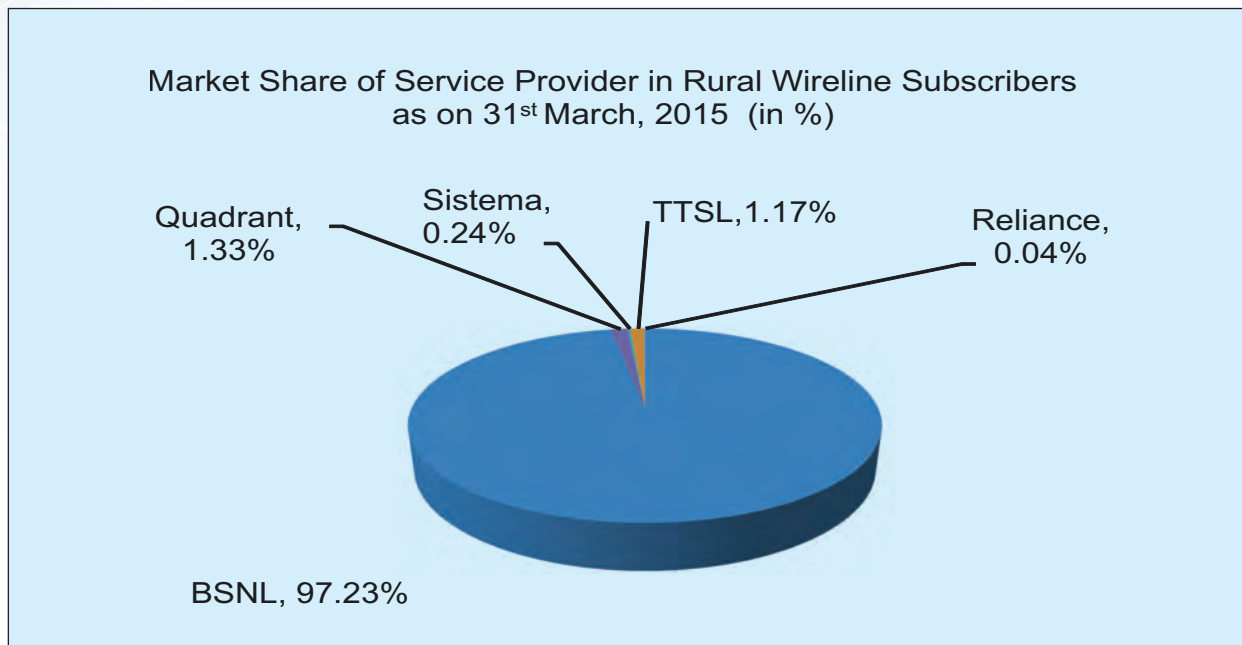
Figure -22: Composition of share of Service Providers in urban areas



(iii) As on 31st March, 2015, the total rural wireline subscribers were 5.12 million. The market share of different wireline

service providers in rural areas is depicted in the **Figure-23** below:

Figure -23: composition of share of Service Providers in Rural areas



1.2.2.3 Public Call Offices (PCOs):

As on 31st March, 2016, the total number of Public Call Offices (PCOs) were 0.59 million, as compared to 0.74 million

as on 31st March, 2015. The number of PCOs provided by BSNL, MTNL and Private Operators is indicated in **Table-21** below:-

Table-21: Public Call Offices in India

S. No.	Name of the Service Provider	As on 31 st March, 2015	As on 31 st March, 2016
1	BSNL	4,65,821	3,55,844
2	MTNL	1,38,686	1,34,006
3	Private Operators	1,32,348	99,086
Total		7,36,855	5,88,936

1.2.2.4 Village Public Telephones (VPTs):

As on 31st March, 2016, the total number of Village Public Telephones (VPTs) provided by the service providers were

5.87 lakh as against 5.86 lakh as on 31st March, 2015. **Table-22** provides the number of VPTs functioning in the country.

Table-22: Village Public Telephones in India

S. No.	Name of the Service Provider	As on 31 st March, 2015	As on 31 st March, 2016
1	BSNL	5,81,183	5,82,482
2	Private Operators	4,798	4,317
Total		5,85,981	5,86,799

1.2.2.5 Equipped Switching Capacity

As on 31st March, 2016, the service provider wise total equipped switching

capacity and working connections are shown in **Table-23** below:-

Table 23: Service Provider wise Equipped switching capacity

Sl. No.	Name of the Service Provider	Service Area	As on 31 st March, 2016	
			Equipped Switching Capacity (Number of Lines)	Working Connections
1	Bharat Sanchar Nigam Ltd.	All India except Delhi & Mumbai	3,69,87,455	1,47,62,370
2	Mahanagar Telephone Nigam Ltd.	Delhi & Mumbai	78,02,897	35,04,088
3	Bharti Airtel Ltd.	Andhra Pradesh (including Telangana), Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh (including Chattisgarh), Maharashtra, Mumbai, Punjab, Rajasthan, Tamilnadu (including Chennai), UP-East and UP-West.	1,06,34,000	36,63,649

Sl. No.	Name of the Service Provider	Service Area	As on 31 st March, 2016	
			Equipped Switching Capacity (Number of Lines)	Working Connections
4	Quadrant Televentures Ltd.	Punjab	5,48,835	2,52,803
5	Reliance Communications Ltd.	Andhra Pradesh (including Telangana), Bihar (including Jharkhand), Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh (including Chattisgarh), Maharashtra & Goa, Mumbai, Orissa, Punjab, Rajasthan, Tamilnadu (including Chennai), UP(East), UP(West) and West Bengal	26,92,000	11,69,952
6	Sistema Shyam Teleservices Ltd.	Rajasthan	10,24,000	59,130
7	Tata Teleservices Ltd. & Tata Teleservices (Maharashtra) Ltd.	Andhra Pradesh (including Telangana), Bihar (including Jharkhand), Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh (including Chattisgarh), Maharashtra & Goa, Mumbai, Orissa, Punjab, Rajasthan, Tamilnadu (including Chennai), UP(East), UP(West) (including Uttarakhand) and West Bengal	25,34,579	17,22,362
8	Vodafone	Andhra Pradesh (including Telangana), Assam, Bihar (including Jharkhand), Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh (including Chattisgarh), Maharashtra & Goa, Mumbai, North East, Orissa, Punjab, Rajasthan, Tamilnadu (including Chennai), UP(East), UP(West) and West Bengal	1,85,000	90,214

Source: As per report furnished by the Service Providers.

1.2.2.6 Internet and Broadband subscribers

The Internet subscriber base in the country as on 31st March, 2016 stood at 342.65 million as compared to 302.35 million as on 31st March, 2015. The total broadband subscriber base of the country as on 31st March, 2016 is 149.75

million, whereas it was 99.20 million on 31st March, 2015.

The details of subscription as reported by the service providers in the country as on 31st March, 2016 is indicated at **Table-24**.

Table-24: Details of Internet Subscribers as on 31st March 2016 (in millions)

Segment		Category	Internet Subscribers		% Growth
			Mar-2015	Mar-2016	
A.	Wired	Broadband	15.52	16.98	9.44%
		Narrowband	3.55	3.46	-2.49%
		Total	19.07	20.44	7.22%
B.	Fixed Wireless (Wi-Fi, Wi-Max, Radio & VSAT)	Broadband	0.44	0.525	18.64%
		Narrowband	0.03	0.028	-17.31%
		Total	0.48	0.553	16.11%
	Mobile Wireless (Phone + Dongle)	Broadband	83.24	132.24	58.87%
		Narrowband	199.57	189.41	-5.09%
		Total	282.81	321.66	13.74%
Total Internet Subscribers		Broadband	99.20	149.75	50.96%
		Narrowband	203.15	192.90	-5.05%
		Total	302.35	342.65	13.33%

Quarter-wise Internet/Broadband subscription as reported by the

service providers for 2015-16 is indicated at **Table-25**:

Table-25: Internet Subscribers during the four quarters of 2015-16 (in millions)

Service	June-15	September-15	December-15	March-16
Broadband	108.85	120.88	136.53	149.75
Narrowband	210.57	204.07	195.13	192.90
Total Internet	319.42	324.95	331.66	342.65



(C) REVIEW OF GENERAL ENVIRONMENT IN THE BROADCASTING AND CABLE TV SECTOR

1.3.1 The broadcasting sector consists of Television and Radio Services. India has the world's second largest TV market after China. As per industry estimates, as on March 2016, of the 284¹ million households, around a total of 181¹ million are estimated to have Television sets catered to by various platforms such as cable TV systems, DTH services, IPTV services and terrestrial TV network of Doordarshan. DTH has 88.64 million registered subscribers (with 58.53 million active subscribers) and IPTV caters to around half a million subscribers. Cable TV is estimated to have around 102¹ million subscribers. The terrestrial TV network Doordarshan is estimated to serve around 92.6² per cent of population of the country through a vast network of terrestrial transmitters. The broadcasting and cable television services sector consists of 48 pay broadcasters, an estimated 60,000 cable operators, 6000 MSOs (including 792 MSOs registered in DAS), six pay DTH operators, apart from a public service broadcaster Doordarshan beaming down a free-to-air DTH service. There were 869² TV channels registered with the Ministry of Information and Broadcasting at the close of financial year 2015-16 out of which 205 were SD pay TV channels (including 5 advertisements – free pay channels) and 58 HD Pay TV channels. India's TV industry grew from Rs 47500³ Crores in 2014-15 to 54200³ Crores in the year 2015-16, while registering an annual growth of around 14.10 percent. The subscription revenues account for a major share of the overall revenue of the TV industry. The subscription revenues grew from Rs. 32000³ Crores in 2014-15 to Rs. 36100³ cr. in

¹ Source : MPA Reports 2015

² Source : MIB website

³ Source : FICCI –KPMG Indian Media and Entertainment Report 2016

the year 2015-16. The advertisement revenue also grew from Rs. 15500³ Crores in 2014-15 to Rs. 18100³ Crores in the year 2015-16. The FM (Frequency Modulation) radio broadcasting sector also registered impressive growth. There were 243 private FM radio stations operational by March 2016, besides the public service broadcaster- All India Radio (AIR) having a network of 418⁴ stations and 606⁴ broadcast transmitters [145⁴ are MW (Medium Wave), 413⁴ FM and 48⁴ SW (Short Wave)]. The coverage of AIR service is around 99.20 percent⁴ of the geographical area of the country, serving 99.19 percent⁴ of the population. The radio industry, which is entirely dependent on advertisement revenues, registered a growth of around 17.81 percent during the year 2015-16. The advertisement revenue was Rs. 1923.91 Crores in 2015-16 compared to Rs. 1633 Crores in previous financial year. As on March 2016, out of 237 licenses issued for setting up community radio stations, 191 community radio stations were already operational.

1.3.2 The last decade has witnessed significant change in the dynamics of the Cable & Satellite (C&S) TV market. TRAI in its recommendations dated 05th August 2010 recommended complete digitization with addressability of the cable TV services sector in a phased manner. These were accepted by the Government, and suitable amendments were incorporated in the Cable TV Act by the Parliament. A notification was issued by the Central Government, laying down a roadmap for implementation of digital addressable cable TV systems (DAS) across the country in four phases. The cut-off date for migration to “Digital Addressable Cable TV Systems” in the first phase, covering the four metropolitan cities, was 31st October 2012 and for the second phase, it was 30th March 2013. The cut-off date for the third phase was 31st December 2015 and the cut-off date for the fourth phase is 31st December 2016.

⁴ Source : AIR Website – www.air.org.in



Broadcasting and Cable TV SECTOR

1.4 The broadcasting and cable TV services sector has exhibited consistent growth over the last two decades. The sector at this juncture comprises of analogue and digital cable TV services, DTH services, terrestrial TV services, IPTV services, and broadcast radio services. The FM radio services has also demonstrated consistent growth. Commiserating with the growth in the subscriber base, the number of platform and service providers have also increased. The present status of various services in the broadcasting sector is outlined below.

1.4.1 Satellite TV Channels

The total number of satellite TV channels permitted by Ministry of Information and Broadcasting has increased substantially from a figure of 524 in the year 2010 to 869 in the year 2016. **Figure-24** depicts the total number of TV channels year-wise figures during this period. The number of Standard Definition (SD) pay TV channels has grown from 147 in the year 2010 to 205 in 2016. A list of Standard Definition Pay TV channels is indicated at **Annexure-III** at the end of this part of the report. **Figure-25** depicts growth in the total number of SD Pay TV channels year wise during this period. In the last six year a substantial number of HD pay television channels have also been launched by the broadcasters. **Figure-26** depicts the year-wise reported HD Satellite Pay TV Channels figures during this period. As of March 2016, there are a total of 58 operational HD channels. A list of HD pay TV channels is placed at **Annexure-IV** at the end of this part of the report.

Figure-24: Annual growth in number of satellite TV channels (Pay & FTA) in India

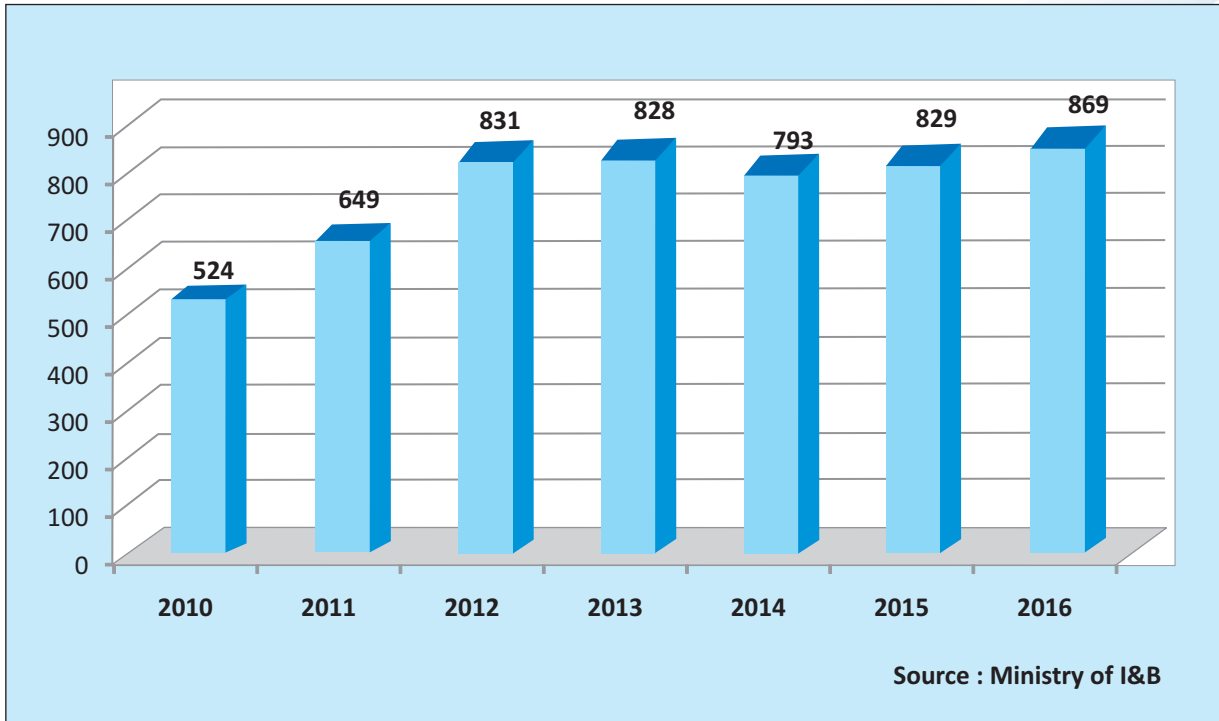


Figure-25: Annual Growth in numbers of SD Satellite Pay TV channels

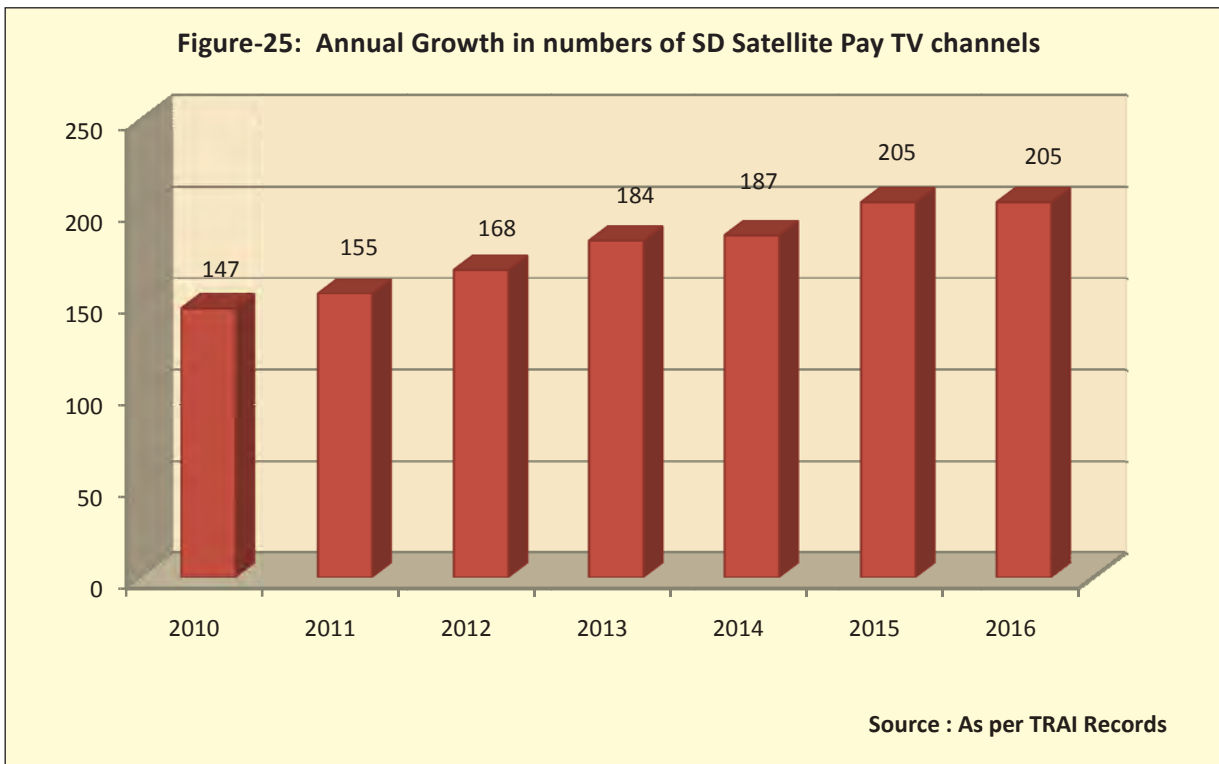
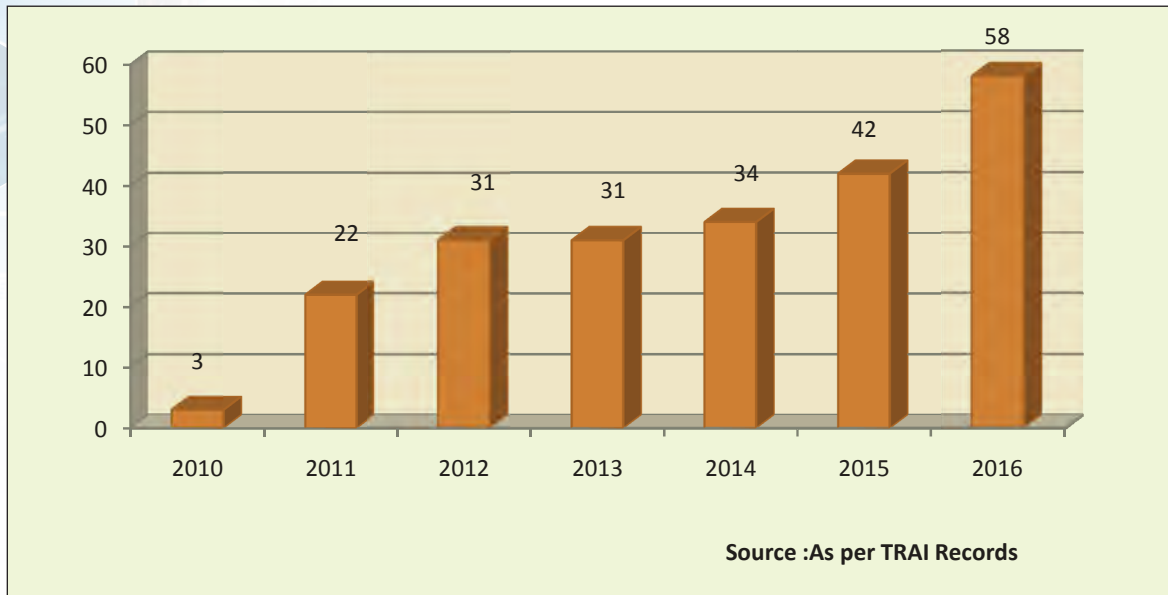


Figure 26: Annual growth in number of HD Satellite Pay TV channels



1.4.2. DTH services

Since introduction in the year 2003, Indian DTH services have displayed a phenomenal growth. DTH has attained a registered subscriber base of around 88.64 million (including 58.53 million active subscribers). As on March 2016, there are 6 pay DTH service providers

catering to this subscriber base. A list of pay DTH operators is placed at **Annexure-V** at the end of this part of the report. This is besides the viewership of the free DTH services of Doordarshan. Yearly growth of the sector in terms of its net active subscriber base is depicted in **Figure 27:-**

Figure 27: Annual growth in net active subscriber base of pay DTH sector (In Millions)



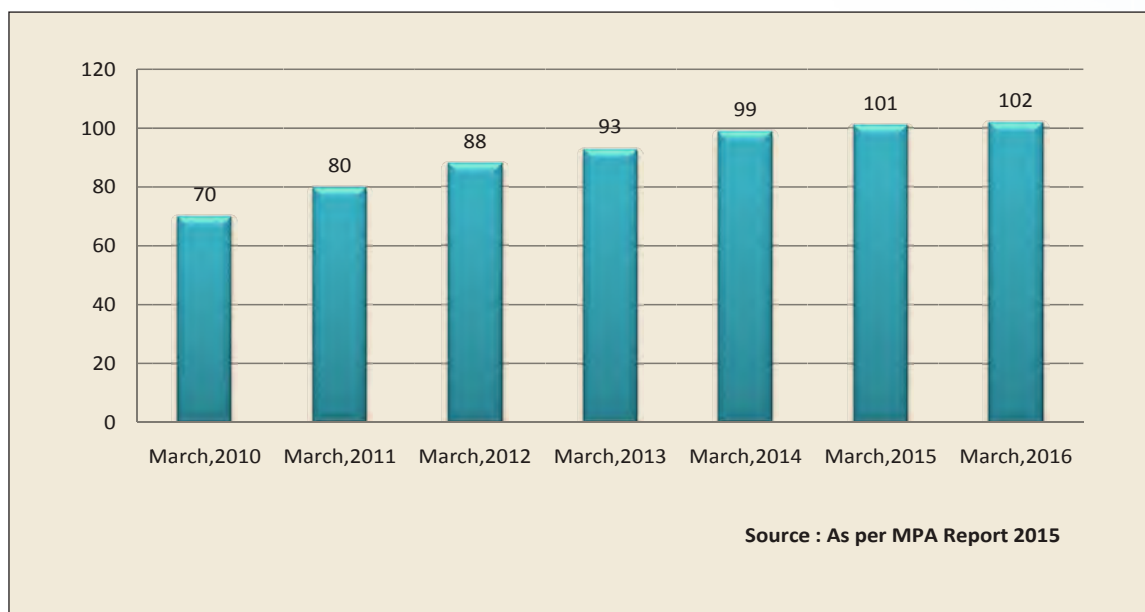
Apart from an increase in the availability of conventional TV channels, the pay DTH operators have continued to add several innovative offerings and value added services (VAS) such as interactive services like movie-on-demand, gaming, shopping, education etc.

1.4.3. Cable TV Services

The cable TV segment is the largest of

the TV service sector with an estimated subscriber base of around 102 million subscribers. The total number of TV households in India has reached almost 181 million in 2016. **Figure-28** depicts the growth of the pay cable TV sector in terms of yearly subscriber numbers, over the last six years.

Figure –28: Annual growth in number of pay Cable TV Subscribers (In Millions)



1.4.4. Digital Addressable Cable TV Systems (DAS)

Every increasing growth in the number of TV channels combined with the inherent limitations of the analog cable TV systems posed several challenges in the cable TV sector. The first limitation was the capacity constraint of the analog cable TV networks; the second reason its non-addressable nature. Evolution

of technology and the onset of the digital era has paved the way towards modernization of the cable TV industry, thereby enabling it to provide many new services to this large and upwardly mobile subscriber base.

The Telecom Regulatory Authority of India (TRAI) in the past had examined the subject of digitization in detail and also initiated a comprehensive public

consultation process. Thereafter, on 5th August 2010, it recommended, to the Government of India, implementation of Digital Addressable Cable TV Systems (DAS) across the country. While doing so, it also laid out a detailed roadmap to achieve the digitisation objective. The Government accepted the recommendations of TRAI and on 25th October, 2011, promulgated an Ordinance¹ amending the Cable Television Networks (Regulation) Act, 1995, mandating the implementation of

Digital Addressable Cable TV Systems in India, in a phased manner, commencing in November 2012 and slated for complete implementation by December, 2016. Given the size, complexity and regional specifics of the country, the initial migration plan from analog Cable TV distribution systems to a completely digital was devised on the basis of the levels of urbanization. The time line of the plan were subsequently revised. The migrating schedule is at per **Table-26** below:-

Table-26: Migration Schedule - Digital Addressable Cable TV Systems

Phase	Areas	Sunset date for analog Cable TV
Phase –I	Four Metros of Delhi, Mumbai, Kolkata, Chennai	31.10.2012
Phase –II	Cities with population more than one million (38 cities)	31.03.2013
Phase –III	All Urban areas (Municipal Corporation/ Municipalities)	31.12.2015
Phase –IV	Rest of India	31.12.2016

1.4.5 Implementation of Digital Addressable Cable TV Systems (DAS)

TRAI has laid down a comprehensive regulatory framework for implementation of Digital Addressable Cable TV Systems, covering *inter alia* aspects of Interconnection, Quality of Service and Tariff.

As far as the implementation of DAS was concerned, TRAI devised a three-step approach:

- The first step was to ensure content availability through signing of formal agreements between the broadcasters and MSOs. This, on the ground, was to ensure timely availability of adequate content to the MSOs.

¹ With Parliament passing the bill, the Ordinance dated 25th October 2011, became an Act on 30th December 2011

- The second step was to seed the set-top-boxes (STBs); ensure collection of consumer details and populate these details into the Subscriber Management System (SMS). This was critical to bring in 'address ability' to the system.
- The third step was to ensure individual consumer billing so that the consumer pays according to his choice/subscription. This marked the biggest change from the earlier analog days when subscribers basically paid a lump-sum amount for whatever was being delivered though the cable, irrespective of fact whether they wanted that content or not.

To ensure smooth nationwide roll-out, TRAI also initiated a massive awareness campaign across all forms of media, i.e., radio, TV, and print that focused on educating the stakeholders about the benefits of digitization. A task force was set up with members from the industry, the sector regulator and also the Govt. The task force organised field visits; review meetings; awareness workshops; and did whatever was needed to ensure an effective and comprehensive implementation. Data was regularly collected from the service providers to monitor progress on the implementation. When required, corrective measures were promptly initiated.

The first three phases of implementation have already been completed and around 50 percent of the cable TV homes are

digitized. At the end of March 2016, around 50 million STBs have been installed. Work remaining in the fourth and final phase is actively underway. The country is expected to go 'fully digital' by the end of year 2016. Experience gained over the implementation of the first three phases of digitization has been extremely encouraging. In fact a large number of maladies of the analog system, such as capacity constraints, non-transparent business transactions, limited consumer choice to services etc. are being addressed.

Consumers in DAS areas today get a far better choice of channels including high definition (HD) channels; enhanced picture and sound quality; better quality of service and itemized billing. Increasingly, broadband services are also being provided through the digital cable TV infrastructure. Stage is now set for introduction of other value added services and triple play services. The process of digitization of cable TV networks has been executed successfully by India and is expected to set a benchmark for the other countries to emulate.

1.4.6 Radio

Radio is a popular means for mass communication, owing largely, to its wide coverage, portability, low set-up cost and affordability. In India, Radio coverage is available in the Short-wave (SW) and Medium-wave (MW) bands in the Amplitude Modulation (AM) mode and

also Frequency Modulation (FM) mode in the FM band. FM Radio broadcasting today, is the most popular and pervasive medium to provide entertainment, information and education to the masses. 243 private FM radio stations were operational at the end of March 2016, besides the public service broadcaster-All India Radio (AIR) that has a network of 418 broadcast transmitter with 606 stations (145 MW, 413 FM and 48 SW stations).

With a view to further expand the availability of FM services over the entire country particularly in underserved areas of J&K, North Eastern States and island territories, while addressing certain other issues, the Government, on 25th July 2011, issued consolidated policy guidelines on Phase-III expansion of FM radio broadcasting through private entities.

This was aimed to enhance the existing coverage of FM radio with the launch of an additional 966 FM radio stations in 333 cities and also boost the growth of regional FM radio stations. Post implementation of Phase III, FM radio coverage will extend over almost 85 percent of the country. Allowing private FM broadcasters into the radio broadcasting sector has contributed towards significantly enhanced radio coverage while providing good quality reception and content to radio listeners. This has also led to encouraging local talent while aiding employment opportunities in these areas. The annual increase in the number of private FM radio stations is depicted in **Figure-29**. The annual increase in Advertisement Revenue of private FM Radio stations (As per TRAI records) is depicted in **Figure-30**:

Figure-29 : Annual Growth in number of Private FM Radio Stations

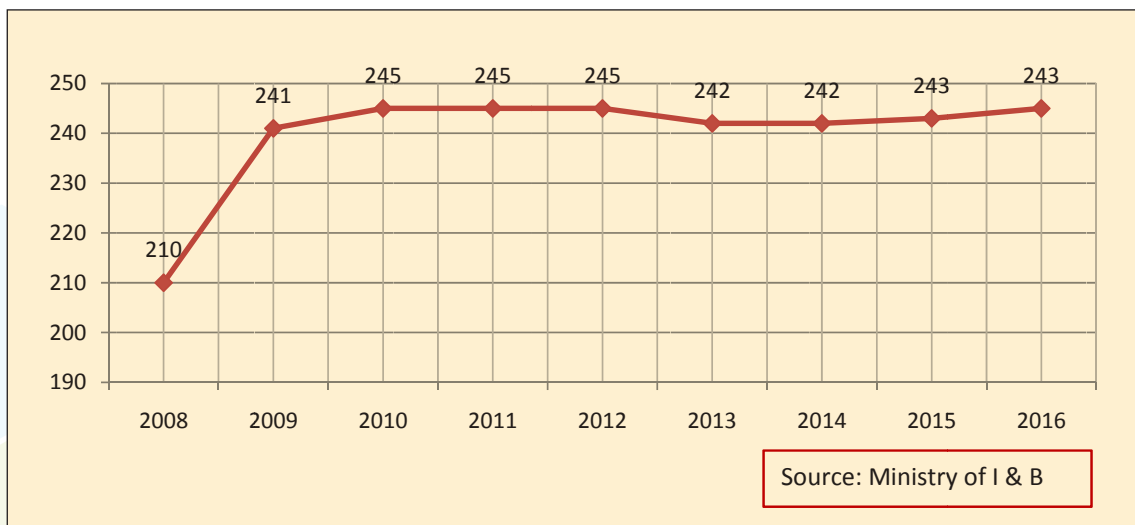
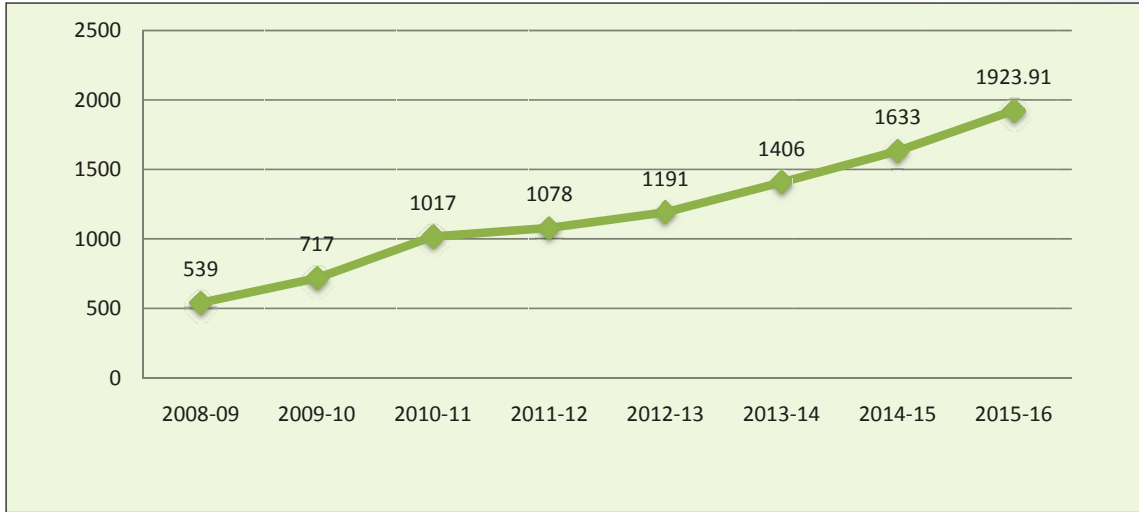


Figure-30 : Annual growth in FM Radio Advertisement Revenue

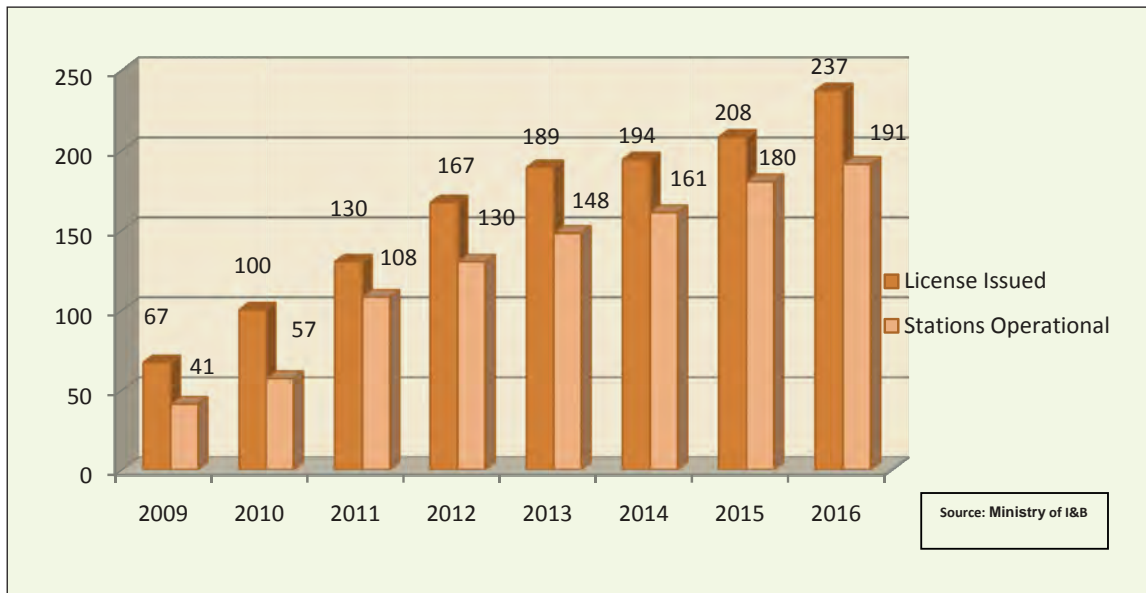
(In Crores)



Another area of growth in the radio landscape is the expansion in the number of Community Radio Stations (CRS) in the country. There is huge latent potential in CRS given the vast landscape of this country, linguistic diversity regional flavours & cultural variations. Community Radio broadcasting can serve as a medium for networking of small groups and communities with a specific focus on

daily concerns of the common man and also help them realize local aspirations. CRS are set up in association with educational institutions and civil society organizations. As on March 2016, out of the 237 licenses issued for setting up of CRS, 191 stations are already operational. The annual growth in the number of community radio stations is depicted in **Figure-31.**

Figure-31:- Annual Growth in number of Community Radio Stations



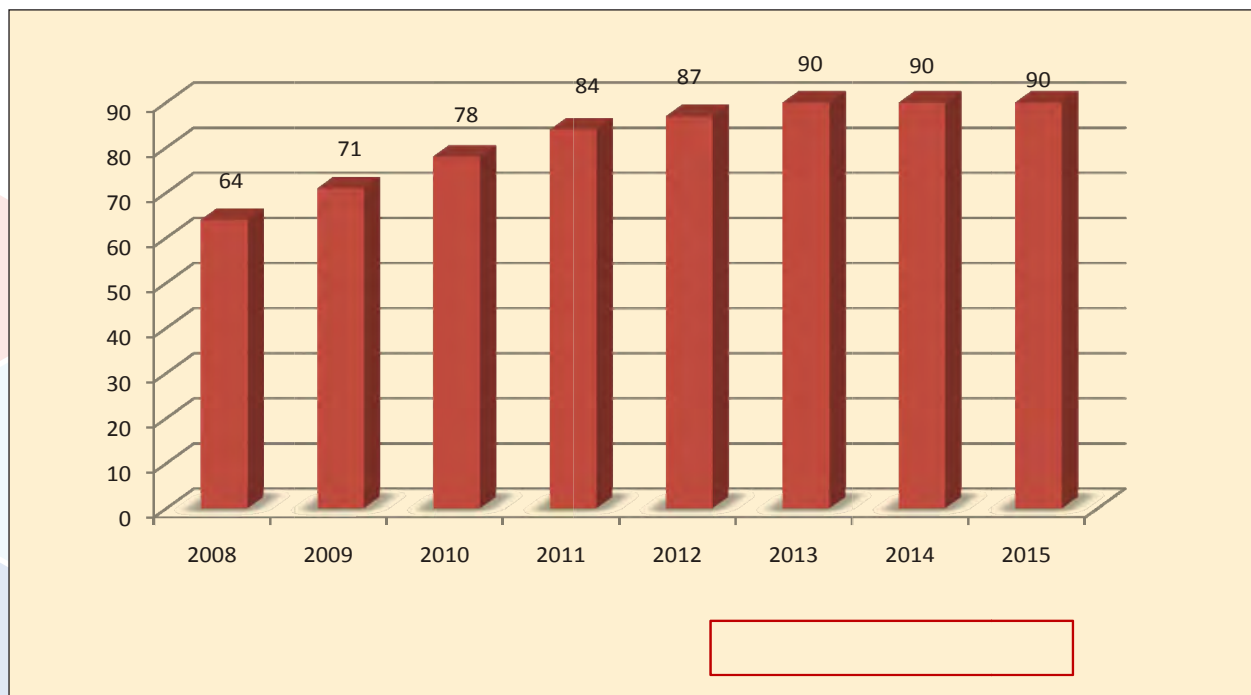
1.4.7. Teleports

Globally, teleports have evolved as providers of myriad solutions ranging from TV programme production and post-production to content hosting and distribution, system integration and network management. With liberal up-linking guidelines in India, there has been a major shift to India of channels that were earlier being up-linked from abroad in view of lower operating costs and availability of skilled manpower. If India were to develop further as a 'Teleport hub', even channels not meant for down-linking into India are likely to shift to India for uplinking. This may lead to enhanced employment generation and revenue generation as well as increased

foreign exchange earnings. Given its demonstrated technical capabilities and a favourable geographical location, India can emerge as a up-linking hub for TV channels viewed even in other parts of the world. Recognizing this, TRAI, in its recommendations dated 22nd July 2010 to the Government, on 'Issues related to Uplinking / Downlinking of Television Channels in India', had suggested that India be developed as a teleport hub.

The annual growth in the number of permitted teleports in India, over the last seven years, is depicted in **Figure-32**. A list of teleports, permitted by the Ministry of Information and Broadcasting, is placed at **Annexure-VI** at the end of this part of the report.

Figure-32: Annual Growth in number of permitted teleports



1.4.8. Tariff trends in the TV broadcasting sector

In order to provide cost effective broadcasting services to the consumer, TRAI lays down the regulatory framework, from time-to-time, in the form of tariff orders. The tariffs for areas served through non-addressable systems and also for areas served by digital addressable systems such as DAS, DTH, HITS, IPTV etc. are governed by the respective tariff orders issued by TRAI. Addressable digitization is making fast inroads and it is expected that operators will increasingly offer value added services (VAS), interactive services including movie-on-demand, gaming, shopping etc. The tariff order dated 21st July 2010, as amended, applicable for all addressable platforms, mandates that all service providers must offer their available channels, on a-la-carte basis at the retail level. Further, the wholesale pricing has been prescribed with a certain price cap that is linked to the tariff ceilings for non-

addressable systems. With such provisions in place at the wholesale and retail levels, the emerging trend is that subscription to channels is as per a consumer's choice rather than being defined by the service providers.

1.4.9. Stakeholders in the Cable and Satellite TV Service Sector

As on March 2016, the total number of private TV channels registered with the Ministry of Information and Broadcasting was 869 which include 205 SD pay channels (including 5 advertisement free pay channels) and 58 HD pay channels and. List of SD pay channels and HD pay channels are placed at **Annexure-III and IV** at the end of this part of the report.

Broadcasting & Cable services performance indicators

Overall status of the broadcasting and Cable TV services sector in the country is placed at **Table-27** below.

Table-27: Overall status of Broadcasting and Cable TV Services as on 31st March 2016

Number of households (estimated)	284 Million
Number of TV households (estimated)	181 Million
Number of pay Cable TV subscribers (estimated)	102 Million
Number of pay Subscribers registered with private DTH service providers	88.64 Million
Number of active pay Subscribers with private DTH service providers	58.53 Million
Number of Cable operators (estimated)	60,000

Number of Multi System Operators (estimated)	6000
Number of MSOs Registered (Provisional) in the DAS regime	561
Number of MSOs Registered (Permanent) in the DAS regime	231
Number of pay DTH Operators	6
Number of Channels	869
Number of SD Pay TV Channels (including 5 Advertisement free channels)	205
Number of HD TV Channels	58
Number of FM Radio Stations (excluding All India Radio)	243
Number of Community Radio Stations licenced.	237
Number of Operational Community Radio Stations	191
Number of permitted Teleports	90

Performance indicators of the Broadcasting sector over the four quarters of 2015-16 are as **Table-28** placed below:

Table-28: Performance Indicator of Broadcasting and Cable Services

Broadcast & Cable Services	Quarter ending			
	June 2015	Sept. 2015	Dec. 2015	March 2016
Total Number of Registered Channels with I&B Ministry	826	819	847	869
Number of SD Pay Channels (Operational)	204	202	204	205**
Number of HD Pay Channels (Operational)	44	48	53	58
Registered DTH Subscribers base (in millions)	78.74	81.47	84.80	88.64
Net Active DTH Subscribers base (in millions)	39.74	41.05	55.98	58.53*
Number of Private FM Radio Stations	243	243	243	243

* The net active subscriber base includes number of temporarily suspended subscribers who have been inactive but for not more than 120 days

** Including 5 Advertisement free channels



ANNEXURES TO PART-I



**SUBSCRIBER BASE OF WIRELESS [GSM AND CDMA] SERVICES
FROM 2011-12 TO 2015-16**

(Subscriber base in millions)

Service Providers	2011-12	2012-13	2013-14	2014-15	2015-16	%age growth/ reduction over FY 2015-16
Bharti	181.28	188.20	205.39	226.02	251.24	11.16
Vodafone	150.47	152.35	166.56	183.80	197.95	7.70
Idea	112.72	121.61	135.79	157.81	175.07	10.94
Reliance	153.05	122.97	110.89	109.47	102.41	-6.45
BSNL	98.51	101.21	94.65	77.22	86.35	11.82
Aircel	62.57	60.07	70.15	81.40	87.09	6.99
Tata	81.75	66.42	63.00	66.32	60.10	-9.38
Telenor	42.43	31.68	35.61	45.62	52.45	14.97
Sistema	15.68	11.91	9.04	8.86	7.69	-13.21
Videocon	5.95	2.01	4.99	7.13	6.56	-7.99
MTNL	5.83	5.00	3.37	3.51	3.56	1.42
Loop#	3.27	3.01	2.90	-	-	-
Quadrant	1.33	1.37	2.17	2.73	3.16	15.75
S Tel*	3.43	-	-	-	-	-
Etisalat*	0.78	-	-	-	-	-
Total	919.17	867.8	904.51	969.89	1033.63	6.57

Source: Service Providers

(#) M/s Loop services were discontinued since 2014-15

(*) M/s S Tel & M/s Etisalat services were discontinued since 2012-13

**LIST OF WIRELESS SERVICE PROVIDERS SERVICE AREA WISE AS
ON 31ST MARCH 2016**

SI No.	Circle Service Area	Operator Wireless	
		GSM	CDMA
Category : Metro			
1.	Delhi	Bharti Airtel	MTNL
		Vodafone	RCL
		MTNL	Sistema
		Idea	Tata
		Aircel	
		RCL	
2.	Mumbai	Vodafone	MTNL
		MTNL	RCL
		Bharti Airtel	Tata
		Idea	
		RCL	
		Aircel	
		Tata	
3.	Kolkata	Bharti Airtel	BSNL
		Vodafone	RCL
		BSNL	Sistema
		RTL	Tata
		Dishnet	
		Tata	
		Idea	
Category : Circle 'A'			
4.	Maharashtra	Vodafone	BSNL
		Idea	RCL
		BSNL	Tata
		Bharti Airtel	
		RCL	
		Aircel	
		Tata	
		Telewings	

SI No.	Circle Service Area	Operator Wireless	
		GSM	CDMA
5.	Gujarat	Vodafone	BSNL
		Idea	RCL
		BSNL	Sistema
		Bharti Airtel	Tata
		RCL	
		Tata	
		Videocon	
		Telewings	
		Aircel	
6.	Andhra Pradesh	Idea	BSNL
		Bharti Airtel	RCL
		BSNL	Tata
		Vodafone	
		Aircel	
		RCL	
		Tata	
		Telewings	
7.	Karnataka	Bharti Airtel	BSNL
		Idea	RCL
		BSNL	Sistema
		Vodafone	Tata
		Aircel	
		RCL	
		Tata	
8.	Tamil Nadu including Chennai	Vodafone	BSNL
		Aircel	RCL
		BSNL	Sistema
		Bharti Airtel	Tata
		RCL	
		Idea	
		Tata	

Sl No.	Circle Service Area	Operator Wireless	
		GSM	CDMA
Category : Circle 'B'			
9.	Kerala	Idea	BSNL
		Vodafone	RCL
		BSNL	Sistema
		Bharti Airtel	Tata
		Dishnet	
		RCL	
		Tata	
10.	Punjab	Idea	BSNL
		Bharti Airtel	RCL
		BSNL	Quadrant
		Vodafone	Tata
		RCL	
		Tata	
		Quadrant	
		Dishnet	
11.	Haryana	Idea	BSNL
		Vodafone	RCL
		BSNL	Tata
		Bharti Airtel	
		RCL	
		Tata	
		Videocon	
		Aircel	
12.	Uttar Pradesh (West)	Idea	BSNL
		Bharti Airtel	RCL
		BSNL	Sistema
		Vodafone	Tata
		Dishnet	
		RCL	
		Tata	
		Telewings	
		Videocon	

SI No.	Circle Service Area	Operator Wireless	
		GSM	CDMA
13.	Uttar Pradesh (East)	Vodafone	BSNL
		BSNL	RCL
		Bharti Airtel	Tata
		Idea	
		Dishnet	
		RCL	
		Tata	
		Telewings	
		Videocon	
14.	Rajasthan	Vodafone	BSNL
		Bharti Airtel	RCL
		BSNL	Sistema
		Idea	Tata
		RCL	
		Tata	
		Aircel	
15.	Madhya Pradesh	Idea	BSNL
		RTL	RCL
		BSNL	Tata
		Bharti Airtel	
		Vodafone	
		Tata	
		Aircel	
		Videocon	
16.	West Bengal	RTL	BSNL
		BSNL	RCL
		Bharti Airtel	Sistema
		Vodafone	Tata
		Dishnet	
		Tata	
		Idea	

Sl No.	Circle Service Area	Operator Wireless	
		GSM	CDMA
Category : Circle 'C'			
17.	Himachal Pradesh	Bharti Airtel	BSNL
		RTL	RCL
		BSNL	Tata
		Idea	
		Dishnet	
		Vodafone	
		Tata	
18.	Bihar	RTL	BSNL
		BSNL	RCL
		Bharti Airtel	Tata
		Dishnet	
		Idea	
		Vodafone	
		Tata	
		Telewings	
		Videocon	
19.	Orissa	RTL	BSNL
		BSNL	RCL
		Bharti Airtel	Tata
		Dishnet	
		Vodafone	
		Idea	
		Tata	
20.	Assam	RTL	BSNL
		BSNL	
		Bharti Airtel	
		Dishnet	
		Vodafone	
		Idea	

SI No.	Circle Service Area	Operator Wireless	
		GSM	CDMA
21.	North East	RTL	BSNL
		Bharti Airtel	
		BSNL	
		Dishnet	
		Vodafone	
		Idea	
22.	Jammu & Kashmir	BSNL	BSNL
		Bharti Airtel	RCL
		Dishnet	
		Vodafone	
		RCL	
		Idea	

Source: DoT/Service Providers

LIST OF STANDARD DEFINITION PAY TV CHANNELS AS ON 31ST MARCH 2016

S.No	Name of the Broadcaster	S.No	Name of the channel
1	M/s 9X Media Private Limited	1.	9X Jalwa
		2.	9X Jhakaas
		3.	9XM
		4.	9XO
2	M/s Asianet Communications Limited	5.	Asianet
		6.	Asianet Plus
		7.	Asianet Movies
		8.	Suvarna Plus
		9.	Suvarna
3	M/s B4U Television Network India Limited	10.	B4U Movies
4	M/s Bangla Entertainment Private Limited	11.	AATH
5	M/s BBC Global News India Private Limited	12.	BBC World News
6	M/s Bennett, Coleman & Company Limited	13.	Zoom
		14.	Romedy Now
		15.	Magicbricks Now
		16.	ET NOW
		17.	Times Now
7	M/s Business Broadcast News Private Limited	18.	Bloomberg TV India
8	M/s Discovery Communications India	19.	Animal Planet
		20.	Discovery Channel
		21.	Discovery Channel – Tamil
		22.	Discovery Kids Channel
		23.	Discovery Science
		24.	Discovery Turbo
		25.	ID Investigation Discovery
		26.	TLC
		27.	E 24
9	E-24 Glamour Limited	27.	E 24
10	M/s Eenadu Televisoin Private Limited	28.	ETV Telugu
		29.	ETV Andhra Pradesh (earlier name "ETV-2")
		30.	ETV - Telangana (earlier name "ETV-3")
		31.	ETV Cinema
		32.	ETV Life
		33.	ETV Plus
		34.	ETV Abhiruchi

S.No	Name of the Broadcaster	S.No	Name of the channel
11	M/s NGC Network (India) Pvt Limited	35	Fox Life
		36	National Geographic Channel (NGC)
		37	Nat Geo Wild
12	M/s Greycells 18 Media Limited	38	Topper TV
13	M/s Genx Entertainment Limited	39	UTV Bindass
		40	UTV Action
14	M/s IBN Lokmat News Private Ltd	41	IBN Lokmat
15	M/s Mavis Satcom Limited	42	J Movies
		43	Jaya Max
		44	Jaya Plus
		45	Jaya TV
16	M/s ABP News Network Pvt Limited	46	ABP Ananda
		47	ABP Majha
17	M/s Sony Pictures Networks India Private Limited	48	Animax
		49	AXN
		50	SET MAX
		51	MIX
		52	SAB
		53	SONY ENTERTAINMENT CHANNEL (SET)
		54	PIX
		55	SIX
		56	MAX 2 (Earlier name "MAX HD")
57	PAL (Earlier Name "SAB HD")		
18	M/s NDTV Life style Limited	58	NDTV Good Times
19	M/s Neo Sports Broadcast Pvt Limited	59	NEO Prime (Earlier name "Neo Cricket")
		60	Neo Sports
20	M/s New Delhi Television Limited	61	NDTV 24*7
		62	NDTV India
		63	NDTV Profit
21	M/s Odisha Television Limited	64	Prarthana
		65	Tarang
		66	Tarang Music
		67	Alankar
22	M/s Panorama Television Private Limited	68	ETV Bihar Jharkhand
		69	ETV MP Chattisgarh
		70	ETV Rajasthan
		71	ETV Uttar Pradesh Uttarachal
		72	ETV Urdu
		73	ETV News Kannada
		74	ETV News Bangla

S.No	Name of the Broadcaster	S.No	Name of the channel
		75	ETV Haryana / Himanchal Pradesh
		76	ETV News Gujarati
		77	ETV News Odia
23	M/s Paul Entertainments Pvt Limited	78	9X Tashan (Earlier name "Purvaiya")
24	M/s Prism Television Private Limited	79	Colors Bangla (Earlier name "ETV Bangla")
		80	Colors Gujarati (Earlier name "ETV Gujarati")
		81	Colors Kannada (Earlier name "ETV Kannada")
		82	Colors Marathi (Earlier name "ETV Marathi")
		83	Colors Oriya (Earlier name "ETV Oriya")
25	M/s Raj Television Network Limited	84	Raj Musix Kannada
		85	Raj Digital Plus
		86	Raj Musix
		87	Raj News
		88	Raj TV
		89	Vissa TV
26	M/sSaharaIndiaCommercialCorporation Ltd	90	Sahara Filmy
		91	Sahara One
27	M/s Sarthak Entertainment Pvt Limited	92	Sarthak TV
28	M/s Silverstar Communications Limited	93	Mega 24
		94	Mega Musiq
		95	Mega TV
29	M/s Star India Private Limited	96	Channel (V)
		97	Star Sports 4
		98	FX
		99	Life Ok (earlier name "Star One")
		100	Movies OK (earlier name "Gold Action")
		101	Star Sports 3
		102	Star Gold
		103	Star Jalsha
		104	Star Movies
		105	Star Movies Action
		106	Star Plus
		107	Star Pravah
		108	Star Sports 1
		109	Star Sports 2
		110	Star World

S.No	Name of the Broadcaster	S.No	Name of the channel
		111	Jalsha Movies (Earlier name "Star Bengali")
		112	MAA Gold
		113	MAA Movies
		114	MAA Music
		115	MAA TV
30	M/s SUN TV Network Limited	116	Adithya TV
		117	Chintu TV
		118	Chutti TV
		119	Gemini Comedy
		120	Gemini Life
		121	Gemini Movies
		122	Gemini Music
		123	Gemini News
		124	Gemini TV
		125	KTV
		126	Kiran TV
		127	Kushi TV
		128	SUN Life
		129	Sun Music
		130	Sun News
		131	Surya Music (Earlier name "Sun News English")
		132	SUN TV
		133	SUN TV RI
		134	Surya TV
		135	Udaya Comedy
		136	Udaya Movies
		137	Udaya Music
		138	Udaya News
		139	Udaya TV
		140	Kochu TV
		141	Sun Action
		142	Gemini Action
		143	Surya Action
		144	Suriyan TV
31	M/s Taj Television India Private Limited	145	Ten Action
		146	Ten Sports
32	M/s Turmeric Vision Private Limited	147	Food Food TV

S.No	Name of the Broadcaster	S.No	Name of the channel
33	M/s Turner International India Pvt Ltd	148	Cartoon Network
		149	CNN International
		150	HBO
		151	POGO
		152	Toonami (Earlier name "Boomerang")
		153	WB
34	M/s TV 18 Broadcast Limited	154	CNN News 18 (Earlier name "CNN-IBN")
		155	IBN 7
		156	CNBC Bazaar
		157	CNBC Awaaz
		158	CNBC TV 18
35	M/s TV Today Network Limited	159	Aaj Tak
		160	Delhi Aaj Tak
		161	Headlines Today
		162	Aaj Tak Tez
36	M/s United Home Entertainment Pvt Limited	163	Hungama TV
37	M/s Disney Broadcasting (India) Limited	164	Disney Junior (Earlier name "UTV Comedy")
		165	UTV Movies
		166	Disney XD (Earlier name "UTV World Movies")
		167	Bindass Play (Earlier name "UTV Stars")
		168	The Disney Channel
38	M/s Viacom 18 Media Private Limited	169	Colors
		170	MTV
		171	NICK
		172	Nick Jr / Teen Nick
		173	SONIC
		174	Colors Infinity
39	M/s Vijay Television Pvt Limited	175	Vijay TV
40	M/s Zee Akaash News Private Limited	176	24 Ghanta
41	M/s Zee Entertainment Enterprises Limited	177	Zee ETC Bollywood (Earlier name "Zee Bollywood")
		178	Action Cinema
		179	Zee Bangla Cinema
		180	Zee Café
		181	Zee Cinema
		182	Classic Cinema
		183	Zee Salaam

S.No	Name of the Broadcaster	S.No	Name of the channel
		184	Zee Smile
		185	Zee Studio
		186	Zee Talkies
		187	Zee TV
		188	Zing
		189	Zindagi
		190	& Picture
		191	Zee Q
		192	Zee Bangla
		193	Zee Marathi
		194	Living Foodz (earlier name "Zee Khana Khazana"
		195	& TV
42	M/s Zee Media Corporation Limited	196	Zee 24 Taas
		197	Zee Kalinga (Earlier name "Zee 24 Ghantalu)
		198	Zee Business
		199	Zee Kannada
		200	Zee News
		201	Zee Punjab Haryana Himachal (Earlier name "Zee Punjabi")
		202	Zee Telugu
		203	Zee Madhya Pradesh Chattisgarh
		204	Zee Rajasthan News (Earlier name "Zee Marudhara" and "Zee Rajasthan Plus")
43	M/s AXN Networks India Private Limited	205	SONY ESPN (Earlier name "SONY KIX")

LIST OF HD PAY TV CHANNELS IN INDIA

S.No	Name of the Broadcaster	S.No	Name of the channel
1	M/s AETN 18 Media Private Limited	1	The History Channel
2	M/s Asianet Communications Limited	2	Asianet HD
3	M/s Bennett, Coleman & Company Limited	3	MN+
		4	Romedy Now HD
		5	Movies Now HD
4	M/s Celebrities Management Pvt Limited	6	Travel XP HD
5	M/s Discovery Communications India	7	Discovery HD World
		8	Animal Planet HD World
		9	TLC HD world
6	M/s Da Vinci Media India Pvt Limited	10	Da Vinci Learning
7	M/s EPIC Television Networks Pvt Limited	11	EPIC TV
8	M/s NGC Network (India) Pvt Limited	12	National Geographic HD
		13	Nat Geo Music HD
		14	Nat Geo Wild HD
		15	Nat Geo People HD
		16	Fox Life HD
		17	Baby TV HD
9	M/s New Delhi Television Limited	18	Granada TV (HD)
		19	Trace Sports HD
10	M/s Sony Pictures Networks India Pvt Ltd	20	SET HD
		21	SIX HD
		22	PIX HD
		23	Sony ESPN HD
		24	MAX HD
11	M/s Star India Private Limited	25	Star Sports HD 2
		26	Star Sports HD 1
		27	Life Ok HD
		28	Star Gold HD
		29	Star Movies HD
		30	Star Plus HD
		31	Star World Pmiere HD
		32	Star Sports HD 3
		33	Star Sports HD 4
		34	Star World HD
		35	Star Movies Select HD
		36	FX HD
12	M/s SUN TV Network Limited	37	Sun TV HD
		38	KTV HD
		39	Sun Music HD
		40	Gemini TV HD

S.No	Name of the Broadcaster	S.No	Name of the channel
13	M/s Taj Television India Private Limited	41	Ten HD
		42	Ten Golf HD
14	M/s Turner International India Pvt Ltd	43	HBO Hits HD
15	M/s TV 18 Broadcast Limited	44	CNBC TV 18 Prime HD
16	M/s Viacom 18 Media Private Limited	45	Colors HD
		46	MTV Indies
		47	Comedy Central
		48	VH 1
		49	Colors Infinity HD
		50	Nicks HD +
17	M/s Zee Entertainment Enterprises Limited	51	Zee TV HD
		52	Zee Cinema HD
		53	Zee Studio HD
		54	& TV HD
		55	Zee Cafe HD
		56	& Pictures HD
18	M/s Zoom Entertainment Network Limited	57	Movies Now
19	M/s AXN Networks India Pvt Limited	58	AXN HD

LIST OF PAY DTH OPERATORS

Sl. No	DTH Operator
1.	M/s. Tata Sky Ltd
2.	M/s Dish TV India Ltd
3.	SUN Direct TV(P) Ltd
4.	Bharti Telemedia Ltd.
5.	Reliance Big TV Pvt. Ltd
6.	M/s Videocon d2h Limited

LIST OF PERMITTED TELEPORTS

Sl. No	Name of Teleport
1	TV TODAY NETWORK LIMITED
2	SUN TV LTD.
3	ENTERTAINMENT TELEVISION NETWORK PVT.LTD
4	USHODAYA ENTERPRISES LTD.
5	ESSEL SHYAM COMMUNICATION LIMITED
6	ASIANET INFRASTRUCTURE PVT. LTD.
7	ESSEL SHYAM COMMUNICATION LTD
8	SAHARA SANCHAR LIMITED
9	TELEVISION EIGHTEEN INDIA LIMITED
10	NEW DELHI TELEVISION LTD. (NDTV)
11	INDIAVISION SATELLITE COMMUNICATIONS LTD.
12	NOIDA SOFTWARE TECHNOLOGY PARK LTD.
13	DISH TV INDIA LIMITED (FORMERLY KNOWN ASC ENTERPRISES LIMITED.)
14	POSITIVE TELEVISION PVT. LTD.
15	CHANNEL GUIDE INDIA LTD.
16	INDIASIGN PVT. LTD.
17	ASSOCIATED BROADCASTING PVT. LTD.
18	AV ENTERTAINMENT PVT. LTD.
19	TELEVISION EIGHTEEN INDIA LIMITED
20	AMRITA ENTERPRISES PVT. LTD.
21	MAVIS SATCOM LIMITED
22	TATA COMMUNICATIONS LTD.VSNL
23	TATA COMMUNICATIONS LTD. VSNL
24	TATA COMMUNICATIONS LTD., VSNL,
25	TATA COMMUNICATIONS LTD.,VSNL
26	TATA COMMUNICATIONS LTD., VSNL
27	LAMHAS SATELLITE SERVICES LTD.
28	MALAYALAM COMMUNICATIONS LTD.
29	SANSKAR INFO TV PVT. LTD.
30	BENNETT COLEMAN AND CO. LTD.
31	SENIOR MEDIA LTD.
32	LOK PRAKASHAN LTD.
33	CALCUTTA TELEVISION NETWORK PVT. LTD.
34	KOHINOOR BROADCASTING CORPORATION LTD.
35	TELEVISION EIGHTEEN INDIA LIMITED

Sl. No	Name of Teleport
36	KAMYAB TV PVT. LTD. (Formerly known as MD TV Pvt. Ltd.)
37	KASTURI MEDIA PVT. LTD.
38	SST MEDIA PVT. LTD.
39	ESSEL SHYAM COMMUNICATION LTD.
40	MM TV LTD.
41	IN CABLENET ANDHRA LTD.
42	INDRA TELEVISION LTD.
43	SUN TV LTD.
44	MEDIA CONTENT AND COMMUNICATION INDIA PRIVATE LIMITED
45	TATA SKY LIMITED
46	SATISH SUGERS LTD.
47	SHITAL FIBRES LTD.
48	MH ONE TV NETWORK LTD.
49	STV ENTERPRISES LTD.
50	AIRR X MEDIA LTD.
51	BROADCAST EQUIPMENTS INDIA PVT. LTD.
52	WINNING COMMUNICATIONS LTD.
53	INDIASIGN PVT. LTD.
54	INDIASIGN PVT. LTD.
55	RACHANA TELEVISION PVT. LTD.
56	ORTEL COMMUNICATIONS LTD.
57	SOWBHAGYA EXPORTS LTD.
58	ESSEL SHYAM COMMUNICATION LTD.
59	PRAGYA VISION PVT. LTD.
60	BRAHMAPUTRA TELE- PRODUCTIONS PVT. LTD.
61	G. NEXT MEDIA PVT. LTD.
62	INDIASIGN PVT. LTD.
63	TATA COMMUNICATIONS LIMITED
64	POSITIVE TELEVISION PVT. LTD.
65	EASTERN MEDIA LTD.
66	RAJASTHAN PATRIKA PRIVATE LIMITED
67	PRIDE EAST ENTERTAINMENT PVT. LIMITED
68	INDIASIGN PVT. LTD.
69	VINTAGE STUDIO PVT. LTD.
70	SKYLINE TELE MEDIA SERVICES PVT. LTD.
71	INFORMATION TV PVT. LTD.
72	UNILAZER EXPORTS AND MANAGEMENT CONSULTANTS LIMITED

Sl. No	Name of Teleport
73	COMSAT SYSTEM PVT. LTD.
74	BHARTI TELEPORTS LIMITED
75	SRI VENKATESWARA CHANNEL PVT. LTD.
76	TATA COMMUNICATIONS LIMITED
77	ROYS INSTITUTE OF COMPETITIVE EXAMINATION PVT LTD
78	INDEPENDENT NEWS SERVICES PVT. LTD.
79	RAJ TELEVISION NETWORK LTD.
80	ESSEL SHYAM COMMUNICATION LTD.
81	KANSAN NEWS PRIVATE LIMITED
82	TATA COMMUNICATIONS LTD. VSNL
83	DISH TV INDIA LTD.
84	AASTHA BROADCASTING NETWORK LIMITED
85	MAHUAA MEDIA PRIVATE LIMITED
86	RTR BROADCAST PVT. LTD.
87	SILVER STAR COMMUNICATION LTD.
88	LAMHA SATELLITE SERVICES LTD
89	SKYLINE TELE MEDIA SERVICES LTD.
90	BHARTI TELEPORTS LIMITED



PART – II


REVIEW OF WORKING AND OPERATION OF THE TELECOM REGULATORY AUTHORITY OF INDIA





REVIEW OF WORKING AND OPERATION OF THE TELECOM REGULATORY AUTHORITY OF INDIA

- 2.1 Part I of the Report has given an overview of the general environment prevailing in the telecom sector including broadcasting and cable services and has highlighted the policies and programmes of the Government during 2015-16. In line with the mandate given under the TRAI Act, TRAI has played catalytic role in the development of the telecom, broadcasting and cable services. It has been its endeavour to provide an environment, which is fair and transparent, encourages competition, promotes a level-playing field for all service providers, protects the interest of consumers and enables technological benefits to one and all.
- 2.2 Under the TRAI Act, 1997, TRAI is mandated, *inter-alia*, to ensure compliance of the terms and conditions of license, lay down the standards of quality of service to be provided by the service providers and ensure the quality of service, specify tariff policy and recommend conditions for entry of new service providers as well as terms and conditions of license to a service provider. TRAI's scope of work also includes consideration and decisions on issues relating to monitoring of tariff policy, commercial and technical aspects of interconnection, principles of call routing and call handover, free choice and equal ease of access for the public to different service providers, resolution of conflicts that may arise due to market developments and diverse network structures for various telecom services, need for up-gradation of the existing network and systems, and development of forums for interaction amongst service providers and interaction of the Authority with consumer organizations. The Government issued an notification



dated 9th January 2004, whereby broadcasting services and cable services were also defined as telecommunication services, thus bringing these sectors under the ambit of TRAI. The Government also issued another notification dated 9th January 2004, under Section 11(d) of the Telecom Regulatory Authority of India Act, 1997, which entrusted certain additional functions to TRAI. These functions were to make recommendations, regarding terms and conditions on which “Addressable System” shall be provided to the customers and the parameters for regulating maximum time for advertisements in pay channels as well as other channels.

2.3 To formulate recommendations and suggest policy initiatives, TRAI interacts with various stakeholders such as the service providers, their organizations, Consumer Advocacy Groups / Consumer Organizations and other experts in this field. It has developed a process, which allows all the stakeholders and the general public to participate in discussions about policy formulation by offering their views whenever sought for. This process involves floating of a consultation paper highlighting the issues involved and soliciting the views of the stakeholders on the issues, holding Open House Meetings arranged in different parts of the country, inviting written comments on e-mail and through letters, and having interactive sessions with stakeholders and experts to

obtain different views and clarifications on policy issues. The Regulations / Orders issued by TRAI also contain an Explanatory Memorandum which explains the basis on which the decisions are taken. The participative and explanatory process adopted by TRAI has received wide acclaim.

2.4 TRAI also interacts with the consumer organizations / Non Government Organizations (NGO) in the telecom and broadcasting sector to obtain their views. It has a system of registering consumer organizations / NGOs connected with telecom functions and of interacting with them at regular intervals. TRAI is constantly adopting measures for strengthening the consumer organizations. It also organizes Seminars and Workshops with the participation of International Experts on various technical issues and invites stakeholders, consumer organizations and other research institutes to attend these seminars.

2.5 Under Section 11 (1) (a) of the TRAI Act 1997, the Authority is required to make recommendations either *suo moto* or on a request from the licensor, i.e., Department of Telecommunications, Ministry of Communications & IT or Ministry of Information & Broadcasting in the case of Broadcasting and Cable Services. Recommendations given by TRAI to Government during 2015-16 are given below.

TELECOM SECTOR

Sl. No.	List of Recommendations
1.	Recommendations dated 7 th April 2015 on “Single Number based Integrated Emergency Communication and Response System”
2.	TRAI’s Response dated 8 th April 2015 on DoT reference back on Recommendations on “Telecom Network Failures during Emergencies/Disasters – Priority routing of calls of persons engaged in ‘response and recovery’ “
3.	Recommendations dated 17 th April 2015 on Delivering Broadband Quickly: What do we need to do?
4.	Recommendations dated 1 st May 2015 on “Introducing Virtual Network Operators in Telecom Sector”
5.	TRAI’s response dated 21 st May 2015 to DoT’s reference back on Recommendations on “Guidelines on Spectrum Sharing dated 21 st July 2014”
6.	TRAI’s response dated 21 st May 2015 to DoT’s reference back on Recommendations on “Working Guidelines for Spectrum Trading dated 28 th January 2014”
7.	TRAI’s response dated 2 nd July 2015 to DoT on issues relating to Spectrum Cap and minimum spectrum holding by Telecom Service Providers (TSPs) as follow up of Hon’ble Supreme Court’s interim order dated 14 th May 2015
8.	TRAI’s response dated 30 th September 2015 to reference received from DoT on TRAI’s Recommendations on “Single Number based Integrated Emergency Communication and Response System (IECRS) dated 7 th April, 2015”
9.	TRAI’s response dated 17 th November 2015 to reference received from DoT on TRAI’s Recommendations on “Allocation and Pricing of Microwave Access (MWA) and Microwave Backbone (MWB) RF Carriers dated 29 th August, 2014”
10.	Recommendations dated 27 th January 2016 on “Valuation and Reserve Price of Spectrum in the 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz and 2500 MHz bands”
11.	Recommendations dated 1 st February 2016 on Implementation strategy for BharatNet.
12.	TRAI Response dated 10 th February 2016 to Reference received from DoT on TRAI’s Recommendations on charging of liberalization of administratively allocated spectrum
13.	Recommendations dated 11 th February 2016 on Interconnection over IP Interface.
14.	Clarifications dated 16 th February 2016 on TRAI views dated 2 nd July 2015 on the issues relating to Spectrum Cap as follow up on Supreme Court interim order dated 14 th May 2015
15.	Response of the Authority dated 23 rd March 2016 on issues referred back by DoT on TRAI’s Recommendations dated 22 nd July 2014 on “Improving Telecom Services in Andaman and Nicobar Islands and Lakshadweep”

RECOMMENDATIONS

Recommendations dated 7th April 2015 on implementation of “Single Number based Integrated Emergency Communication & Response System”

2.5.1 To facilitate establishment of an efficient and robust Integrated Emergency Communication & Response System (IECRS) in India, the Telecom Regulatory Authority of India (TRAI) has suo-motu issued recommendations on implementation of ‘**Single Number based Integrated Emergency Communication & Response System (IECRS)**’ on 7th April 2015. These recommendations have been finalized after wide consultations with the stakeholders.

The Authority had issued a Consultation Paper titled ‘Universal Single Number based Integrated Emergency Communication & Response System’ dated 15th March 2013 for seeking comments of stakeholders. Since State Governments are major stakeholders in the entire process of setting up IECRS, meeting with the representatives of State Governments, Ministry of Home Affairs (MHA) and National Disaster Management Authority (NDMA) was also held at New Delhi.

The salient features of the recommendations are given below:

- Number ‘112’ be adopted as the single emergency number for India.
- Calls made from a landline or mobile phone/device to the emergency number

‘112’ will be routed to a Public Safety Answering Point (PSAP), which are akin to a call centre. The number of PSAPs in a State or Union Territory(UT) to be decided by the State Governments/UTs; however there should be at least one PSAP in each State/UT.

- The existing emergency calling numbers 100,101,102, and 108 to be retained as secondary numbers. The calls made to the secondary numbers should be re-routed to 112 for termination with an announcement to the caller to call 112 as emergency number in future; Once calls to secondary numbers reduce significantly, these numbers can be withdrawn gradually.
- Access to IECRS to be permitted even from those mobile/landline phones where the outgoing call facility has been debarred or the service is suspended temporarily.
- Calls to the single emergency number should be prioritized in the cellular mobile networks.
- SMS based access to IECRS should also be provided.
- All Telecom Service Providers (TSPs) will have to provide location information and details of caller to the IECRS. For this purpose four regional database centres, one in each metro city, to be set up in the country. BSNL to setup and maintain these regional database centres.

- There should be a multi-sectoral agency having representations from MHA, Department of Telecommunications (DoT), Department of Electronics and Information Technology (DEITY), Ministry of Health and Family Welfare (MHFW), Ministry of Women and Child Development (MWCD) and other concerned Centre and State agencies which can coordinate and help in setting up of IECRS in the country.
- A trial version of PSAP based IECRS should be put in place as a prototype before full scale implementation.
- **TRAI's response dated 8th April 2015 on "Telecom Network Failures during Emergencies / Disasters – Priority routing of calls of persons engaged in 'response and recovery'"**

2.5.2 During major disasters intense burst in telecom traffic congest networks resulting in call-blockages and lost-messages. During such times mostly the loss of infrastructure results in network congestion which can lead to failure of network elements.

The role of personnel involved in the rescue and relief operations is very critical during emergencies. Therefore, a system needs to be devised to facilitate such a mechanism which gives priority to these personnel on communication networks during emergencies.

In the aforesaid background, the Authority, suo motu, sent its recommendations on "Telecom Network Failures during

Emergencies / Disasters-Priority routing of calls of persons engaged in 'response and recovery'" dated 26th November 2013 to DoT after due consultation process. The Authority recommended that a priority call routing scheme should be instituted to ensure that calls of personnel responsible for 'response and recovery' during disasters are routed on priority.

DoT vide its letter dated 10th November 2014 informed the Authority that a Committee was constituted in the DoT to examine the recommendations of the Authority dated 26th November 2013.

DoT informed that the said Committee gave its report commenting on various issues recommended by the Authority. DoT also sought TRAI's comments / views on the said Committee report.

After considering the report of the Committee, the Authority sent its response to DoT on 8th April 2015.

- **Recommendations dated 17th April 2015 on Delivering Broadband Quickly: What do we need to do?**

2.5.3 The Authority issued the Consultation Paper on "Delivering Broadband Quickly: What do we need to do?" on 24th September 2014 to discuss issues contributing to broadband penetration in India and to solicit stakeholders' views on actions required to be taken both by the Government and the private sector to accelerate the proliferation and use of broadband in the country. An Open House

Discussion was held on 30th October 2014 in New Delhi with the stakeholders.

After considering the comments from the stakeholders and further analysis, the Authority issued its Recommendations on “Delivering Broadband Quickly: What do we need to do?” on 17th April 2015. The Broadband ecosystem consists of various sub-parts and therefore the recommendations pertain to the following:

- Spectrum (Availability, Roadmap, Institutional Revamping, Transparency, Pricing, Spectrum Trading/Sharing and Unlicensed Band)
- Right of Way (Single window clearance, National RoW Policy, charges etc.)
- NOFN (Institutional change, project implementation, sizing of Optical Fibre, Turnkey contracts).
- Towers (Single window, time bound clearance etc.)
- Fixed Line Broadband
- Cable TV
- Satellite
- Hosting of content in India
- Infrastructure sharing

➤ **Recommendations dated 1st May 2015 on “Introducing Virtual Network Operators in Telecom Sector”**

2.5.4 DoT through its reference dated 7th July 2014 had sought recommendations of

TRAI on ‘Introducing Virtual Network Operators in Telecom Sector’.

The Authority, issued its Recommendations on ‘Introducing Virtual Network Operators in Telecom Sector’ on 1st May 2015.

Virtual Network Operators (VNOs) are service delivery operators, who do not own the underlying core network(s) but rely on the network and support of the infrastructure providers for providing telecom services to end users / customers. VNOs can provide any or all telecom services which are being provided by the existing telecom service providers.

The salient features of the recommendations are:

- VNO be introduced through proper ‘licensing framework’ in the Indian Telecom Sector.
- The VNOs be permitted for all segments of Voice, Data and Video as well as for all services notified in the UL.
- VNO be introduced in the network based on the basis of mutually accepted terms and conditions between NSO and the VNO. the terms and conditions of sharing the infrastructure between NSO and VNO are left to the market to determine.
- VNOs be permitted to set up their own network equipment(s) where there is no requirement of interconnection with

other NSO. However, they should not be allowed to own/install equipment(s) where interconnection is required with another NSO.

- Local Cable Operators (LCOs) and Multi Service Operators (MSOs) can become VNO and / or are permitted to share infrastructure with VNOs.
- For introduction of VNO in the sector, there should be a separate category of license namely UL (VNO). Like UL authorization, only pan-India or service area-wise authorizations may be granted under a UL (VNO) license.
- Duration for VNO licenses should be 10 years, extendable by 10 years at a time.
- There should not be a restriction on the number of VNO licensees per service area. Also there should be no restriction on the number of VNOs parented by an NSO.
- Customer verification and number activation shall be the responsibility of a VNO for its own customers.

➤ **Clarifications/Reconsideration dated 21st May, 2015 of Recommendations on 'Working Guidelines for Spectrum Trading' and 'Guidelines on Spectrum Sharing'**

2.5.5 The Authority had sent its recommendations on 'Working Guidelines for Spectrum Trading' on 28th January 2014 and 'Guidelines on Spectrum Sharing' on 21st July 2014

to DoT. On 27th April 2015, DoT sought clarifications/ reconsideration on some issues on both the recommendations.

After considering the comments given by DoT, the Authority has furnished its response to the Government on both 'Working Guidelines for Spectrum Trading' and 'Guidelines on Spectrum Sharing' on 21st May 2015.

➤ **TRAI's response dated 2nd July 2015 to DoT on issues relating to Spectrum Cap and minimum spectrum holding by Telecom Service Providers (TSPs) as follow up of Hon'ble Supreme Court's interim order dated 14th May 2015**

2.5.6 As a follow up of Hon'ble Supreme Court's interim order dated 14th May 2015 in the Transfer Case (Civil) Nos. 43/2015 (WP No. 1635/2015 filed by M/s Reliance in Delhi High Court, 64/2015 (WP No. 53/2015 filed by M/s Reliance in Tripura High Court) and 65/2015 (WP No. 6176/2015) DoT, through a letter dated 29th May 2015 requested TRAI to provide its comments on the following issues:

- a) Related to Spectrum Cap:-
- Whether the capping should still remain and, if so, what should be its formula and how it should be interpreted and applied?
 - While calculating the cap, if the exercise is undertaken with existing methodology, whether the commercially available spectrum, which is available with the

department and not put to auction, should be included in the computation of such caps?

b) Related to minimum Spectrum Holding:-

- The successful bidders who have got less than 5 MHz and in case they fail in the next auction, how they can deal with the spectrum?
- Whether do they have a choice to hold it or the department would take steps to take back such spectrum considering that no economic viable services can be provided with a spectrum holding less than 5.0 MHz? If so, TRAI may suggest the terms and conditions for taking back such spectrum.

The Authority in its response has, inter-alia, stated that:

- The Authority is of the opinion that at present there is no need to modify the existing spectrum cap (50% of the spectrum assigned in each of the 800 / 900 / 1800 / 2100 / 2300 / 2500 MHz and 25% of the total spectrum assigned in all these bands put together in each service area).
- On the methodology of calculating the spectrum cap, the Authority is of the opinion that all spectrum assigned to the TSPs including any spectrum which was put to an auction but remains unsold, spectrum which was assigned but subsequently surrendered by the TSP or

taken back by the Licensor and spectrum put to auction should be counted. However, any spectrum out of the above will not be taken into calculation, if the Government assigns it for non-commercial purpose e.g. assignment to Defence.

- The Authority is also of the view that the spectrum which may become available to the WPC/DoT for commercial use after its refarming from other users such as Defence at different point of time should not be counted for determining the spectrum caps until it is put to auction by the DoT.
- The Authority is also of the view that telecom being an evolving sector, review of such policy decisions such as spectrum cap is a continuous process. The Authority may review it at an appropriate time like introduction of new spectrum bands, additional spectrum released for commercial purpose or if any major development takes place.
- The Authority is of the opinion that Licensees should be able to decide for themselves whether or not there is a business case for them to hold on to the spectrum. Moreover, once the guidelines of spectrum sharing and spectrum trading are notified by the Government, the TSPs will have alternate options to manage their spectrum holding. Therefore, the Authority is of the opinion that the Government should not take

back spectrum assigned to TSP even if it is less than 5 MHz in any band.

- **TRAI's response dated 30th September 2015 to the reference received from DoT on TRAI's Recommendations on "Implementation of Single Number based Integrated Emergency Communication & Response System (IECRS) dated 7th April 2015"**

2.5.7 To facilitate establishment of an efficient and robust Integrated Emergency Communication & Response System (IECRS) in India, the Authority vide its recommendations dated 7th April, 2015 have suo-motu recommended for the implementation of Public Safety Answering Point (PSAP) based Integrated Emergency Communication and Response System (IECRS) in the country which will be accessed through a single emergency number '112'.

DoT vide its letter dated 25th August 2015 responded to the TRAI's recommendations seeking reconsideration/opinion/views of TRAI on some of the issues. Further, Ministry of Home Affairs (MHA) has recently released the guidelines for Nationwide Emergency Response System (NERS). It has also invited Request for Proposals (RFP) for selection of IT Service Provider (ITSP) for the project. Taking into consideration these developments, the Authority has formulated its opinion / views.

The response of the Authority was sent to DoT on 30th September 2015, wherein DoT

was intimated that the Authority would like that NERS framework is implemented early. The Authority also has re-iterated its recommendations for deciding on a sunset date for incorporation of GPS feature in all mobile handsets for having accurate location information of the caller.

- **TRAI's response dated 17th November 2015 to the reference received from DoT on TRAI's Recommendations on Allocation and Pricing of Microwave Access (MWA) and Microwave Backbone (MWB) RF Carriers dated 29th August, 2014**

2.5.8 DoT through its letter No.L-14035/19/2010-BWA (Pt) dated 16th October 2015 had referred back TRAI's recommendations on 'Allocation and Pricing of Microwave Access (MWA) and Microwave Backbone (MWB) RF Carriers' dated 29th August 2014 with its comments for reconsiderations and clarifications in accordance with the provisions of section 11 of TRAI Act 1997, as amended in 2000.

The Authority, after due deliberations finalized its response and sent them to the Department of Telecommunications through its letter dated 17th November 2015.

- **Recommendations dated 27th January 2016 on "Valuation and Reserve Price of Spectrum in the 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz and 2500 MHz bands"**

2.5.9 TRAI has issued its Recommendations on "Valuation and Reserve Price of Spectrum

in the 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz and 2500 MHz bands” on 27th January 2016.

DoT sought the Authority’s Recommendations on Reserve Price and associated conditions for auction of 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz and 2500 MHz bands. DoT also sought the Authority’s recommendations on the liberalization of administratively allotted spectrum in 900 MHz band.

In this context, TRAI had issued a consultation paper on “Valuation and Reserve Price of Spectrum in the 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz and 2500 MHz bands” on 26th November 2015 seeking the comments of the stakeholders. An Open House Discussion was conducted by TRAI on 4th January 2016 at New Delhi.

After considering the comments received from the stakeholders and further analysis, the Authority has come out with its recommendations on “Valuation and Reserve Price of Spectrum in 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz and 2500 MHz Bands”.

The salient features of the recommendations are given below:

- APT700 band plan should be adopted for the 700 MHz (698-806 MHz) spectrum band with Frequency Division Duplex (FDD) based frequency arrangement. Entire available spectrum (2x35MHz) in the 700 MHz band should be put to auction in the upcoming auction.
- DoT should carry out carrier re-assignment exercise in the 800 MHz band at the earliest and ensure that entire spectrum that is available with DoT for commercial use should be put to auction.
- The DoT, in coordination with Defence and the TSPs, should complete harmonization process in the 1800 MHz band before upcoming auctions so that the entire spectrum that is made available due to this exercise is put to auction.
- Rollout obligations for 700 MHz band: All towns/villages having population of 15,000 or more but less than 50,000 to be covered within 5 years and all villages having population of 10,000 or more but less than 15,000 to be covered within 7 years.
- Audit for all allocated spectrum both commercial as well as spectrum allocated to various PSUs/Government

RECOMMENDED RESERVE PRICE

(In Rs. Crore)

LSA	700 MHz	800 MHz	900 MHz	1800 MHz	2100 MHz	2300 MHz	2500 MHz
	Per MHz (Paired)					Per MHz (Unpaired)	
Delhi	1595	848		399	554	143	143
Mumbai	1192	727		298	461	146	146
Kolkata	596	160		149	116	33	33

LSA	700 MHz	800 MHz	900 MHz	1800 MHz	2100 MHz	2300 MHz	2500 MHz
	Per MHz (Paired)				Per MHz (Unpaired)		
AP	971	606		243	272	68	68
Gujarat	952	285	673	238	258	39	39
Karnataka	740	303	558	185	328	98	98
Maharashtra	1272	799		318	341	58	58
Tamil Nadu	900	360		225	344	132	132
Haryana	186	57	151	47	55	8	8
Kerala	334	243		83	177	16	16
MP	331	408		83	123	8	8
Punjab	308	119		77	91	21	21
Rajasthan	364	204		91	140	6	6
UP (East)	459	219	776	115	110	9	9
UP (W)	384	182	739	96	111	12	12
West Bengal	183	82		46	52	5	5
Assam	158			40	46	2	2
Bihar	248	136	444	62	86	6	6
Himachal Pradesh	64	24		16	20	1	1
Jammu & Kashmir	52			13	11	1	1
North East	44			11	12	1	1
Orissa	152	57		38	38	4	4

organizations. This should be done by an independent agency.


- Recommended reserve price for various spectrum bands is as per table given above:

➤ **Recommendations dated 1st February 2016 on Implementation strategy for BharatNet**

2.5.10 The Authority issued the Consultation Paper on “Implementation Model for BharatNet” on 17th November, 2015 to

find alternate model for implementation of BharatNet. After considering the comments from the stakeholders and further analysis, the Authority came out with its Recommendations on “Implementation Model for BharatNet” on 1st February, 2016. The salient features of the recommendations are as under:

- A PPP model that aligns private incentives with long term service delivery in the vein of the Build-Own-Operate-Transfer/ Build Operate-Transfer models of




implementation be the preferred means of implementation.

- The scope of the concessionaire's work should include both the deployment and implementation of the OFC and other network infrastructure as well as operating the network for the concession period. Concessionaires shall be entitled to proceeds of revenue from dark fibre and/or bandwidth.
- Concessionaires should be selected by way of a reverse bidding process to determine minimum Viability Gap Funding sought for concession. The area of implementation may be analogous with the Licensed Service Areas (LSAs)/or the State/UT. The use of a reverse bid process to determine lowest VGF sought can ensure that the amount of support from public funds is rational.
- The Contracting Agency may, in the first phase, explore the appetite and response of the potential BOOT participants through bidding process. This can either be done in one go for the entire country (by having States/LSA or packages as 'Schedules') or it can be done beginning with certain States with larger potential of bidders' response.
- In the second phase (after excluding those area where BOOT model can be implemented), EPC contractor may be selected. Such EPC contractor should be responsible for building the network and will have defect liability period of two years after completing the network. When

the network is about to be completed, the Contracting Agency should engage a third party (through bidding process) who should be responsible for managing and marketing the 60 network as per the broad principles laid down by the Government. The overlapping defect liability period of two years should be used to ensure smooth transition from construction to maintenance phase.

- The VGF payments should be divided into two components- an initial capital expenditure amount to allow the concessionaire adequate funds to meet initial capital costs and to be able to raise complementary finance from financial institutions at reasonable rates, and the rest should be annualized over the concession period and be paid out on the achievement of predefined milestones. Early achievement of the milestones would merit early payments incentivizing speedy delivery. The two components must be carefully balanced over the concession period – while excess payment at the initiation stage can result in the risk of poor quality delivery, not providing concessionaires with sufficient funding in the beginning will necessitate the deployment of more expensive private finance (the additional costs of which will end up being reflected in the VGF bidding process and thus come from public funds).
- The period of concession should be coterminous with the technical life of the fibre at present the consensus on this is 25

- years. Such a period should be sufficient time to align the concessionaire's incentives with high quality installation for service delivery, while also providing a large enough window to make a reasonable profit. The period may be further extended in blocks of 10/20/30 years after concession period at the mutual agreement of the Government and the concessionaire.
- Exceptionally high windfall profits may be dealt with by way of a one-time “windfall tax” and the suspension of further VGF support. However, such measures must be clearly outlined at the outset prior to the bidding stage, in order to ensure the necessary stability and predictability to encourage private sector involvement in this 61 manner of long term infrastructure project. A clear definition of what shall be considered a windfall profit must thus be provided a priori to bidders, in order to allow this to be factored into their financial and outlay plans.
 - Care must be taken to ensure that the concessionaire provides access to all service providers in a non-discriminatory and transparent manner. Such competition is essential given that all manner of content (including entertainment, entitlements and Government services) will be delivered on the network.
 - Liberal eligibility criteria that allows for broad participation is necessary to ensure the participation of a large number of bidders and guarantee a strong and competitive auction process to enable optimal price discovery.
 - Any bidding agency/consortium with winning bids in more than the maximum number of implementation areas permitted for allocation can be allowed to choose the areas it wishes to be allocated.
 - Concessionaires be provided with flexibility in terms of route for laying optical fibre, choice of construction, topology and technology in order to ensure technical as well as economic efficiency. This flexibility is subject to the same standards of redundancy and quality as outlined for BharatNet by the Committee on NOFN.
 - Concessionaires be encouraged to and have the flexibility to deploy large amounts of dark fibre in order to ensure that the network remains future proof and easy to upgrade.
 - Guaranteed provision of free RoW is a necessary and non-negotiable precondition to successful deployment of BharatNet, subject to the reinstatement of public property to its original condition.
 - Involvement of State Governments is essential for success of the project irrespective of the strategy chosen for implementing it. States/UTs should be made an integral part of the project implementation and an institutional mechanism both at the State and District level should be created to effectively coordinate and sort out the implementation issues.
 - The Central and State Government should additionally consider becoming involved with the concessionaire by becoming a



minority equity partner (~26%) in the selected consortium - this can reduce the perceived risks and thus lower the costs of obtaining private finance while also automatically solving the risks associated with windfall profits. In addition, this can help the Government check monopolistic behaviour on the part of the concessionaire.

➤ **TRAI Response dated 27th January 2016 to Reference received from DoT on TRAI's Recommendations on charging of liberalization of administratively allocated spectrum**

2.5.11 The Authority vide its recommendations dated 27th January 2016 recommended that in LSA where auctioned determined process of Spectrum band is not available, following approach may be adopted for price to be charged for liberalization of administratively allocated spectrum in various bands:

- As an interim measure recommended reserve price by the Authority in the current recommendations may be taken as provisional price for liberalization of administratively allocated spectrum and
- Subsequent to the ensuing auction and with the availability of auction determined price, provisional price already charged can be suitably adjusted with the auction determined price.

➤ **Recommendations dated 11th February 2016 on "Interconnection over IP Interface"**

2.5.12 The Authority had issued a Consultation paper on "Migration to IP based network" on 30th June 2014 which was followed by

an Open House Discussion on the subject on 2nd December 2014. In response to the consultation paper, some telecom service providers had submitted that as the imminent transition towards IP based network is widely anticipated, it is essential to amend the license conditions to explicitly provide for IP based interconnection.

Department of Telecom, vide its communication dated 10th November 2015, had also written to TRAI that one of the issues of concern to the Telecom Industry is removal of restriction of Interconnection at IP level to ensure seamless IP interconnection. TRAI initiated a short consultation with the stakeholders vide "Consultation Note on IP Based Interconnection", dated 27th November 2015. After analyzing the various issues involved and considering the comments received from stakeholders, the Authority recommended the amendment to clause 27.3 in the Unified License for interconnection at IP level. It was also recommended that similar amendment to this effect may also be incorporated in the relevant clauses in other license agreements.

The proposed text for clause 27.3 is as under:

"Interconnection between the networks of different Licensees for carrying circuit switched traffic shall be as per national standards of CCS No. 7 and for carrying IP based traffic as per Telecom Engineering Centre (TEC) standards as amended from time to time and also subject to technical feasibility and technical integrity of

the Networks and shall be within the overall framework of interconnection/regulations/directions/orders issued by the TRAI/Licensor from time to time. For inter-networking between circuit switched and IP based network, the Licensee shall install Media Gateway Switch. Further, the Licensor may direct the LICENSEE to adopt any other technical standards issued by TEC on interconnection related issues”.

Department of Telecommunications vide its communication dated 19th April 2016 informed the Amendments to the Unified License for interconnection over Internet Protocol (IP) Networks in accordance with the TRAI’s Recommendation on interconnection over IP interface.

➤ **Clarification dated 16th February 2016 on TRAI views dated 2nd July 2015 on the issues relating to Spectrum Cap as follow up on SC interim order dated 14th May 2015.**

2.5.13 On 29th May 2015, DoT had sought the Authority’s views on the issues relating to spectrum cap and minimum spectrum holding by TSPs as follow up of Hon’ble Supreme Court interim order dated 14th May 2015 in the Transfer Case (Civil) Nos. 43/2015 and other similar matters.

After examination of the issues and consultation with TSPs, the Authority, sent its response on 2nd July 2015.

Thereafter, DoT, through its letter dated 21st January 2016, sought certain clarifications on the views of the Authority. The Authority examined the comments of DoT and finalised its response and forwarded the same to DoT on 16th February 2016.

➤ **Response of the Authority dated 23rd March 2016 on issues referred back by DoT on TRAI’s Recommendations dated 22nd July 2014 on Improving Telecom Services in Andaman and Nicobar Islands and Lakshadweep**

2.5.14 Through its reference dated 7th January 2014, DoT had requested TRAI to provide its recommendations on a Comprehensive Telecom Plan for Andaman and Nicobar Islands (ANI) and Lakshadweep after making a gap analysis and investment required for providing quality telecommunication services in these islands. The Authority after consultation with the relevant stakeholders had sent its recommendations on ‘Improving Telecom Services in Andaman & Nicobar Islands (ANI) and Lakshadweep’ on 22nd July 2014.

DoT, in its back references, has intimated that in accordance with the TRAI recommendations, Telecom Commission had accorded ‘in principle’ approval for Comprehensive Development Plan for A&N Island and Lakshadweep in its meeting held on 7th November 2014 and the work of augmentation of satellite bandwidth and the work of augmentation of Intra-Island OFC network in Andaman & Nicobar Islands was awarded to Bharat Sanchar Nigam Limited (BSNL) on nomination basis. Accordingly, DoT, through its letter dated 8th February 2016 and 9th March 2016, forwarded a copy of the Detailed Cost Estimates of (a) augmentation of satellite bandwidth in Lakshadweep and (b) and augmentation of Intra-Island OFC network in Andaman & Nicobar Islands. DoT requested TRAI

to give its views regarding the technical requirements and detailed cost estimates, prepared by BSNL for these particular projects.

After examining the issues involved, TRAI has sent a reply to DoT on 23rd March, 2016. TRAI has in its response reemphasized that:

- Providing sufficient bandwidth is the key element of the Comprehensive Telecom Plan of ANI and Lakshadweep. Providing connectivity through submarine cables is a primary and integral part of the TRAI's recommendations dated 22nd July 2014. As laying of submarine cable is a resource intensive and time-consuming task, augmentation of satellite bandwidth should be carried out as an immediate and short-term solution.
- Since providing telecom facilities in Union Territories of ANI and Lakshadweep is not a viable commercial proposition for the telecom service providers, it is necessary for the Government to step-in and utilize the Universal Services Obligation Fund (USOF) for augmentation and development of telecom infrastructure

and connectivity in these islands on a priority basis.

- DoT has not spelt-out clearly whether it has approved the recommended Comprehensive Telecom Plan for ANI and Lakshadweep in its entirety. Keeping in view the strategic importance of these islands, entire Telecom Plan for ANI and Lakshadweep, must be implemented without any further delay.
- Decision about the BoQ (Bill of Quantity) based on factors such as the availability and suitability of existing telecom infrastructure, their residual life etc and the detailed cost implications can be taken by DoT keeping in view that the broad objectives outlined by the Authority in its recommendations on the Comprehensive Telecom Plan of ANI and Lakshadweep are fulfilled even if the estimated costs of the project(s) is somewhat more than the costs estimated by the Authority.

2.6 During the year 2015-16, the Authority in discharge of its functions assigned under the Telecom Regulatory Authority of India Act, 1997, has framed the following Regulations in Telecom and Broadcasting sectors.

TELECOM SECTOR

Sl. No.	Particulars
1.	Telecom Consumers Protection (Eighth Amendment) Regulations, 2015 dated 7 th August 2015.
2.	The Standards Of Quality Of Service of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service (Fourth Amendment) Regulations, 2015 dated 15 th October 2015.
3.	Telecom Consumers Protection (Ninth Amendment) Regulations, 2015 dated 16 th October 2015.
4.	Prohibition of Discriminatory Tariffs for data services Regulations 2016 dated 8 th February 2016.

REGULATIONS

➤ “The Telecom Consumers Protection (Eighth Amendment) Regulations, 2014” dated 7th August 2015

2.6.1 The Authority after due consultation with various stakeholders and internal analysis issued ‘The Telecom Consumers Protection (Eighth Amendment) Regulations, 2014’ on 7th August 2015 to protect the interest of consumers using wireless data services. The salient features of the Regulation are as under:-

i) **Information to consumers relating to usage of data:** Service providers have been mandated to provide, through SMS or USSD...

- Information to mobile data users regarding data used, after every 10MB of data usage to all mobile data users except users of special data packs (STV/Combo/add-on-pack). The consumers to be provided an option to opt out if they do not desire to receive such information.

- Information to users of various of special data packs (STV/Combo/add-on-pack), whenever the limit of data usage reaches 50%, 90% and 100% of data available in the account of the subscriber or when the data balance available in the account of the subscriber reaches 500 MB, 100 MB and 10 MB. Further the consumer shall be informed about the details of tariff applicable after exhausting the data limit, when the data limit reaches 90% or the data balance available in the account reaches 10 MB.

- An alert to international roaming customer cautioning him to deactivate data service if he does not intend to use data services.

ii) **Activation or Deactivation of data services:**

- Data services should be activated only with the explicit consent of the subscriber through a toll free short code 1925. The data services could also be deactivated through the toll free short code 1925.

- Data services through Special Tariff Voucher or Combo Voucher or add-on pack will be deemed to have been activated with consent till the expiry of the validity period of the voucher/pack or on the consumption of entire data, whichever is earlier.

- The customers should also be informed through SMS at periodic intervals about the prescribed procedure for deactivation of data. All the TSPs have already submitted their compliance except BSNL & MTNL.

➤ **The Standards of Quality of Service of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service (Fourth Amendment) Regulations, 2015 dated 15th October 2015**

2.6.2 The Authority issued The Standards of Quality of Service of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service (Fourth Amendment) Regulations, 2015 dated 15th October 2015 prescribing the revised financial disincentive on cellular mobile telephone service providers for non-compliance with the benchmarks for both network and customer related parameters. The

salient features of the regulation are given below:-

- Not exceeding Rupees one lakh per parameter for first non-compliance with the benchmark in a quarter,
- Non-compliance with the benchmark of the same parameter consecutively in two or more subsequent quarters, not exceeding Rupees one and a half lakhs for second consecutive contravention and not exceeding Rupees two lakhs for each consecutive contravention thereof;
- Non-compliance with the benchmark for the same parameter in any subsequent quarter, which is not a consecutive non-compliance, Rupees one lakh per parameter.

➤ **“Telecom Consumers Protection (Ninth Amendment) Regulations, 2015” dated 16th October 2015**

2.6.3 The consumers raised the issue of call drops in different forum, complaining that their experience of making voice calls has deteriorated. In this context, TRAI issued a Consultation Paper on ‘Compensation to the Consumers in the event of dropped calls’ on 4th September 2015. After careful examination of the comments received from the stakeholders and further analysis, TRAI decided to put in place a mechanism to provide relief to consumers by mandating the following to every originating service provider providing Cellular Mobile Telephone Services for each call drop within its network through the 9th Amendment to the Telecom Consumers Protection Regulations, 2012 dated 16th October 2015:

- (a) Credit the account of the calling consumer by one rupee;
Provided that such credit in the account of the calling consumer shall be limited to three dropped calls in a day (00:00 hours to 23.59 hours).
- (b) provide the calling consumer, through SMS/USSD message, within four hours of the occurrence of call drop, the details of amount credited in his account; and
- (c) in case of post-paid consumers, provide the details of the credit in the next bill.

These regulations shall become applicable from 1st January 2016.

➤ **Prohibition of Discriminatory Tariffs for data services Regulations 2016 dated 8th February 2016.**

2.6.4 After undertaking a consultation process, Telecom Regulatory Authority of India has issued “Prohibition of discriminatory tariff for Data services Regulations, 2016 on 8th February, 2016 which inter-alia has mandated the following:

- (a) No service provider shall offer or charge discriminatory tariffs for data service on the basis of content.
- (b) No service provider shall enter into any arrangement, agreement or contract, by whatever name called, with any person, natural or legal, that has the effect of discriminatory tariffs for data services being offered or charged by the service provider for the purpose of evading the prohibition in this regulation.
- (c) Reduced tariff for accessing or providing emergency services, or at times of public emergency has been permitted.

BROADCASTING & CABLE TV Sector

Sl. No.	List of Regulations
1.	The Telecommunication (Broadcasting and Cable Services) Interconnection (Ninth Amendment) Regulations 2015 dated 14 th September 2015
2.	The Telecommunication (Digital addressable Cable Television Systems) (fifth amendment) Regulations 2015 dated 14 th September 2015
3.	The Telecommunication (Broadcasting and Cable Services) Interconnection (Digital addressable Cable Television Systems) (Sixth amendment) Regulations 2016 dated 7 th January 2016.
4.	The Telecommunication (Broadcasting and Cable Services) Interconnection (Digital addressable Cable Television Systems) (Seventh amendment) Regulations 2016 dated 16 th March 2016.

REGULATIONS

- **The Telecommunication (Broadcasting and Cable Services) Interconnection (Ninth Amendment) Regulations 2015 dated 14th September 2015**
- **The Telecommunication (Digital addressable Cable Television Systems) (fifth amendment) Regulations 2015 dated 14th September 2015**

2.6.5 TRAI notified two amendments to the Interconnection Regulations on 14th September 2015 relating to TV services for commercial subscribers. While one is applicable for TV services being provided through Analog cable TV systems in areas served by non-addressable systems, the other is applicable to TV services being provided in areas served by digital addressable systems. These amendments in the interconnection regulation, amongst others, enumerated the definitions of

‘Subscriber’, ‘Ordinary subscriber’, & ‘Commercial subscriber’.

- **The Telecommunication (Broadcasting and Cable Services) Interconnection (Digital addressable Cable Television Systems) (Sixth amendment) Regulations 2016 dated 7th January 2016**

2.6.6 TRAI, on 7th January 2016, notified the Telecommunication (Broadcasting and Cable Services) Interconnection (Digital Addressable Cable Television Systems) (Sixth Amendment) Regulations, 2016. The Authority observed from the interconnection details submitted by the service providers that signals of TV channels are being provided by several broadcasters to Multi System Operators (MSOs) and MSOs to Local Cable Operators (LCOs) even in the absence of valid written interconnection agreements. It was also observed that continuing the retransmission of signal

without a valid written interconnection agreement, on the pretext of continuing mutual negotiations, often result into disputes and sometimes result in abrupt disconnection which adversely affects the quality of service to the consumers.

Through this amendment, the Authority made it mandatory that a broadcaster of pay channels enter into written a valid interconnection agreement with the MSO for retransmission of its pay channels irrespective of the fact whether subscription fee is paid by the multi system operator to the broadcaster or not. The amendment provided for sufficient time (minimum sixty days) for entering into new interconnection agreement prior to expiry of an existing interconnection agreement between the service providers for retransmission of TV signals. After this amendment, there is no scope under the pretext of mutual negotiations, for continuation of provisioning of TV signal upon expiry of the existing interconnection agreement.

The MSOs were mandated to inform the consumers in the event of a failure to execute new interconnection agreement, about the date of expiry of its existing interconnection agreement and disconnection of TV channels, fifteen days prior to the expiry of existing interconnection agreement so as to

enable the consumers to take an informed decision in respect of their choice.

➤ **The Telecommunication (Broadcasting and Cable Services) Interconnection (Digital addressable Cable Television Systems) (Seventh amendment) Regulations 2016 dated 16th March 2016**

2.6.7 TRAI, on 15th March 2016, issued the Telecommunication (Broadcasting and Cable Services) Interconnection (Digital Addressable Cable Television Systems) (Seventh Amendment) Regulations, 2016 (3 of 2016) prescribing formats for Model Interconnection Agreement (MIA) and Standard Interconnection Agreement (SIA) to be signed between MSO and LCO for provisioning of cable TV services through Digital Addressable Systems (DAS). The Authority's view is that the prescription of standard MIA and SIA formats will pave the way for growth of the sector, result in reduce incidence of disputes between the MSOs and LCOs, provide level playing field to the parties and increase healthy competition in the sector that will ultimately help in bettering the quality of services to the subscribers.

2.7 During the year 2015-16, the Authority issued the following Tariff Orders in Telecom and Broadcasting Sectors.

Telecom Sector

Sl. No.	List of Tariff Orders
1.	The telecommunication tariff (Sixtieth Amendment) Order 2015 dated 9 th April 2015.

Tariff Orders

➤ The telecommunication tariff (Sixtieth Amendment) Order 2015 dated 9th April 2015

2.7.1 The ceiling tariffs for national roaming were last revised by the Authority through the Telecommunication Tariff Order (55th Amendment), 2013 dated 17th June 2013. After examining the comments of the stakeholders

and further analysis, the Authority, through the Telecommunication Tariff (60th Amendment) Order, 2015 dated 9th April 2015, has revised the ceiling tariffs for voice calls and SMS while on national roaming, which came into effect from 01.05.2015. This amendment brought about the following changes in the tariff regime for national roaming service:

Item	Ceiling tariff as per TTO (55 th Amendment), 2013	Ceiling tariff as per TTO (60 th Amendment), 2015
Outgoing local voice call	Re. 1.00 per minute	Re. 0.80 per minute
Outgoing long distance (inter-circle) voice call	Re. 1.50 per minute	Re. 1.15 per minute
Incoming voice call	Re. 0.75 per minute	Re. 0.45 per minute
Outgoing local SMS	Rs. 1.00 per SMS	Rs. 0.25 per SMS
Outgoing long distance (inter circle) SMS	Re. 1.50 per SMS	Re. 0.38 per SMS

Through this amendment Order, TRAI removed the existing mandate to the telecom service providers (TSPs) for providing RTP & RTP-FR and mandated the TSPs to offer a Special Roaming

Tariff Plan (SRTP) to their pre-paid and post-paid subscribers. In SRTP, incoming voice calls while on national roaming shall be free, on payment of fixed charge, if any.

BROADCASTING AND CABLE SERVICES SECTOR

Sl. No.	List of Tariff Orders
1.	The Telecommunication (Broadcasting and Cable) Services (Seventh) (The Direct to Home Services) Tariff Order 2015 dated 1 st April 2015
2.	The Telecommunication (Broadcasting and Cable) Services (Second) Tariff (fifteenth amendment) Order 2015 dated 8 th September 2015
3.	The Telecommunication (Broadcasting and Cable) Services (Fourth) (Addressable Systems) Tariff (Fifth Amendment) Order 2015 dated 8 th September 2015
4.	The Telecommunication (Broadcasting and Cable) Services (Fourth) (Addressable Systems) Tariff (Sixth Amendment) Order 2015 dated 29 th December 2015

Tariff Orders

The Telecommunication (Broadcasting and Cable) Services (Seventh) (The Direct to Home Services) Tariff Order 2015 dated 1st April 2015

2.7.2 TRAI on 1st April 2015, notified the Telecommunication (Broadcasting and Cable) Services (Seventh) (the Direct to Home Services) Tariff Order, 2015 applicable to DTH operators prescribing a framework for commercial interoperability of Customer Premises Equipment (CPE) offered by them to their subscribers. Following are the salient features of said tariff order :-

- Transparent price declaration of all types of CPEs by DTH operators to enable a subscriber to make an informed choice.
- Transparent and upfront declaration of installation & activation charges by DTH operators which shall not exceed Rs 450/-.
- DTH operators to mandatorily offer an outright purchase scheme called Standard Scheme for all types of CPEs on standalone basis.
- DTH operators may offer additional schemes including bundled schemes and rental schemes.
- In the rental schemes, DTH operators can charge a specified one-time interest free refundable security deposit, installation and activation charges from the subscriber during enrolment followed by specified monthly rental charges. No repair/maintenance charges are permissible from such subscribers. DTH

operators shall cater for free maintenance and repairs of CPEs for three years after installation/activation). In case of outright purchase and hire purchase schemes, DTH operators may levy visitation charges not exceeding Rs 250/- per visit after the warranty period has elapsed.

- Subscribers shall have an option of buy-back/refund for CPEs in all the offered schemes including bundled schemes with an exception of rental schemes. In rental scheme, subscriber will be refunded the security deposit.
- DTH operators may prescribe a lock-in period not exceeding six months for a subscriber to remain committed. Subscribers can surrender the CPE any time subject to levy of certain charges that have been prescribed.
- DTH operators shall setup collection centers at every district headquarters to enable easy return of CPEs. Subscribers shall be provided with a toll-free telephone number for registration of request for surrender of connection.
- Subscribers shall have the option of returning the CPE by paying a nominal collection charge of Rs 300/- to opt to return the CPE at the designated collection center.
- No other charges by any other name other than those specified in the TO can be levied on the subscribers by DTH operators.
- DTH operators shall declare all current schemes on their websites while also publishing all charges for each scheme. Subscribers are to be given details of the scheme opted by him.

- DTH operators were given a time of 60 days to align their business processes for compliance with the provisions of this TO
- **The Telecommunication (Broadcasting and Cable) Services (Second) Tariff (fifteenth amendment) Order 2015 dated 8th September 2015 &**
- **The Telecommunication (Broadcasting and Cable) Services (Fourth) (Addressable Systems) Tariff (Fifth Amendment) Order 2015 dated 8th September 2015**

2.7.3 TRAI on 8th September 2015, notified two Tariff Amendment Orders (TAOs) relating to TV services for commercial subscribers. While one is applicable for TV services being provided through analog cable TV systems in areas served by non-addressable systems, the other is applicable for TV services being provided through Addressable Systems in areas served by Digital Addressable systems. Salient features of these TAOs are as under:-

- ‘Subscriber’, ‘Ordinary subscriber’, & ‘Commercial subscriber’ have been defined.
- Total forbearance has been prescribed both at the wholesale & retail level with respect to tariffs for commercial subscribers and broadcasters have the option to enter into a tripartite agreement with the Distribution Platform Operator (DPO) and the commercial subscriber, if so desired.
- Broadcasters have been mandated to offer their channels / bouquet of channels

to commercial subscribers, on non-discriminatory terms and conditions.

- Broadcasters have been mandated to file the tripartite agreement, if such an agreement is entered into with a commercial subscriber, with the Authority within 30 days of entering into such an agreement.
- TV Signal to commercial subscribers has to be provided by DPOs only, in accordance with “Policy Guidelines for Up-linking/ Down-linking of Television Channels”

These Tariff Amendment Orders were notified in accordance with the Hon’ble TDSAT’s Order dated 9th March, 2015 in the matter of Indian Broadcasting Foundation & Ors Vs TRAI (Appeal No 7(C)/2014). It was expected that with the coming into force of these changes in the regulatory framework for commercial subscribers, distribution of TV services to commercial subscribers would be streamlined and would be available to them at competitive rates. It was also envisaged that it would also balance the interests of all stakeholders in the value chain and bring in complete transparency in the business transactions.

- **The Telecommunication (Broadcasting and Cable) Services (Fourth) (Addressable Systems) Tariff (Sixth Amendment) Order 2015 dated 29th December 2015**

2.7.4 TRAI on 29th December 2015 notified the “Telecommunication (Broadcasting and Cable) Services (Fourth) (Addressable Systems) Tariff (Sixth Amendment) Order, 2015 (6 of 2015) stipulating ‘Twin

Conditions'. The salient features of the said Tariff Order are:-

- Simplified 'Twin Conditions' prescribed to ensure availability of an effective choice to the consumers allowing them to subscribe to their desired channels on a-la-carte basis at a reasonable price.
- Platform operators continue to enjoy flexibility to notify a-la-carte rates of all the channels available at its platform. They have flexibility to reduce a-la-carte rates of channels at any time to facilitate lower rates for a bouquet consisting of

such a-la-carte channels.

- Flexibility to platform operators to devise and offer innovative and attractive packages/bouquets of channels by offering discounts upto a maximum of 66.66% of the sum of the rates of a-la-carte channels forming the bouquet.

2.8 Telecom Regulatory Authority of India issued the following Directions to the Service Providers during the year 2015-16 for compliance of its order / Regulations, some of these Directions are detailed below:-

Telecom Sector

Sl. No.	List of Directions
1.	Direction dated 16 th April 2015 to all access providers to obtain undertaking in porting request form regarding ownership of mobile number.
2.	Second Amendment dated 7 th May 2015 to Direction dated 2 nd March 2015 to M/s Vodafone (I) Ltd. to discontinue use of 111.
3.	Direction dated the 29 th July, 2015 regarding submission of compliance report by all the unified Access Service providers and Cellular Mobile Service providers including BSNL and MTNL to submit the compliance report in writing and also in the electronic form in Microsoft Excel format in respect of the parameters of quality of service for CMTS.
4.	Direction dated 11 th December 2015 with regard to closure of services in 900 MHz band by M/s Reliance Telecom Ltd. in Assam, Bihar, North East, Oddisa and West Bengal Licensed serviced area on 11 th December 2015 on expiry of 900 MHz Spectrum allotted to it.
5.	Direction dated 13 th January 2016 to submit data through web-service of network parameters.

DIRECTIONS

- **Direction dated 16th April 2015 to all access providers to obtain undertaking in porting request form regarding ownership of mobile number**

2.8.1 Disputes regarding ownership of the

mobile numbers, after its porting from one service provider to another service provider, came to the notice of the Authority.

In order to strengthen the process of verification of the ownership of the mobile number under porting, the Authority invited the comments of the stakeholders

on obtaining an undertaking of ownership of the mobile number from the subscriber at the time of porting. The Authority examined the comments received from the stakeholders and decided to mandate obtaining of an undertaking of ownership of the mobile number from the subscriber while submitting request for porting.

Accordingly, the Authority directed all Access Service Providers to incorporate in their porting request form an undertaking to be obtained from the subscriber seeking porting of his mobile number declaring that he is the owner of the said mobile number and in case the undertaking is found to be false, the said mobile number shall be disconnected.

➤ **Second Amendment dated 7th May 2015 to Direction dated 2nd March 2015 to M/s Vodafone (I) Ltd. to discontinue use of 111**

2.8.2 Department of Telecommunications had issued the National Numbering Plan, 2003 wherein the number/prefix 111 to 115 have not been allocated for any type of services and have been kept as 'SPARE'.

The Authority vide its Direction dated 2nd March 2015 directed M/s Vodafone India Ltd. to discontinue use of level '111' and submit a compliance report.

However, on the request of M/s Vodafone India Ltd. and to ensure minimum customer inconvenience, an extension of time to submit compliance was first granted till 30th April, 2015 and finally till 31st July, 2015 vide amendment directions dated 27th March 2015 and 7th May 2015 respectively.

M/s Vodafone, vide its communication dated 3rd August 2015, confirmed that they have discontinued with Level '111' for helpline services w.e.f. 1st August 2015.

➤ **Direction dated the 29th July, 2015 to all the unified Access Service providers and Cellular Mobile Service providers to submit the compliance report in writing and also in the electronic form in Microsoft Excel format in respect of the parameters of quality of service for CMTS**

2.8.3 Through this direction, TRAI has mandated all cellular mobile telephone service providers to submit monthly compliance report of network parameters for 42 select cities, including four metro cities (district wise), in the prescribed format.

➤ **Direction dated 11th December 2015 with regard to closure of services in 900 MHZ band by M/s Reliance Telecom Ltd. in Assam, Bihar, North East, Oddisha and West Bengal Licensed serviced area on 11th December 2015 on expiry of 900 MHz Spectrum allotted to it**

2.8.4 M/s Reliance Telecom Ltd (M/s RTL) informed the Authority that 900 MHz Band spectrum allotted to it by the licensor is expiring on the 11th December 2015 in Assam, Bihar, North East, Orissa and West Bengal service areas. They also further informed that they will continue to provide their services over 2100 MHz band and they have informed all their customers about the closure of their service in 900 MHz band and operation of service in 2100 MHz band with advice

to customers to port out to other service providers if they don't want to continue with 3G services of M/s RTL.

M/s RTL has also stated that it is not possible to generate more than one million UPC at a time for a service area and has requested for allotment of three additional operator codes for Bihar, two for West Bengal and one additional operator code for Orissa service areas to enable them to generate UPC by 11th December, 2015 for its subscribers;

Therefore, the Authority through its direction dated 11th December 2015, in the interest of consumer, directed

- (a) M/s Reliance Telecom Limited to –
- generate additional UPCs service provider codes in addition to existing code;
 - generate the Unique Porting Codes for all subscribers who have not opted for migration to 3G in Assam, Bihar, North East, Orissa and West Bengal service areas and communicate the UPC through SMS to such subscribers immediately; and
 - process all requests of its subscribers for porting received upto thirty days from the

date of issue of this direction and furnish compliance report by the 20th January 2016;

- (b) All Telecom Service Providers and Mobile Number Portability Service Providers to recognize additional UPC for the subscribers of M/s Reliance Telecom Limited;
- (c) All Mobile Number Portability Service Providers not to accept the request for porting in respect of additional UPC code belonging to M/s Reliance Telecom Limited as Donor Operator after 11th January 2016.

➤ **Direction dated 13th January 2016 to submit data through web-service of network parameters**

2.8.5 This direction mandates the cellular mobile telephone service providers, to submit to TRAI, the master cell data of network parameters and upload daily cell network parameters data to server of TCCMS portal of TRAI through web-service in the prescribed format. This will enable TRAI to have faster access to information on network parameters.

BROADCASTING & CABLE TV SECTOR

Sl. No.	List of Directions
1.	Direction dated 4 th November 2015 to MSOs in DAS Areas.
2.	Direction dated 30 th December 2015 to M/s TV 18 Broadcast Ltd., M/s Eenadu Television Pvt. Ltd and M/s Epic Television Network Pvt. Ltd.
3.	Direction dated 2 nd February 2016 to Broadcasting TV Service providers to stop display of disconnection or discontinuation or non-availability of TV Channels by way of full or partial 'On screen display' messages on TV Screens.
4.	Direction dated 11 th February 2016 to MSOs.

DIRECTIONS

➤ **Direction dated 4th November 2015 to Multi System Operators (MSOs) in DAS Areas**

2.8.6 TRAI on 4th November 2015, issued a Direction under the TRAI Act, 1997 to MSOs in Digital Addressable Cable TV Systems (DAS) areas to provide to the cable operators a copy of the interconnection agreements.

➤ **Direction dated 30th December 2015 to M/s TV 18 Broadcast Ltd., M/s Eenadu Television Pvt. Ltd and M/s Epic Television Networks Pvt. Ltd**

2.8.7 TRAI on 30th December 2015 issued Direction under the TRAI Act, 1997 to M/s TV 18 Broadcast Ltd., M/s Eenadu Television Pvt. Ltd and M/s Epic Television Networks Pvt. Ltd. not to demand certain documents /information (i.e permission related documents, postal registration certificate etc) from the Multi System Operators registered for providing cable TV service through Digital Addressable Systems (DAS) seeking signals of its TV channels for the purpose of re-transmission to subscribers.

➤ **Direction dated 2nd February 2016 to Broadcasting TV Service providers to stop display of notice of disconnection or discontinuation or non-availability**

of TV Channels by way of full or partial 'On screen display' messages on TV Screens

2.8.8 TRAI on 2nd February 2016 issued Direction under the TRAI Act, 1997 to all the broadcasters, DTH Operators, HITS Operators, IPTV Operators and MSOs to stop displaying notice of disconnection or discontinuation or non-availability of TV channels by way of full or partial on screen display message on TV screens immediately.

➤ **Direction dated 11th February 2016 to Multi System Operators (MSOs)**

2.8.9 TRAI on 11th February 2016 issued Direction under the TRAI Act, 1997 to all the Multi System Operators registered for providing cable TV services through Digital Addressable Systems (DAS) to prominently publicize information with respect to various schemes of supply and installation of STBs offered by them, on their websites and also directed to provide the URL link of their websites showing the details of schemes offered by them to the Authority.

2.9 In addition to the Consultation Papers which have culminated in issue of Recommendations/Regulations/Telecom Tariff Order, the following Consultation Papers were also issued during the year 2015-16.

TELECOM SECTOR

Sl. No.	List of Consultation Papers
1.	Consultation Note dated 27 th November 2015 on IP Based Interconnection.
2.	Consultation Paper dated 17 th November, 2015 on Implementation Model for BharatNet.

CONSULTATION PAPERS

➤ Consultation Note dated 27th November 2015 on IP Based Interconnection

2.9.1 Some telecom service providers had submitted that as the imminent transition towards IP technology is widely anticipated, it is essential to amend the license conditions to explicitly provide for IP technology based interconnection. Further, Department of Telecom, vide its communication, dated 10th November 2015 regarding 'Regulation of IP interconnection charges'; mentioned that one of the issues of concern to the Telecom Industry is removal of restriction of Interconnection at IP level to ensure seamless IP interconnection.

Considering the above, it was felt that suitable recommendations may be issued to the licensor to incorporate a provision in all relevant Licenses to the effect that licensees may also interconnect over IP based networks or any other emerging / latest technology specified by the licensor subject to compliance of Regulations / Directions / Determinations etc. issued by TRAI from time to time.

Keeping in view the above, a Consultation Note was issued on 27th November 2015.

➤ Consultation Paper dated 17th November, 2015 on Implementation Model for BharatNet

2.9.2 Digital India was conceived by weaving various strands of communication and information technology for digital empowerment of citizens and delivering better governance. Establishment of broadband highways forms the first pillar of Digital India. Therefore, timely commissioning of a reorganized version of National Optical Fibre Network (NOFN) is very imperative. The implementation of NOFN was not moving as per plans, TRAI had given certain recommendations on 'Delivering Broadband Quickly: What do we need to do?' dated 17th April, 2015. In addition, DoT had appointed an expert Committee which submitted its detailed report recommending rechristening of the project as BharatNet with three implementation models.

Some views regarding the implementation were raised and therefore the Authority looked into one more possible alternate model—"Build-Own-Operate-Transfer" (BOOT) model. The Authority had come out with the Consultation Paper (CP) to discuss issues related to strategies to find best model of implementation for BharatNet.

The CP raised various implementation and policy issues as recommended in the "Report of the Committee on NOFN".

BROADCASTING & CABLE TV SECTOR

Sl. No.	List of Consultation Paper
1.	Consultation Paper dated 14 th July, 2015 on Tariff issues related to Commercial Subscribers.
2.	Consultation on 'Draft Telecommunication (Broadcasting and Cable) Services (Fourth) (Addressable Systems) Tariff (Amendment) Order, 2015'

Sl. No.	List of Consultation Paper
3.	Consultation on 'Draft Model and Standard Interconnection Agreement (MSIA) dated 09 th December 2015'
4.	Consultation Paper dated 29 th January 2016 on 'Tariff issues related to TV services'.
5.	Consultation paper dated 15 th March 2016 on 'Issues related to Radio Audience Measurement and ratings in India'.
6.	Consultation Paper dated 23 rd March 2016 on the 'Register of Interconnection Agreements (Broadcasting and Cable Services) Regulations, 2016'.

CONSULTATION PAPER

➤ Consultation paper on 'Tariff issues related to Commercial Subscribers'

2.9.3 TRAI on 14th July 2015 issued Consultation paper on 'Tariff issues related to Commercial Subscribers' seeking comments / views of the stakeholders on the following issues:-

- (a) Examine the need to classify subscribers of TV services into ordinary and commercial categories.
- (b) In case, subscribers are required to be classified into such categories, then:
 - (i) Examine various criteria for classification of subscribers of TV services.
 - (ii) Examine the need for differential tariffs amongst different subscriber categories.
 - (iii) Examine as who should prescribe the tariffs for different subscriber categories.
 - (iv) Examine adequacy of the present framework to ensure transparency and accountability across the value chain for commercial subscribers to ensure transparency and accountability in the entire value chain so as to effectively minimise disputes and conflicts among stakeholders.

➤ Consultation on 'Draft Telecommunication (Broadcasting and Cable) Services (Fourth) (Addressable Systems) Tariff (Amendment) Order, 2015'

2.9.4 TRAI on 20th September 2013 issued Telecommunication (Broadcasting and Cable) Services (Fourth) (Addressable Systems) Tariff (Second Amendment) Order, 2013, wherein 'Twin Conditions' were prescribed at retail level pricing of TV broadcasting services in order to link the a-la-carte rates of channels to the bouquet rates. Some platform operators had raised concerns about the implementation of 'Twin Conditions' prescribed in the Tariff (Second Amendment) Order dated 20th September 2013 and had filed an appeal before the Hon'ble TDSAT. Hon'ble TDSAT disposed off the appeal vide its order dated 13th July, 2015 stating that the Authority will consider the concerns of the appellants and take a final decision on the matter within four months from the date of order.

Accordingly, the draft Telecommunication (Broadcasting and Cable) Services (Fourth) (Addressable Systems) Tariff (Amendment) Order, 2015 proposing

simplified “Twin Conditions”, was uploaded on TRAI’s website on 30th September, 2015.

➤ **Consultation on ‘Draft Model and Standard Interconnection Agreement (MSIA) dated 09th December 2015’**

2.9.5 TRAI on 9th December 2015 issued a draft Model and Standard Interconnection Agreement (MSIA) for seeking comments and counter comments from Stakeholders. The MSIA contained mandatory provisions to ensure compliance with the regulatory framework available for Digital Addressable Cable Television System (DAS). The MSIA was devised with an objective to reduce the incidence of disputes between the MSOs and LCOs and provide a level playing field to MSOs and LCOs. The draft agreement also listed roles and responsibilities as well as rights and obligations of each party separately.

➤ **Consultation Paper dated 29th January 2016 on ‘Tariff issues related to TV services’.**

2.9.6 TRAI on 29th January 2016 issued the Consultation Paper on ‘Tariff issues related to TV services’. This consultation is an attempt to create an enabling environment for growth of the sector in the light of various developments related to technology, emergence of multiple distribution platforms, evolving business models, and enhanced addressability across platforms. The objectives of current consultation were:-

i) To carry out a review of existing Tariff arrangements and developing a Comprehensive Tariff Structure for

Addressable TV Distribution of “TV Broadcasting Services” across Digital Broadcasting Delivery Platforms (DTH/ Cable TV/ HITS/ IPTV) at wholesale and retail level.

- ii) To ensure that the tariff structure is simplified and rationalized so as to ensure transparency and equity across the value chain.
- iii) To ensure that subscribers have adequate choice in the broadcast TV services while they are also protected against irrational tariff structures and price hikes.
- iv) To encourage investments in the TV sector
- v) To encourage production of good quality content across different genres.

Further, the major issues covered in the consultation paper are:-

- (a) Tariff models at wholesale and retail levels
- (b) Channel pricing mechanism and methodologies
- (c) Issues related to Niche Channels
- (d) Pricing of High Definition (HD) channels
- (e) Ease of channel or bouquet subscription
- (f) Channel visibility on Electronic Program Guide (EPG)
- (g) Pay-per-program viewing and tariff options
- (h) Variants of channels
- (i) Carriage, Placement and Marketing fees

➤ **Consultation paper dated 15th March 2016 on ‘Issues related to Radio Audience Measurement and ratings in India’**

2.9.7 TRAI, on 15th March 2016, issued the Consultation paper on ‘Issues related to

Radio Audience Measurement and ratings in India' to seek the views of stakeholders. The objectives of current consultation are to (i) ensure growth of Radio broadcasting sector, (ii) ensure transparency in radio audience measurement & ratings and (iii) ensure diversity and better quality content.

Major issues covered in the consultation paper are - Models for regulating radio rating system; Guidelines for accreditation of rating agency; Competition in rating services; Methodology for Audience Measurement; Privacy; Cross holding; Sale & use of ratings; Reporting requirements; Disclosure; and Quality & Audit.

➤ **Consultation Paper dated 23rd March 2016 on the 'Register of Interconnection Agreements (Broadcasting and Cable Services) Regulations, 2016'**

2.9.8 TRAI, on 23rd March 2016 issued a Consultation Paper on the "Register of Interconnection Agreements (Broadcasting and Cable Services) Regulations, 2016. The primary objective of register of Interconnect regulations is to formulate the contours of a reporting system for the service providers so that they can report details of interconnection agreements including commercial details to the Authority. This will enable the Authority to maintain a register of interconnect as per provisions of TRAI Act. The existing regulation mandates broadcasters of pay TV channels, DTH operators, HITS operators and IPTV operators to report to the Authority, annually, the information relating to the interconnection agreements signed

among them. To simplify the process, avoid duplication of reports, and formulate its view on various issues such as accessibility of information of register, the Authority has come out with the consultation Paper. The key issues raised in the consultation are:-

- (i) Accessibility of information including commercial portion of register to any interested stakeholder
- (ii) Issues in disclosure of commercial details and its role in ensuring of non-discrimination and transparency
- (iii) How to ensure accuracy of reports
- (iv) Suggestions on periodicity, authentication, formats and method of reporting

REVIEW OF WORKING AND OPERATION OF THE TELECOM REGULATORY AUTHORITY OF INDIA

2.10 The working and operation of Telecom Regulatory Authority of India in the specific context of policy framework is reviewed in the following paragraphs in respect of (a) Rural Telephone Network; (b) Expansion of Telephone Network; (c) Entry of Private Sector in basic and value added service; (d) Technical Compatibility and effective interconnection with service providers; (e) Telecommunication Technology; (f) Implementation of National Telecom Policy; (g) Quality of Service; and (h) Universal Service Obligation are elaborated below:-

(a) Rural Telephone Network

2.10.1 The total rural subscriber base has reached 449.17 million as on 31st March 2016 from 419.31 million 31st March

2015. As per the performance indicator report, 42.42% of total subscribers are now in rural areas.

The rural wireline subscriber base is decreasing. As on 31st March, 2016, the rural wireline subscriber base stood at 4.32 million as compared to 5.12 million at the end of 31st March, 2015. 17.14% of total wireline subscribers are now in rural areas.

Whereas the rural wireless subscriber base increased during the same period. As on 31st March 2016, the Wireless rural market has reached 444.84 million mark as against 414.18 million as on 31st March 2015. 43.04% of total wireless subscribers are now in rural areas.

(b) Expansion of Telephone Network

2.10.2 As on 31st March, 2016, the total wireline subscriber base stood at 25.22 million. The incumbents BSNL and MTNL have 58.52% and 13.89% market share respectively in the subscriber base, while all the six private operators together have 27.59% share. The share of private operators has increased from 24.93% as on 31st March, 2015 to 27.59% as on 31st March 2016 registering an increase of 2.65%.

The Wireless Subscriber base reached 1033.63 million as on 31st March 2016 in comparison to the subscriber base of 969.89 million as on 31st March 2015. The subscriber base has increased by 63.74 million subscribers in the financial year 2015-16. The total subscriber base of wireless services has grown from 811.59 million in March 2011 to 1033.63

million in March 2016. Out of 1033.63 million subscribers at the end of financial year 2015-16, 989.54 million (95.73%) were GSM Subscribers and 44.09 million (4.27%) were CDMA Subscribers.

In the wireless segment subscriber base of GSM was 989.54 million subscribers at the end of March 2016, as compared to 917.73 million as at the end of March 2015. GSM subscriber base increased by around 71.81 million subscribers during the year.

In terms of subscriber base and market share of GSM services, M/s Bharti with 251.24 million subscriber base remains the largest GSM Service providers followed by M/s Vodafone, M/s Idea, and M/s Aircel with subscriber base of 197.95 million, 175.07 million and 87.09 million respectively.

The CDMA subscriber base reduced to 44.09 million during the year ending 31st March 2016 as compared to 52.16 million at the end of the year ending 31st March 2015. In Cellular CDMA Services, in terms of wireless subscriber base and market share, M/s Reliance with 24.16 million subscribers remains the largest CDMA operator followed by M/s Tata and M/s Sistema with 11.09 million and 7.69 million respectively.

(c) Entry of Private Sector in basic and value added service

2.10.3 As on 31st March 2016, there are a total of 207 Access Service license/authorizations under Unified License as detailed below:

Name of license	Number of license/ authorization
Basic	2
UL	80
UL(AS)	6
UASL	92
CMTS	27
TOTAL	207

Source: DoT

(d) Technical Compatibility and effective interconnection with service providers

2.10.4 Under the TRAI Act, the Authority is mandated to fix the terms and conditions of inter connectivity and to ensure technical compatibility and effective interconnection between service providers. Interconnection lies at the core of the telecom business in a multi-operator environment. The terms and conditions of interconnection need to be regulated to ensure a level playing field among service providers. Accordingly, the following interconnection charges were prescribed by TRAI during the reporting period:-

(i) Consultation Note dated 27th November 2015 on IP Based Interconnection

Some telecom service providers had submitted that as the imminent transition towards IP technology is widely anticipated, it is essential to amend the license conditions to explicitly provide for IP technology based interconnection. Further, Department of Telecom, vide its communication, dated 10th November 2015 regarding 'Regulation of IP interconnection charges'; mentioned

that one of the issues of concern to the Telecom Industry is removal of restriction of Interconnection at IP level to ensure seamless IP interconnection.


Considering the above, it was felt that suitable recommendations may be issued to the licensor to incorporate a provision in all relevant Licenses to the effect that licensees may also interconnect over IP based networks or any other emerging/latest technology specified by the licensor subject to compliance of Regulations / Directions / Determinations etc. issued by TRAI from time to time.

Keeping in view the above, a Consultation Note was issued on 27th November 2015.

(ii) Recommendations dated 11th February 2016 on Interconnection over IP Interface

The Authority had issued a Consultation paper on "Migration to IP based network" on 30th June 2014 which was followed by an Open House Discussion on the subject on 2nd December 2014. In response to the consultation paper, some telecom service providers had submitted that as the imminent transition towards IP based network is widely anticipated, it is essential to amend the license conditions to explicitly provide for IP based interconnection.

Department of Telecom, vide its communication dated 10th November 2015, had also written to TRAI that one of the issues of concern to the Telecom Industry is removal of restriction of Interconnection at IP level to ensure seamless IP interconnection. TRAI initiated



a short consultation with the stakeholders vide “Consultation Note on IP Based Interconnection”, dated 27th November 2015. After analyzing the various issues involved and considering the comments received from stakeholders, the Authority recommended the amendment to clause 27.3 in the Unified License for interconnection at IP level. It was also recommended that similar amendment to this effect may also be incorporated in the relevant clauses in other license agreements.

The proposed text for clause 27.3 is as under:

“Interconnection between the networks of different Licensees for carrying circuit switched traffic shall be as per national standards of CCS No. 7 and for carrying IP based traffic as per Telecom Engineering Centre (TEC) standards as amended from time to time and also subject to technical feasibility and technical integrity of the Networks and shall be within the overall framework of interconnection / regulations / directions / orders issued by the TRAI/Licensors from time to time. For inter-networking between circuit switched and IP based network, the Licensee shall install Media Gateway Switch. Further, the Licensor may direct the LICENSEE to adopt any other technical standards issued by TEC on interconnection related issues”.

Department of Telecommunications vide its communication dated 19th April 2016 informed the Amendments to the Unified License for interconnection over Internet

Protocol (IP) Networks in accordance with the TRAI’s Recommendation on interconnection over IP interface.

(e) Telecommunication Technology

(i) Technical Paper on Call Drop

2.10.5 TRAI issued the technical paper on call drop in the first week of November, 2015 on TRAI’s website. Though the Authority has been monitoring various Quality of Service parameters of the services providers, a sliced down analysis of these parameters, various factors responsible for call drops, modeling for call drop analysis and various steps service providers could take to improve call drop are discussed in this Technical Paper. The technical paper attempts to give a comprehensive overview of the call drop and its impact on the Telecom Network. The analysis of the network performance of the service providers are also based on the recent drive tests conducted by TRAI through independent Agencies in Delhi, Mumbai, Kolkata, Surat, Pune and Bhubaneswar. The results of these drive tests are also provided in the technical paper.

(ii) Regulatory framework on Over-The-Top services

2.10.6 In its current form, public internet has the ability to carry the entire range of services that are required to be delivered to a consumer of telecom services. The OTT service providers deliver audio, video and other media over the internet and bypass the traditional operator’s network. Since, the OTT players do not require any business or technology affiliations with network operators for providing such services, they are often

known by the term “Over-The-Top” (OTT) applications. OTT providers make use of the TSPs’ infrastructure to reach their customers and offer products / services that not only make money for them but also compete with the traditional services offered by TSPs.

2.10.7 During the year 2014-15, a consultation paper on ‘Regulatory framework on Over-The-Top services, has been floated by TRAI on 27th March 2015 to engage the stakeholders in an exhaustive consultation process on all relevant issues. The comments and counter comments of Stakeholders have been received in 2015-16 and uploaded on TRAI’s website.

2.10.8 Department of Telecommunications (DoT) has requested TRAI to provide its recommendation on Net Neutrality including traffic management. The same is under consideration in TRAI.

(iii) Implementation on Green Technology in Telecom sector

2.10.9 To develop the roadmap, comprehensive program and viability gap funding for mobilizing the Renewable Energy Technology (RET) deployment in telecom sector, Department of Telecommunications has sought recommendations of TRAI on Methodology of measuring Carbon Emission and Calibration of target for implementation of Renewable Energy Technologies.

In this regard, a Consultation paper is being formulated.

(iv) Publication of Technology Digest

2.10.10 New technology is constantly being developed and finds its applications in

the technical systems that make up a telecommunications network. However, keeping pace with advances in telecom technology becomes difficult for most telecom professionals. To identify and to share new technology trends with industry, TRAI is publishing a technology bulletin called ‘Technology Digest’ which focuses on one technology aspect in every issue. During the year 2015-16, technology digest on ‘Internet of Things (IoT)’ was released.

(v) MIS project

2.10.11 MIS portal has been launched during the year 2014-15. The portal will help in collection of various reports in electronic form and generation of all types of reports & dashboards for data analysis purpose. The service providers have started submitting various reports pertaining to their networks through the MIS portal.


(vi) LAN Upgradation

2.10.12 New LAN setup is now functional. The new network is having following functionalities:

- Scalability- Core switch is capable of hosting both 10G and 1G modules.
- Security- Layered security by configuring VLANs and Port security.
- Better Network management & troubleshooting through Network management software.

(f) Implementation of National Telecom Policy

2.10.13 In accordance with the provisions contained in the National Telecom Policy 2012 regarding “One Nation – Full Mobile



Number Portability” (FMNP), TRAI after going through the consultation process and examination of various issues involved, forwarded its recommendation on FMNP across license service areas, on 25th September 2013. The Authority suggested amendments in the licenses of MNP service providers and mobile service providers. Accordingly, on 3rd November, 2014, the DoT issued amendment(s) to the MNP License Agreement. As per the DoT, the Full MNP is to be implemented in the country within a period of 6 months from the date of amendment to the Licenses, i.e. 3rd May, 2015. Accordingly, the Authority issued 6th Amendment to the Telecommunication Mobile Number Portability Regulation, 2009 on 25th February 2015 which facilitated Full MNP (PAN India Portability) in the country w.e.f. 3rd May, 2015. Through this Amendment, apart from facilitating Pan-India Portability, a few changes have also been made in the porting process.

(g) Quality of Service (QoS)

2.10.14 TRAI has laid down the benchmark for various Quality of Service parameters through the following regulations:

- The Standards of Quality of Service of Basic Telephone Service (wireline) and Cellular Mobile Telephone Service Regulations, 2009.
- The Quality of Service of Broad Service Regulations, 2006.
- The Standards of Quality of Service for Wireless Data Services Regulations, 2012.

2.10.15 The Quality of Service performance of service providers against the benchmarks

are assessed through compliance reports submitted by service providers. The compliance reports are submitted on a quarterly basis. For ensuring compliance with the Quality of Service benchmarks and to protect the interests of the consumers, TRAI had introduced the system of financial disincentives through the Second Amendment regulations issued on 8th November 2012. These regulations provide financial disincentives for non-compliance with the benchmarks, delay in submission of compliance reports and false reporting. For non-compliance with the benchmarks the financial disincentive is Rs. 50,000/- per parameter. However in the case of cellular mobile service for network parameters the financial disincentive for second or subsequent non-compliance is Rs. 1,00,000/- per parameter. For false reporting, the financial disincentive is Rs. 10,00,000/- per parameter.

2.10.16 In this continuation, The Authority issued Regulation on “The Standards of Quality of Service of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service (Fourth Amendment) Regulations, 2015” dated 15th October 2015 prescribing the revised financial disincentive on cellular mobile telephone service providers for non-compliance with the benchmarks for both network and customer related parameters. The salient features of the regulation are given below:-

- Not exceeding Rupees one lakh per parameter for first non-compliance with the benchmark in a quarter,

- Non-compliance with the benchmark of the same parameter consecutively in two or more subsequent quarters, not exceeding Rupees one and a half lakhs for second consecutive contravention and not exceeding Rupees two lakhs for each consecutive contravention thereof;
- Non-compliance with the benchmark for the same parameter in any subsequent quarter, which is not a consecutive non-compliance, Rupees one lakh per parameter.

2.10.17 TRAI also undertakes audit and assessment of Quality of Service through independent agencies. The Audit work has been awarded for conducting Audit and Assessment of Quality of service on zonal basis to M/s CS Datamation South Zone, M/s PhilStream Consulting Private Limited for North Zone and M/s IMRB in West & East Zone. The audit reports submitted by the audit agencies during the year 2015-16 were analysed and released on the website of TRAI for information of all stakeholders. TRAI also undertakes through independent agencies assessment of customer perception of service provided by service providers through surveys and the survey reports are also released on the website of TRAI for information of all stakeholders. **The details of surveys are given in Part-III.**

2.10.18 The performance of the service providers are evaluated every quarter based on the compliance reports submitted by service providers and also based on the reports of the audit agencies engaged by TRAI. Wherever deficiencies in achieving the quality of service benchmarks have been

noticed through close monitoring of the performance of service providers by way of periodic reports, audit and assessment of quality of service through independent agencies, TRAI has been following up with the service providers for addressing such deficiencies in achieving the benchmarks for the various parameters. In this regard, various meetings were held in TRAI with the service providers from time to time. These meetings and follow-up action with the service providers have been pivotal in improving the quality of service. Further, based on compliance reports, wherever non-compliance with the benchmarks are observed, the explanation of the service provider is called for and considering the explanation submitted by the service provider, gravity of non-compliance, action taken to improve the service, financial disincentives are imposed on service providers. The total amount of financial disincentive received during the financial year 2015-16 on account of QOS regulations violations was Rs.5.30 Crores. TRAI also publishes information about the quality of service performance by service providers, the results of Audit and assessment of Quality of Service under taken by Independent Agencies and the results of survey under taken by independent agencies about customer perception of service 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.

2.10.19 During the year 2015-16 TRAI has issued Consultation Paper on “Draft Regulation on Telecom Consumers Protection (Eighth Amendment) Regulations, 2015 dated 29th April 2015” relating to Quality of Service for seeking the views of stakeholders.

2.10.20 TRAI has issued the following regulations in 2015-16 relating to Quality of Service:-

- Telecom Consumers Protection (Eighth Amendment) Regulations, 2015 (5 of 2015) dated 7th August 2015.
- The Standards of Quality of Service of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service (Fourth Amendment) Regulations, 2015 dated 15th October 2015.

2.10.21 TRAI has also issued the following Directions in 2015-16 relating to Quality of Service:-

- Direction No. 305-7/2015-QoS dated the 29th July, 2015 regarding submission of compliance report by all the unified Access Service providers and Cellular Mobile Service providers including BSNL and MTNL to submit the compliance report in writing and also in the electronic form in Microsoft Excel format in respect of the parameters of quality of service for CMTS.
- Direction under section 13, read with sub-clauses (i) and (v) or clause (b) of sub-section (i) of section-11, of the Telecom Regulatory Authority of India Act 1997 (24 of 1997) and regulation 9 of the Standards of Quality of Service of Basic Telephone Service (wire line) and Cellular Mobile Telephone service Regulations,

2009 (7 of 2009) dated the 20th March 2009 to submit data through web-service of network parameters dated 13th January 2016.

(h) Universal Service Obligation

2.10.22 The Authority in its Recommendations dated 14th May 2012 on Support for Rural Wire-line Connections, Installed before 1st April 2002 stated that support to M/s BSNL may be continued for two years for sustenance of rural wire-line connections, installed before 1st April 2002. The amount of support may be Rs.1500 Crore for the first year and Rs.1250 Crore for the second year.

(i) Other Activities

Consumer Outreach Programmes (CoP)

2.10.23 Given the importance of reaching out to consumers all over the country, TRAI has a public interface with telecom subscribers through its website and through Consumer Outreach Programmes conducted across the country. During the year 2015-16, TRAI organized 93 Consumer Outreach Programmes (CoPs) across the country. This included 15 programmes on Broadcasting & Cable Services (involving interactions with MSOs & LCOs) and 4 specific programmes for creating awareness and dispelling the apprehension of possible health hazards from EMF Radiations from mobile towers. State-wise list of CoPs organized by TRAI is given below. 6 Regional Workshops for Capacity Building of Consumer Advocacy Groups and Consumer Education were

organized at Imphal, Udaipur, Vijayawada, Ranchi, Indore and Amritsar. Through these interactive programmes, the consumers/ CAGs were informed about the various measures taken by TRAI for protecting the interests of the consumers.

Cities where COPs were organised by Regional Offices of TRAI during 2015-16

S.No.	State	Place
1	Assam	Silchar
2		Jorhat
3		Guwahati
4	Andhra Pradesh	Visakhapatnam
5		Nellore
6		Vijayawada
7		Tirupati
8	Telangana	Khammam
9	Bihar	Arrah
10		Patna
11		Hajipur
12		Bodhgaya
13	Chhattisgarh	Ambikapur
14	Goa	Goa
15	Gujarat	Bharuch
16		Ahmedabad
17		Himmatnagar
18		Porbandar
19	Haryana	Kaithal
20		Rohtak
21		Gurgaon
22		Bhiwani
23	Himachal Pradesh	Kullu
24		Dharamshala

S.No.	State	Place
25		Shimla
26		Shimla
27		Paonta Sahib
28		Manali
29	Jammu & Kashmir	Leh
30		Jammu
31	Jharkhand	Ranchi
32	Karnataka	Kolar
33		Chitradurga
34		Belgaum
35		Tumkur
36		Bangalore
37		Mandya
38	Kerala	Alleppy
39		Trivandrum
40		Kozhikode
41		Pallakad
42	Madhya Pradesh	Rajgarh
43		Bhopal
44		Sidhi
45		Seoni
46		Chhatarpur
47		Bhopal
48		Shivpuri
49		Indore
50	Maharashtra	Nasik
51		Nagpur
52		Ahmednagar
53		Solapur
54		Pune
55		Aurangabad
56	Meghalaya	Shillong

S.No.	State	Place
57	Manipur	Imphal
58	Nagaland	Dimapur
59	Odisha	Koraput
60		Behrampur
61		Bhubaneswar
62		Kendrapara
63		Cuttak
64		Baripada
65	Punjab	Pathankot
66		Bhatinda
67		Amritsar
68	Rajasthan	Chittorgarh
69		Udaipur
70		Banswara
71		Jodhpur
72		Churu
73		Sikar
74	Tamil Nadu	Coimbatore
75		Nagarcoil
76		Chidambaram
77		Sivakashi
78	Uttar Pradesh	Barabanki
79		Aligarh
80		Muzaffarnagar
81		Varanasi
82		Lucknow
83		Ghaziabad
84		Gonda
85		Bijnor
86	Uttarakhand	Nainital
87	West Bengal	Kharagpur
88		Darjeeling

S.No.	State	Place
89		Durgapur
90		Darjeeling
91		Howrah
92		Kolkata
93		Purullia

Consumer Educative Literature and Media Campaigns

2.10.24 TRAI has instituted a system for registration of consumer organizations as Consumer Advocacy Groups (CAGs). They act as interlocutors between consumers, Telecom Service Providers & TRAI and assist TRAI in consumer education. In the year 2015-16, TRAI released the following consumer education material for creating awareness among the consumers about various consumer centric issues related to Telecom & Broadcasting Sectors:

- Updated Consumer Handbooks
- Working for the Consumers
- FAQ on Broadcasting & Cable TV Services
- DOs & Don'ts for Multi System Operators(MSO)
- DOs & Don'ts for Local Cable Operators (LCO)
- DOs & Don'ts for Local Cable Operators towards Subscribers
- A Fact Sheet- EMF Radiation from Mobile Towers

These materials have been published in Hindi, English and 10 regional languages (Tamil, Telugu, Kannada, Malayalam, Marathi, Punjabi, Gujarati, Bengali,

Odiya and Assamese) and are distributed amongst the consumers and Registered Consumer Advocacy Groups free of cost for enhancing consumer awareness.

TRAI has undertaken a media campaign on several important issues of consumer interest and published advertisements on Digitalization of Cable TV Services, Value Added Services, Mobile Number Portability, EMF Radiation & Data Services in Hindi, English and various regional languages across the country for creating widespread awareness among the consumers.

Registration of Consumer Advocacy Groups


2.10.25 TRAI is working for increasing consumer's awareness of their rights and service related issues through educational/publicity material including media campaign in the print and electronic media. Consumer advocacy Groups (CAGs) registered with TRAI co-ordinate and articulate consumer responses to TRAI's activities to assist TRAI in consumer education and to work for protection and propagation of the interest of the consumers. In the year 2015-16, registration of 38 CAGs has been renewed for another two years. This apart, 14 new CAGs have been granted registration in this year, taking the number of registered CAGs to 56. 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.

MIS Project

2.10.26 The MIS Project was launched on pilot basis on 1st January 2014. MIS Project was conceptualized in TRAI securely receiving various reports from the Service Providers in electronic form. The project also helps in generation of various regular reports automatically in the required form. Generation of various dashboards which can provide summary information is included in the project. The project thus helps all the stakeholders in improving efficiency and accuracy. The specialized reports also can be generated as per the need from the data received from the stakeholders. Various issues which came during the Pilot phase are being addressed.

Communication dated 6th January 2016 regarding adoption of Aadhaar based e-KYC service

2.10.27 In order to make subscriber verification system more secure and robust, it is important that the entire process should be completely (end-to-end) technology driven, digital and paperless. Aadhaar linked e-KYC service, provided by the Unique Identification Authority of India (UIDAI) is a fool-proof mechanism to verify the identity of the person electronically, instantaneously from the source itself. e-KYC verification will not only reduce the risk of identity fraud and document forgery but it will also make the entire process of subscriber verification paperless. Based on Aadhaar number and biometric inputs through biometric readers, subscriber's



details such as – name, address, date of birth, mobile number (if any), gender and photograph can be accessed from UIDAI servers.

Keeping in view of above, through letter dated 6th January 2016 the Authority has recommended to DoT for acceptance and adoption of Aadhaar based e-KYC service along with Aadhaar based e-sign as a valid alternative process to the existing process for digitally signed, biometric based verification of the new mobile subscribers.

ADVISORIES

1 **Advisory to Distribution Platform Operators (DTH /MSOs /LCOs /HITS / IPTV) for use of Electronic Customer Application Form (e-CAF)**

2.10.28 TRAI, on 05th February 2016 issued an advisory for use of “Electronic Customer Application Form” (e-CAF) by the Distribution Platform Operators (DPOs) providing TV broadcast services namely DTH /MSOs /HITS /IPTV operators. This Advisory is a proactive measure taken by TRAI for enabling use of digital technologies towards enhanced efficiencies in providing and managing services to the subscribers. The CAF is required to be filled up by customers before subscribing TV services. Information captured in the CAF is then transferred to the Subscriber Management System (SMS) of the DPO for managing the services availed by the subscriber. Presently use of CAF in paper format is prevalent and manual process

is followed for updating information in the SMS. The processing of millions of physical CAFs and their storage creates operational difficulties. The e-CAF can be easily accessed and integrated with the SMS of the DPO eliminating the manual feeding of information. It will also provide customers a simpler method for subscribing to services; improve customer relationship, and management of their subscription and services. The e-CAF will bring efficiencies in the process of providing and managing services to the subscribers. It will also make easier storage of millions of CAFs resulting in lesser operational costs. The adoption of e-CAF is an environment friendly measure and it is likely to benefit all stakeholders.

2 **Advisory to MSOs providing cable TV service through Digital Addressable Systems (DAS)**

2.10.29 TRAI, on 1st October 2015 issued two advisories to the MSOs providing cable TV service through Digital Addressable Systems (DAS). By these advisories, all the MSOs providing cable TV services through DAS were advised not to degrade or stop or switch off any channel without following the proper procedures as laid down in the regulations issued by TRAI. They were advised to ensure rectification of consumer complaints within 24 hrs as laid in the Quality of Service Regulation dated 14.05.2014. In addition to complaints received directly by the MSOs, they were also advised to ensure redressal of complaints received from the consumers through their linked LCOs. MSOs are required to lay down proper

communications procedures to register complaints received through the linked LCOs and get then addressed on priority.

Report on Activities

2.10.30 A Report on Activities of TRAI from 1st January 2015 to 31st December 2015 was also published to give the stakeholders a broader view and better understanding of initiatives taken by the Authority to enhance the growth of telecom and broadcasting sector and also the measures taken to protect the consumer interest.

International Relations

2.10.31 Bilateral Meetings

- (i) Mr. Sunil Kanti Bose, Chairman of Bangladesh Telecommunication Regulatory Commission TRC visited TRAI on 28th August 2015 for the bilateral meeting with Members, TRAI.
- (ii) A Delegation consisting of 20 Members from Afghanistan Telecom Regulatory Authority visited TRAI on 9th & 10th December 2015 for training on fundamental regulatory procedures and policies enabling capacity building.
- (iii) Mr. Shola Taylor, Secretary General of Commonwealth Telecommunications Organizations (CTO) visited TRAI on 12th February 2016 for bilateral meeting with Member, TRAI.
- (iv) The five member delegation from BICMA (Bhutan Infocomm and Media Authority) visited TRAI from 12th to 15th January 2016 for attending an Attachment Programme.

- (v) Dr. Syed Ismail Shah, Chairman of Pakistan Telecommunications Authority visited TRAI on 22nd March 2016 for the bilateral meeting with Chairman TRAI.

Memorandum of Understanding (MoU)


2.10.32 TRAI has signed the Memorandum of Understanding with Telecommunications Regulatory Authority of UAE in New Delhi, India on 3rd September 2015.

International Events hosted by TRAI

- (i) 16th South Asian Telecommunications Regulators Council (SATRC) Meeting from 25th to 27th August 2015 at Greater Noida.
- (ii) International Telecommunication Union training on 'Consumer Protection' from 21st to 23rd March 2016 at New Delhi.

Other Activities related to Broadcasting Sector

1. English and Hindi versions of 'Frequently Asked Questions on Digital Addressable Cable TV Systems' were updated and uploaded on TRAI website on 07th April 2015 (English version) & 16th April 2015 (Hindi version) respectively.
2. English and Hindi versions of 'DOs & DON'Ts for Multi System Operators (MSOs) & Local Cable Operators (LCOs) in respect of Customers/Subscribers of Digital Addressable Cable TV Systems (DAS)' was uploaded on TRAI's website.
3. Handbook titled 'FAQs on Broadcasting and Cable TV services' was uploaded on TRAI's website on 14th July 2015. The Handbook provides the consumer with



a gist of relevant regulations & orders pertaining to Broadcasting & Cable TV Services. Salient aspects covered in this handbook include procedure for connection, disconnection, transfer, shifting, complaint redressal and billing aspects.

4. Letter was issued to 15 major MSOs on 31st July 2015 to ensure compliance with the regulatory provisions prescribed in Standards of Quality of Service (Digital Addressable Cable TV Systems) Regulations, 2012 and Consumers Complaint Redressal (Digital Addressable cable TV systems) Regulations 2012 by initiating corrective actions at their end for the shortcomings pointed out in the letters & also intimate details of the action taken to the Authority.

5. Letter was issued to 179 MSOs on 20th August 2015 granted registration by MIB after implementation of Phase-I & Phase-II of DAS to read all the regulations /orders/directions issued by TRAI pertaining to implementation of DAS and ensure compliance with the regulatory provisions with regard to registration and also submit a 'self-declaration' in the prescribed format in this regard.

6. Data relating to average duration per hour of advertisements (commercial & self promotional) during peak hours in News & pay Non-news Channels for various periods was uploaded on TRAI's website from time-to-time.

7. Open House Discussions (OHDs) on the various consultation papers were organized from time-to-time. Representative of

a large number of Broadcasters, Cable Operators, MSOs, DTH Operators and many associations attended the OHDs.

8. A letter was issued to 114 MSOs on 28th September 2015 operating in Phase-I and Phase-II of DAS areas, to carry out a self-audit & verify the data available in their Subscriber Management Systems with each subscriber and render a certificate in the prescribed format to TRAI within 30 days.

9. To increase awareness about the regulatory framework notified by TRAI and implementation of DAS in Phase-III areas, TRAI held interactions with MSOs and LCOs at Shimla on 11th September 2015. The interaction was attended by a large number of participants.

10. TRAI, in the public interest, released advertisements in various parts of the country for creating awareness about implementation of Digital Addressable Cable TV Systems.

11. A consumer outreach program on B&CS matter was organized on 1st December 2015 at Calicut, Kerala by Regional Office, Bangalore to increase awareness about the regulatory framework notified by TRAI and the roles and responsibilities of the service providers towards enhancing Quality of Service to the consumers.

12. On 31st December 2015, a Press Release was issued on 'The eve of Urban Areas Cable Television Services entering into Digital Era'. Importance of the installation of a Set Top Box (STB) for reception of TV channels through cable or DTH was emphasised.

Telecom Regulatory Authority of India regularly interacts with various stakeholders such as service providers, their organizations, Consumer Advocacy Groups / Consumer Organizations and other experts in the field. It has developed a process, which allows stakeholders and the general public to participate in policy formulation by offering their views whenever sought for on various issues raised through the Consultation Papers.

Administrative, Legal and Financial Issues Pending with Department of Telecommunications (DoT)

In addition with the various matters discussed in the report, there are certain important issues pending with DoT for decision. The following Paras elaborate such Administrative, Legal and Financial Issues which are pending with DoT:

i) Proposal for Amendment of TRAI Act 1997

TRAI has been established under TRAI Act 1997, inter-alia to regulate the Telecommunication services and to protect the interest of service providers and consumers of telecom sector. The Authority has been conferred powers to issue directions, regulations and orders in discharge of its regulatory functions but does not have any power to take punitive action to secure compliance of the regulatory measures taken by it. In order to ensure effective discharge of its functions under TRAI Act, 1997 the Authority sent a comprehensive proposal for amendment in the TRAI Act in the year 2007. Thereafter, several correspondences were made with DoT

and two draft notes for Cabinet were also prepared by DoT but the proposed amendments have not yet been made. Recently, vide letter dated 3rd June 2016, a proposal to make suitable amendments in the TRAI Act incorporating provisions for protection of the interests of consumers and conferring penal powers upon TRAI was sent to DoT. Meetings were also held with the officers of TRAI, which was chaired by the Secretary, DoT. Nothing final has however, emerged despite various rounds of discussions held in the past decade.

ii) Amendment in Schedule I of TRAI (Salary, Allowances and other conditions of service of the officers and employee) Rules, 2002

Schedule I of TRAI (Salary, Allowances and other conditions of service of the officers and employee) Rules, 2002 still shows the pay scale of 5th CPC, whereas Government has implemented the recommendations of 6th Pay Commission & now even 7th Pay Commission.

The posts of Assistant Accounts Officer and Junior Account Officer, which were re-designated as Technical Officer and Section Officer, are to be deleted from Schedule-I of Rule 2002.

Further, DoT had given in principle approval for operating the posts of PCMO and Despatch Rider in TRAI vide letter No. 10-2/2004-Restg. dated 15th July 2004. However, these posts have not so far been included in Schedule-I of the said rules.

TRAI has been persistently requesting DoT to amend the Schedule-I to incorporate all the above changes.

iii) Amendment to Telecom Regulatory Authority of India (Contributory Provident Fund) Rules, 2003 for implementation of New Pension Scheme in TRAI.

As per Govt. of India's instructions, New Pension System (NPS) is to be introduced for all employees entering into services on 1st January 2004 and thereafter. In TRAI unless the CPF Rules of TRAI are amended by the DoT, the New Pension System (NPS) cannot be implemented as executive instruction cannot override the statutory provisions. The DoT vide letter No. 10/32/2011-Restg. dated 14th November, 2013 had sought suggestions of TRAI regarding the amendment in the CPF Rules. The draft amendment to TRAI (CPF) Rules, 2003 was forwarded by TRAI to DoT vide letter No. 5-5/99-A&P (Vol. II) dated 5th March, 2014. The matter is still pending with DoT.

iv) Medical facility to employees of TRAI after their retirement

Medical facility to employees of TRAI is governed by the Schedule II of TRAI (Salary, Allowance and other conditions of Service of the officers and employees) Rules, 2002. For inclusion of Medical facility to employees of TRAI after their retirement, as suggested by DoT, TRAI had prepared the Draft Medical Rules on the lines of CS (MA) Rules, 1944 and sent the same to DoT vide letter No. 9-9/2007-A&P Dated 14th March, 2014. The matter is still pending with DoT.

v) Issues relating to EL and HPL admissible to the Authority

The terms and conditions of service of the Chairperson and whole-time

Members of TRAI are governed by TRAI (Salary, Allowances and other conditions of service of Chairperson and whole-time Members) Rules, 2000 dated 26th June 2000. As per the Rule 3 of the said rule, the Chairperson and Whole-time Members of TRAI are entitled to encash upto 50% of their earned leave. A proposal vide DO letter No. 2-Member(1)/2012-A&P dated 17th August 2013 was sent to DoT with a request for amendment in the rule for encashment of 100% earned leave instead of existing limit of 50%.

Further, the said rules do not allow grant of half pay leave/commuted leave to the Chairperson and Members of the Authority. DoT was requested vide DO letter No. 13-1/2014-A&P dated 7th February, 2014 to allow half pay leave/commuted leave to the Chairperson and Members of the Authority as available to Group-A Officers of Central Government.

The matter is still pending with DoT.

vi) Upgradation of pay scale of the post of Secretary, TRAI to HAG+ scale

The post of Secretary, TRAI is presently in HAG scale. The proposal to upgrade the same to HAG+ Scale [`75,500-Annual increment 3% -`80,000] was sent to DoT vide D.O. letter No. 1-5/2015-A&P dated 28th January, 2015. The matter is still pending with DoT.

vii) Transfer of Administrative control of 'TRAI General Funds' to TRAI

DoT have been insisting for crediting of fees, charges and penalties collected by TRAI from service providers to TRAI General Fund, which is presently

maintained by DoT. With the approval of the Authority, a proposal was sent to DoT on 16th December 2014 requesting DoT to 'transfer the administrative control of the TRAI General Fund to TRAI' for better administrative and financial control of the Fund. However, despite several reminders, the issue is still pending with DoT.

DoT vide letter dated 14th August 2015 informed that the above proposal of TRAI is a policy matter and is under examination. Pending decision on the proposal of TRAI, DoT requested for remittance of the amount lying with TRAI to PAO HQ, DoT for crediting to TRAI General Fund as per

the existing guidelines issued by DoT vide its letter dated 31st December 1999 which inter alia provides for crediting of amount of fee etc to TRAI General Fund.

Due to insistence of DoT and also inclusion of the matter in DAR of DoT, it has been decided by the Authority to remit the amount of Rs.49,90,67,155/- (fees, financial disincentives etc.) lying in the four Accounts of TRAI (as on 31.3.2016), to TRAI General Fund.

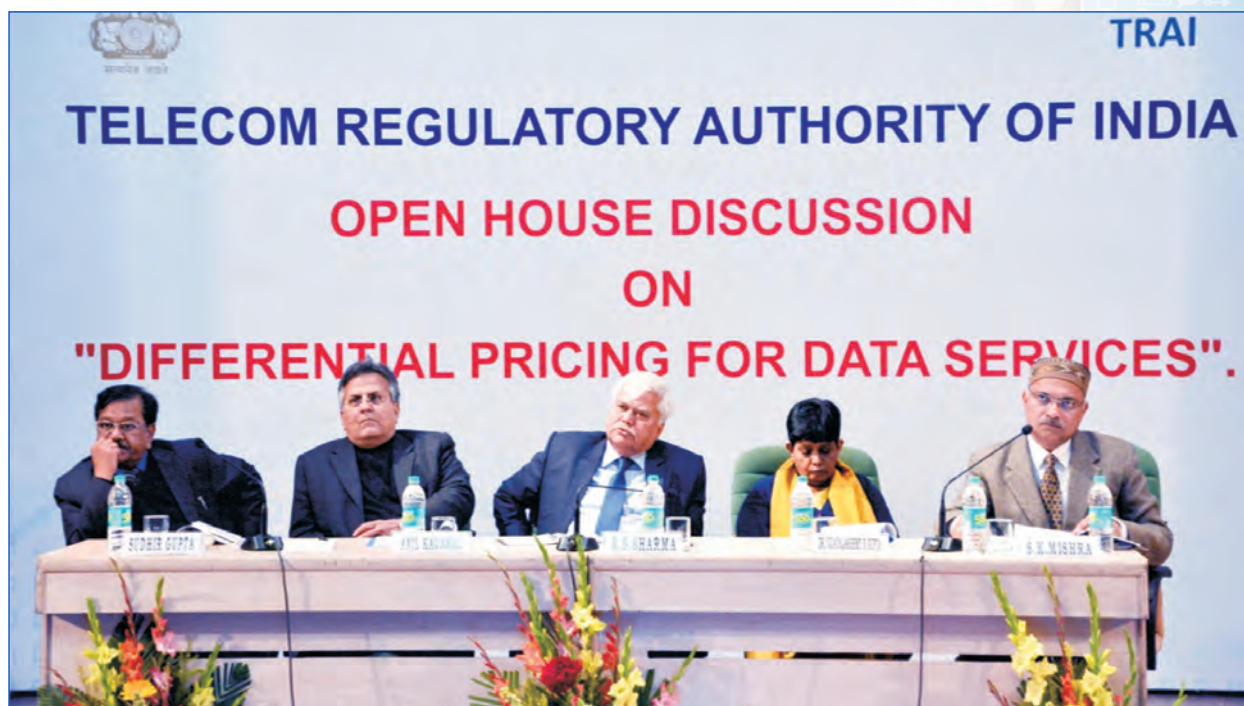
The proposal of TRAI for transfer of administrative control of TRAI General Fund to TRAI is still pending with DoT.



Chairman TRAI, interacting with Media on 18th December 2015 after the completion of the open House discussion on "Implementation of Bharat Net".



Shri Sunil Kr. Gupta, Pr. Advisor interacting with the participants in an Open House Discussion held on 11th December 2015 on "The Telecommunication (B&CS) interconnection (Digital Addressable Cable Television System. Amendment) Regulations, 2015". Others on the Dias (from left to right) are Shri Sunil Kr. Singhal, Advisor, Shri Ram Sewak Sharma, Chairman TRAI and Shri Sudhir Gupta, Secretary, TRAI,



(From left to right) Shri Sudhir Gupta, Secretary, TRAI, Shri Anil Kaushal, Member TRAI, Chairman, TRAI, Dr. Vijayalakshmy K Gupta, Member TRAI and Shri S.K. Mishra, Pr. Advisor on dias during the Open House Discussion on “Differential Pricing for Data Services” held on 21st January 2016.



Chairman TRAI interacting with the participants in an Open House Discussion held on 4th January 2016 on Valuation and Reserve Price of Spectrum. Others on the Dias (from left to right) are Shri Sanjeev Banzal, Advisor, Shri Sudhir Gupta, Secretary, TRAI, Shri Anil Kaushal, Member, TRAI, Dr. Vijayalakshmy K Gupta, Member TRAI and Smt. Vinod Kotwal, Advisor.





PART – III


FUNCTIONS OF TELECOM REGULATORY AUTHORITY OF INDIA IN RESPECT OF MATTERS SPECIFIED IN SECTION 11 OF TELECOM REGULATORY AUTHORITY OF INDIA ACT



FUNCTIONS OF THE TELECOM REGULATORY AUTHORITY OF INDIA IN RESPECT OF MATTERS SPECIFIED IN SECTION 11 OF THE TRAI ACT

Section 11 of the Telecom Regulatory Authority of India Act, 1997, as amended, provides that –

- (1) Notwithstanding anything contained in the Indian Telegraph Act, 1885 (13 of 1885), the functions of the Authority shall be to—*
 - (a) make recommendations, either suo motu or on a request from the licensor, on the following matters, namely:*
 - (i) need and timing for introduction of new service provider;*
 - (ii) terms and conditions of licence to a service provider;*
 - (iii) revocation of licence for non-compliance of terms and conditions of licence;*
 - (iv) measures to facilitate competition and promote efficiency in the operation of telecommunication services so as to facilitate growth in such services;*
 - (v) technological improvement in the services provided by the service providers;*
 - (vi) type of equipment to be used by the service providers after inspection of equipment used in the network;*
 - (vii) measures for the development of telecommunication technology and any other matter relating to telecommunication industry in general;*
 - (viii) efficient management of available spectrum;*
 - (b) discharge the following functions, namely:*
 - (i) ensure compliance of terms and conditions of licence;*
 - (ii) notwithstanding anything contained in the terms and conditions of the licence granted before the commencement of the Telecom Regulatory Authority of India (Amendment)*



Act, 2000, fix the terms and conditions of inter-connectivity between the service providers;

- (iii) *ensure technical compatibility and effective interconnection 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 ensure the quality of service and conduct the periodical survey of such service provided by the service providers so as to protect interest of the consumers of telecommunications service;*
 - (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 interconnect agreements and of all such other matters as may be provided in the Regulations;*
 - (viii) *keep register maintained under clause (vii) open for inspection to any member of public on payment of such fee and compliance of such other requirement as may be provided in the regulations;*
 - (ix) *ensure effective compliance of universal service obligations.*
- (c) *levy fees and other charges at such rates and in respect of such services as may be determined by Regulations;*
- (d) *perform such other functions including such administrative and financial functions as may be entrusted to it by the Central Government or as may be necessary to carry out the provisions of this Act:*

Provided that the recommendations of the Authority specified in clause (a) of this sub-section shall not be binding upon the Central Government.

Provided further that the Central Government shall seek the recommendations of the Authority in respect of matters specified in sub-clauses (i) and (ii) of clause (a) of this sub-section in respect of new licence to be issued to a service provider and the Authority shall forward its recommendations within a period of sixty days from the date on which that Government sought the recommendations:

Provided also that the Authority may request the Central Government to furnish such information or documents as may be necessary for the purpose of making recommendations under sub-clauses (i) and (ii) of clause (a) of this sub-section and that Government shall supply such information within a period of seven days from receipt of such request:

Provided also that the Central Government may issue a licence to a service provider if no recommendations are received from the Authority within the period specified in the second proviso or within such period as may be mutually agreed upon between the Central Government and the Authority:

Provided also that if the Central Government having considered that recommendation of the Authority, comes to a prima facie conclusion that such recommendation cannot be accepted or needs modifications, it shall, refer the recommendation back to the Authority

for its reconsideration, and the Authority may within fifteen days from the date of receipt of such reference, forward to the Central Government its recommendation after considering the reference made by that Government. After receipt of further recommendation if any, *the Central Government shall take a final decision.*

(2) *Notwithstanding anything contained in the Indian Telegraph Act, 1885 (13 of 1885), the Authority may, from time to time, by order, notify in the Official Gazette the rates at which the telecommunication services within India and outside India shall be provided under this Act including the rates at which messages shall be transmitted to any country outside India:*

Provided that the Authority may notify different rates for different persons or class of persons for similar telecommunication services and where different rates are fixed as aforesaid the Authority shall record the reasons there for.

(3) *While discharging its functions under sub-section (1) or subsection (2) the Authority shall not act against the interest of the sovereignty and integrity of India, the security of the State, friendly relations with foreign States, public order, decency or morality.*

(4) *The Authority shall ensure transparency while exercising its powers and discharging its functions.*

3. The Authority, in pursuance of achieving the objectives of ensuring growth of industry and

protecting interest of consumers has made several Recommendations either *suo moto* or on matters referred to it by the Government; notified various Regulations to carry out purposes of the Act; taken action to enforce licence terms and conditions; and initiated work on several other issues. By discharging various recommendatory & regulatory functions, TRAI has contributed to growth of telecom services including the broadcasting and cable TV services in terms of increased number of consumers and a vast network providing telecom services across the length and breadth of the country. These continued measures have also resulted in overall benefits to the consumer in terms of choice of services, reduced tariff of telecom service, better quality of service etc. Some of the specific functions carried out by TRAI in respect of various matters specified in Section 11 of the TRAI Act are given below.

a) Telecommunication rates both within India and outside India including the rates at which messages shall be transmitted to any country outside India.

3.1 Section 11 (2) of the Telecom Regulatory Authority of India Act, 1997 as amended by TRAI (Amendment) Act, 2000, empowers the Authority to notify in the Official Gazette the rates at which telecommunication services within India and outside India shall be provided, including the rates at which the messages shall be transmitted to any country outside India. It also provides that the Authority may notify different rates for different persons or class of persons for similar telecommunication services. Besides specifying the tariff regime applicable to various services, TRAI is also required to ensure that tariffs prevailing in the market are consistent with the specified tariff regime. For this purpose, the Authority monitors the rates at which

the service providers provide the various telecom services. Further, the function of specifying norms for fixation of rates for Pay Channels as well as fixation of rates for Cable Services is also assigned to TRAI. Details of action taken by TRAI in Telecom Sector and Broadcasting & Cable Sector during 2015-16 are discussed in the following paragraphs.

3.1.1 TRAI looks after consumer interests through tariff regulation. Tariff regulation takes the form of ensuring clarity and transparency in tariff offers to consumers and fixing tariff charges where the market is not delivering optimal rates. The specific measures taken in the telecom sector are as under:

(a) 'Prohibition of Discriminatory Tariffs for Data Services Regulation, 2016' dated 8th February 2016

After undertaking a consultation process, Telecom Regulatory Authority of India has issued "Prohibition of discriminatory tariff for Data services Regulations, 2016 on 8th February, 2016 which inter-alia has mandated the following:

- No service provider shall offer or charge discriminatory tariffs for data service on the basis of content.

- No service provider shall enter into any arrangement, agreement or contract, by whatever name called, with any person, natural or legal, that has the effect of discriminatory tariffs for data services being offered or charged by the service provider for the purpose of evading the prohibition in this regulation.
- Reduced tariff for accessing or providing emergency services, or at times of public emergency has been permitted.

(b) The Telecommunication Tariff (sixtieth Amendment) Order, 2015 dated 9th April 2015

The ceiling tariffs for national roaming were last revised by the Authority through the Telecommunication Tariff Order (55th Amendment), 2013 dated 17th June 2013. After examining the comments of the stakeholders and further analysis, the Authority, through the Telecommunication Tariff (60th Amendment) Order, 2015 dated 9th April 2015, has revised the ceiling tariffs for voice calls and SMS while on national roaming, which came into effect from 1st May 2015. This amendment brought about the following changes in the tariff regime for national roaming service:

Item	Ceiling tariff as per TTO (55 th Amendment), 2013	Ceiling tariff as per TTO (60 th Amendment), 2015
Outgoing local voice call	Re.1.00 per minute	Re.0.80 per minute
Outgoing long distance (inter-circle) voice call	Re.1.50 per minute	Re.1.15 per minute
Incoming voice call	Re.0.75 per minute	Re.0.45 per minute
Outgoing local SMS	Rs.1.00 per SMS	Rs.0.25 per SMS
Outgoing long distance (inter circle) SMS	Re.1.50 per SMS	Re.0.38 per SMS

Through this amendment Order, TRAI removed the existing mandate to the telecom service providers (TSPs) for providing RTP & RTP-FR and mandated the TSPs to offer a Special Roaming Tariff Plan (SRTP) to their pre-paid and post-paid subscribers. In SRTP, incoming voice calls while on national roaming shall be free, on payment of fixed charge, if any.

In Broadcasting Sector also, during the reporting period, the Authority notified various tariff orders for DAS, DTH for regulating the broadcasting tariff to safe guard the interest of the customers. The following specific measures were taken in the broadcasting sector.

Tariff order applicable to Direct-to-Home Operators (DTH) providing TV services dated 1st April, 2015

In order to ensure effective commercial interoperability, TRAI notified on 01st April 2015, a tariff order that prescribed a framework for commercial interoperability of Customer Premises Equipment (CPE) offered by DTH operators to their subscribers.

DTH services In India are growing at a rapid pace since they were introduced in 2003. As on date, there are six private operators offering DTH services to subscribers. As these operators have launched their services at different points in time while employing different transmission, compression standards and encryption solutions, CPEs provided by one operator may not be compatible within the network of another operator. Therefore, if an existing DTH subscriber wishes to migrate to another DTH operator or onto the Cable TV platform, he is required to invest in another CPE / STB of the new operator. It was also observed that

there is lack of transparency in various schemes offered by DTH operators.

The Authority's view was that consumer interest can largely be protected through the provision of Commercial interoperability of CPEs and hence it mandated transparent and upfront declaration of all charges and conditions by the DTH operators at the time of providing the service. Commercial interoperability provides for an exit option to a subscriber wishing to change the operator and avail the services from another DTH operator or cable TV operator.

This order was issued in view of the order dated 1st October 2014 passed by the Hon'ble Telecom Disputes Settlement Appellate Tribunal (TDSAT) in the matter of M/s DISH TV India Limited and M/s Bharat Business Channels Limited vs TRAI.

Tariff Amendment Orders relating to 'commercial subscribers' dated 8th September 2015

TRAI notified two Tariff Amendment Orders (TAOs) on 8th September 2015 relating to TV services for commercial subscribers. While one was applicable to TV services being provided through analog cable TV systems in areas served by non-addressable systems, the other was applicable to TV services being provided in areas served by digital addressable systems. In the Tariff Amendment Orders, the definitions of 'Subscriber', 'Ordinary subscriber', & 'Commercial subscriber' have now been clearly enumerated. Further, in the Tariff Amendment Orders, total forbearance in tariff has been prescribed both at the wholesale & retail levels in respect of commercial subscribers and the broadcasters have the option of entering into a tripartite agreement with the Distribution

Platform Operator (DPO) and a commercial subscriber, if so desired. In addition, it has been mandated that broadcasters offer their channels/ bouquet of channels to commercial subscribers, on non-discriminatory terms and conditions and also file such tripartite agreements with the Authority.

These Tariff Amendment Orders were notified in pursuance of the orders of the Hon'ble TDSAT dated 9th March, 2015 in the matter of Indian Broadcasting Foundation and Ors vs TRAI (Appeal No 7(C)/2014). It was expected that with the coming into force of these changes in the regulatory framework for commercial subscribers, distribution of TV services to commercial subscribers would be streamlined and would be available to them at competitive rates and in a non-discriminatory manner. It was envisaged to balance the interests of all the stakeholders in the value chain and usher complete transparency in the business transactions.

Amendment to the Tariff Order for Addressable Systems dated 28th December 2015

In view of the Hon'ble TDSAT's Order dated 13th July, 2015, in the matter of M/s DISH TV India Limited vs TRAI, while directing TRAI to take a final decision in respect of implementation of 'Twin Conditions', TRAI notified a tariff order on 28th December 2015 in which simplified 'Twin Conditions' were prescribed to ensure availability of effective choice to the consumers thereby allowing them to subscribe to their desired channels on a-la-carte basis and at a reasonable prices. By this tariff order, the platform operators still retain the flexibility to notify a-la-carte rates of all the channels available on their platforms. They also retain the flexibility to reduce the a-la-carte rates of channels at any time so as to facilitate declaration of lower rates for bouquets consisting of such a-la-carte channels. Platform

operators also retain the flexibility to devise and offer innovative and attractive packages/bouquets of channels while offering discounts upto a maximum of 66.66 % relative to the sum of the rates of a-la-carte channels in the bouquet.

b) Recommendations on (i) the need and timing of the new service providers; (ii) the terms and conditions of license to a new service provider; and (iii) revocation of licence for non-compliance of terms and conditions of licence.

3.2 Under Section 11 (1) (a) of the TRAI Act 1997, the Authority is required to make recommendations either *suo moto* or on a request from the licensor, i.e., Department of Telecommunications or Ministry of Information & Broadcasting in the case of Broadcasting and Cable Services. Recommendations forwarded by TRAI to Government during 2015-16 are given below:-

- Recommendations dated 7th April 2015 on "Single Number based Integrated Emergency Communication and Response System".
- TRAI's Response dated 8th April 2015 on DoT reference back on Recommendations on "Telecom Network Failures during Emergencies/Disasters – Priority routing of calls of persons engaged in 'response and recovery'".
- Recommendations dated 17th April 2015 on Delivering broadband quickly: What do we need to do?
- Recommendations dated 1st May 2015 on "Introducing Virtual Network Operators in Telecom Sector".

- TRAI's response dated 21st May 2015 to DoT's reference back on Recommendations on "Guidelines on Spectrum Sharing dated 21st July 2014".
- TRAI's response dated 21st May 2015 to DoT's reference back on Recommendations on "Working Guidelines for Spectrum Trading dated 28th January 2014".
- TRAI's response dated 2nd July 2015 to DoT on issues relating to Spectrum Cap and minimum spectrum holding by Telecom Service Providers (TSPs) as follow up of Hon'ble Supreme Court's interim order dated 14th May 2015.
- TRAI's response dated 30th September 2015 to reference received from DoT on TRAI's Recommendations on "Single Number based Integrated Emergency Communication and Response System (IECRS) dated 7th April, 2015".
- TRAI's response dated 17th November 2015 to reference received from DoT on TRAI's Recommendations on "Allocation and Pricing of Microwave Access (MWA) and Microwave Backbone (MWB) RF Carriers dated 29th August, 2014".
- Recommendations dated 27th January 2016 on "Valuation and Reserve Price of Spectrum in the 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz and 2500 MHz bands".
- Recommendations dated 1st February 2016 on Implementation strategy for BharatNet.
- TRAI Response dated 10th February 2016 to Reference received from DoT on TRAI's Recommendations on charging of

liberalization of administratively allocated spectrum.

- Recommendations dated 11th February 2016 on Interconnection over IP Interface.
- Clarifications dated 16th February 2016 on TRAI views dated 2nd July 2015 on the issues relating to Spectrum Cap as follow up on Supreme Court interim order dated 14th May 2015.
- Response of the Authority dated 23rd March 2016 on issues referred back by DoT on TRAI's Recommendations dated 22nd July 2014 on "Improving Telecom Services in Andaman and Nicobar Islands and Lakshadweep".

The details of these Recommendations have already been discussed in Part II of this Report.


c) Ensuring technical compatibility and effective inter-connection

- 3.3 To facilitate seamless telecommunication across networks, it is necessary that different networks interconnect. The licence condition also prescribes that all access providers should interconnect with each other and with national and international long distance operators' networks. Accordingly, the following interconnection recommendations and regulations were issued by TRAI during the reporting period:-

TELECOM SECTOR

- **Consultation Note dated 27th November 2015 on IP Based Interconnection**

Some telecom service providers had submitted that as the imminent



transition towards IP technology is widely anticipated, it is essential to amend the license conditions to explicitly provide for IP technology based interconnection. Further, Department of Telecom, vide its communication, dated 10th November 2015 regarding 'Regulation of IP interconnection charges'; mentioned that one of the issues of concern to the Telecom Industry is removal of restriction of Interconnection at IP level to ensure seamless IP interconnection.

Considering the above, it was felt that suitable recommendations may be issued to the licensor to incorporate a provision in all relevant Licenses to the effect that licensees may also interconnect over IP based networks or any other emerging / latest technology specified by the licensor subject to compliance of Regulations / Directions / Determinations etc. issued by TRAI from time to time.

Keeping in view the above, a Consultation Note was issued on 27th November 2015.

- **Recommendations dated 11th February 2016 on Interconnection over IP Interface**

The Authority had issued a Consultation paper on "Migration to IP based network" on 30th June 2014 which was followed by an Open House Discussion on the subject on 2nd December 2014. In response to the consultation paper, some telecom service providers had submitted that as the imminent transition towards IP based network is widely anticipated, it is essential to amend the license conditions to explicitly provide for IP based interconnection.

Department of Telecom, vide its communication dated 10th November 2015, had also written to TRAI that one of the issues of concern to the Telecom Industry is removal of restriction of Interconnection at IP level to ensure seamless IP interconnection. TRAI initiated a short consultation with the stakeholders vide "Consultation Note on IP Based Interconnection", dated 27th November 2015. After analyzing the various issues involved and considering the comments received from stakeholders, the Authority recommended the amendment to clause 27.3 in the Unified License for interconnection at IP level. It was also recommended that similar amendment to this effect may also be incorporated in the relevant clauses in other license agreements.

The proposed text for clause 27.3 is as under:

"Interconnection between the networks of different Licensees for carrying circuit switched traffic shall be as per national standards of CCS No. 7 and for carrying IP based traffic as per Telecom Engineering Centre (TEC) standards as amended from time to time and also subject to technical feasibility and technical integrity of the Networks and shall be within the overall framework of interconnection/regulations/directions/orders issued by the TRAI/Licensor from time to time. For inter-networking between circuit switched and IP based network, the Licensee shall install Media Gateway Switch. Further, the Licensor may direct the LICENSEE to adopt any other technical standards issued by TEC on interconnection related issues".

Department of Telecommunications vide its communication dated 19th April 2016 informed the Amendments to the Unified License for interconnection over Internet Protocol (IP) Networks in accordance with the TRAI's Recommendation on interconnection over IP interface.

BROADCASTING SECTOR

➤ **The Telecommunication (Broadcasting and Cable Services) Interconnection (Ninth Amendment) Regulations 2015 dated 14th September 2015**

➤ **The Telecommunication (Digital addressable Cable Television Systems) (fifth amendment) Regulations 2015 dated 14th September 2015**

TRAI notified two amendments to the Interconnection Regulations on 14th September 2015 relating to TV services for commercial subscribers. While one is applicable for TV services being provided through Analog cable TV systems in areas served by non-addressable systems, the other is applicable to TV services being provided in areas served by digital addressable systems. These amendments in the interconnection regulation, amongst others, enumerated the definitions of 'Subscriber', 'Ordinary subscriber' & 'Commercial subscriber'.

➤ **The Telecommunication (Broadcasting and Cable Services) Interconnection (Digital addressable Cable Television Systems) (Sixth amendment) Regulations 2016 dated 7th January 2016**

TRAI on 7th January 2016, notified the Telecommunication (Broadcasting and

Cable Services) Interconnection (Digital Addressable Cable Television Systems) (Sixth Amendment) Regulations, 2016. The Authority observed from the interconnection details submitted by the service providers that signals of TV channels are being provided by several broadcasters to Multi System Operators (MSOs) and MSOs to Local Cable Operators (LCOs) even in the absence of valid written interconnection agreements. It was also observed that continuing the retransmission of signal without a valid written interconnection agreement, on the pretext of continuing mutual negotiations, often result into disputes and sometimes result in abrupt disconnection which adversely affects the quality of service to the consumers.

Through this amendment, the Authority made it mandatory that a broadcaster of pay channels enter into written a valid interconnection agreement with the MSO for retransmission of its pay channels irrespective of the fact whether subscription fee is paid by the multi system operator to the broadcaster or not. The amendment provided for sufficient time (minimum sixty days) for entering into new interconnection agreement prior to expiry of an existing interconnection agreement between the service providers for retransmission of TV signals. After this amendment, there is no scope under the pretext of mutual negotiations, for continuation of provisioning of TV signal upon expiry of the existing interconnection agreement.

The MSOs were mandated to inform the consumers in the event of a failure

to execute new interconnection agreement, about the date of expiry of its existing interconnection agreement and disconnection of TV channels, fifteen days prior to the expiry of existing interconnection agreement so as to enable the consumers to take an informed decision in respect of their choice.

➤ **The Telecommunication (Broadcasting and Cable Services) Interconnection (Digital addressable Cable Television Systems) (Seventh amendment) Regulations 2016 dated 16th March 2016**

TRAI, on 15th March 2016, issued the Telecommunication (Broadcasting and Cable Services) Interconnection (Digital Addressable Cable Television Systems) (Seventh Amendment) Regulations, 2016 (3 of 2016) prescribing formats for Model Interconnection Agreement (MIA) and Standard Interconnection Agreement (SIA) to be signed between MSO and LCO for provisioning of cable TV services through Digital Addressable Systems (DAS). The Authority's view is that the prescription of standard MIA and SIA formats will pave the way for growth of the sector, result in reduce incidence of disputes between the MSOs and LCOs, provide level playing field to the parties and increase healthy competition in the sector that will ultimately help in bettering the quality of services to the subscribers.

d) Regulating arrangement amongst service providers of sharing their revenue derived from providing telecommunication service

3.4 **The International Calling Card Service (Access Charges) Regulations, 2014 dated 19th August 2014**

The Authority after due consultation and analyses of the matter, formulated and issued the Regulations on international Calling Card service prescribing access charges payable by International Long Distance Operator (ILDO) to the Access Service Provider in case the customer of Access Service Provider avails of the Calling Card service of ILDO. As per these regulations, Access Charges to be paid by ILDO to Access Provider shall be 40 paise per minute for wireless services and Rs.1.20 per minute for wireline services.

e) Time period for providing local and long distance circuits of telecommunication between different service providers

3.5 To provide a framework to ensure transparency, predictability and reasonableness and allow provision of DLC/local lead in a non-discriminatory manner, TRAI issued DLC Regulations on 14th September 2007. These regulations cover DLC and local Lead provided on any media i.e. copper, fiber, wireless etc. and using any transmission technology. These regulations make it obligatory for all service providers who have the capacity of copper, fiber or wireless, and who have been allowed under the licence to provide DLC, to share it with other service providers. From the analysis of the reports received it is observed that since the release of DLC regulations, the provision of DLCs/ local leads have been streamlined.

f) Ensuring compliance of the Terms and Conditions of License

➤ **Second Amendment dated 7th May 2015 to Direction dated 2nd March 2015 to M/s Vodafone (I) Ltd. to discontinue use of 111**

Department of Telecommunications had issued the National Numbering Plan, 2003 wherein the number/prefix 111 to 115 have not been allocated for any type of services and have been kept as 'SPARE'.

The Authority vide its Direction dated 02.03.2015 directed M/s Vodafone India Ltd. to discontinue use of level '111' and submit a compliance report.

However, on the request of M/s Vodafone India Ltd. and to ensure minimum customer inconvenience, an extension of time to submit compliance was first granted till 30th April, 2015 and finally till 31st July, 2015 vide amendment directions dated 27th March 2015 and 7th May 2015 respectively.

M/s Vodafone, vide its communication dated 3rd August 2015, confirmed that they have discontinued with Level '111' for helpline services w.e.f. 1st August 2015.

➤ **Direction dated 11th December 2015 with regard to closure of services in 900 MHZ band by M/s Reliance Telecom Ltd. in Assam, Bihar, North East, Oddisha and West Bengal Licensed serviced area on 11th**

December 2015 on expiry of 900 MHz Spectrum allotted to it

M/s Reliance Telecom Ltd (M/s RTL) informed the Authority that 900 MHz Band spectrum allotted to it by the licensor is expiring on the 11th December 2015 in Assam, Bihar, North East, Orissa and West Bengal service areas. They also further informed that they will continue to provide their services over 2100 MHz band and they have informed all their customers about the closure of their service in 900 MHz band and operation of service in 2100 MHz band with advice to customers to port out to other service providers if they don't want to continue with 3G services of M/s RTL.

M/s RTL has also stated that it is not possible to generate more than one million UPC at a time for a service area and has requested for allotment of three additional operator codes for Bihar, two for West Bengal and one additional operator code for Orissa service areas to enable them to generate UPC by 11th December, 2015 for its subscribers;

Therefore, the Authority through its direction dated 11th December 2015, in the interest of consumer, directed

- (a) M/s Reliance Telecom Limited to –
- generate additional UPCs service provider codes in addition to existing code;
 - generate the Unique Porting Codes for all subscribers who have not opted for migration to 3G in

Assam, Bihar, North East, Orissa and West Bengal service areas and communicate the UPC through SMS to such subscribers immediately; and

- process all requests of its subscribers for porting received upto thirty days from the date of issue of this direction and furnish compliance report by the 20th January 2016;
- (b) All Telecom Service Providers and Mobile Number Portability Service Providers to recognize additional UPC for the subscribers of M/s Reliance Telecom Limited;
- (c) All Mobile Number Portability Service Providers not to accept the request for porting in respect of additional UPC code belonging to M/s Reliance Telecom Limited as Donor Operator after 11th January 2016.

g) Steps taken to protect the Interest of the Consumers of Telecommunications Services.

In order to (i) bring uniformity and transparency in the procedures being followed by service providers with regard to metering and billing; (ii) prescribe standards relating to accuracy of measurement, reliability of billing; (iii) measure the accuracy of billing provided by the Service Providers from time to time and to compare them with the norms so as to assess the level of performance; (iv) minimize the incidences of billing complaints; (v) and to protect the interest of consumers of telecommunication services, TRAI had recently reviewed the Quality of Service (Code of Practice for Metering and Billing

Accuracy) Regulation 2006 and issued the Quality of Service (Code of Practice for Metering and Billing Accuracy) (Amendment) Regulations, 2013 on 25th March, 2013. The Regulation mandates the service providers to arrange audit of their Metering and Billing System on an annual basis through any one of the auditors notified by TRAI and to furnish to TRAI an audit certificate thereof not later than 31st July of every year. The Regulation also provides that the service providers have to take corrective action on the inadequacies, if any, pointed out by the Agency in the Certificate and to file with TRAI an Action Taken Report thereon not later than 15th November of every financial year. Further, for effective implementation of these regulations TRAI has also enforced financial disincentive at the rate of Rs.1,00,000/-per week for delay in submission of Audit Reports and Action Taken Reports and Financial disincentive not exceeding an of Rs.10,00,000/- per action taken report for false or incomplete information. The service providers have submitted the audit reports and action taken reports within the time limit. The audit has helped in identifying billing and charging deficiencies leading to refunds of excess charges levied to affected customers and addressing systemic issues.

➤ **“The Telecom Consumers Protection (Eighth Amendment) Regulations, 2014” dated 7th August 2015**

3.6 The Authority after due consultation with various stakeholders and internal analysis issued ‘The Telecom Consumers Protection (Eighth Amendment) Regulations, 2014’ on 7th August 2015 to protect the interest of consumers using wireless data services. The salient features of the Regulation are as under:-

i) **Information to consumers relating to usage of data:** Service providers have been mandated to provide, through SMS or USSD---

- Information to mobile data users regarding data used, after every 10MB of data usage to all mobile data users except users of special data packs (STV/Combo/add-on-pack). The consumers to be provided an option to opt out if they do not desire to receive such information.
- Information to users of various of special data packs (STV/Combo/add-on-pack), whenever the limit of data usage reaches 50%, 90% and 100% of data available in the account of the subscriber or when the data balance available in the account of the subscriber reaches 500 MB, 100 MB and 10 MB. Further the consumer shall be informed about the details of tariff applicable after exhausting the data limit, when the data limit reaches 90% or the data balance available in the account reaches 10 MB.
- An alert to international roaming customer cautioning him to deactivate data service if he does not intend to use data services.

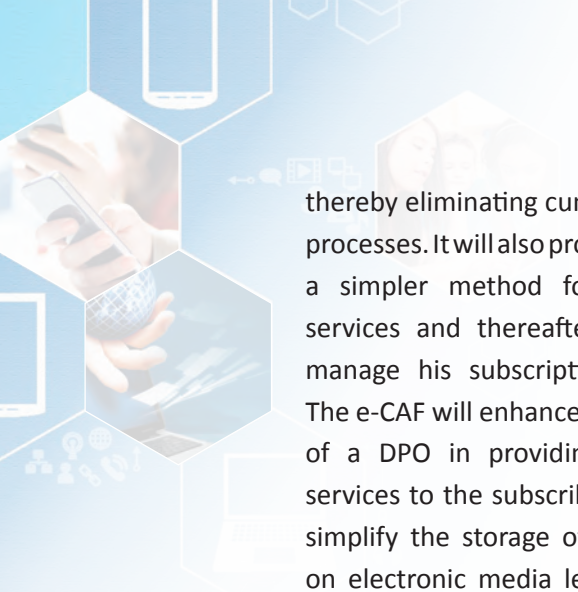
ii) **Activation or Deactivation of data services:**

- Data services should be activated only with the explicit consent of the subscriber through a toll free short code 1925. The data services could also be deactivated through the toll free short code 1925.

- Data services through Special Tariff Voucher or Combo Voucher or add-on pack will be deemed to have been activated with consent till the expiry of the validity period of the voucher/pack or on the consumption of entire data, whichever is earlier.
- The customers should also be informed through SMS at periodic intervals about the prescribed procedure for deactivation of data. All the TSPs have already submitted their compliance except BSNL & MTNL.

Steps taken to protect Consumer Interest in TV Broadcasting Services.

3.7 In order to protect the interest of the consumers, TRAI issued an advisory for use of "Electronic Customer Application Form" (e-CAF) by all Distribution Platform Operators (DPOs) providing TV services namely DTH/MSOs/HITs/IPTV operators. The advisory is a proactive measure of TRAI towards enabling use of digital technologies and enhanced efficiency in providing and managing services to the subscribers. CAF is to be filled up by a customer before subscribing to TV services. The information captured in the CAF is then transferred to the Subscriber Management System (SMS) of the DPO for managing the services availed by the subscriber. Paper CAF is presently prevalent and the information filled therein is manually updated into the SMS. Processing of millions of such physical paper CAFs and storage of the information therein leads to operational difficulties. The e-CAF can also be electronically accessed and the information therein easily ported into the SMS of the DPO



thereby eliminating cumbersome manual processes. It will also provide the customer a simpler method for subscribing to services and thereafter enable him to manage his subscription and services. The e-CAF will enhance process efficiency of a DPO in providing and managing services to the subscribers. This will also simplify the storage of millions of CAFs on electronic media leading to lowered operational costs. Adoption of e-CAF is therefore an environment friendly and cost effective measure that will benefit all stakeholders.

Further, two advisories were also issued to the MSOs providing cable TV service through Digital Addressable Systems (DAS). By these, all MSOs providing cable TV services through DAS were advised not to degrade or stop/switch-off any channel without following proper procedures as laid out in TRAI's regulations. MSOs were also advised to ensure rectification of consumer complaints within 24 hrs as laid down in the Quality of Service Regulations dated 14th May 2014. In addition to rectification of complaints directly received, the MSOs were also advised that consumer complaints received through their linked LCOs be also redressed on priority. MSOs must institute proper communications procedures to register complaints received through the LCOs for quick redressal of such complaints.

Further, in order to protect the interest of the consumers of broadcasting services, following activities are also carried out during the period 2015-16:-

- Updated English and Hindi versions of 'Frequently Asked Questions' on Digital Addressable Cable TV Systems were uploaded on TRAI website on 16th April 2015.

- English and Hindi versions of 'DOs & DON'Ts for MSOs and LCOs in respect of Customers/Subscribers of Digital Addressable Cable TV Systems (DAS)' were prepared and uploaded on TRAI's website.
- Handbook titled 'FAQs on Broadcasting and Cable TV services' was prepared and uploaded on TRAI's website. This handbook provides the consumer with a gist of relevant regulations & orders pertaining to Broadcasting & Cable TV Services. Salient aspects covered in the handbook include procedures for connection, disconnection, transfer, shifting, complaint redressal and billing aspects.
- TRAI, in public interest, released numerous advertisements in various parts of the country for creating awareness about implementation of Digital Addressable Cable TV Systems.
- 15 consumer outreach program on B&CS matters were organized involving interactions with MSOs and LCOs with an aim to increase awareness on the regulatory framework notified by TRAI and the roles and responsibilities of service providers towards improving the Quality of Service.

h) Steps taken to facilitate competition and promote efficiency in the operation of telecommunication services so as to facilitate growth in such services.

- 3.8 TRAI has always endeavoured to establish policies that are contemporary, in tune

with the current developments, simple, pragmatic. They have had desired impact on competition, infrastructure, revenue and customer welfare. It has been conscious of the fact that regulatory certainty is important for formulation of appropriate business strategies, promoting competition and thereby giving customer the fruits of innovation. TRAI has carried out the job of increasing competition and easing entry of competitive service providers in all seriousness. Measures in the form of recommendations / regulations / tariff orders / directions etc have proved to be key for growth of the industry.

- 3.8.1 To facilitate competition and promote efficiency in the operation of telecommunications and Broadcasting services following steps were taken by TRAI in 2015-16:

TELECOM SECTOR

- “Telecom Consumers Protection (Eighth Amendment) Regulations, 2015” dated 7th August 2015.
- “The Standards Of Quality Of Service of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service (Fourth Amendment) Regulations, 2015” dated 15th October 2015.
- “Telecom Consumers Protection (Ninth Amendment) Regulations, 2015” dated 16th October 2015.
- Prohibition of Discriminatory Tariffs for data services Regulations 2016 dated 8th February 2016.

The details of these regulations have already been discussed in Part-II of this report.

Broadcasting and Cable TV services

TRAI has endeavoured to establish contemporary policies that are simple and pragmatic while being in tune with the current developments. These have had the desired impact on competition, infrastructure, revenues and customer welfare. The Authority has always been conscious of the fact that regulatory certainty is important for formulation of appropriate business strategies, promoting competition and thereby letting the customer reap the fruits of innovation. TRAI has encouraged enhanced competition while easing the entry of competitive service providers. Salient measures instituted by formulating regulations/ tariff orders / directions etc have proved to be key drivers towards enhancing industry growth and progress.

i) Levy of fees and other charges at such rates and in respect of such services as may be determined by Regulations

3.9 TRAI is mandated to decide the tariff policies for telecommunications and broadcasting services. TRAI looks after consumer interests through tariff regulation. Tariff regulation takes the form of ensuring clarity and transparency in tariff offers to consumers and fixing tariff charges where the market is not delivering optimal rates. The following specific measures taken in this direction were:

- The telecommunication tariff (Sixtieth Amendment) Order 2015 dated 9th April 2015
- The Telecommunication (Broadcasting and Cable) Services (Seventh) (The Direct

to Home Services) Tariff Order 2015 dated 1st April 2015

- The Telecommunication (Broadcasting and Cable) Services (Second) Tariff (fifteenth amendment) Order 2015 dated 8th September 2015
- The Telecommunication (Broadcasting and Cable) Services (Fourth) (Addressable Systems) Tariff (Fifth Amendment) Order 2015 dated 8th September 2015
- The Telecommunication (Broadcasting and Cable) Services (Fourth) (Addressable Systems) Tariff (Sixth Amendment) Order 2015 dated 29th December 2015

The details of these tariff orders have already been discussed in Part II of the report.

j) Steps taken to ensure effective compliance of universal service obligation (USO)

3.10 The Authority in its recommendations dated 14th May 2012 on support for Rural Wire-line Connections, has recommended that support to M/s BSNL may be continued for two years for sustenance of rural wire-line connections, installed before 1st April 2002. The amount of support may be Rs.1500 crore for the first year and Rs.1250 crore for the second year. Further, the Authority vide its recommendations dated 22nd July 2014 on “Improving Telecom Services in Andaman and Nicobar Islands and Lakshadweep” has recommended measures for improving the telecom services in these areas.

k) Details of advice rendered to the Central Government in the

matter relating to development of telecommunication technology and any other matter relating in telecommunication industry in general.

- 3.11 Details of advice rendered by TRAI to the Central Government in the matters relating to development of telecommunication and broadcasting cable sectors are given below:
- Recommendations dated 7th April 2015 on “Single Number based Integrated Emergency Communication and Response System”
 - TRAI’s Response dated 8th April 2015 on DoT reference back on Recommendations on “Telecom Network Failures during Emergencies/Disasters – Priority routing of calls of persons engaged in ‘response and recovery’ ”
 - Recommendations dated 17th April 2015 on Delivering broadband quickly: What do we need to do?
 - Recommendations dated 1st May 2015 on “Introducing Virtual Network Operators in Telecom Sector”
 - TRAI’s response dated 21st May 2015 to DoT’s reference back on Recommendations on “Guidelines on Spectrum Sharing dated 21st July 2014”
 - TRAI’s response dated 21st May 2015 to DoT’s reference back on Recommendations on “Working Guidelines for Spectrum Trading dated 28th January 2014”
 - TRAI’s response dated 2nd July 2015 to DoT on issues relating to Spectrum Cap and

- minimum spectrum holding by Telecom Service Providers (TSPs) as follow up of Hon'ble Supreme Court's interim order dated 14th May 2015
- TRAI's response dated 30th September 2015 to reference received from DoT on TRAI's Recommendations on "Single Number based Integrated Emergency Communication and Response System (IECRS) dated 7th April, 2015"
 - TRAI's response dated 17th November 2015 to reference received from DoT on TRAI's Recommendations on "Allocation and Pricing of Microwave Access (MWA) and Microwave Backbone (MWB) RF Carriers dated 29th August, 2014"
 - Recommendations dated 27th January 2016 on "Valuation and Reserve Price of Spectrum in the 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz and 2500 MHz bands"
 - Recommendations dated 1st February 2016 on Implementation strategy for BharatNet.
 - TRAI Response dated 10th February 2016 to Reference received from DoT on TRAI's Recommendations on charging of liberalization of administratively allocated spectrum
 - Recommendations dated 11th February 2016 on Interconnection over IP Interface.
 - Clarifications dated 16th February 2016 on TRAI views dated 2nd July 2015 on the issues relating to Spectrum Cap as follow up on Supreme Court interim order dated

14th May 2015


- Response of the Authority dated 23rd March 2016 on issues referred back by DoT on TRAI's Recommendations dated 22nd July 2014 on "Improving Telecom Services in Andaman and Nicobar Islands and Lakshadweep"

I) Monitoring of the quality of services and details of promotional survey of such services by the service providers

TRAI monitors the performance of Basic and Cellular Mobile Services against the benchmarks prescribed by TRAI through quarterly performance monitoring report (PMR) received from service providers. In order to improve the quality of service provided by the service providers, TRAI has prescribed financial disincentive through "The Standards of Quality of Service of Basic Telephone" Service (Wireline) and Cellular Mobile Telephone Service (Second Amendment) Regulations, 2012 dated 8th November 2012 on Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service operators for non-compliance with the benchmark for the Network Service Quality Parameters and Customer Service Quality Parameters. These regulations also provide for deterrent as financial disincentives against false reporting and delay in submission of report of the Quality of Service benchmarks.

a) Broadband Service

TRAI monitors the performance of the service providers against the Quality of Service benchmarks laid down by TRAI,



through the quarterly Performance Monitoring Reports (PMRs) vide Regulation on Quality of Service of Broadband Service dated 6th October, 2006. The quarterly reports submitted by Broadband service providers are analysed for assessing their performance with regard to the QoS benchmark). To further strengthen the quality of standards TRAI had issued “The Quality of Service of Broadband Service (Second Amendment) Regulations, 2012, on 25th June 2014 for improve the speed of Broadband.

b) Network/Point of Interconnection (POI) reports

TRAI is monitoring the level of congestion at the POI between various Service Providers on Monthly basis. This parameter signifies the ease by which a customer of one network is able to communicate with a customer of another network. This parameter also reflects as to how effective is the interconnection between two networks. The bench mark notified by TRAI in the QoS Regulations for this parameter is <0.5%. TRAI receives monthly PoI Congestion Reports from Basic and Cellular Mobile Services for assessing their performance with regard to Quality of Service benchmarks.

c) MIS project

MIS portal has been launched during the year 2014-15. The service providers have started submitting their reports through this portal. The portal will help in collection of various report in electronic form and will help to generate all types of reports & dashboards for data analysis purpose. A trial run on reports submitted

by the service providers are being carried out.

d) Assessment of Quality of Service through independent agencies

TRAI also monitor the Quality of Service through audit and assessment done by independent agencies. These reports are analysed and released on the website of TRAI for information of all stakeholders. Also the areas of concern pointed out in the reports are shared with the service providers for improving Quality of Service.

e) Assessment of customer perception of service through surveys

In accordance with the mandate given by the TRAI Act, 1997, TRAI undertakes through independent agencies assessment of customer perception of service provided by service providers through surveys. The work for the assessment of (i) implementation of effectiveness of various regulations, directions, and orders issued by TRAI in the interest of consumers and (ii) customer perception of telecom service being provided by Basic, Cellular Mobile and Broadband service providers, through Survey is being awarded on zonal basis viz North Zone, West Zone, South Zone and East Zone. All the service areas in the zone are surveyed once in a year. The survey work awarded to the independent survey agencies namely M/s Spectrum India Planning Ltd., M/s IMRB International, M/s Voice and M/s Mott MacDonald, for conducting survey respectively in West Zone, East Zone, North Zone and of West Zone. The contract of the above said agencies (except

M/s Spectrum India Planning Ltd.) has been expired on 31st May 2015. A tender for “Assessment of (i) Implementation and effectiveness of various regulations, directions and orders issued by TRAI in the interest of consumers and (ii) Customer Perception of Service through Survey” has been circulated through TRAI’s website on 27th March 2015. Due to non-availability of eligible agencies, the same has been cancelled. No further extension has been granted to M/s Spectrum India Planning Ltd. after 30th November 2015. However, the case for finalization of a survey agency for conducting survey through IVR Telephone survey research tool in three service area namely, Delhi, Madhya Pradesh and Karnataka is under process.

As per the methodology of the survey, survey questionnaire has been framed to assess customer perception service relating to seven quality of parameters specified in the regulation and for assessing effectiveness of the regulations relating

to awareness about grievances redressal mechanism, implementation of mobile number portability and UCC regulation. The respondent were asked to rate their satisfaction on a scale of 1-7, where 1 implies ‘extremely dissatisfied’ and 7 implies ‘extremely satisfied’. To measure the percentage of consumer satisfied on various QoS parameters, the score of 4-7 is considered, where score of 4 is considered as ‘not dissatisfied’, 5 is considered as ‘satisfied’, 6 is considered as very satisfied’, 7 is considered as ‘extremely satisfied’. Customer Satisfaction (CS) is computed using the formula $CS = (A/N) * 100$, where A is the sum total of subscriber who were ‘not dissatisfied’ + ‘satisfied’ + ‘very satisfied’ + ‘extremely satisfied’ on each of the broad parameter and N is the total sample size achieved.

The Survey reports submitted by the Survey Agencies are uploaded on TRAI website www.trai.gov.in for information of stakeholders.





PART – IV

**ORGANISATIONAL MATTERS OF
TELECOM REGULATORY AUTHORITY OF
INDIA AND FINANCIAL PERFORMANCE**

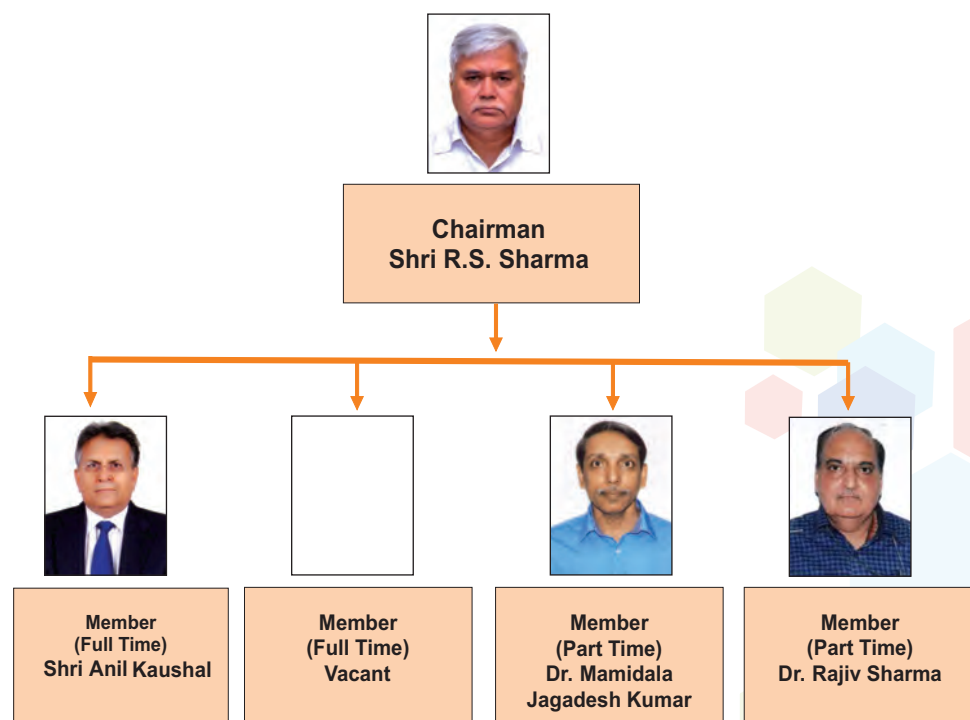


A) ORGANIZATIONAL MATTERS OF TELECOM REGULATORY AUTHORITY OF INDIA


1. This section provides information on organizational matters of TRAI relating particularly to organization, funding, human resources covering the areas of recruitment, training and seminars and some general issues.

(a) ORGANISATION

2. The Telecom Regulatory Authority of India (Authority) is a body corporate by the name aforesaid, having perpetual succession and a common seal, with power, subject to the provisions of this Act, to acquire, hold and dispose of property, both movable and immovable, and to contract, and



Dr. Vijaylakshmy K Gupta, Member (Full time) demitted her office on 3rd March 2016.



shall, by the said name, sue or be sued. The Telecom Regulatory Authority of India was established under the Telecom Regulatory Authority of India Act, 1997 enacted on 28th March, 1997. The TRAI (Amendment) Act, 2000 led to reconstitution of the Authority. The Authority consists of a Chairperson, and not more than two whole time members and not more than two-part time members, to be appointed by the Central Government. The head office of the Authority is at New Delhi. The constitution of the Authority as on 31st March 2016 is given at previous page.

(b) SECRETARIAT OF TRAI (HQ)

3. The Authority functions with a Secretariat headed by the Secretary and assisted by seven divisions which are as follows:

(i) Administration (A); (ii) Broadcasting & Cable Services (B&CS); (iii) Consumer Affairs (CA) (iv) Financial & Economic Analysis (F&EA) (v) Information Technology (IT) (vi) Legal; and (vii) Networks, Spectrum and Licensing (NSL)

ADMINISTRATION

4. Administration Division is responsible for all administrative and personnel functions which include planning and control of human resource development in TRAI as well as ensuring coordinated availability of information on enforcement of all the Regulations/Directions/Orders issued by TRAI for the Authority's use. Administration Division has the responsibility of management and control of activities of Administration

& Personnel Section, Communication Section, International Relation Section, OL Section, MR Section and RTI Section. On Regulatory Enforcement front, it is responsibility of the Division directly concerned with the relevant regulation. However, Administration Division ensures coordinated availability of information in respect of all Divisions and collates the information for the Authority's use. The Division through its IR Section, also handles International relations which includes coordination with all International Organisations/bodies viz ITU, APT, World Bank, WTO, ADB, SATRC, OECD and Regulatory Bodies in other countries.

BROADCASTING & CABLE SERVICES (B&CS) DIVISION

5. The Broadcasting and Cable Services (B&CS) Division is responsible for advising the Authority, for laying down the overall regulatory framework for the TV broadcasting and FM Radio sectors encompassing the aspect of interconnection, quality of service and tariffs so as to ensure effective interconnection between service providers, ensure compliance with laid down quality of service, tariff norms, and license conditions. B&CS division is also responsible for examination of issues relating to the modernization/digitization of the broadcasting, cable TV and FM radio sectors and propose recommendations or lay down the appropriate regulatory framework. The Division is also entrusted with monitoring

and follow up of the complaints as provided for in the laid down regulations and institute measures to protect the interests of all stakeholders. The division also submits recommendations towards introduction of new services in the TV broadcasting and FM radio sectors.

Consumer AFFAIRS Division

6. CA Division is responsible for development of consumer advocacy in the telecommunication sector and creating general awareness amongst consumers about various measures taken by the Telecom Regulatory Authority of India to protect the interest of consumers. The division facilitates registration of consumer organizations and non-governmental organizations from all over the country with TRAI and interacts with them on various issues concerning the consumers. The other activities of division for protection of interest of consumers include organizing of consumer education workshops in all the regions of the country, assisting the consumer organizations registered with TRAI to organize consumer education workshops at district and block levels, handling of generic consumer complaints and undertake media campaigns (both print & electronic) and publish consumer education material for enhancing their awareness about various initiatives taken by TRAI to protect consumer interests.

Financial & ECONOMIC Analysis (F&EA) Division


7. F&EA Division is responsible for providing advice on all aspects relating to cost methodologies and costing of telecom

services, accounting separation and analysis of financial statements of service providers, etc. The division advises the Authority in the matter of framing appropriate tariff policy for telecom services from time to time; fixation of tariffs for various telecom services in India that are under tariff regulation which include tariff for Domestic Leased Circuits, International Private Leased Circuits and National Roaming in cellular mobile services. The division also advises the Authority on matters relating to fixation of cost based interconnection charges and on measures to promote competition in various segments of telecommunication services market in India. This Division also compiles “The Indian Telecom Services Performance Indicators Report” and publishes it on quarterly basis.

Pr. Advisor (F&EA) is also Internal Financial Advisor of TRAI and renders advice to the Authority on all financial matters, income & expenditure accounts, financial auditing and scrutiny of financial transactions.

Networks, Spectrum and licensing (NSL) Division

8. NSL Division is responsible for fixing the terms & conditions of interconnection, ensuring effective interconnection between various service providers, handling of all interconnection issues including determination of Interconnection Usage Charges (IUC) and regular review thereof, optical access issues and access charges related to cable landing stations. The division is also responsible for monitoring of compliance of license conditions of Basic, National Long Distance (NLD) and



International Long Distance (ILD) licenses and also the Regulations/Directions/Orders issued by the Division. The division is also looking after the issue related to ISP Licenses, Broadband services - Wire-line and Wireless, Internet Telephony and VOIP, Right of Way etc.

The Division is responsible for the issues related to management of Spectrum including, inter-alia, its efficient utilizations and its refarming. It also deals with issues related to introduction of new wireless technologies and related regulatory issues. The Division handles issues relating to compliance of terms and conditions of various licenses issued to mobile operators; recommendations related to various issues/aspects of wireless services including Mobile Number Portability; ensuring compliance of matters relating to Universal Service Obligations and efficient management of available spectrum for telecom services; preparation of Quarterly PMR pertaining to mobile services and support to ITU/APT Study Group activities.

The division is responsible for laying down the standards of quality of service to be provided by the service providers; to ensure the quality of service and conduct the periodical survey of such service provided by the service providers so as to protect interest of the consumers of telecommunication services. The division is also responsible for maintaining register of interconnect agreements and of all

such other matters as may be provided in the regulations.

Legal Division

9. Legal Division is responsible for rendering legal advice to the Authority on all regulatory issues. The Division manages all litigation matters in which TRAI is a party.

INFORMATION TECHNOLOGY (IT) DIVISION

10. The role of an IT department is important in the success of any organisation. No company today can survive in isolation, nor can it work without the use of information technology. TRAI's IT division maintains all computer hardware assets and LAN setup of TRAI. It is also responsible for uploading on TRAI's website. The division also caters to the various IT needs of other divisions like visualization of data, implementation and maintenance of various portals, Web applications and mobile app development etc. The division also publishes 'Technology Digest' which focuses on one technology aspect in every issue. The division handles Next Generation Networks, Implementation of Green Technology in Telecom Sector, Environmental issues in Telecom, Infrastructure Management, Manufacturing for Telecom Sector and issues related to convergence in telecommunications.

(c) HUMAN RESOURCES

- (i) *Staff strength of TRAI Headquarters (as on 31.03.2016)*

11. A staff of 182 (as on 31.03.2016) is handling the work in the Secretariat of TRAI (HQ), which performs the tasks

assigned to it by the Authority in the discharge of its functions. Wherever necessary, Consultants are engaged.


Staff strength of TRAI HQ (as on 31.03.2016)

12. As on 31.03.2016, the Staff strength of the TRAI (Headquarters) was as under:

S. NO.	POSTS	SANCTIONED	ACTUAL
1.	SECRETARY	01	01
2.	PR. ADVISOR / ADVISOR	14	12
3.	JT. ADVISOR / DY. ADVISOR	35	32
4.	SR. PR. PRIVATE SECRETARY	03	03
5.	SR. RESEARCH OFFICER	35	27
6.	PPS	02	02
7.	TECHNICAL OFFICER	12	07
8.	SECTION OFFICER	19	16
9.	PRIVATE SECRETARY	14	13
10.	LIBRARIAN	01	--
11.	ASSISTANT	48	39
12.	PERSONAL ASSISTANT	18	07
14.	JR. HINDI TRANSLATOR	01	--
15.	STENO - D	01	--
15.	LDC	07	02
16.	DRIVER GR.I	01	01
17.	DRIVERS GR.II	14	12
18.	PCMO	02	02
19.	DESPATCH RIDER	01	01
20.	ATTENDANTS	08	05
TOTAL		239	182

13. Details of Secretary, Pr. Advisors / Advisors Level Officers in TRAI (HQ)


SL. NO.	NAME OF THE OFFICER/ POST HELD
1	SH. SUDHIR GUPTA SECRETARY



SL. NO.	NAME OF THE OFFICER/ POST HELD
2	SH. U.K. SRIVASTAVA PRINCIPAL ADVISOR (NSL)



SL. NO.	NAME OF THE OFFICER/ POST HELD	
3	VACANT PRINCIPAL ADVISOR (CA, QOS & IT)	
4	SH. S.K. MISHRA PRINCIPAL ADVISOR (F&EA)	
5	SH. SUNIL KUMAR GUPTA PRINCIPAL ADVISOR (B&CS)	
6	SH. C.P.S. BAKSHI ADVISOR (ADMIN & IR)	
7	SH. MOHD. KASIM ADVISOR (B&CS)-I	
8	SH. SUNIL KUMAR SINGHAL ADVISOR (B&CS)-II	
9	SH. AGNESHWAR SEN ADVISOR (CA)	

SL. NO.	NAME OF THE OFFICER/ POST HELD	
10	SH. ARVIND KUMAR ADVISOR (BB&PA)	
11	SH. SANJEEV BANZAL ADVISOR (NSL)-I	
12	SH. SANJEET SINGH ADVISOR (LEGAL)	
13	SH. A ROBERT JERARD RAVI ADVISOR (CA & QOS)	
14	SMT. VINOD KOTWAL ADVISOR (F&EA)	
15	VACANT ADVISOR (F&EA)	

14. TRAI officials are initially drafted on deputation from the Government Departments. These deputationists with relevant experience in the fields of telecommunication, economics, finance,

administration, etc., are initially appointed for a period of two years and thereafter, if required, requests are sent to concerned Government Departments /Organisations for extending their deputations. Seeking extension of deputations in respect of trained and experienced existing employees has often proved to be difficult. While the scope, scale and complexity of Authority's functions continue to grow at a fast pace, the Authority is facing the problem of losing trained and experienced personnel due to their frequent repatriation to their parent departments. The Authority has, therefore, constituted a cadre of officers and staff with specialized expertise and skills with the option of permanent absorption in TRAI.

ii) Recruitment

15. The Authority has constituted its own cadre of officers and staff by way of absorbing the officials who are on deputation to TRAI from various Ministries and Departments. However, most deputationists, particularly in the senior and middle levels do not exercise option for permanent absorption. Therefore, the recruitment of personnel for its Secretariat by way of deputation from other Ministries / Departments / PSUs still continues. This is due to two reasons. Firstly, the prevailing remuneration package does not attract independent talent with expertise and experience in the areas covered by the Authority. Secondly, among Government employees, the relevant expertise is available mainly

in the Ministries or with the Government owned Telecom Operators. However, Authority has been experiencing difficulty in recruiting specialized manpower on account of unattractive terms & conditions of service.

iii) Training

16. TRAI accords utmost importance to human resource initiatives to develop expertise for its staff in the fields of Telecom and Broadcasting especially related to tariffs and quality of services standards, conduct of surveys on Quality of Service and other consumer related matters. This initiative has proved to be useful for its officers and staff in participating effectively in the consultative process for the Authority, both through the preparation of consultation papers and analysing feedback and responses received and also during Open House Discussion. This has also helped in developing the policy framework to address various issues which arise in regulating the telecom sector. In selecting and designing training programmes / workshops, TRAI's endeavour is to impart diverse skills for macro level policy and handling of techno-economic operating details relevant for implementation and monitoring of policies. Special programmes need to be identified or designed and run to meet the specific needs of TRAI, the Authority sponsors its officers for international training under the 'Institutional Capacity Building Project' for further developing their expertise within the organization.



17. A few TRAI officers were deputed during the year to attend International Training programmes conducted by various Institutions and International Telecommunications Union. The officers have received valuable inputs through these trainings and the inputs have enriched their skills in their respective area of regulatory work. 121 Officers/ Officials of TRAI were deputed for various domestic training programmes which included “Regulatory Impact Assessment” conducted through CUTS International, Jaipur, “Utility Regulations & Strategy for the Regulatory Bodies of India” through OP Jindal Global University, Sonipat and online course on “Advance professional Course in Competition Law & Market Regulation” through Indian Institute of Corporate Affairs (IICA), Manesar etc.

18. TRAI also has in place a system of in-house training and workshops, wherein distinguished national and international experts are invited for interaction with its officers on latest developments in the telecom sector. These are the steps for capacity building by TRAI for its officers and staff.

(iv) Seminar / Workshops

19. In order to keep pace with the developments taking place globally, the Authority has deputed members of its staff to 27 international events, meetings and symposia which not only helped gather valuable feedback / inputs for its own policy formulation as well to keep abreast with the latest development in the fields

of technology, but has also contributed to the international efforts being focused on issues of major regulatory concerns in India and many other countries and enabled India to play a leading role in emerging global information society.

v) Office accommodation

20. As per the policy of the Government of India TRAI is an eligible office for Office Accommodation from Government pool. But, since its inception in 1997 TRAI has been functioning through rented accommodation. In the past TRAI had made vigorous efforts to get its own office premises through Ministry of Communications & IT but to no avail. TRAI being an autonomous regulatory body for regulating the affairs of Telecom Sector and Broadcasting and Cable Services needs its own office premise to keep its autonomous character intact. Presently, TRAI’s office is located in the building owned by MTNL on rental basis.

vi) Residential quarters for TRAI staff

21. As per the existing policy of the Government of India employees joining the Authority on deputation are permitted retention of general pool accommodation on payment of Special Licence Fee by the Authority who may recover normal licence fee from the employees. Permissible period of retention will be till the superannuation of the employees or till the duration of their tenure with the Authority, whichever is earlier. The eligibility for allotment of General Pool residential accommodation

would be restricted to the officers posted in the Secretariat of the Authority (TRAI) in Delhi, who were eligible for allotment of accommodation from General Pool prior to their joining in the Authority on payment of special licence fee by TRAI to the Directorate of Estates. In view of the forgoing position, the Directorate of Estates is neither allotting the general pool accommodation nor allowing retention of the accommodation already allotted, either to the officers or to the staff, after they get absorbed in TRAI.

(d) Funding

- 22. TRAI is an autonomous body and it is wholly funded by grant received from the Consolidated Fund of India. The total expenditure on the functioning of TRAI in the year 2015-16 was Rs.54.51 crore; out of this, Rs. 10.90 crore was incurred during 2015-16 on the 'Institutional Capacity Building Project' covering certain consultancy and training programmes.
- 23. TRAI is of the view that in order to perform effectively as an independent regulator, it should be funded from a minor portion of the licence fees recovered as a cost of administration from those whom it regulates, and it should be empowered with the flexibility in determining the terms and conditions of its employees to enable it to recruit talents / professionals from non-government sources also at senior and other levels. It is worth mentioning that some other national

regulatory bodies like IRDA and SEBI are funded out of the fees recovered from the sector they regulate and hence these authorities have the flexibility to use these funds as per the specific requirements of their functioning.

(e) Opening of TRAI Regional Offices

- 24. Authority had approved opening of 11 (eleven) Regional Offices of TRAI at various locations across the country in the year 2012. The Authority reviewed the working of the Regional Offices and approved closure of 5 Regional Offices located at Chandigarh, Patna, Mumbai, Guwahati and Lucknow and continuation of 6 Regional Offices located at Hyderabad, Kolkata, Bengaluru, Bhopal, Jaipur and Delhi during 2014-15 with revised License Service Areas. These Regional Offices of TRAI are operating on Pilot Project basis under Plan Fund as part of Capacity Building Project of TRAI. The locations of Regional Office with revised License – Service Areas covered (during 2015-16) are as follows:-

S. No.	Location of the 6 TRAI ROs	License Service Areas covered by each RO
1	Kolkata	West Bengal, Kolkata, North East, Assam, Bihar
2	Bengaluru	Karnataka, Kerala, Maharashtra, Mumbai
3	Hyderabad	Andhra Pradesh, Tamilnadu including Chennai, Orissa



4	Bhopal	Madhya Pradesh, UP (East), UP (West)
5	Jaipur	Rajasthan, Haryana, Punjab, Gujarat
6	Delhi	Delhi, Himachal Pradesh, Jammu & Kashmir,



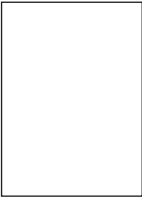
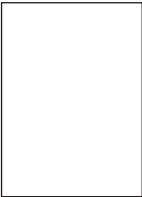
Staff strength of TRAI Regional Offices (as on 31.03.2016)

25. As on 31.03.2016, the Staff strength of the TRAI (Regional Offices) was as under:

SL. NO.	POSTS	SANC-TIONED	WORKING
1.	ADVISORS	6	4
2.	JT. ADVISOR/DY. ADVISOR	12	4
3.	SR. RESEARCH OFFICER	12	10
4.	ASSISTANT	6	3
TOTAL		36	16

26. Details of Advisor level officers in TRAI Regional Offices (as on 31.3.2016)

Sl. No.	NAME OF THE OFFICER (S/SHRI/SMT.)
1.	Rupa Pal Choudhary Advisor Kolkata 
2.	G. Muralidhar Hyderabad Advisor 

3.	Arvind Sinha Advisor Bhopal 
4.	Dr. Sibichen K. Mathew Advisor Bengaluru 
5.	Vacant -- Jaipur 
6.	Vacant -- Delhi 

27. The role and functions of the above Regional Offices (RO) are:

- (i) Ensuring compliance of Tariff related Guidelines & effective monitoring of Retail Tariff of Telecommunications, Broadcasting & Cable Services;
- (ii) Proper coordination with Service Providers with regard to Regulatory and marketing aspects;
- (iii) Monitoring of Quality of Service and handling of consumer grievance;
- (iv) Organizing Open House Discussions (OHD) / Consumer Advocacy Groups (CAG) meetings of TRAI;
- (v) Coordination & monitoring of Audit

and Survey by Independent Agencies appointed by TRAI;

- (vi) Development of CAG upto to District/ Block level and close interaction with CAGs;
- (vii) Organizing Consumer Education Workshops;
- (viii) Close interaction with TERM Cell of DoT;
- (ix) Monitoring of implementation of Mobile Number Portability (MNP) Regulations and Unsolicited Commercial Communications (UCC) Regulations; and
- (x) Perform such other functions including such administrative and financial functions as may be entrusted to it by the Headquarters of TRAI or as may be necessary to carry out the provisions of TRAI Act.

(f) Right to Information Act

28. The Right to Information Act, 2005, which came into force from 12th October 2005 is also applicable to TRAI. Accordingly, in consonance with the provisions of the Act, the Authority has designated a Central Public Information Officer in TRAI assisted by a Central Assistant Public Information Officer. Officers of the level of Principal Advisor / Advisor have been designated as Appellate Authority and Transparency officers under the Act. Name and designation of these officers and the information required to be published under Section 4 (1) of the RTI

Act have been placed on the website of TRAI.

29. During the year 2015-16, 995 applications were received seeking various information under the RTI Act 2005. All these applications were promptly dealt with and replies have been sent within the stipulated time period.

(g) IS/ISO 9001 : 2008 Certification to TRAI

30. TRAI had been awarded ISO 9001:2000 certification in December 2004 by Bureau of Indian Standards (BIS). The same was renewed thrice in the year 2007, 2010 and 2013 with the validity period of three years. The present series of ISO Standards IS/ISO 9001:2008 certification was awarded to TRAI for validity period up to November, 2016. To evaluate the implementation and effectiveness of Quality Management System (QMS) in TRAI, BIS has also conducted surveillance audits once every year and three renewal audits since December, 2004. The quality-auditors have found the QMS functioning satisfactory and had recommended the continuance of the license issued by the BIS.

31. Conducting internal quality audit on a bi-annual basis has also ensured the continual improvement in the system. TRAI has 40 internal quality auditors for the purpose. The Quality Management System is also reviewed by the Secretary on a monthly basis and by the Top Management in a year.

(h) Implementation of Official Language Policy

32.

An Official Language Section under the supervision of Secretary, TRAI is functioning in Telecom Regulatory Authority of India to implement the provisions of Official Language Act, 1963, Official Languages Rules, 1976 and other administrative instructions issued on the subject from time to time by the Department of Official Language (Ministry of Home Affairs). TRAI makes every effort to ensure the compliance of the Official Language policy of the Union Government in TRAI. Besides, it also caters to the translation needs of various Divisions as and when regulations, press communiqués, tender notices, gazette notifications and other documents are issued in bilingual form.

33.

The implementation of Official Language policy of the Union Government by all the Divisions and Sections of TRAI is monitored by the Official Language Implementation Committee (OLIC) constituted under the Chairmanship of Advisor (Admn.). Meetings of the OLIC are held regularly in every quarter. In these meetings, special emphasis is given on increasing the progressive use of Hindi in official work. Besides, a review of the current status of implementation of Official Language policy in TRAI is also done and future action-plan in this regard is drawn. Valuable suggestions of the members of the Committee are invited to gear up the work relating to Official Language. During the period of the

report, 4 meetings of OLIC were held on 03.07.2015, 30.09.2015, 31.12.2015 and 30.03.2016.

34.

In compliance with the directives received from Department of Official Language (Ministry of Home Affairs) and Department of Telecommunications, "Hindi Week" was organized in TRAI from 10th September 2015 to 18th September 2015 during which various Hindi competitions viz. Hindi essay writing, poetry recitation, speech, noting/drafting etc. were organized. A number of officers up to the rank of Senior Research Officer and staff took part in the competition with great zeal and enthusiasm. On the occasion of Hindi Day, a message from Chairman, TRAI for ensuring the compliance of Official Language rules/regulations was circulated among the officers/staff.

35.

In order to increase the progressive use of Hindi in day-to-day official work, an annual incentive scheme viz. Varshik Protsahan Yojna has been introduced in TRAI for officers / employees for the last Seven years. Under this scheme, 10 cash prizes are given every year to the officers / employees for doing official work in Hindi during the period of the scheme. This scheme has proved to be very popular among the staff and it has encouraged the staff to do most of their official work in Hindi throughout the year.

36.

With a view to facilitate officers/staff to do noting and drafting in Hindi and also to apprise them of the Official Language

policy of the Union government, regular Hindi workshops are organized in TRAI. During these workshops dictionaries, administrative glossaries, help/reference books etc. are distributed to the participants which render them useful help while doing their official work in Hindi. During the period under report, Four Hindi workshops were organized in TRAI on 03.07.2015, 30.09.2015, 31.12.2015 and 30.03.2016.

37. The bilingual magazine 'TRAI DARPAN' is a representative in-house magazine of TRAI and it is published half yearly. One issue of 'TRAI DARPAN' (Issue No. 17) was published during the period of the Report. These issues were widely appreciated

both within the Authority and by the members of Hindi Salahakar Samiti of the Department of Telecommunications.

(I) Implementation of reservation prescribed for reserved categories

No appointment on direct recruitment basis has been made in TRAI during the year. TRAI has been adhering to the provisions of reservation prescribed for SCs, STs, OBCs, PWDs and other eligible categories while making promotions. Besides, for the matters relating to the representation of respective category, a Liaison Officer of the rank of Deputy Secretary has been appointed. All files relating to promotions in TRAI are routed through him.



B) AUDITED ACCOUNT OF TRAI FOR THE YEAR 2015-16

Separate Audit Report of the Comptroller & Auditor General of India on the Annual Accounts of Telecom Regulatory Authority of India for the year ended 31 March 2016

We have audited the attached Balance Sheet of the Telecom Regulatory Authority of India as on 31 March 2016 and the Income and Expenditure Account/Receipts and Payments Account for the year ended on that date under Section 19(2) of the Comptroller & Auditor General's (Duties, Powers & Conditions of Service) Act, 1971 read with Section 23(2) of the Telecom Regulatory Authority of India Act, 1997 (as amended in January 2000). These financial statements are the responsibility of the Telecom Regulatory Authority of India's management. Our responsibility is to express an opinion on these financial statements based on our audit.

2. This separate Audit Report contains the comments of the Comptroller & Auditor General of India (CAG) on the accounting treatment only with regard to classification, conformity with the best accounting practices, accounting standards and disclosure norms, etc. Audit observations on financial transactions with regard to compliance with the Law, Rules & Regulations (Propriety and Regularity) and efficiency-cum performance aspects, etc., if any, are reported through Inspection Reports/CAG's Audit Reports separately.
3. We have conducted our audit in accordance with the auditing standards generally accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance that the financial statements are free from material misstatements. An audit includes examining, on a test basis, evidences supporting the amounts and disclosure in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of financial statements. We believe that our audit

provides a reasonable basis for our opinion.

4. Based on our audit, we report that:

- i. We have obtained the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of audit;
- ii. The Balance Sheet and the Income and Expenditure Account/Receipts and Payments Account dealt with by this report have been drawn up in the 'Uniform format of Accounts' approved by the Controller General of Accounts under Section 23 (1) of the Telecom Regulatory Authority of India Act, 1997 (as amended in January 2000)
- iii. In our opinion, proper books of accounts and other relevant records have been maintained by the Telecom Regulatory Authority of India
- iv. Our observations on the annual accounts of TRAI are given in subsequent paragraphs.

INCOME AND EXPENDITURE ACCOUNT

Expenditure

Depreciation (Plan ₹92.35 lakh)

The above head includes ₹27.16 lakh being the depreciation charged on LAN (Office Equipment) costing ₹171.32 lakh capitalized during the year. As the asset was handed over only on 04 March 2016, charging of depreciation for the entire year instead of pro rata depreciation resulted in overstatement of depreciation as well as expenditure for the year by ₹25.02 lakh and understatement of net block by the same amount.

GRANTS IN AID

Non Plan

Out of the grants in aid (Non Plan) of ₹5832 lakh (including unspent balance of ₹243 lakh of the

earlier year) received during the year, TRAI could utilize a sum of ₹5443 lakh, leaving a balance of ₹313 lakh, in TRAI's bank accounts grant as on 31 March 2016.

2. Plan

Further, out of the grants in aid (Plan) of ₹1608 lakh (including unspent balance of ₹133 lakh of the earlier year) received during the year, TRAI could utilise a sum of ₹1214 lakh, leaving a balance of ₹394 lakh in TRAI's bank accounts grant as on 31 March 2016.

- (i) Subject to our observations in the preceding paragraphs, we report that the Balance Sheet and the Income and Expenditure Account/Receipts and Payments Account dealt with by this Report are in agreement with the books of accounts.
- (ii) In our opinion and to the best of our information and according to the explanations given to us, the said financial statements read together with the Accounting Policies and Notes on Accounts, and subject to the significant matters stated above and other matters mentioned in **Annexure-I** to this Audit Report give a true and fair view in conformity with the accounting principles accepted in India:
 - (a) In so far as it relates to the Balance Sheet (both Plan and Non-Plan) of the state of affairs of the Telecom Regulatory Authority of India as on 31 March 2016; and
 - (b) In so far as it relates to the Income and Expenditure Account of the Surplus (both Plan and Non-Plan) for the year ended on that date.

Sd/-
(P.K. TIWARI)

DIRECTOR GENERAL OF AUDIT (P&T)

ANNEXURE-I TO SEPARATE AUDIT REPORT ON THE ACCOUNTS OF TELECOM REGULATORY AUTHORITY OF INDIA FOR THE YEAR ENDED 31 MARCH 2016

As per the information and explanations given to us, the books and records examined by us in normal course of audit and to the best of our knowledge and belief, we further report that:

(1) ADEQUACY OF INTERNAL AUDIT SYSTEM

Internal Audit of TRAI was constituted vide circular no.1-25/2012-A&P dt 12 July 2013 for strengthening the administrative setup for internal audit. It was decided that internal auditor will report to Secretary TRAI thereafter report will be forwarded to the respective divisions for necessary corrective measures. Technical Officer (Internal Audit Unit) has been appointed as the Internal Auditor of TRAI. Audit however, noticed that Internal Audit Report for the year 2015-16 was not submitted to Secretary TRAI but was approved by Advisor (Administration) which indicates that internal Audit is not independent.

SCOPE OF INTERNAL AUDIT

The scope and function of the internal audit of the organization depends on the nature of work, the number of subordinate offices, the strength of establishment, nature and quantum of expenditure etc. Annual Internal Audit plans have been prepared and acted upon regularly. However, Manual of Internal Audit specifying the duties and functions of the organization, with particular reference to the prevailing conditions in the TRAI is in the process of being prepared.

DUTIES OF INTERNAL AUDIT

The duties of the internal audit organization includes the following

- (i) study of accounting procedures prescribed with a view to ensuring that they are correct, adequate and free from any defects or lacunae;
- (ii) watch over the implementation of the prescribed procedures and the orders issued from time to time;
- (iii) scrutiny and check of payments and accounting work of the accounting units;
- (iv) periodical review of all accounts records;
- (v) the appraisal, monitoring and evaluation of individual schemes;
- (vi) Assessment of adequacy and effectiveness of internal controls in general, and soundness of financial systems and reliability of financial and accounting reports in particular;
- (vii) identification and monitoring of risk factors including those contained in the Outcome Budget;
- (viii) providing an effective monitoring system to facilitate mid course corrections.

QUANTUM OF AUDIT

The internal audit has conducted a general review of all the accounts records maintained by the office since the last inspection. Apart from the general review, it also conducted a detailed check of accounts records of at least one month in a year, selected by the in charge of internal audit. The extent and nature of checks included the following:

- (a) Detailed scrutiny of accounts records required to be maintained in DDO's offices;

- (b) Verification of payment and accounting procedures including procedures to be followed by DDOs.
- (c) Recoveries and deductions made from the bills whether are in order; correctness and accuracy of Interest calculation wherever required;
- (d) Scrutiny of the sanctioning and purchase procedures, so as to ensure that they are free from any defect or lacunae; checking of contracts with respect to terms and conditions of contract;
- (e) Checking the procedures followed for disposal of assets etc to ensure they are as per laid down condemnation and disposal procedures;
- (f) Payments are made in accordance with the rules and orders governing them with the correct arithmetical calculations;
- (g) Scrutiny of general office management procedures adopted by the heads of offices in areas having financial and accounting implications, so as to suggest measures for tightening up administrative and financial control, savings in expenditure or streamlining of accounting.

CHECKING OF RECEIPTS

The respective divisions in TRAI are primarily responsible to ensure that all revenues (Fees/ Penalties etc.) or dues to TRAI are correctly and properly assessed, realized and credited to respective account.

Internal Audit has conducted mandatory checks to see whether the TRAI has prescribed adequate regulations and procedures for effective check on collection and accounting of all revenue receipts and refunds, and that they are followed correctly.

FREQUENCY OF INTERNAL AUDIT

Internal Audit of important units was conducted once during the year.

As per size and nature of functions performed by TRAI the Internal Audit System is adequate.


(2) ADEQUACY OF INTERNAL CONTROL SYSTEM

TRAI has framed the policies and procedures for appointment of staff/ officers, fixation of pay, extension of terms of consultant, settlement of personal claims, TA claims, training and study tours of officers and staff and regulations on various matters in accordance with the provisions of the TRAI Act. The same are being followed. Receipt and disbursement of cash and maintenance of cash book has been properly done in compliance with relevant rules and regulations. Physical verification of cash has been regularly done and the maximum limit of the cash balance, as prescribed by the Authority, was maintained. Two types of funds – one Plan Fund and the other Non-Plan Fund are maintained by TRAI and separate books of accounts are maintained for each fund. TRAI General Fund is maintained by the Department of Telecommunication (DoT). Grants from the Government of India to TRAI under Plan and Non Plan heads are credited to this fund. Expenditure of TRAI is met out of the release of grants by DoT under plan and non- plan heads.

In our opinion, the internal control system of the organization is adequate and commensurate with its size and the nature of its functions.

(3) SYSTEM OF PHYSICAL VERIFICATION OF FIXED ASSETS

The Registers of Fixed Assets are maintained manually as well as in computerized form.



The Committee for conducting the physical verification of assets/ stores is being formed; however, Physical verification of Fixed Assets of Regional Offices was not carried out during the year 2012-13, 2013-14, 2014-15 and 2015-16.

In our opinion, the System of physical verification of fixed assets of the organisation is adequate and commensurate with its size and the nature of its functions.

(4) SYSTEM OF PHYSICAL VERIFICATION OF INVENTORY

Proper records of inventory have been

maintained. The physical verification of inventory for the year 2015-16 has been done.

In our opinion, the system for physical verification of inventory is adequate and commensurate with its size and the nature of its functions.

(5) REGULARITY IN PAYMENT OF STATUTORY DUES

There was no disputed amount payable in respect of any other statutory dues including Contributory Provident Fund.

FORM OF FINANCIAL STATEMENTS(NON-PROFIT ORGANISATIONS)

TELECOM REGULATORY AUTHORITY OF INDIA

BALANCE SHEET AS AT 31-03-2016

	NON-PLAN			PLAN	
	2015-16	2014-15	2015-16	2014-15	2014-15
CORPUS/CAPITAL FUND	1	38,78,61,209	22,62,52,597	68,66,36,926	65,40,90,217
RESERVES AND SURPLUS	2				
3					
4					
SECURED LOANS AND BORROWINGS	5				
UNSECURED LOANS AND BORROWINGS	6				
DEFERRED CREDIT LIABILITIES	7	19,25,02,035	19,69,79,662	6,61,85,695	7,73,25,540
CURRENT LIABILITIES AND PROVISIONS		58,03,63,244	42,32,32,259	75,28,22,621	73,14,15,757
TOTAL					
ASSETS					
FIXED ASSETS	8	1,68,92,778	1,61,87,431	6,38,74,160	7,30,78,721
INVESTMENTS-FROM EARMARKED/ENDOWMENT FUNDS	9				
INVESTMENTS-OTHERS	10				
CURRENT ASSETS, LOANS, ADVANCES ETC	11	56,34,70,466	40,70,44,828	68,89,48,461	65,83,37,036
MISCELLANEOUS EXPENDITURE					
(to the extent not written off or adjusted)					
TOTAL		58,03,63,244	42,32,32,259	75,28,22,621	73,14,15,757
SIGNIFICANT ACCOUNTING POLICIES	24				
CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS	25				

Sd/-

Pr. Advisor (F&EA)

Sd/-

Secretary

Sd/-

Member

Sd/-

Chairperson

FORM OF FINANCIAL STATEMENTS(NON-PROFIT ORGANISATIONS)
TELECOM REGULATORY AUTHORITY OF INDIA
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31-03-2016

	Schedule	NON-PLAN		PLAN	
		Current Year	Previous Year	Current Year	Previous Year
		2015-16	2014-15	2015-16	2014-15
INCOME					
Income from Sales/Services	12				
Grants/Subsidies	13	55,89,00,000	41,50,00,000	14,75,00,000	30,00,00,000
Fee/Subscriptions	14				
Income from Investments (Income on Invest from earmarked / endow. Funds transferred to Funds	15				
Income for Royalty, Publication etc.	16				
Interest Earned	17	1,28,386	1,48,898		
Other Income	18	14,87,07,140	15,98,47,834	1,46,182	5,215
Increase (decrease) in stock of Finished goods and works-in- progress	19				
TOTAL (A)		70,77,35,526	57,49,96,732	14,76,46,182	30,00,05,215
EXPENDITURE					
Establishment Expenses	20	26,03,37,365	22,57,03,861		
Other Administrative Expenses etc	21	27,90,61,321	24,69,71,933	11,32,02,296	10,06,97,598
Expenditure on Grants, Subsidies etc	22				
Interest	23				
Depreciation (Net Total at the year end-corresponding to Schedule 8)		64,09,135	71,66,449	92,34,561	58,68,861
TOTAL (B)		54,58,07,821	47,98,42,243	12,24,36,857	10,65,66,459

INCOME	Schedule	NON-PLAN		PLAN	
		Current Year	Previous Year	Current Year	Previous Year
		2015-16	2014-15	2015-16	2014-15
Balance being excess of Income over Expenditure (A-B)					
Transfer to Special Reserve (Specify each)					
Transfer to / from General Reserve					
BALANCE BEING SURPLUS/(DEFICIT) CARRIED TO CORPUS/ CAPITAL FUND		16,19,27,705	9,51,54,489	2,52,09,325	19,34,38,756
SIGNIFICANT ACCOUNTING POLICIES	24				
CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS	25				

Sd/-

Pr. Advisor (F&EA)

Sd/-

Secretary

Sd/-

Member

Sd/-

Chairperson

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)
TELECOM REGULATORY AUTHORITY OF INDIA
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2016

SCHEDULE I - CORPUS/CAPITAL FUND:

	NON - PLAN		PLAN	
	Current Year 2015-16	Previous Year 2014-15	Current Year 2015-16	Previous Year 2014-15
Balance as at the beginning of the year	22,62,52,597	13,10,72,337	65,40,90,217	45,79,41,975
Add:/Less Contributions towards Corpus/Capital Fund	-319,093	25,771	73,37,384	27,09,486
Add/(Deduct): Balance of net income/(expenditure) transferred from the Income and Expenditure Account	16,19,27,705	9,51,54,489	2,52,09,325	19,34,38,756
BALANCE SHEET AS AT THE YEAR-END	38,78,61,209	22,62,52,597	68,66,36,926	65,40,90,217

SCHEDULE 2 - RESERVES AND SURPLUS

	NON-PLAN		PLAN	
	Current Year 2015-16	Previous Year 2014-15	Current Year 2015-16	Previous Year 2014-15
1. Capital Reserve:	-	-	-	-
As per last Account	-	-	-	-
Addition during the year	-	-	-	-
Less: Deductions during the year	-	-	-	-
2. Revaluation Reserve:	-	-	-	-
As per last Account	-	-	-	-
Addition during the year	-	-	-	-
Less: Deductions during the year	-	-	-	-
3. Special Reserve:	-	-	-	-
As per last Account	-	-	-	-
Addition during the year	-	-	-	-
Less: Deductions during the year	-	-	-	-
4. General Reserve:	-	-	-	-
As per last Account	-	-	-	-
Addition during the year	-	-	-	-
Less: Deductions during the year	-	-	-	-
TOTAL	-	-	-	-

Sd/-
Consultant
(F&EA)

SCHEDULE-3-EARMARKED/ENDOWMENT FUNDS

(Amount-Rs.)

	FUND-WISE BREAKUP						TOTALS		
	Fund	Fund	Fund	Fund	NON-PLAN	PLAN	Current Year	Previous Year	Previous Year
	WW	XX	YY	ZZ	Current Year	Year			
					2015-16	2014-15	2015-16	2014-15	2014-15
a) Opening balance of the funds									
b) Additions of the funds:									
i. Donations/grants									
ii. Income from investments made on account of funds									
iii. Other additions (Misc income, receipt of advances)									
TOTAL (a+b)									
c) Utilisation/expenditure towards objectives of funds									
i. Capital Expenditure									
- Fixed Assets									
- Others									
Total									
ii. Revenue Expenditure									
- Salaries, Wages and Allowances etc									
- Rent									
- Other Administrative Expenses									
Total									
TOTAL (c)									
NET BALANCE AS AT THE YEAR-END (a+b+c)									

Notes

- 1) Disclosures shall be made under relevant head based on conditions attaching to the grants
- 2) Plan funds received from the Central/State Governments are to be shown as separate funds and not to be mixed up with any other Funds

Sd/-
Consultant
(F&EA)

SCHEDULE 4 - SECURED LOANS AND BORROWINGS

	NON-PLAN		PLAN	
	Current Year	Previous Year	Current Year	Previous Year
	2015-16	2014-15	2015-16	2014-15
1. Central Government	-	-	-	-
2. State Government (Specify)	-	-	-	-
3. Financial Institutions	-	-	-	-
4. Banks	-	-	-	-
a) Term Loans	-	-	-	-
- Interest accrued and due	-	-	-	-
b) Other-Loans (Specify	-	-	-	-
- Interest accrued and due	-	-	-	-
5. Other Institutions and Agencies	-	-	-	-
6. Debentures and Bonds	-	-	-	-
7. Others (Specify)	-	-	-	-
TOTAL	-	-	-	-

Note: Amount due within one year

SCHEDULE 5 - UNSECURED LOANS AND BORROWINGS

(Amount-Rs.)

	NON-PLAN		PLAN	
	Current Year	Previous Year	Current Year	Previous Year
	2015-16	2014-15	2015-16	2014-15
1. Central Government	-	-	-	-
2. State Government (Specify)	-	-	-	-
3. Financial Institutions	-	-	-	-
4. Banks	-	-	-	-
a) Term Loans	-	-	-	-
- Interest accrued and due	-	-	-	-
b) Other - Loans (Specify)	-	-	-	-
- Interest accrued and due	-	-	-	-
5. Other Institutions and Agencies	-	-	-	-
6. Debentures and Bonds	-	-	-	-
7. Others (Specify)	-	-	-	-
TOTAL	-	-	-	-

Note: Amount due within one year

Sd/-
Consultant
(F&EA)

SCHEDULE 6- DEFERRED CREDIT LIABILITIES

	NON-PLAN		PLAN	
	Current Year 2015-16	Previous Year 2014-15	Current Year 2015-16	Previous Year 2014-15
a) Acceptances secured by hypothecation of capital equipment and other assets	-	-	-	-
b) Others	-	-	-	-
TOTAL	-	-	-	-

Note: Amounts due within one year

SCHEDULE 7 - CURRENT LIABILITIES AND PROVISIONS

	(Amount-Rs.)			
	NON-PLAN		PLAN	
	Current Year 2015-16	Previous Year 2014-15	Current Year 2015-16	Previous Year 2014-15
A. CURRENT LIABILITIES				
1) Acceptances	-	-	-	-
2) Sundry Creditors	-	-	-	-
a) For Goods	-	-	-	-
b) Others	-	-	-	-
3) Advances Received	-	-	-	-
4) Interest accrued but not due on:	-	-	-	-
a) Secured loans/borrowings	-	-	-	-
b) Unsecured Loans/borrowings	-	-	-	-
5) Statutory Liabilities	-	-	-	-
a) Overdue	-	-	-	-
b) Others	-	-	-	-
6) Other current Liabilities	-	-	-	-
1) For TRAI General Fund (EMD)	12,60,700	11,81,500	90,000	67,500
2) For Telemarketers Registration Fees	-	-	-	-
3) For Customer Education Fees	-	-	-	-
4) Penalty from Telemarketers	-	-	-	-
TOTAL (A)	12,60,700	11,81,500	90,000	67,500
B. PROVISIONS				
1. For Taxation	-	-	-	-
2. Gratuity	4,05,95,280	3,17,21,294	-	-
3. Superannuation/Pension	-	-	-	-
4. Accumulated Leave Encashment	4,46,13,173	3,53,04,506	-	-
5. Trade Warranties/Claims	-	-	-	-
6. Other (Specify)	-	-	-	-
Provisions for expenses	10,60,32,882	12,87,72,362	6,60,95,695	7,72,58,040
TOTAL (B)	19,12,41,335	19,57,98,162	6,60,95,695	7,72,58,040
TOTAL (A+B)	19,25,02,035	19,69,79,662	6,61,85,695	7,73,25,540

Sd/-
Consultant (F&EA)

SCHEDULE 8 - FIXED ASSETS NON PLAN

DESCRIPTION	GROSS BLOCK			DEPRICIATION			(Amount - Rs.)			
	Cost/ valuation as at beginning of the year	Additions during the year	Deductions during the year	Cost/ valuation at the year- ended	As at the beginning of the year	Additions during the year	Deductions during the year	Total up to the year- end	Previous Year As at the current year-end	As at the previous year-end
A. FIXED ASSETS:										
1. LAND	-	-	-	-	-	-	-	-	-	-
a) Freehold	-	-	-	-	-	-	-	-	-	-
b) Leasehold	-	-	-	-	-	-	-	-	-	-
2. BUILDINGS										
a) On Freehold Land	-	-	-	-	-	-	-	-	-	-
b) On Leasehold Land	-	-	-	-	-	-	-	-	-	-
c) Ownership Flats/ Premises	-	-	-	-	-	-	-	-	-	-
d) Superstructures on land not belonging to the entity	-	-	-	-	-	-	-	-	-	-
3. PLANT MACHINERY & EQUIPMENT	-	-	-	-	-	-	-	-	-	-
4. VEHICLES	78,60,899	485,821	73,75,078	43,15,277	6,11,177	6,22,904	43,03,550	30,71,528	45,44,531	

Schedule 8 - Fixed Assets Non Plan (Contd....)

(Amount - Rs.)

DESCRIPTION	GROSS BLOCK			DEPRICIATION			Previous Year			
	Cost/ valuation as at beginning of the year	Additions during the year	Deductions during the year	Cost/ the year- ended	Additions during the year	Deductions during the year	As at the current year-end	As at the previous year-end		
5. FURNITURE, FIXTURES	2,08,10,818	16,85,004		2,24,95,822	1,53,21,785	16,56,509	1,69,78,294	55,17,528	62,33,872	
6. OFFICE EQUIPMENT	1,28,36,194	12,50,421	1,60,363	1,39,26,252	1,07,80,915	12,41,761	97,083	1,19,25,593	20,34,518	
7. COMPUTER/ PERIPHERALS	3,21,60,589	31,95,290		3,53,55,879	2,91,20,337	21,64,014	3,12,84,351	40,71,528	48,39,997	
8. ELECTRIC INSTALLATIONS	77,60,764	7,22,051		84,82,815	57,27,631	6,91,072	64,18,703	20,64,112	33,78,434	
9. LIBRARY BOOKS	37,91,202	1,87,913		39,79,115	37,67,090	44,602	38,11,692	1,67,423	1,10,828	
10. TUBEWELLS & W. SUPPLY										
11. OTHER FIXED ASSETS										
TOTAL OF CURRENT YEAR	8,52,20,466	70,40,679	646,184	9,16,14,961	6,90,33,035	64,09,135	7,19,987	7,47,22,183	1,68,92,778	2,11,42,180
PREVIOUS YEAR	8,36,55,180	24,55,599	8,90,313	8,52,20,466	6,25,13,000	71,66,449	6,46,414	6,90,33,035	1,61,87,431	2,14,97,306
B. CAPITAL WORK-IN-PROGRESS TOTAL										

Sd/-

Consultant (F&EA)

SCHEDULE 8 - FIXED ASSETS PLAN

(Amount-Rs.)

DESCRIPTION	GROSS BLOCK			DEPRICIATION			NET BLOCK		
	Cost/ valuation as at beginning of the year	Additions during the year	Deductions during the year	Cost/ valuation at the year- ended	As at the beginning of the year	Additions during the year	Deductions during the year	As at the current year- end	As at the previous year-end
A. FIXED ASSETS:									
1. LAND	-	-	-	-	-	-	-	-	-
a) Freehold	-	-	-	-	-	-	-	-	-
b) Leasehold	-	-	-	-	-	-	-	-	-
2. BUILDINGS									
a) On Freehold Land	-	-	-	-	-	-	-	-	-
b) On Leasehold Land	-	-	-	-	-	-	-	-	-
c) Ownership Flats/Premises	-	-	-	-	-	-	-	-	-
d) Superstructures on land not belonging to the entity	-	-	-	-	-	-	-	-	-
3. PLANT MACHINERY & EQUIPMENT	-	-	-	-	-	-	-	-	-
4. VEHICLES	-	-	-	-	-	-	-	-	-
5. FURNITURE, FIXTURES	1,861,416			18,61,416	409,789	1,86,141	5,95,930	12,65,486	1,451,627
6. OFFICE EQUIPMENT	2,283,261	1,71,62,399		1,94,45,660	947,789	32,09,314	41,57,103	1,52,88,557	1,335,472

SCHEDULE 8 - FIXED ASSETS PLAN (CONTD.)

(Amount-Rs.)

DESCRIPTION	GROSS BLOCK			DEPRICIATION			NET BLOCK		
	Cost/ valuation as at beginning of the year	Additions during the year	Deductions during the year	Cost/ valuation at the year- ended	As at the beginning of the year	Additions during the year	Deductions during the year	As at the current year-end	As at the previous year-end
7. COMPUTER/ PERIPHERALS	6,31,23,749			6,31,23,749	9,975,504	58,36,432		4,73,11,813	7,02,80,644
8. ELECTRIC INSTALLATIONS	12,940			12,940	1,962	2,674		8,304	10,978
9. LIBRARY BOOKS	3,64,407			3,64,407	3,64,407			0	0
TOTAL OF CURRENT YEAR	6,76,45,773	1,71,62,399	-	8,48,08,172	1,16,99,451	92,34,561	0	6,38,74,160	7,30,78,721
PREVIOUS YEAR	6,71,01,704	17,739,694	63,226	8,47,78,172	58,57,569	58,68,861	26,979	7,30,78,721	6,12,44,135
B. CAPITAL WORK-IN-PROGRESS									
TOTAL									

Sd/-

Consultant (F&EA)

SCHEDULE 9 - INVESTMENTS FROM EARMARKED/ENDOWMENT FUNDS

(Amount-Rs.)

	NON-PLAN		PLAN	
	Current Year	Previous Year	Current Year	Previous Year
	2015-16	2014-15	2015-16	2014-15
1. In Government Securities	-	-	-	-
2. Other approved Securities	-	-	-	-
3. Shares	-	-	-	-
4. Debentures and Bonds	-	-	-	-
5. Subsidiaries and Joint Ventures	-	-	-	-
6. Others (to be specified)	-	-	-	-
TOTAL	-	-	-	-

SCHEDULE 10 - INVESTMENTS OTHERS

(Amount-Rs.)

	NON-PLAN		PLAN	
	Current Year	Previous Year	Current Year	Previous Year
	2015-16	2014-15	2015-16	2014-15
1. In Government Securities	-	-	-	-
2. Other approved Securities	-	-	-	-
3. Shares	-	-	-	-
4. Debentures and Bonds	-	-	-	-
5. Subsidiaries and Joint Ventures	-	-	-	-
6. Others (Bank FDRs)	-	-	-	-
TOTAL	-	-	-	-

Sd/-
Consultant (F&EA)

SCHEDULE 11 - CURRENT ASSETS, LOANS, ADVANCES ETC

(Amount-Rs.)

DESCRIPTION	NON-PLAN		PLAN	
	Current Year 2015-16	Previous Year 2014-15	Current Year 2015-16	Previous Year 2014-15
A. CURRENT ASSETS:				
1. Inventories				
a) Stores and Spares	-	-	-	-
b) Lose tools	-	-	-	-
c) Stock-in-trade	-	-	-	-
Finished Goods	-	-	-	-
Work in progress	-	-	-	-
Raw Material	-	-	-	-
2. Sundry Debtors:				
a) Debts Outstanding for a period exceeding six months	-	-	-	-
b) Others	-	-	-	-
3. Cash balances in hand (including cheques/drafts and imprest)	25,225	52,214	25,000	-
4. Bank Balances:				
a) With Scheduled Banks			-	-
- On Current Accounts TRAI General fund	3,13,21,767	2,43,14,898	3,94,78,981	1,33,61,434
- On Current Accounts Registration Fees	2,32,000	2,32,000		-
- Penalty from Telemarketers	2,65,91,413	2,34,95,840		-
- On Savings Account Customer Education Fees	8,47,72,637	7,21,52,777		-
- On Savings Account Financial Disincentive	38,74,71,105	25,48,63,211		-
b) With non-Scheduled Banks				
- On Current Accounts	-	-	-	-
- On Deposit Accounts	-	-	-	-
- On Savings	-	-	-	-
5. Post Office-Savings Accounts	-	-	-	-
TOTAL (A)	53,04,14,147	37,51,10,940	3,95,03,981	1,33,61,434

SCHEDULE 11 - CURRENT ASSETS, LOANS, ADVANCES ETC

(Amount-Rs.)

	NON-PLAN		PLAN	
	Current Year 2015-16	Previous Year 2014-15	Current Year 2015-16	Previous Year 2014-15
B. LOANS, ADVANCES AND OTHER ASSETS				
1. Loans				
a) Staff	11,22,595	11,77,328		
b) Other Entities engaged in activities/objectives similar to that of Entity				-
c) Others (TA, LTC and Festival Advances to Officers & Staff))	62,500	1,35,500		
2. Advance and other amounts recoverable in cash or in kind or for value to be received:				
a) On Capital Account	2,75,00,000	2,75,00,000	64,35,00,000	64,35,00,000
b) Prepayments				
c) Others	22,88,560	9,08,999	59,44,480	14,75,602
3. Income Accrued				
a) On Investments from Earmarked/Endowment Funds				
b) On Investments-Others				
c) On Loans and Advances	15,95,029	17,22,968		
d) Others (includes income due unrealised Rs.)				
5. Claims Receivable	4,87,635	4,89,093		
TOTAL (B)	3,30,56,319	3,19,33,888	64,94,44,480	64,49,75,602
TOTAL (A+B)	56,34,70,466	40,70,44,828	68,89,48,461	65,83,37,036

Sd/-
Consultant (F&EA)

SCHEDULE 12 - INCOME FROM SALES/SERVICES

(Amount-Rs.)

	NON-PLAN		PLAN	
	Current Year	Previous Year	Current Year	Previous Year
	2015-16	2014-15	2015-16	2014-15
1. Income from Sales	-	-	-	-
a) Sale of Finished Goods	-	-	-	-
b) Sale of Raw material	-	-	-	-
c) Sale of Scraps	-	-	-	-
2. Income from Services	-	-	-	-
a) Labour and Processing Charges	-	-	-	-
b) Professional/Consultancy Services	-	-	-	-
c) Agency Commission and Brokerage	-	-	-	-
d) Maintenance Services (Equipment/Property)	-	-	-	-
e) Others (Specify)	-	-	-	-
TOTAL	-	-	-	-

SCHEDULE 13 - GRANTS/SUBSIDIES

	NON-PLAN		PLAN	
	Current Year	Previous Year	Current Year	Previous Year
	2015-16	2014-15	2015-16	2014-15
(Irrevocable Grants & Subsidies Received)				
1) Central Government	55,89,00,000	41,50,00,000	14,75,00,000	30,00,00,000
2) State Government (s)				
3) Government Agencies				
4) Institutions/Welfare Bodies				
5) International Organisations				
6) Other (Specify)				
TOTAL	55,89,00,000	41,50,00,000	14,75,00,000	30,00,00,000

Sd/-
Consultant (F&EA)

SCHEDULE 14 - FEES/SUBSCRIPTIONS

(Amount-Rs.)

	NON-PLAN		PLAN	
	Current Year 2015-16	Previous Year 2014-15	Current Year 2015-16	Previous Year 2014-15
1. Entrance Fees	-	-	-	-
2. Annual Fees/Subscriptions	-	-	-	-
3. Seminar/Program Fees	-	-	-	-
4. Consultancy Fees	-	-	-	-
5. Others (specify)	-	-	-	-
TOTAL				

Note: Accounting Policies towards each item are to be disclosed

SCHEDULE 15 - INCOME FROM INVESTMENTS

	Investment from Earmarked Fund			
	NON-PLAN		PLAN	
	Current Year 2015-16	Previous Year 2014-15	Current Year 2015-16	Previous Year 2014-15
(Income on Invest. from Earmarked/Endowment Funds Transferred to Funds)				
1) Interest				
a) On Govt Securities	-	-	-	-
b) Other Bonds/Debentures	-	-	-	-
2) Dividends	-	-	-	-
a) On Shares	-	-	-	-
b) On Mutual Fund Securities	-	-	-	-
3) Rents	-	-	-	-
4) Others (Specify)	-	-	-	-
TOTAL				
TRANSFERRED TO EARMARKED/ENDOWMENT FUNDS				

Sd/-
Consultant (F&EA)

SCHEDULE 16-INCOME FROM ROYALTY, PUBLICATION ETC

(Amount-Rs.)

	NON-PLAN		PLAN	
	Current Year	Previous Year	Current Year	Previous Year
	2015-16	2014-15	2015-16	2014-15
1. Income from Royalty	-	-	-	-
2. Income from Publications	-	-	-	-
3. Others (specify)	-	-	-	-
TOTAL	-	-	-	-

SCHEDULE 17 -INTEREST EARNED

	NON-PLAN		PLAN	
	Current Year	Previous Year	Current Year	Previous Year
	2015-16	2014-15	2015-16	2014-15
1) On Term Deposits				
a) With Scheduled Banks	-	-	-	-
b) With Non-Scheduled Banks	-	-	-	-
c) With Institutions	-	-	-	-
d) Others	-	-	-	-
2) On Savings Account				
a) With Scheduled Banks	-	-	-	-
b) With Non-Scheduled Banks	-	-	-	-
c) With Institutions	-	-	-	-
d) Others	-	-	-	-
3) On Loans	-	-	-	-
a) Employees/Staff	1,28,386	1,48,898	-	3756
b) Others	-	-	-	-
4) Interest on Debtors and Other Receivables	-	-	-	-
TOTAL	1,28,386	1,48,898	0	3,756

Note-Tax deducted at source to be indicated

Sd/-
Consultant (F&EA)

SCHEDULE 18-OTHER INCOME

(Amount-Rs.)

	NON-PLAN		PLAN	
	Current Year	Previous Year	Current Year	Previous Year
	2015-16	2014-15	2015-16	2014-15
1. Profit on Sale/disposal of Assets			-	-
a) Owned assets	3,49,981		14,226	-
b) Assets acquired out of grants, or received free of cost			-	-
2. Export Incentives realized			-	-
3. Fees for Miscellaneous Services			-	-
4. Miscellaneous Income	33,832	1,66,347	131,956	1,459
5. Registration Fees from Telemarketers			-	-
6. Customer Education Fees from Telemarketers	1,26,19,860	1,14,05,926	-	-
7. Penalty from Telemarketers	30,95,573	69,69,057	-	-
8. Financial Disincentive	13,26,07,894	14,13,06,504	-	-
TOTAL	14,87,07,140	15,98,47,834	1,46,182	1,459

SCHEDULE 19- INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS & WORK IN PROGRESS

	NON-PLAN		PLAN	
	Current Year	Previous Year	Current Year	Previous Year
	2015-16	2014-15	2015-16	2014-15
a) Closing stock				
- Finished Goods	-	-	-	-
- Work-in-progress	-	-	-	-
b) Less Opening Stock				
- Finished Goods	-	-	-	-
- Work-in-progress	-	-	-	-
NET INCREASE/(DECREASE) [a-b]	-	-	-	-

Sd/-
Consultant (F&EA)

SCHEDULE 20- ESTABLISHMENT EXPENSES

	NON-PLAN		PLAN	
	Current Year 2015-16	Previous Year 2014-15	Current Year 2015-16	Previous Year 2014-15
a) Salaries and Wages	20,69,83,489	18,36,04,659	-	-
b) Allowances and Bonus	2,88,697	2,73,577	-	-
c) Contribution to Provident Fund	65,57,857	49,08,811	-	-
d) Contribution to Other Fund (specify)			-	-
e) Staff Welfare Expenses	6,13,524	5,00,941	-	-
f) Expenses on Employees Retirement and Terminal Benefits	3,34,17,085	2,45,55,823	-	-
g) Others (LTC, Medical to Officers & Staff and OTA to Staff)	1,24,76,713	1,18,60,050	-	-
TOTAL	26,03,37,365	22,57,03,861	-	-

Sd/-
Consultant (F&EA)

SCHEDULE 21 - OTHER ADMINISTRATIVE EXPENSES ETC

(Amount-Rs.)

	NON-PLAN		PLAN	
	Current Year 2015-16	Previous Year 2014-15	Current Year 2015-16	Previous Year 2014-15
a) Purchases	-	-	-	-
b) Labour and processing expenses	-	-	-	-
c) Cartage and Carriage Inwards	-	-	-	-
d) Electricity and power	18,89,257	18,85,340	-	-
e) Water charges	-	-	-	-
f) Insurance	81,796	1,00,679	-	-
g) Repairs and maintenance	32,91,452	49,56,131	-	-
h) Excise Duty	-	-	-	-
i) Rent, Rates and Taxes	21,04,83,270	17,97,69,793	-	-
j) Vehicles Running and Maintenance	17,82,344	22,71,580	-	-
k) Postage, Telephone and Communication Charges	79,53,680	71,50,734	-	-
l) Printing and Stationery	59,94,350	50,06,366	-	-
m) Travelling and Conveyance Expenses	1,45,60,450	99,92,052	-	-
n) Expenses on Seminar/Workshops	36,240	35,622	-	-
o) Subscription Expenses	1,23,788	31,963	-	-
p) Expenses on Fees	13,483	-	-	-
q) Auditors Remuneration	2,02,706	1,48,070	-	-
r) Hospitality Expenses	11,43,384	14,69,957	-	-
s) Professional Charges	1,80,16,204	1,96,75,359	-	-
t) Provision for Bad and Doubtful Debts/Advances	-	-	-	-
u) Irrecoverable Balances Written-off	-	-	-	-
v) loss on sale of assets	111,962	60,718	-	-
w) Freight and Forwarding Expenses	-	-	-	-
x) Distribution Expenses	-	-	-	-
y) Advertisement and Publicity	-	10,06,065	-	-
z) Others	-	-	-	-
(i) Others (Payment to Security, Housekeeping etc.)	1,33,76,955	1,34,11,504	-	-
(ii) Expenditure on Capacity Building	-	-	11,32,02,296	10,06,97,598
TOTAL	27,90,61,321	24,69,71,933	11,32,02,296	10,06,97,598

Sd/-
Consultant (F&EA)

SCHEDULE 22-EXPENDITURE ON GRANTS, SUBSIDIES ETC

(Amount-Rs.)

	NON-PLAN		PLAN	
	Current Year 2015-16	Previous Year 2014-15	Current Year 2015-16	Previous Year 2014-15
a) Grants given to Institutions/Organisations	-	-	-	-
b) Subsidies given to Institutions/Organisations	-	-	-	-
TOTAL				

Note: Name of Entities, their Activities along with the amount of Grants/Subsidies are to be disclosed

SCHEDULE 23 - INTEREST

	NON-PLAN		PLAN	
	Current Year 2015-16	Previous Year 2014-15	Current Year 2015-16	Previous Year 2014-15
a) On Fixed Loans	-	-	-	-
b) On Other Loans (including Bank Charges)	-	-	-	-
c) Others (specify)	-		-	-
TOTAL	-	-		-

Sd/-
Consultant (F&EA)

TELECOM REGULATORY AUTHORITY OF INDIA
RECEIPTS AND PAYMENTS FOR THE PERIOD/YEAR ENDED 31-03-2016

	RECEIPTS		NON-PLAN		PLAN		PAYMENTS		NON-PLAN		PLAN	
	Current Year 2015-16	Previous Year 2014-15	Current Year 2015-16	Previous Year 2014-15	Current Year 2015-16	Previous Year 2014-15	Current Year 2015-16	Previous Year 2014-15	Current Year 2015-16	Previous Year 2014-15	Current Year 2015-16	Previous Year 2014-15
I. Opening Balance												
a) Cash in hand	52,214	1,20,060										
i) In current accounts	2,43,14,898	3,17,85,009	1,33,61,434	1,04,79,312								
ii) In deposit accounts												
iii) Savings accounts penalty												
registration fees	232,000	2,32,000										
customer education fees	7,21,52,777	6,07,46,851										
Financial disincentive	25,48,63,211	11,35,56,707										
II. Grants Received												
a) From Government of India	55,89,00,000	42,50,00,000	14,75,00,000	13,00,00,000								
III. Investments and deposits made												
a) Out of Earmarked/Endowment funds												
1. Expenses												
a) Establishment Expenses (corresponding to Schedule 20)	23,63,33,679	19,98,10,756										
b) Administrative expenses (corresponding to Schedule 21)	30,79,35,457	23,39,36,025	1,04,79,312	1,04,79,312								
II. Payments made against funds for various projects (Name the fund or project should be shown along with the particulars of payments made for each project)												
III. Investments and deposits made												
a) Out of Earmarked/Endowment funds												

	RECEIPTS		NON-PLAN		PLAN		PAYMENTS		NON-PLAN		PLAN	
	Current Year 2015-16	Previous Year 2014-15	Current Year 2015-16	Previous Year 2014-15	Current Year 2015-16	Previous Year 2014-15	Current Year 2015-16	Previous Year 2014-15	Current Year 2015-16	Previous Year 2014-15	Current Year 2015-16	Previous Year 2014-15
To Miscellaneous Income	33,832	1,66,347										
VI Amount Borrowed												
VII. Any other receipts (give details)												
To Security Deposits	79,200	24,90,705	22,500.00									
other advances												
To Sale of Assets	3,49,981	1,83,181										
To loans and advances & security deposits												
To registration fees	-											
To customer education fees	1,26,19,860	1,14,05,926										
To penalty from telemarketers	30,95,573	69,59,057										
To financial disincentive	13,26,07,894	14,13,06,504										
TOTAL	1,08,30,53,605	81,12,30,382	16,10,15,890	14,04,84,527	TOTAL	1,08,30,53,605	81,12,30,382	16,10,15,890	14,04,84,527	1,08,30,53,605	81,12,30,382	14,04,84,527

VII. Other Payments (Specify)

Loans and advances and security deposits

VIII. Closing Balances

a) Cash in hand

b) Bank Balances

1) In current accounts TRAI General fund

i) In current accounts Registration fees

ii) In deposit accounts

2) Savings accounts

i) customer education fees

ii) penalty from telemarketers

iii) financial disincentive

Sd/-

Pr. Advisor (F&EA)

Sd/-

Secretary

Sd/-

Member

Sd/-

Chairperson

SCHEDULE 24 - SIGNIFICANT ACCOUNTING POLICIES

1 Accounting Conventions:

- (a) The financial statements have been prepared in the "Uniform Form of Accounts" as approved by the Controller General of Accounts vide their letter No. F.No.19(1)/Misc./2005/TA/450-490 dated 23.07.2007 for both Non-Plan and Plan activities appropriately and distinctly.
- (b) Accounts have been prepared on accrual basis for the current year i.e., 2015-16. There is no change in Method of Accounting from the preceding year.
- (c) Provisions for all the undisputed and known liabilities have been made in the Books of Accounts.
- (d) Figures have been rounded off to the nearest rupee.
- (e) Contingent liabilities are disclosed after careful evaluation of facts and legal aspects of the matter involved.

2 Fixed Assets

Fixed Assets are stated at cost of acquisition inclusive of inward freight, duties and taxes and incidental and direct expenses related to acquisition.

3 Depreciation:

- (a) Depreciation on Fixed Assets is provided on Straight Line Method at the rates specified in Part "C" of Schedule II of the Companies Act, 2013 except for the categories mentioned below on which higher rates of depreciation have been applied:

Category	Minimum prescribed depreciation rate as per Companies Act, 1956	Depreciation rate applied
Office Equipments	19.00%	19.00% *
Furnitures and Fixtures	9.50%	10.00%
Electrical Appliances	9.50%	10.00%
Airconditioners	9.50%	10.00%
Books and Publications	6.33%	20.00%

* Office Equipments includes Mobile Handsets provided to the officers for official purposes. It has been decided by the Competent Authority vide Order No. 2-1/97-LAN dated 04.05.2007 to provide/write off these handsets in three years on the same pattern as DoT. Accordingly depreciation on Mobile Handsets from the year 2007-08 onwards have been charged off @ 33.33%.

- (b) In respect of additions to Fixed Assets during the year, depreciation is considered on Pro-rata basis.
- (c) Assets costing Rs. 5,000/- or less, each are fully provided.

4 Foreign Currency Transactions:

Transactions denominated in foreign currencies are recorded at the exchange rate prevailing at the time of transaction.

5 Retirement Benefits

- (a) Provision for Leave Salary and Pension Contribution up to 31.03.2016 in the case of employees on depositions have been provided in the Books of Accounts at the rates prescribed by Government of India under Fundamental Rules from time to time.
- (b) In the case of Regular employees, Provision for Leave Encashment and Gratuity for the year 2015-16 have been made on the basis of report furnished by the actuary.

6 Govt. Grant :

- (a) No grant in respect of specific fixed assets has been received during the current year.
- (b) Govt. grants are accounted for on the basis of grants received during the year from the Government.
- (c) The money received on account of Registration Fee, Customer Education Fee, Penalty on Telemarketers and Financial Disincentive has been accounted for on cash basis.

SCHEDULE 25 - CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS

1 Contingent Liabilities:

Claims against the Entity not acknowledged as debts Current Year (Nil) (Previous year Nil)

2 Current Assets, Loans and Advances:

In the opinion of the Management, the current assets, loans and advances have a value on realization in the ordinary course of business, equal at least to the aggregate amount shown in the Balance Sheet.

3 Taxation:

As per clause 32 of the TRAI Act, 1997, TRAI is exempt from tax on Wealth and Income.

4 Grants

During the accounting year i.e. 2015-16, the grants received during the year Rs.55.89 crores and 14.75 crores under Non Plan and Plan head respectively.

5 Transactions relating to the Telecom Commercial Communications Customer Preference Regulations, 2010

As per the provisions of "The Telecom Commercial Communications Customer Preference Regulations, 2010, TRAI has opened four accounts with Corporation Bank for deposition of Registration Fee, Customer Education Fee, Penalty Telemarketers and Financial Disincentive Accounts. As on 31st

March, 2016 a sum of Rs.1,26,19,860/-, Rs.30,95,573/- and Rs. 13,26,07,894/- has been received on account of Customer Education Fee, Penalty on Telemarketers and Financial Disincentive respectively. This amount has been shown in Schedule 18 - 'Other Income'.

6 Previous year figures:

Corresponding figures for the previous year have been regrouped/arranged wherever necessary. The expenditure/income relating to the previous year i.e prior period expenditure/income have been routed through capital fund.

7 Transactions in Foreign Currencies

Expenditure in Foreign Currency: Non - Plan Head *Nil*

Expenditure in Foreign Currency: Plan Head

(a) Travel: A sum of Rs.1,24,20,559/- was paid to officers towards TA/ DA expenditure for overseas travel.

A sum of Rs. 7,60,134/- was paid for participation fees for foreign institutions

(b) Remittances and Interest payment to Financial Institution, Banks in Foreign Currency *Nil*

(c) Other Expenditure: *Nil*

8 Schedules 1 to 25 are annexed to and form an integral part of the Balance Sheet as at 31st March, 2016 and the Income and Expenditure Account for the year ended on that date.

Sd/-
Pr. Advisor (F&EA)

Sd/-
Secretary

Sd/-
Member

Sd/-
Chairperson



C) AUDITED CONTRIBUTORY PROVIDENT FUND ACCOUNT OF TRAI FOR THE YEAR 2015-16

Separate Audit Report of the Comptroller & Auditor General of India on the Accounts of Telecom Regulatory Authority of India-Contributory Provident Fund Account for the year ended 31 March 2016

We have audited the attached Balance Sheet of the Telecom Regulatory Authority of India-Contributory Provident Fund Account as on 31 March 2016 and the Income and Expenditure Account/Receipts and Payments Account for the year ended on that date under Section 19(2) of the Comptroller & Auditor General's (Duties, Powers & Conditions of Service) Act, 1971 read with Rule 5 (5) of the Telecom Regulatory Authority of India (Contributory Provident Fund) Rules, 2003, issued under Government of India, Extraordinary Gazette Notification No. GSR 333(E) dated 10th April 2003. These financial statements are the responsibility of the Telecom Regulatory Authority of India-Contributory Provident Fund Account's Management. Our responsibility is to express an opinion on these financial statements based on our audit.

2. This separate Audit Report contains the comments of the Comptroller & Auditor General of India (CAG) on the accounting treatment only with regard to classification, conformity with the best accounting practices, accounting standards and disclosure norms, etc. Audit observations on financial transactions with regard to compliance with the Law, Rules & Regulations (Propriety and Regularity) and efficiency-cum performance aspects, etc, if any are reported through Inspection Reports/CAG's Audit Reports separately.
3. We have conducted our audit in accordance with auditing standards generally accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance that the financial statements are free from material misstatements. An audit includes

examining, on a test basis, evidence supporting the amounts and disclosure in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.

4. Based on our audit, we report that:

- i. We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of audit;
- ii. The Balance Sheet and the Income and Expenditure Account/Receipts and Payments Account dealt with by this report have been drawn up in the 'Uniform format of Accounts' approved by the Controller General of Accounts under Rule 5 of the Telecom Regulatory Authority of India (Contributory Provident Fund) Rules, 2003.
- iii. In our opinion, proper books of accounts and other relevant records have been maintained by the Telecom Regulatory Authority of India – Contributory Provident Fund Account.

iv. We report that the Balance Sheet and the Income and Expenditure Account/Receipt and Payments Account dealt with by this Report are in agreement with the books of accounts.

v. In our opinion and to the best of our information and according to the explanations given to us, the said financial statements, read together with the Accounting Policies and Notes on Accounts, and subject to the significant matters stated above and other matters mentioned in Annexure-I to this Audit Report, give a true and fair view in conformity with the accounting principles accepted in India:

- a. In so far as it relates to the Balance Sheet of the state of affairs of the Telecom Regulatory Authority of India-Contributory Provident Fund Account as on 31 March 2016; and
- b. In so far as it relates to the Income and Expenditure Account of the 'Excess of Income over Expenditure' for the year ended on that date.

Sd/
(P.K. Tiwari)
Director General of Audit (P&T)

Brief note on the Internal Control System Telecom Regulatory Authority of India-Contributory Provident Fund Account

An evaluation of the Internal Control System existing in Telecom Regulatory Authority of India (TRAI)-CPF Account was done during the course of certification of the annual accounts of TRAI for the year 2015-16 and the report on the same is furnished below:

1. Introduction

The Telecom Regulatory Authority of India-Contributory Provident Fund (TRAI-CPF) Account was established with effect from 5 May 2003 in pursuance of Rule 3 (1) of the Telecom Regulatory Authority of India (Contributory Provident Fund) Rules, 2003, issued under Government of India, Extraordinary Gazette Notification No. GSR 333 (E) dated 10th April 2003. TRAI has a total sanctioned strength of 239 and 183 men in position. Out of which 57 are on deputation and 126 are on regular strength. The deductions from salary on account of GPF/EPF/CPF as the case may be are made from the employees on deputation and are remitted to their parent offices as per terms and conditions of their appointment. In the case of regular staff of TRAI, CPF deductions are made from their salary as per the CPF Rules and employees' as well as employer's contributions are remitted to TRAI-CPF Account, by TRAI on a month to month basis along with the details of deduction of each employee.

2. Organization Setup

TRAI-CPF Account has no separate employees on its own. The entire work of maintenance of TRAI-CPF Account is done by the Board of Trustees, which is constituted from the employees of TRAI only. As per decision taken by the competent Authority, TRAI, the Senior Research Officer (Finance), is the Secretary to the Board of Trustees. The following are the trustees of the Board:

- | | | |
|---------------------------|---|----------------------|
| (i) Advisor (A&P) | : | President |
| (ii) Joint Advisor (F&EA) | : | Trustee (Ex-officio) |
| (iii) DA (HR) | : | Trustee (Ex-officio) |
| (iv) Joint Advisor (F&EA) | : | Trustee (Nominated) |
| (v) PS (F&EA) | : | Trustee (Nominated) |

The Secretary to the Board of Trustees is responsible for maintenance of Accounts of the TRAI-CPF Account and conducting the meetings of the Board of Trustees. All decisions of the Board of Trustees are taken in their periodical meetings.

3. Scope and independence of Internal Audit

TRAI has its own Internal Audit division headed by SRO (IA) directly reporting to the Secretary TRAI.

The reports of Internal Audits are submitted to the Secretary for approval and are thereafter forwarded to the respective divisions for necessary corrective measures. The actions taken by the divisions are monitored continuously and regularly.

4. Receipts and Disbursement of Funds

The work relating to receipt and disbursement of the funds is done by an Assistant under the supervision of Secretary to the Board of Trustees. No cash transaction is done in TRAI-CPF Account as all receipts and payments are made through cheques only. Receipt of CPF deductions from TRAI and payments made to the members of TRAI-CPF Account, if any, on account of CPF withdrawal or advance are regularly recorded in bank book.

5. Investments

The funds of TRAI-CPF Account are invested in various Securities as per Government norms. The interests accrued/received on these securities are credited in interest income. The decisions of

making investments are taken in the periodical meetings of Board of Trustees.

6. Interest

Interest on the CPF deposits of the members is credited to their individual accounts at the rate specified by the Central Government from time to time for the payment of interest on subscriptions to the General Provident Fund. Deficit, if any, in the interest payable to the members is met from TRAI General fund.

7. Withdrawal/Advance of CPF

The members of TRAI-CPF Account are entitled for withdrawal or for temporary advance out of their balance as per the guidelines of CPF Rules. In the case of advances given to the members the Drawing and Disbursement Officer of TRAI is informed regarding the monthly deductions to be made from salary of the concerned members towards recovery of advances.

Sd/-
(Rajiv Kumar)
Director (Report)



Annexure-I to Separate Audit Report

Telecom Regulatory Authority of India-Contributory Provident Fund Account for the year ended 31 March 2016

As per the information and explanations given to us, the books and records examined by us in normal course of audit and to the best of our knowledge and belief, we further report that:

(1) Adequacy of Internal Audit System

The Internal Audit of TRAI-CPF Accounts was conducted in June 2016 and The Internal Audit Report was approved by Advisor (Administration). The Internal Audit System of the organization is adequate and commensurate with its size and nature of its function.

(2) Adequacy of Internal Control System

The Internal Control System of the organization is adequate and commensurate with its size and the nature of its functions.

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)
THE TELECOM REGULATORY AUTHORITY OF INDIA - CONTRIBUTORY PROVIDENT FUND ACCOUNT
BALANCE SHEET AS AT 31-MAR-2016

CORPUS/CAPITAL FUND AND LIABILITIES	Schedule	Current Year	Previous Year
TRAI - CPF MEMBERS' ACCOUNT	1	107,944,782.00	107,769,127.00
RESERVES AND SURPLUS	2	5,420,942.72	4,903,670.00
EARMARKED/ ENDOWMENT FUNDS	3		
SECURED LOANS AND BORROWINGS	4		
UNSECURED LOANS AND BORROWINGS	5		
DEFERRED CREDIT LIABILITIES	6		
CURRENT LIABILITIES AND PROVISIONS	7	2,104,670.33	-
TOTAL		115,470,395.05	112,672,797.00
ASSETS			
FIXED ASSETS	8		-
INVESTMENTS-FROM EARMARKED/ENDOWMENT FUNDS	9		-
INVESTMENTS - OTHERS	10	106,600,000.00	108,000,000.00
CURRENT ASSETS, LOANS, ADVANCES ETC	11	8,870,395.05	4,672,797.00
MISCELLANEOUS EXPENDITURE			-
(to the extent not written off or adjusted)			
TOTAL		115,470,395.05	112,672,797.00

SIGNIFICANT ACCOUNTING POLICIES

CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS

Sd/-
R. Ramanujam
 SRO (Finance)
 Secretary (CPF)

Sd/-
Sh. Anurag Sharma
 Dy. Advisor (Admin)
 Ex-Officio Trustee

Sd/-
Sh. A.K. Dhingra
 Jt. Advisor (F&EA)
 Trustee

Sd/-
Smt. Shalini Katoch
 Private Secretary (F&EA)
 Trustee

Sd/-
Sh. C.P.S. Bakshi
 Advisor (Admin)
 Ex-Officio President

**THE TELECOM REGULATORY AUTHORITY OF INDIA - CONTRIBUTORY PROVIDENT FUND ACCOUNT
INCOME AND EXPENDITURE ACCOUNT FOR THE PERIOD/ YEAR ENDED 31-MAR-2016**

INCOME		Schedule	Current Year	Previous Year
Income from Sales/ Services		12	-	-
Grants/ Subsidies		13	-	-
Fee/ Subscriptions		14	-	-
Income from Investments (Income on Invest from earmarked /endow. Funds transferred to Funds)		15	5,045,117.87	3,811,934.44
Income for Royalty ,Publication etc		16	-	-
Interest Earned		17	4,797,396.25	4,119,498.70
Other Income		18	-	255,941.00
Increase (decrease) in stock of Finished goods and works-in-progress		19	-	-
TOTAL (A)			9,842,514.12	8,187,374.14
EXPENDITURE				
Establishment Expenses		20	-	-
Other Administrative Expenses etc		21	1,685.40	2,889.90
Expenditure on Grants, Subsidies etc		22	-	-
Interest		23	9,323,556.00	8,015,557.00
Diminution Value of Investments in Mutual Funds				
Depreciation (Net Total at the year end-corresponding to Schedule 8)				
TOTAL (B)			9,325,241.40	8,018,446.90
Balance being excess of Income over Expenditure (A-B)			517,272.72	168,927.24
Transfer to Misc Expenditure to the extent not written off - on account of Diminution Value of Investments				-
Transfer to / from General Reserve			517,272.72	168,927.24
Balance being Surplus/ (Deficit) carried to Corpus/ Capital Fund				

SIGNIFICANT ACCOUNTING POLICIES

CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS

Sd/-	Sd/-	Sd/-	Sd/-
R. Ramanujam	Sh. Anurag Sharma	Sh. A.K. Dhingra	Sh. C.P.S. Bakshi
SRO (Finance)	Dy. Advisor (Admin)	Jt. Advisor (F&EA)	Advisor (Admin)
Secretary (CPF)	Ex-Officio Trustee	Trustee	Ex-Officio President
		Private Secretary (F&EA)	
		Trustee	

**FORM OF FINANCIAL STATEMENTS(NON-PROFIT ORGANISATIONS)
THE TELECOM REGULATORY AUTHORITY OF INDIA - CONTRIBUTORY PROVIDENT FUND ACCOUNT
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-MAR-2016**

SCHEDULE 1 - TRAI - CPF MEMBERS' ACCOUNT

	(Amount-Rs.)	
	Current Year	Previous Year
Balance as at the beginning of the year	107,769,127.00	86,462,501.00
Deduct: Adjustments for previous year		
Add: Contributions towards Members' Account	175,655.00	21,306,626.00
Add/(Deduct): Balance of net income/(expenditure) transferred from the Income and Expenditure Account		
BALANCE AS AT THE YEAR-END	107,944,782.00	107,769,127.00

SCHEDULE 2 - RESERVES AND SURPLUS

	Current Year	Previous Year
1. Capital Reserve:		
As per last Account		
Addition during the year		
Less: Deductions during the year		
2. Revaluation Reserve:		
As per last Account		
Addition during the year		
Less: Deductions during the year		
3. Special Reserve:		
As per last Account		
Addition during the year		
Less: Deductions during the year		
4. General Reserve:		
As per last Account	4,903,670.00	4,734,742.76
Addition during the year	517,272.72	168,927.24
Less: Deductions during the year		
TOTAL	5,420,942.72	4,903,670.00

SCHEDULE 3 - EARMARKED/ ENDOWMENT FUNDS

(Amount-Rs.)

	FUND-WISE BREAKUP				Current Year	Previous Year
	Fund WW	Fund XX	Fund YY	Fund ZZ		
a) Opening balance of the funds						
b) Additions of the funds:						
i. Donations/grants						
ii. Income from investments made on account of funds						
iii. Other additions (specify nature)						
TOTAL (a+b)						
c) Utilisation/expenditure towards objectives of funds						
i. Capital Expenditure						
- Fixed Assets						
- Others						
Total						
ii. Revenue Expenditure						
- Salaries, Wages and allowances etc						
- Rent						
- Other Administrative expenses						
Total						
TOTAL (c)						
NET BALANCE AS AT THE YEAR-END (a+b+c)						

Notes

- 1) Disclosures shall be made under relevant head based on conditions attaching to the grants
- 2) Plan funds received from the Central/State Governments are to be shown as separate funds and not to be mixed up with any other Funds

SCHEDULE 4 - SECURED LOANS AND BORROWINGS

	(Amount-Rs.)	
	Current Year	Previous Year
1. Central Government		
2. State Government (Specify)		
3. Financial Institutions		
4. Banks		
a) Term Loans		
- Interest accrued and due		
b) Other-Loans (Specify)		
- Interest accrued and due		
5. Other Institutions and Agencies		
6. Debentures and Bonds		
7. Others (Specify)		
TOTAL		

SCHEDULE 5 - UNSECURED LOANS AND BORROWINGS

	(Amount-Rs.)	
	Current Year	Previous Year
1. Central Government		
2. State Government (Specify)		
3. Financial Institutions		
4. Banks		
a) Term Loans		
- Interest accrued and due		
b) Other-Loans (Specify)		
- Interest accrued and due		
5. Other Institutions and Agencies		
6. Debentures and Bonds		
7. Others (Specify)		
TOTAL		

Note: Amount due within one year

SCHEDULE 6-DEFERRED CREDIT LIABILITIES

(Amount-Rs.)		
	Current Year	Previous Year
a) Acceptances secured by the cation of capital equipment and other assets		/
b) Others		
TOTAL		

Note: Amounts due within one year

SCHEDULE 7 - CURRENT LIABILITIES AND PROVISIONS

(Amount-Rs.)		
	Current Year	Previous Year
A. CURRENT LIABILITIES		
1) Acceptances		
2) Sundry Creditors		
a) For Goods		
b) Others		
3) Advances Received		-
4) Interest accrued but not due on:		
a) Secured loans/borrowings		
b) Unsecured Loans/borrowings		
5) Statutory Liabilities		
a) Overdue		
b) Others		
6) Other current Liabilities		
(I) Corporation Bank Asaf Ali Road - Book Overdraft	2,104,670.33	-
TOTAL (A)	2,104,670.33	-
B. PROVISIONS		
1. For Taxation		
2. Gratuity		
3. Superannuation/Pension		
4. Accumulated Leave Encashment		
5. Trade Warranties/Claims		
6. Other (Specify)		
TOTAL (B)	-	-
TOTAL (A+B)	2,104,670.33	-

SCHEDULE 8 - FIXED ASSETS

DESCRIPTION	GROSS BLOCK			DEPRECIATION			NET BLOCK	
	Cost/valuation as at beginning of the year	Additions during the year	Deductions during the year	Cost/valuation at the year-ended	On Additions during the year	On Deductions during the year	Total up to the year-end	As at the current year-end
A. FIXED ASSETS:								
1. LAND								
a) Freehold								
b) Leasehold								
2. BUILDINGS								
a) On Freehold Land								
b) On Leasehold Land								
c) Ownership Flats/Premises								
d) Superstructures on land not belonging to the entity								
3. PLANT MACHINERY & EQUIPMENT								
4. VEHICLES								
5. FURNITURE, FIXTURES								
6. OFFICE/EQUIPMENT								
7. COMPUTER/PERIPHERALS								
8. ELECTRIC INSTALLATIONS								
9. LIBRARY BOOKS								
10. TUBEWELLS & W.SUPPLY								
11. OTHER FIXED ASSETS								
TOTAL OF CURRENT YEAR								
PREVIOUS YEAR								
B. CAPITAL WORK-IN-PROGRESS								
TOTAL								

(Note to be given as to cost of assets on hire purchase basis included above)

SCHEDULE 9 - INVESTMENTS FROM EARMARKED/ENDOWMENT FUNDS

	(Amount-Rs.)	
	Current Year	Previous Year
1. In Government Securities		
2. Other approved Securities		
3. Shares		
4. Debentures and Bonds		
5. Subsidiaries and Joint Ventures		
6. Others (to be specified)		
TOTAL		

SCHEDULE 10 - INVESTMENTS OTHERS

	Current Year	Previous Year
1. In Government Securities	59,700,000.00	64,700,000.00
Long - term Investments - Rs. 5,97,00,000.00		
Current Investments -		
2. Other Approved Securities		
3. Shares		
4. Debentures and Bonds		
5. Subsidiaries and Joint Ventures		
6. Others (Fixed Deposits in Banks/PSU) - Long - term	46,900,000.00	43,300,000.00
TOTAL	106,600,000.00	108,000,000.00

SCHEDULE 11 - CURRENT ASSETS, LOANS, ADVANCES ETC

(Amount-Rs.)

	Current Year	Previous Year
A. CURRENT ASSETS:		
1. Inventories		
a) Stores and Spares	-	-
b) Loose tools	-	-
c) Stock-in-trade		
Finished Goods	-	-
Work in progress	-	-
Raw Material	-	-
2. Sundry Debtors:		
a) Debts Outstanding for a period exceeding six months	-	-
b) Others	-	-
3. Cash balances in hand (including cheques/drafts and imprest)		
4. Bank Balances:		
a) With Scheduled Banks		
- On Current Accounts	-	-
- On Deposit Accounts (includes margin money)	2,773,365.00	444,259.01
- On Savings Account	155,046.22	226,666.41
b) With non-Scheduled Banks		
- On Current Accounts	-	-
- On Deposit Accounts	-	-
- On Savings Account	-	-
5. Post Office-Savings Accounts	-	-
TOTAL (A)	2,928,411.22	670,925.42

(Contd...)

SCHEDULE 11 - CURRENT ASSETS, LOANS, ADVANCES ETC (CONTD...)

		(Amount-Rs.)	
		Current Year	Previous Year
B. LOANS, ADVANCES AND OTHER ASSETS			
1.	Loans		
	a) Staff		-
	b) Other Entities engaged in activities/objectives similar to that of Entity		-
	c) Other (Specify)		-
2.	Advance and other amounts recoverable in cash or in kind or for value to be received:		
	a) On Capital Account		-
	b) Prepayments		-
	c) Others		-
3.	Income Accrued		
	a) On Investments from Earmarked/Endowment Funds		-
	b) On Investments - Others	5,941,983.83	4,001,871.58
	c) On Loans and Advances		
	d) Others		
	(includes income due unrealised Rs.)		
4.	Claims Receivable -		
TOTAL (B)		5,941,983.83	4,001,871.58
TOTAL (A+B)		8,870,395.05	4,672,797.00

SCHEDULE 12 - INCOME FROM SALES/SERVICES

	(Amount-Rs.)	
	Current Year	Previous Year
1. Income from Sales		
a) Sale of Finished Goods		
b) Sale of Raw material		
c) Sale of Scraps		
2. Income from Services		
a) Labour and Processing Charges		
b) Professional/Consultancy Services		
c) Agency Commission and Brokerage		
d) Maintenance Services (Equipment/Property)		
e) Others (Specify)		
TOTAL		

SCHEDULE 13 - GRANTS/SUBSIDIES

	Current Year	Previous Year
(Irrevocable Grants & Subsidies Received)		
1) Central Government		
2) State Government (s)		
3) Government Agencies		
4) Institutions/Welfare Bodies		
5) International Organisations		
6) Other (Specify)		
TOTAL		

SCHEDULE 14 - FEES/ SUBSCRIPTIONS

	(Amount-Rs.)	
	Current Year	Previous Year
1. Entrance Fees		
2. Annual Fees/Subscriptions		
3. Seminar/Program Fees		
4. Consultancy Fees		
5. Others (specify)		
TOTAL		

Note: Accounting Policies towards each item are to be disclosed

SCHEDULE 15 - INCOME FROM INVESTMENTS

(Amount-Rs.)

	Investment - Others	
	Current Year	Previous Year
(Income on Invest. from Earmarked/Endowment Funds Transferred to Funds)		
1) Interest		
a) On Govt Securities	5,045,117.87	3,811,934.44
b) Other Bonds/Debentures		
2) Dividends		
a) On Shares		
b) On Mutual Fund Securities		
3) Rents		
4) Others		
TOTAL	5,045,117.87	3,811,934.44

TRANSFERRED TO EARMARKED/ ENDOWMENT FUNDS

SCHEDULE 16 - INCOME FROM ROYALTY, PUBLICATION ETC

	Current Year	Previous Year
1. Income from Royalty		
2. Income from Publications		
3. Others (Specify)		
TOTAL		

SCHEDULE 17 - INTEREST EARNED

	Current Year	Previous Year
1) On Term Deposits		
a) With Scheduled Banks	4,790,722.25	3,565,608.50
b) With Non-Scheduled Banks		
c) With Institutions	-	536,107.20
d) Others		
2) On Savings Account		
a) With Scheduled Banks	6,674.00	17,783.00
b) With Non-Scheduled Banks	-	-
c) With Institutions	-	-
d) Others	-	-
3) On Loans		
a) Employees/Staff	-	-
b) Others	-	-
4) Interest on Debtors and Other Receivables	-	-
TOTAL	4,797,396.25	4,119,498.70

SCHEDULE 18 - OTHER INCOME

	(Amount-Rs.)	
	Current Year	Previous Year
1. Profit on Sale/Disposal of Assets		
a) Owned assets	-	-
b) Assets acquired out of grants, or received free of cost	-	-
2. Export Incentives realized	-	-
3. Fees for Miscellaneous Services	-	-
4. Miscellaneous Income	-	255,941.00
TOTAL	-	255,941.00

SCHEDULE 19 - INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS & WORK IN PROGRESS

	(Amount-Rs.)	
	Current Year	Previous Year
a) Closing stock		
- Finished Goods		
- Work-in-progress		
b) Less Opening Stock		
- Finished Goods		
- Work-in-progress		
NET INCREASE/(DECREASE) [a-b]		

SCHEDULE 20- ESTABLISHMENT EXPENSES

	(Amount-Rs.)	
	Current Year	Previous Year
a) Salaries and Wages		
b) Allowances and Bonus		
c) Contribution to Provident Fund		
d) Contribution to Other Fund (specify)		
e) Staff Welfare Expenses		
f) Expenses on Employees Retirement and Terminal Benefits		
g) Others		
TOTAL	0.00	0.00

SCHEDULE 21-OTHER ADMINISTRATIVE EXPENSES ETC

(Amount-Rs.)

	Current Year	Previous Year
a) Purchases	-	-
b) Labour and processing expenses	-	-
c) Cartage and Carriage Inwards	-	-
d) Electricity and power	-	-
e) Water charges	-	-
f) Insurance	-	-
g) Repairs and maintenance	-	-
h) Excise Duty	-	-
i) Rent, Rates and Taxes	-	-
j) Vehicles Running and Maintenance	-	-
k) Postage, Telephone and Communication Charges	-	-
l) Printing and Stationery	-	-
m) Travelling and Conveyance Expenses	-	-
n) Expenses on Seminar/Workshops	-	-
o) Subscription Expenses	-	-
p) Expenses on Fees	-	-
q) Auditors Remuneration	-	-
r) Hospitality Expenses	-	-
s) Professional Charges	-	-
t) Provision for Bad and Doubtful Debts/Advances	-	-
u) Irrecoverable Balances Written-off	-	-
v) Packing Charges	-	-
w) Freight and Forwarding Expenses	-	-
x) Distribution Expenses	-	-
y) Advertisement and Publicity	-	-
z) Others	-	-
- Bank & Finance Charges	1,685.40	2,889.90
TOTAL	1,685.40	2,889.90

SCHEDULE 22-EXPENDITURE ON GRANTS,SUBSIDIES ETC

(Amount-Rs.)

	Current Year	Previous Year
a) Grants given to Institutions/Organisations		
b) Subsidies given to Institutions/Organisations		
TOTAL		

Note: Name of Entities, their Activities along with the amount of Grants/Subsidies are to be disclosed

SCHEDULE 23 - INTEREST

(Amount-Rs.)

	Current Year	Previous Year
a) On Fixed Loans		-
b) On Other Loans (including Bank Charges)		-
c) Others (specify) - Interest Payable to Members	9,323,556.00	8,015,557.00
TOTAL	9,323,556.00	8,015,557.00

THE TELECOM REGULATORY AUTHORITY OF INDIA - CONTRIBUTORY PROVIDENT FUND ACCOUNT RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 31-MAR-2016

RECEIPTS	Current Year	Previous Year	PAYMENTS	Current Year	Previous Year
I. Opening Balance					
a) Cash in hand	-	-	a) Establishment Expenses	-	-
b) Bank Balances			b) Administrative Expenses	1,685.40	2,889.90
i) In current accounts	444,259.01	-			
ii) In deposit accounts	-	-			
iii) Savings accounts	226,666.41	147,833.74			
II. Grants Received			II Payments made against funds for various projects		
a) From Government of India			(Name the fund or project should be shown		
b) From State Government			along with the particulars of payments made		
c) From Other Sources (Details)			for each project)		
(Grants for capital & revenue exp					
to shown separately)					
III. Income on Investments from			III. Investments and Deposits made		
a) Earmarked/ Endow Funds			a) Out of Earmarked/ Endowment funds		
b) Own Funds (On Investment in			b) Out of Own Funds (Investments - Others)	18,700,000.00	61,200,000.00
Mutual Funds)					
IV. Interest Received			(Investments - Flexi Account)	2,773,365.00	444,259.01
a) On Bank Deposits	2,806,297.87	3,427,598.92	IV. Expenditure on Fixed Assets & Capital Work-in-		
b) Loans, Advances etc.			progress		
c) Miscellaneous	5,089,430.00	6,109,567.00	a) Purchase of Fixed Assets		
d) interest on savings	6,674.00		b) Expenditure on Capital Work-in-progress		
V. Other Income (Specify)					
To Miscellaneous Income		255,941.00	V. Refund of surplus money/ Loans		
			a) The Government of India		
			b) The State Government		

RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 31-MAR-2016 (CONTS.....)

RECEIPTS	Current Year	Previous Year	PAYMENTS	Current Year	Previous Year	(Amount-Rs.)
VI. Amount Borrowed			c) Other providers of funds			907,467.36
VII. Any other Receipts (Give Details)			VI. Finance Charges (Interest)			
Fees						
Capital Fund			VII. Other Payments (Specify)			
Sales of Publication			Final Payments	31,846,217.00	5,929,021.00	
Sale of Assets			Advances and Withdrawals	3,931,000.00	5,210,915.00	
Contribution from Members	22,843,335.00	18,710,700.00				
Contribution from TRAI	4,805,817.00	4,817,260.00	VIII. Closing Balances			
Transfer of Balances		-	a) Cash in hand			
Repayment of Advances	1,104,800.00	903,045.00	b) Bank Balances			
Maturity of FDs/Encasement of Mutual Funds	20,100,000.00	39,549,273.02	i) In current accounts			
Interest Shortfall Recovered from TRAI Gen. Fund	-	-	ii) In deposit accounts			
			iii) Savings accounts	175,011.89	226,666.41	
TOTAL	57,427,279.29	73,921,218.68	TOTAL	57,427,279.29	73,921,218.68	

Sd/-
R. Ramanujam
SRO (Finance)
Secretary (CPF)

Sd/-
Sh. Anurag Sharma
Dy. Advisor (Admin)
Ex-Officio Trustee

Sd/-
Sh. A.K. Dhingra
Jt. Advisor (F&EA)
Trustee

Sd/-
Smt. Shalini Katoch
Private Secretary (F&EA)
Trustee

Sd/-
Sh. C.P.S. Bakshi
Advisor (Admin)
Ex-Officio President

SCHEDULE 24 - SIGNIFICANT ACCOUNTING POLICIES

1 Accounting Conventions:

- i) The financial statements have been prepared in the "Uniform Format of Accounts" as approved by the Controller General of Accounts vide their letter No. F.No.19(1)/Misc./2005/TA/450-490 dated 23.07.2007.
- ii) Accounts have been prepared on accrual basis for the current year i.e., 2015-16. There is no change in Method of Accounting from the preceding year.
- iii) Investments depicted in Schedule 10.

SCHEDULE 25 - CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS

Contingent Liabilities:

- 1 Claims against the Entity not acknowledged as debts NIL

Notes on Accounts

- 1 Investments have been made on the pattern prescribed in the Notification of Ministry of Finance (Department of Financial Services) dated 2nd March, 2015 effective from 1st April 2015.
- 2 Investments depicted in Schedule 10 (Investments - Others) include investment in Government Securities amounting to Rs. 5,97,00,000.00 and Others (FDs in Banks/ PSUs) amounting to Rs. 4,69,00,000.00. Out of the investments in Govt. Securities, an amount of Rs. 5,97,00,000.00 are Long-term Investments as these are being held for more than one year from the date on which they have been made . All the investments in FDs of Banks/ PSUs are Long-Term investments (except one FD amounting to Rs.12,00,000/- is Short-term investment)
- 3 Corresponding figures for the previous year have been re-grouped/ re-arranged wherever necessary.

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TRAI

TELECOM REGULATORY AUTHORITY OF INDIA