



सत्यमेव जयते



ANNUAL REPORT 2017-18



TELECOM REGULATORY AUTHORITY OF INDIA

Telecom Regulatory Authority of India

(IS/ISO 9001: 2015 Certified Organisation)

Annual Report 2017-18

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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 21st Annual Report for the year 2017-18 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.

A handwritten signature in black ink, appearing to read 'D. Sharma', enclosed in a white rectangular box.

**(RAM SEWAK SHARMA)
CHAIRPERSON**

Dated: September 2018



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OVERVIEW OF TELECOM & BROADCASTING SECTORS



OVERVIEW

The Telecom Regulatory Authority of India (TRAI) was established in the year 1997 and has been regulating the telecom sector for more than two decades. The broadcasting sector was brought under the ambit of TRAI since 2004. During these two decades of existence, TRAI has performed with a mission to create and nurture conditions for growth of telecommunications in the country in a manner and at a pace which will enable India to play a leading role in emerging global information society.

During the year 2017-18, a number of initiatives were taken by TRAI to continue its mandate for creation of conducive environment for the growth of telecommunications, broadcasting & cable sectors resulting in healthy competitive markets and recognition of India as one of the leading players in the emerging global information society. The various measures taken by the Authority have helped in promoting the growth and development of the telecom and broadcasting sectors during 2017-18. These measures have also resulted in the overall benefits to the consumer in terms of choice of services, affordable tariff, better quality of services etc. This is evident from the exponential growth which could be achieved in these sectors. These growth stories have been further fuelled by a mix of several important factors, which include the emergence of new growth opportunities; healthy investments in the sectors and rapid development of technology. The resulting vibrant competition among players has led to affordable prices for users. At the same time, increasing awareness about the availability of telecom and broadcasting services has continued to fuel the user demand for more and better services. The detailed account of this growth story is elaborated in the following chapters.

The growth of data usage by wireless subscribers has reached a new level showing an unprecedented growth of the sector. There has been an increase in the overall mobile coverage and data usage in the country adding more rural areas to the coverage map. With increased availability of smart phones at much affordable prices, mobile phone has become more than a communication device, and services are becoming increasingly linked through mobile, Internet and other digital modes of delivery. The growth of 4G services has added a large number of first time subscribers who experience the advent of data revolution using these services. The mobile network is serving as a major backbone on which the important sectors of economy like banking, health and education are riding and therefore, this sector is a great enabler in the overall economic growth of the country.

Telecom sector is a fast evolving sector due to technological advancement which facilitates introduction of new types of services. During the year, while discharging various recommendatory and regulatory functions, TRAI has tried to address various issues and new challenges being faced by the telecom sector. Recommendations were made to the Government on key issues including those on the subjects like “Cloud Services”, “Spectrum, Roaming and QoS related requirements in Machine-to-Machine (M2M) Communications”, “Approach towards Sustainable Telecommunications”, “Regulatory framework for Internet Telephony”,

“Net Neutrality”, “Ease of Doing Telecom Business”, “In-flight Connectivity”, “Inputs for framing National Telecom Policy” etc. As far as the Tariff policy is concerned, TRAI continued with the general approach of forbearance in respect of most of the services. Important Amendments in Telecom Tariff Order (TTO) were made to ensure Transparency, Non-discrimination and Non-predation in telecommunication services

Broadcasting sector has also been going through transition from analogue to digital era. TRAI has made efforts to meet the regulatory challenges which are being faced by broadcasting sector. In the year 2017-18, TRAI has taken several effective measures in the interest of consumers of broadcasting services. For instance the digitization of the cable sector was one of the important measures taken by TRAI which will empower the consumer and provide him with better service quality and enhanced choices. This digitization process was continuously pursued and monitored against various odds and challenges. The Authority also initiated a number of steps aimed towards bringing in measures to ensure stability and uniform growth of the sector that is presently undergoing a transformation. During the year, recommendations were made by TRAI to the Government on key issues concerning broadcasting sector such as “Issues related to Digital Radio Broadcasting in India”, “Ease of Doing Business in Broadcasting Sector” etc.

2. The significant developments relating to Telecom and Broadcasting sectors during the year 2017-18 are briefly mentioned below:

I. TELECOM SECTOR

The Indian telecom sector is the second largest in the world in terms of the number of subscribers. The sector has witnessed exponential growth over the last few years which was due to many factors such as affordable tariffs, wider service availability, roll out of new facilities and services such as Mobile Number Portability (MNP), 3G and 4G, evolving consumption patterns of subscribers, and conducive regulatory environment.

Continuing the growth trend, the Telecom Sector has witnessed a substantial growth of subscriber base during the year 2017-18 also. At the end of the financial year, the subscriber base was 1206.22 million out of which 1183.41 million were wireless subscribers. During the year, wireless subscriber base recorded an increase of 13.23 million, with the overall tele-density of 92.84% at the end of March 2018. The year also saw an increase in the rural tele-density from 56.91% to 59.05%, while the urban tele-density decreased from 171.80% to 165.90%. During the year 2017-18, 98.07 million subscribers have submitted their porting requests to different service providers for availing Mobile Number Portability (MNP) facility. With this the MNP requests increased from 272.76 million at the end of March 2017 to 370.83 million at the end of March 2018, which

shows subscribers exercising their preference of service provider. The Internet subscriber base in the country as on 31st March 2018 stood at 493.96 million as compared to 422.19 million as on 31st March 2017. The total broadband subscriber base in the country has increased from 276.52 million as on 31st March 2017 to 412.60 at the end of 31st March 2018.

In order to create an enabling and stable environment for telecommunications services and to ensure greater access, transparency, non-discrimination, consumer protection, and stable growth in functioning of the sector, a comprehensive review of the regulatory framework for the telecommunications sector has been undertaken by TRAI, which included tariff, interconnection and quality of service. To ensure transparency while proposing any change in the existing regulatory framework, TRAI follows transparent consultation process in order to give an opportunity to the stakeholders to deliberate and offer their views on the proposed regulatory framework. As part of this critical exercise that ensures that robust regulation emerges from the consultative process, TRAI issued various important consultation papers inviting written comments / counter comments from the stakeholders during this year. This included Consultation Papers on “Data Speed under Wireless Broadband Plan”, “Privacy, Security and Ownership of Data in the Telecom Sector”, “Promoting Local Telecom Equipment Manufacturing”, “Next Generation

Public Protection and Disaster Relief (PPDR) Communication Networks”, “Making ICT Accessible to Persons with Disabilities”, “Method of Allocation of Spectrum for Public Mobile Radio Trunking Service (PMRTS) including auction as a transparent mechanism”, “Voice Services to LTE Users (including VOLTE and CS Fallback)” etc.

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, entry of new operators in the sector, the licensing framework, management of scarce resources such as spectrum, consumer safety and security etc. While exercising this mandate, several significant policy regulatory recommendations were made during the year which included recommendations on “Adoption of e-KYC service UIDAI for Fixed-line, Internet and Broadband Connections”, “Additional Recommendations on Sale/Rent of International Roaming SIM Cards/Global Calling Cards of foreign Operators in India”, “Captive VSAT CUG Policy Issues”, “Cloud Services”, “Spectrum, Roaming and QoS related requirements in Machine-to-Machine (M2M) Communications”, “Approach towards Sustainable Telecommunications”, “Regulatory framework for Internet Telephony”, “Net Neutrality”, “Ease of Doing Telecom Business” and “In-flight Connectivity”.

In order to keep abreast with the changing policy and regulatory requirements of the

telecommunications sector, TRAI also issued the following key amendments and regulations during the course of the year:

1. The Standards of Quality of Service of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service (Fifth Amendment) Regulations, 2017
2. The Telecommunication Interconnection Usage Charges (Thirteenth Amendment) Regulations, 2017
3. The Telecommunication Interconnection Regulations, 2018
4. The Telecommunication Interconnection Usage Charges (Fourteenth Amendment) Regulations, 2018
5. Telecommunication Mobile Number Portability Per Port Transaction Charge and Dipping Charge (Amendment) Regulations, 2018

II. BROADCASTING SECTOR

Television and Radio services together constitute the Broadcasting Sector. India has the world’s second largest TV market after China. As per industry estimates, at the end of year 2017-18, out of a total of 286¹ million households in India, around 183¹ million households have Television sets. These 183 million households are being served by cable TV services, DTH services, HITS services, IPTV services, in addition to a terrestrial TV network of Doordarshan. The terrestrial TV

¹ Source : FICCI –EY Report 2018

network of Doordarshan covers about 92² per cent of country's population through a vast network of terrestrial transmitters. The pay TV sector consists of around 98.5¹ million Cable TV households, 67.53³ million net active DTH subscribers and 1.5 million¹ Head-end-in-the-sky (HITS) subscribers. The television broadcasting sector comprises of 358⁴ broadcasters, out of which, 49³ are running pay channels. On the television distribution side, there are 1469⁴ Multi System Operators (MSOs) registered with the Ministry of Information and Broadcasting (MIB), an estimated 60,000¹ cable operators, 2 HITS operators, 5 pay DTH operators and a few IPTV operators. In addition, the public service broadcaster - Doordarshan also provides a free-to-air DTH service in India. At present, there are 875⁴ private satellite TV channels permitted by the Ministry of Information and Broadcasting as on 31 March 2018, out of which, 213⁵ are SD pay TV channels (including 1 advertisement free pay channel) and 95⁵ are HD Pay TV channels.

India's television industry revenue has grown from Rs 58,800⁶ crore in 2016-17 to Rs 66,000⁶ crore in 2017-18, thereby registering a growth of 12.24%. Subscription revenues account for

a 59.5% share of the overall industry revenue, other part being the advertising revenue. Subscription revenues rose from Rs. 38,700⁶ crore in 2016-17 to Rs. 39,300⁶ crore in 2017-18. Advertisement revenues grew from Rs. 20,100⁶ crore in 2016-17 to Rs. 26,700⁶ crore in 2017-18 growing by a whopping 32.8% during the year. The FM (Frequency Modulation) radio broadcasting sector has also registered an impressive growth. There were 324⁵ private FM radio stations operational at the end of March 2018, besides the terrestrial radio network of public service broadcaster- All India Radio (AIR). AIR has network of 469⁷ centres and 662⁷ terrestrial radio transmitters [139⁷ MW (Medium Wave), 475⁸ FM and 48⁸ SW (Short Wave)]. AIR service covers around 99.20% of the geographical area of the country while serving 99.19% of the population⁸. As regards Community Radio Stations, at the end of March 2018, 216⁹ community radio stations have become operational. The radio industry is entirely dependent on advertisement revenues and has registered a growth of around 6.03 percent during the year 2017-18. Advertisement revenues have also risen from Rs. 2046.54 crore¹⁰ in 2016-17 to Rs. 2170.04 crore¹⁰ in year 2017-18.

² Source : MIB Annual Report 2017-18

³ Source : As reported by DTH operators to TRAI

⁴ Source : MIB website www.mib.gov.in

⁵ Source : As reported by broadcasters to TRAI

⁶ Source : FICCI -EY Report 2018

⁷ Source : AIR website – www.air.org.in

⁸ Source : AIR website – www.air.org.in

⁹ Ministry of I & B

¹⁰ As reported by private FM Radio operators to TRAI



PART – I

POLICIES AND PROGRAMMES



(A) REVIEW OF GENERAL ENVIRONMENT IN THE TELECOM SECTOR

The growth trend in the Telecom Sector continued in 2017-18 also assisted with timely Regulatory interventions of TRAI. The sector witnessed a substantial increase in the number of subscribers during the year. At the end of financial year 2017-18, the overall telecom subscriber base has increased to 1206.22 million as compared to 1194.58 Million at the end of financial year 2016-17 registering an increase of 11.64 million subscribers. The overall subscriber base and tele-density is depicted in **Table-1**.

Table-1: Overall Subscriber base and Tele-density

| Particulars | Wireless | Wireline | Total Wireless+ Wireline |
|---|----------------|--------------|--------------------------------|
| Total Subscribers (Million) | 1183.41 | 22.81 | 1206.22 |
| Urban Subscribers (Million) | 662.18 | 19.43 | 681.61 |
| Rural Subscribers (Million) | 521.23 | 3.38 | 524.61 |
| Overall Tele-density | 91.09 | 1.76 | 92.84 |
| Urban Tele-density | 161.17 | 4.73 | 165.90 |
| Rural Tele-density | 58.67 | 0.38 | 59.05 |
| Share of Urban Subscribers | 55.96% | 85.19% | 56.51% |
| Share of Rural Subscribers | 44.04% | 14.81% | 43.49% |
| No. of Broadband Subscribers (Million) | 394.65 | 17.95 | 412.60 |

The details of subscriber base in wireless & wireline segments; requests for Mobile Number Portability (MNP); Tele-density; Internet subscribers

and Quarterly Telecom Services Performance Indicators are explained in subsequent paragraphs.

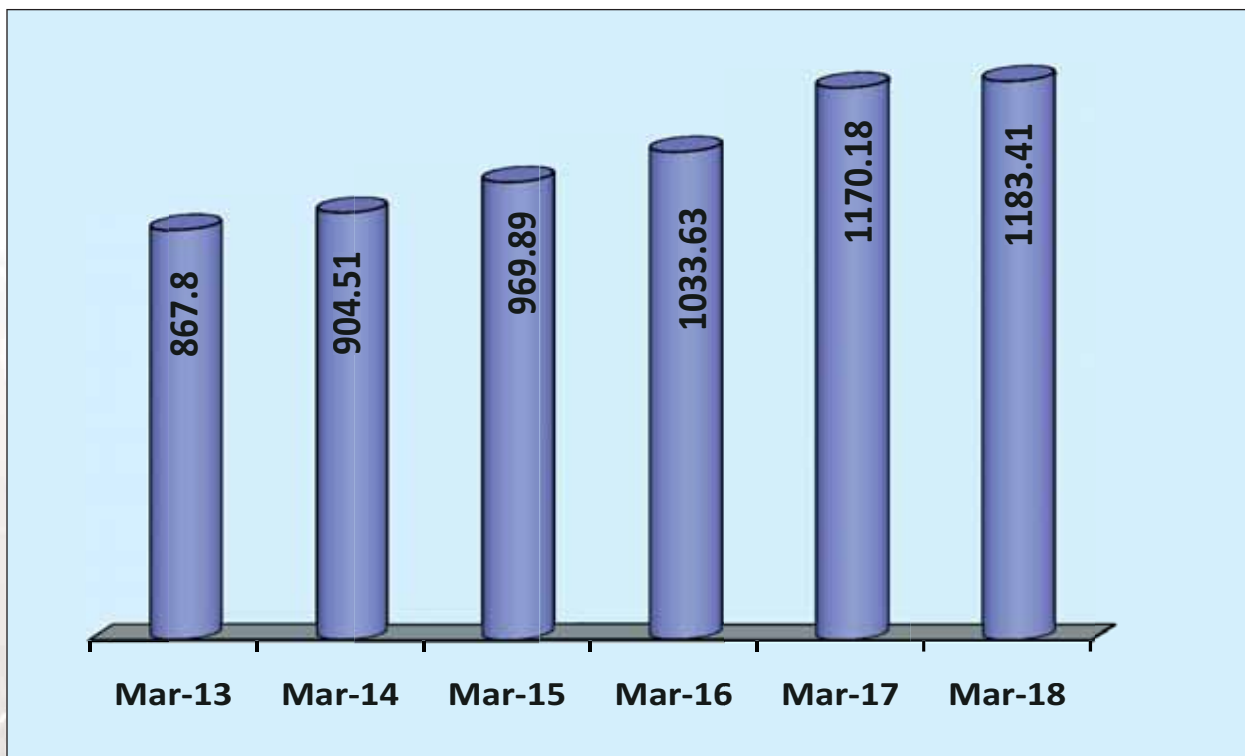
Wireless

1.1.1 The wireless subscriber base was 1183.41 million as on 31st March 2018

in comparison to the subscriber base of 1170.18 million as on 31st March 2017 registering a growth rate of 1.13% during the financial year 2017-18. A comparative status of wireless subscriber base during the last 6 years is depicted in **Figure-1**.

Figure - 1: Wireless Subscribers Base for the last six years since March 2013

(in million)



(b) Mobile Number Portability

1.1.2 During the year 2017-18, 98.07 million subscribers have submitted their porting requests to their service providers for availing Mobile Number Portability (MNP) facility. With this the

MNP requests have increased from 272.76 Million subscribers at the end of March 2017 to 370.83 Million at the end of March 2018. The service area wise cumulative porting requests at the end of March 2018 is depicted in **Table-2**.

Table-2: Service area wise cumulative porting requests at the end of March 2018

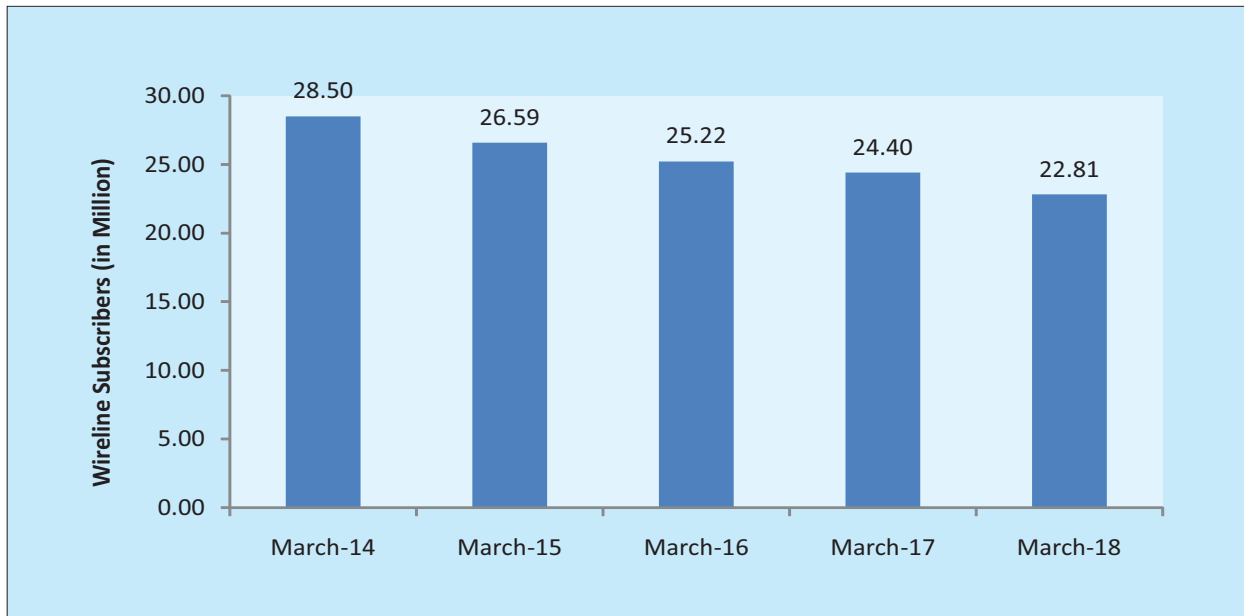
| Cumulative MNP Requests (Service Area-wise) at the end of March, 2018 | | | | |
|---|--------------------------------|---------------------------|--------------------|----------------------------------|
| | Service Area | MNP requests processed by | | Total Number of Porting Requests |
| | | Zone-I | Zone-II | |
| ZONE-I | Delhi | 18,006,488 | 365,940 | 18,372,428 |
| | Gujarat | 24,369,182 | 144,314 | 24,513,496 |
| | Haryana | 13,562,586 | 81,751 | 13,644,337 |
| | Himachal Pradesh | 1,785,847 | 12,867 | 1,798,714 |
| | Jammu & Kashmir | 682,538 | 6,278 | 688,816 |
| | Maharashtra | 25,249,877 | 252,192 | 25,502,069 |
| | Mumbai | 19,486,807 | 214,615 | 19,701,422 |
| | Punjab | 13,569,350 | 208,547 | 13,777,897 |
| | Rajasthan | 30,747,021 | 124,323 | 30,871,344 |
| | Uttar Pradesh (East) | 19,628,916 | 109,108 | 19,738,024 |
| | Uttar Pradesh (West) | 16,011,919 | 60,335 | 16,072,254 |
| ZONE-II | Andhra Pradesh | 168,692 | 31,071,340 | 31,240,032 |
| | Assam | 25,801 | 2,575,145 | 2,600,946 |
| | Bihar | 260,654 | 13,621,992 | 13,882,646 |
| | Karnataka | 293,950 | 35,866,990 | 36,160,940 |
| | Kerala | 55,030 | 9,010,215 | 9,065,245 |
| | Kolkata | 67,107 | 9,107,948 | 9,175,055 |
| | Madhya Pradesh | 221,187 | 24,627,876 | 24,849,063 |
| | North East | 13,269 | 978,073 | 991,342 |
| | Orissa | 54,825 | 7,261,516 | 7,316,341 |
| | Tamil Nadu | 96,244 | 31,008,035 | 31,104,279 |
| | West Bengal | 95,455 | 19,666,836 | 19,762,291 |
| | Total | 184,452,745 | 186,376,236 | 370,828,981 |
| | Total (Zone-1 + Zone-2) | | | |

(c) Wireline**1.1.3 Wireline Services**

The total wireline subscriber base as on 31st March, 2018 stood at 22.81 million as compared to 24.40 million subscribers on 31st March, 2017,

registering a decline of 6.52% during the year 2017-18. Out of 22.81 million wireline subscribers, 19.43 million are urban subscribers and 3.38 million are rural subscribers. The wireline subscriber base for the last five years is depicted in **Figure-2**:

Figure - 2: Wireline subscribers during the last 5 years

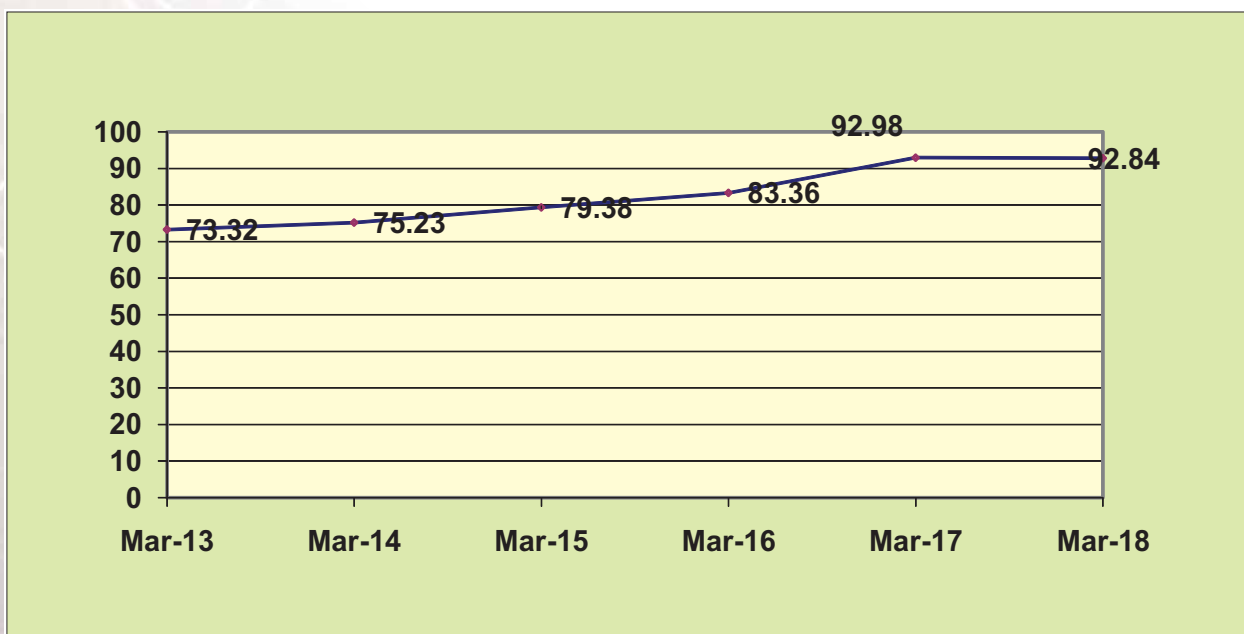


(d) Tele-density

1.1.4 The tele-density at the end of March, 2018 was 92.84 as compared to 92.98 at

the end of previous year recording a decrease of 0.15%. The trend of tele-density since March 2013 is depicted in **Figure-3**.

Figure-3 Growth of Tele-density



(e) Internet and Broadband subscribers

1.1.5.1 The Internet subscriber base in the country as on 31st March, 2018 stood at 493.96 million as compared to 422.19 million at the previous year end. The total broadband subscriber base of the

country as on 31st March, 2018 was 412.60 million compared to 276.52 million at 31st March, 2017. The details of subscription as reported by the service providers in the country as on 31st March, 2018 is indicated in

Table - 3:

Table – 3: Internet Subscribers

[Subscribers in Millions]

| | Segment | | Category | Internet Subscribers | | % Growth |
|----------------------------|----------------------------------|---|--------------|----------------------|---------------|---------------|
| | | | | Mar-17 | Mar-18 | |
| A. | Wired | | Broadband | 18.24 | 17.95 | -1.58% |
| | | | Narrowband | 3.33 | 3.28 | -1.48% |
| | | | Total | 21.58 | 21.24 | -1.56% |
| B. | Wireless | Fixed Wireless (Wi-Fi, Wi-Max, Radio & VSAT) | Broadband | 0.560 | 0.457 | -18.45% |
| | | | Narrowband | 0.022 | 0.014 | -37.40% |
| | | | Total | 0.582 | 0.471 | -19.15% |
| | Mobile Wireless (Phone + Dongle) | Broadband | 257.71 | 394.19 | 52.96% | |
| | | Narrowband | 142.32 | 78.06 | -45.16% | |
| | | Total | 400.04 | 472.25 | 18.05% | |
| Total Internet Subscribers | | | Broadband | 276.52 | 412.60 | 49.22% |
| | | | Narrowband | 145.68 | 81.35 | -44.15% |
| | | | Total | 422.19 | 493.96 | 17.00% |

1.1.5.2 Quarter-wise Internet/Broadband subscription as reported by the service providers for 2017-18 is at **Table -4:**

Table-4: Quarter-wise Internet/ Broadband Subscriber base of 2017-18

(Subscribers in Millions)

| Service | June-17 | Sept-17 | Dec-17 | Mar-18 |
|-----------------------|---------------|---------------|---------------|---------------|
| Broadband | 300.84 | 324.89 | 362.87 | 412.60 |
| Narrowband | 130.38 | 104.34 | 83.09 | 81.35 |
| Total Internet | 431.21 | 429.23 | 445.96 | 493.96 |

(f) The Indian Telecom Services Performance indicators

1.1.6.1 TRAI has been bringing out a monthly press release on Telecom Subscription Data. 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. The highlight of the press release on the Telecom Subscription data as on 31st March 2018, are given at **Table-5**:

Table-5: Highlights of Telecom Subscription Data as on 31st March, 2018

| Particulars | Wireless | Wireline | Total (Wireless+ Wireline) |
|--|----------------|--------------|----------------------------------|
| Total Telephone Subscribers (Million) | 1183.41 | 22.81 | 1206.22 |
| Net Addition in March, 2018 (Million) | 26.54 | -0.15 | 26.39 |
| Monthly Growth Rate | 2.29% | -0.67% | 2.24% |
| Urban Telephone Subscribers (Million) | 662.18 | 19.43 | 681.61 |
| Net Addition in March, 2018 (Million) | 12.15 | -0.16 | 11.98 |
| Monthly Growth Rate | 1.87% | -0.84% | 1.79% |
| Rural Telephone Subscribers (Million) | 521.23 | 3.38 | 524.61 |
| Net Addition in March, 2018 (Million) | 14.39 | 0.01 | 14.40 |
| Monthly Growth Rate | 2.84% | 0.32% | 2.82% |
| Overall Tele-density* | 91.09 | 1.76 | 92.84 |
| Urban Tele-density* | 161.17 | 4.73 | 165.90 |
| Rural Tele-density* | 58.67 | 0.38 | 59.05 |
| Share of Urban Subscribers | 55.96% | 85.19% | 56.51% |
| Share of Rural Subscribers | 44.04% | 14.81% | 43.49% |
| Broadband Subscribers (Million) | 394.65 | 17.95 | 412.60 |

- In the month of March, 2018, 19.67 million subscribers submitted their requests for Mobile Number Portability (MNP). With this, the cumulative MNP requests increased from 351.16 million at the end of Feb-18 to 370.83 million at the end of March 18, since implementation of MNP.
- Number of active wireless subscribers {on the date of peak Visitor Location Register (VLR)} in March, 2018 was 998.00 million.

1.1.6.2 The percentage growth in subscriber base of telephone and broadband service and

tele-density in the country during 2017-18, is depicted in **Table-6**.

Table-6: Percentage growth in subscriber base of telephone and broadband service and tele-density in the country in the F.Y. 2017-18

| Particulars | As on 31.03.2017 | As on 31.03.2018 | % growth in F.Y. 2017-18 |
|---|------------------|------------------|--------------------------|
| Total Telephone Subscribers (in million) | 1194.58 | 1206.22 | 0.97% |
| Wireless Telephone Subscribers (in million) | 1170.18 | 1183.41 | 1.13% |
| Wireline Telephone Subscribers (in million) | 24.40 | 22.81 | -6.52% |
| Urban Telephone Subscribers (in million) | 692.97 | 681.61 | -1.64% |
| Rural Telephone Subscribers (in million) | 501.61 | 524.61 | 4.59% |
| Overall Tele-density (%) | 92.98 | 92.84 | -0.15% |
| Broadband Subscribers (in million) | 276.52 | 412.60 | 49.21% |

1.1.6.3 TRAI has also been publishing a Quarterly Report on ‘The Indian Telecom Services Performance Indicators’. This report presents the key parameters and growth

trends for Telecom & Broadcasting services. A summary of the telecom service performance indicators for the above mentioned period is illustrated in **Table-7**:

Table: 7 - Performance Indicator (Data as on 31st March, 2018)

| Telecom Subscribers (Wireless +Wireline) | |
|--|---------|
| Total Subscribers (in millions) | 1206.22 |
| % change over the previous quarter | 1.31% |
| Urban Subscribers (in millions) | 681.61 |
| Rural Subscribers (in millions) | 524.61 |
| Market share of Private Operators | 89.15% |
| Market share of PSU Operators | 10.85% |
| Tele-density | 92.84 |
| Urban Teledensity | 165.90 |

| | |
|---|------------------|
| Rural Teledensity | 59.05 |
| Wireless Subscribers (in millions) | |
| Total Wireless Subscribers (in millions) | 1183.41 |
| % change over the previous quarter | 1.37% |
| Urban Subscribers (in millions) | 662.18 |
| Rural Subscribers (in millions) | 521.23 |
| GSM Subscribers (in millions) | 1179.12 |
| CDMA Subscribers (in millions) | 4.29 |
| Market share of Private Operators | 90.26% |
| Market share of PSU Operators | 9.74% |
| Teledensity | 91.09% |
| Urban Tele-density | 161.17% |
| Rural Tele-density | 58.67% |
| Total Wireless Data Usage during the quarter | 8,067,633 TB |
| Wireline Subscribers | |
| Total Wireline Subscribers (in millions) | 22.81 |
| % change over the previous quarter | -1.82% |
| Urban Subscribers (in millions) | 19.43 |
| Rural Subscribers (in millions) | 3.38 |
| Market share of Private Operators | 31.55% |
| Market share of PSU Operators | 68.45% |
| Tele-density | 1.76 |
| Urban Tele-density | 4.73 |
| Rural Tele-density | 0.38 |
| No. of Village Public Telephones (VPT) | 1,99,057 |
| No. of Public Call Office (PCO) | 3,60,053 |
| Telecom Financial Data | |
| Gross Revenue (GR) during the quarter | Rs. 62,198 Crore |
| % change in GR over the previous quarter | 1.82% |
| Adjusted Gross Revenue (AGR) during the quarter | Rs.35,697 Crore |
| % change in AGR over the previous quarter | -7.37% |
| Share of Public sector undertakings in Access AGR | 10.25% |
| Monthly Average Revenue Per User (ARPU) for Access Services | Rs. 71.62 |

| Internet/Broadband Subscribers (In Millions) | |
|---|---------------|
| Total Internet Subscribers | 493.96 |
| % change over previous quarter | 10.76% |
| Narrowband subscribers | 81.35 |
| Broadband subscribers | 412.60 |
| Wired Internet Subscribers | 21.24 |
| Wireless Internet Subscribers | 472.72 |
| Urban Internet Subscribers | 348.13 |
| Rural Internet Subscribers | 145.83 |
| Total Internet Subscribers per 100 population | 38.02 |
| Urban Internet Subscribers per 100 population | 84.74 |
| Rural Internet Subscribers per 100 population | 16.41 |
| Broadcasting & Cable Services | |
| Number of private satellite TV channels registered with the Ministry of I&B | 875 |
| Number of Pay TV Channels as reported by broadcasters | 308 |
| Number of FM Radio Stations (excluding All India Radio) | 324 |
| Number of Pay Subscribers net Active with Private DTH Subscribers | 67.53 Million |
| Number of Operational Community Radio Stations | 216 |
| Number of Pay DTH Operators | 5 |
| Revenue & Usage Parameters | |
| Monthly ARPU GSM Full Mobility Service including LTE | Rs. 76 |
| Monthly ARPU CDMA Full Mobility Service | Rs.79 |
| Minutes of Usage (MoU) per subscriber per month - GSM Full Mobility Service including LTE | 584 Minutes |
| Minutes of Usage (MoU) per subscriber per month - CDMA Full Mobility Service | 61 Minutes |
| Total Outgoing Minutes of Usage for Internet Telephony | 258 Million |
| Data Usage of Mobile Users | |
| Average Data Usage per subscriber per month – GSM including LTE (2G+3G+4G) | 2,447 MB |
| Average Data Usage per subscriber per month - CDMA | 173 MB |
| Average Data Usage per subscriber per month – Total (GSM+CDMA) | 2,437 MB |
| Average outgo per GB data for GSM including LTE (2G+3G+4G) | Rs. 14.94 |
| Average outgo per GB data for CDMA | Rs.198 |

(B) REVIEW OF POLICIES AND PROGRAMMES

1.2 Since its inception, TRAI's objective has been to create and nurture conditions for orderly growth of the telecom sector in the country in a manner and at a pace which will enable India to play a leading role in the emerging global information society. In pursuance of this objective, TRAI has initiated and implemented various policies and programmes over the period. A review of the following key policies and programmes of TRAI in respect of telecom sector is provided below:

- (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

1.2.1 Rural Telephone Network

Wireless

1.2.1.1 As on 31st March 2018, the Wireless rural [Mobile and WLL (F)] market has reached the 521.23 million mark as against 497.76 million as on 31st March 2017. The share of rural subscribers is now 44.04% of total wireless subscribers in the country. The yearly rural wireless subscriber base since March 2013 is indicated in **Figure-4**. The service provider wise rural wireless subscriber base & their market shares are shown in **Table-8** and **Figure-5**.

Figure-4: Rural Wireless Subscriber Base since March 2013 (in million)

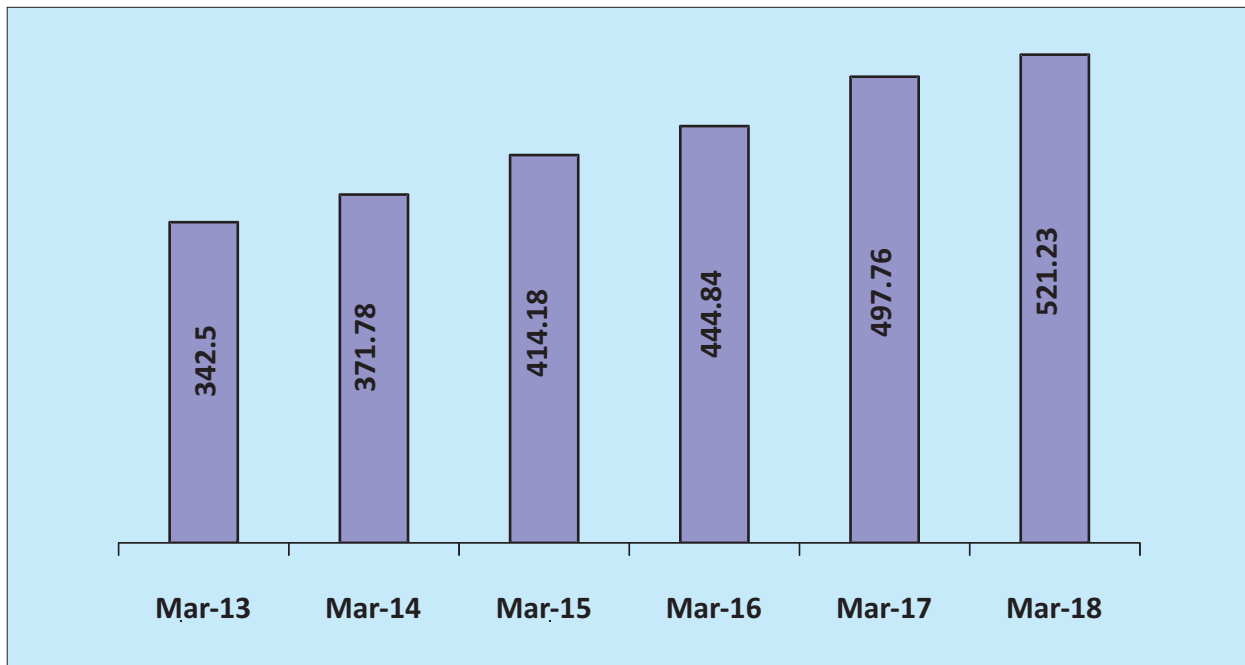
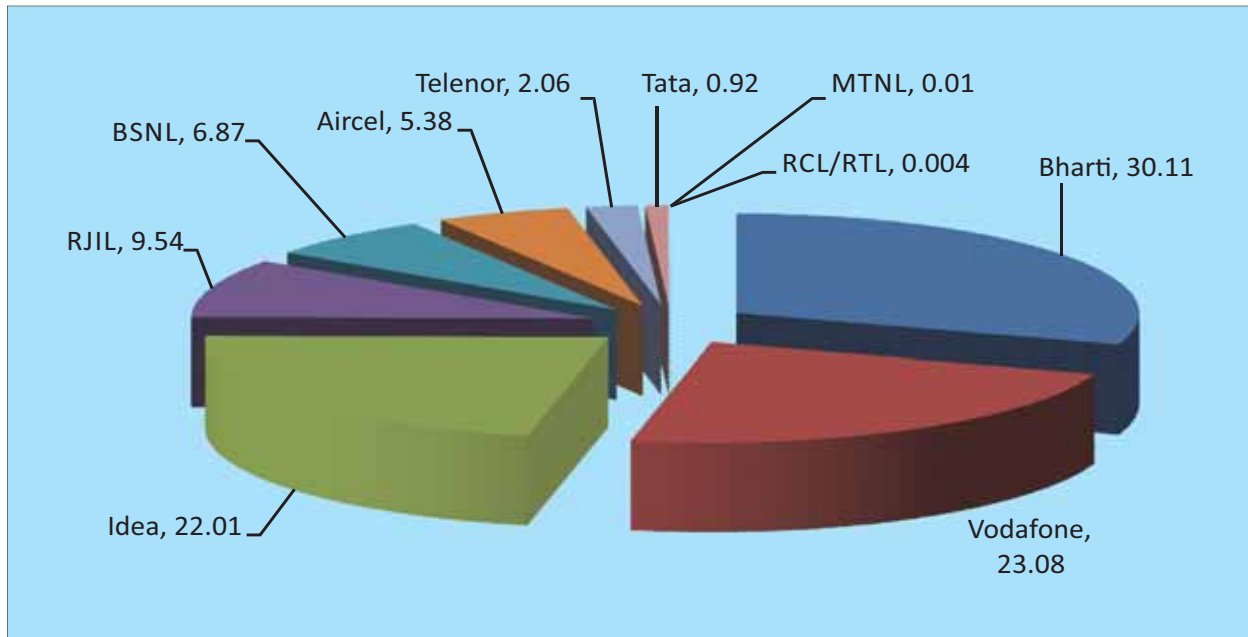


Table-8: Service Provider-wise Rural Wireless Subscribers and Market Share

| Sl. No | Wireless Group | Subscribers as on (in millions) | | Rural Subscribers as on (in millions) | | Market Share of Rural Subscribers as on | |
|--------|------------------|---------------------------------|----------------|---------------------------------------|---------------|---|---------------|
| | | March 2017 | March 2018 | March 2017 | March 2018 | March 2017 | March 2018 |
| 1. | Bharti | 273.65 | 304.19 | 136.69 | 156.95 | 27.46% | 30.11% |
| 2. | Vodafone | 209.06 | 222.70 | 114.03 | 120.31 | 22.91% | 23.08% |
| 3. | Idea | 195.37 | 211.21 | 108.79 | 114.74 | 21.86% | 22.01% |
| 4. | RCL / RTL | 83.50 | 0.19 | 19.40 | 0.02 | 3.90% | 0.004% |
| 5. | Aircel | 90.90 | 74.15 | 31.86 | 28.04 | 6.40% | 5.38% |
| 6. | BSNL | 100.99 | 111.68 | 32.88 | 35.82 | 6.60% | 6.87% |
| 7. | RJIL | 108.68 | 186.56 | 26.14 | 49.73 | 5.25% | 9.54% |
| 8. | Tata | 48.99 | 31.19 | 12.01 | 4.81 | 2.41% | 0.92% |
| 9. | Telenor | 50.49 | 37.98 | 14.85 | 10.76 | 2.98% | 2.06% |
| 10. | Sistema | 4.91 | -- | 1.07 | -- | 0.21% | -- |
| 11. | MTNL | 3.63 | 3.56 | 0.05 | 0.05 | 0.01% | 0.01% |
| | Total | 1170.18 | 1183.41 | 497.76 | 521.23 | 100.00 | 100.00 |

Source: As provided by TSPs

Figure-5: Market share of Rural Subscriber base as on 31st March 2018


Wireline Services

1.2.1.2 As on 31st March, 2018, the rural wireline subscriber base stood at 3.38 million as compared to 3.85 million at the end of

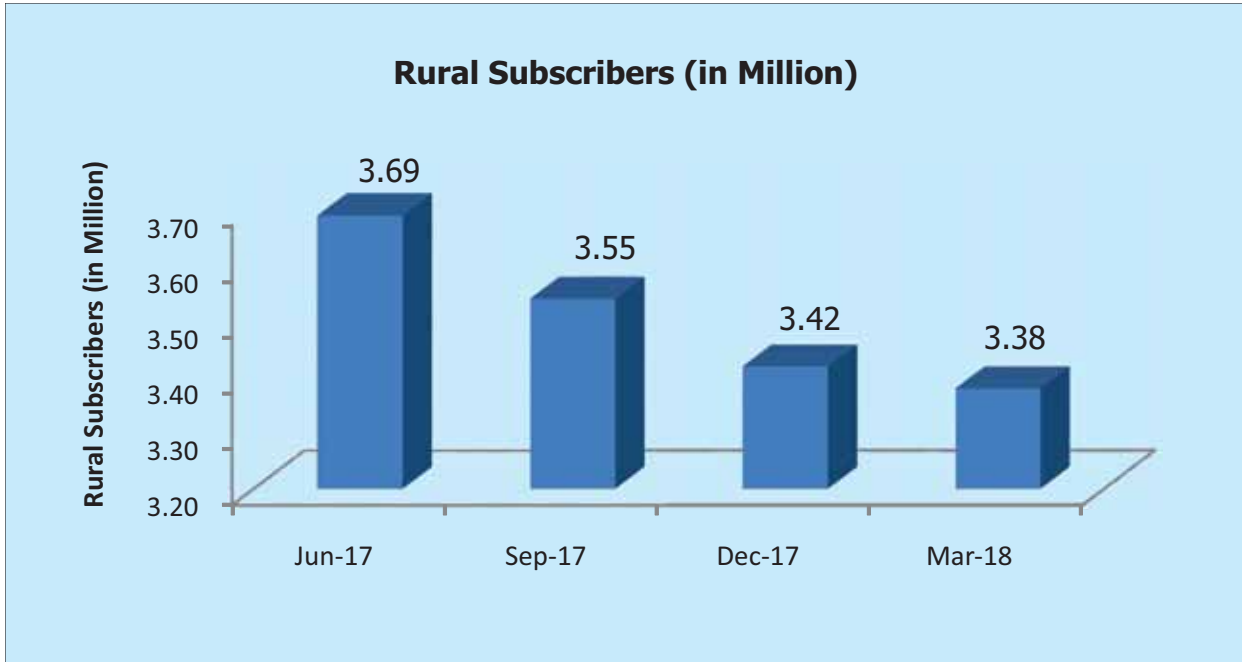
31st March, 2017, registering a decline of 12.14% over the year. The service provider-wise wireline rural subscriber base & their market share are shown in **Table-9**.

Table-9: 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'17 | March'18 | March'17 | March'18 | March'17 | March'18 |
| 1 | BSNL | 13,688,964 | 12,267,391 | 3,723,712 | 3,270,003 | 96.85% | 96.79% |
| 2 | MTNL | 3,462,374 | 3,346,568 | - | - | - | - |
| 3 | Bharti | 3,865,764 | 3,932,533 | - | - | - | - |
| 4 | Quadrant | 262,891 | 243,820 | 58,711 | 51,868 | 1.53% | 1.54% |
| 5 | Sistema Shyam | 56,669 | - | 10,023 | - | - | - |
| 6 | TATA | 1,750,102 | 1,876,009 | 50,897 | 54,834 | 1.32% | 1.62% |
| 7 | Reliance | 1,174,675 | 923,414 | 1,673 | 1,640 | 0.04% | 0.05% |
| 8 | Vodafone | 139,188 | 220,981 | - | - | - | - |
| | Total | 24,400,627 | 22,810,716 | 3,845,016 | 3,378,345 | 100.00% | 100.00% |

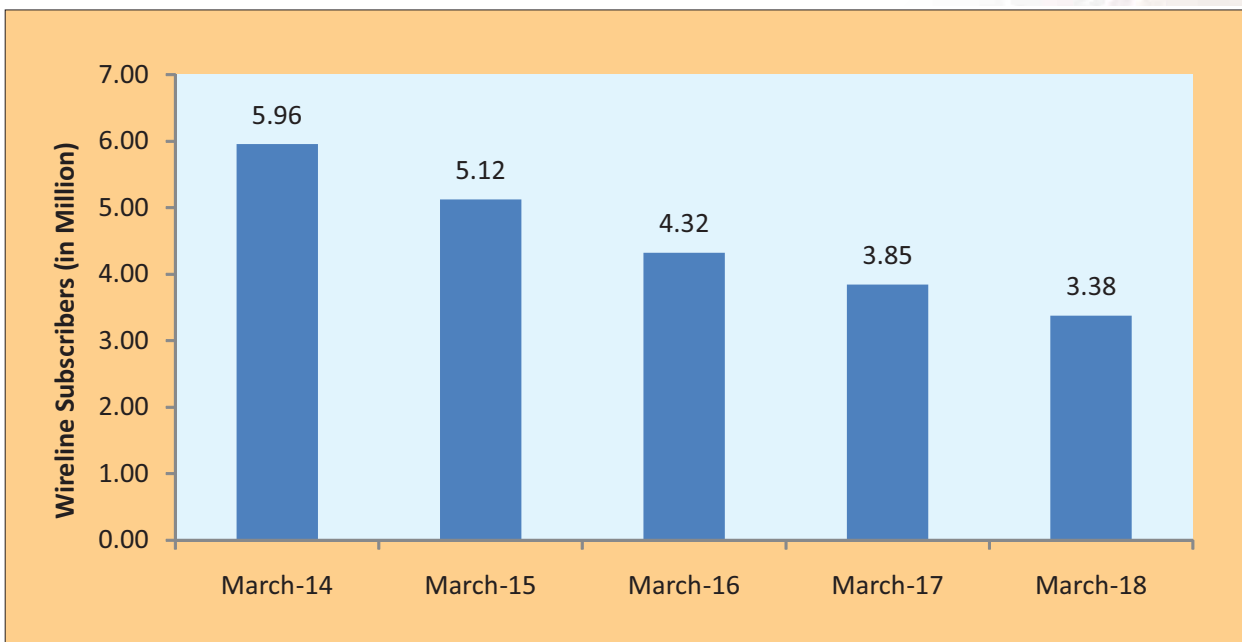
- (ii) The status of rural wireline subscribers at the end of each quarter during 2017-18 is depicted in **Figure – 6:**

Figure-6: Bar chart showing Rural wireline subscribers



- (iii) The status of rural wireline subscribers during the last five financial years is depicted in the **Figure- 7.**

Figure-7: Bar chart showing Rural subscribers during 2014-2018



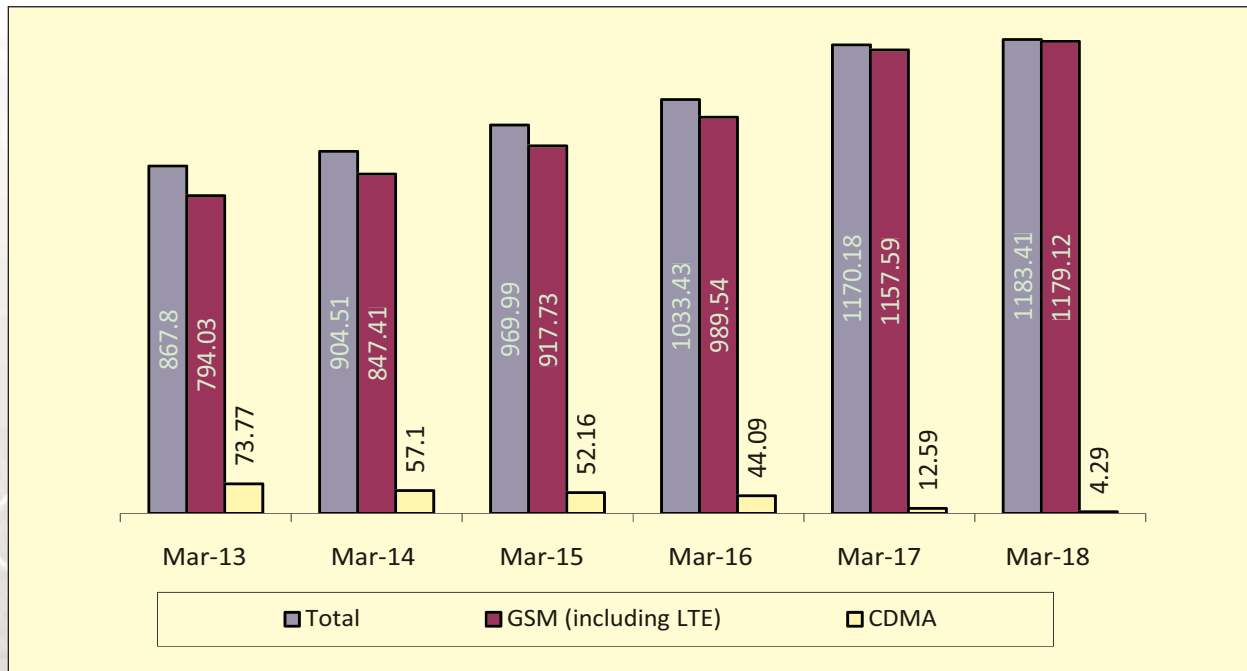
1.2.2 Expansion of Telephone Network

Wireless Services

1.2.2.1 During the past year, the telephone network has been expanded adequately to support the demand in the growth of consumers. The expansion is evident from the fact that the Wireless Subscriber base has touched 1183.41 million as on 31st March 2018 from the subscriber base of 1170.18 million as on 31st March 2017 by registering an increase of 13.23 million

subscribers during the year. The total subscriber base of wireless services has grown from 867.80 million in March 2013 to 1183.41 million in March 2018, which indicate the expansion of telecom network during the past 5 year. Out of 1183.41 million subscribers at the end of financial year 2017-18, 1179.12 million (99.64%) are GSM (including LTE) Subscribers and 4.29 million (0.36%) were CDMA Subscribers. The trend of subscriber base from March 2013 to March 2018 is depicted in **Figure-8**.

Figure-8: Subscriber base of wireless operators (in million)



(ii) The subscriber base of individual wireless service providers [GSM & CDMA] (including LTE) from 2012-13 to 2017-18 along with their percentage growth over

the financial year 2016-17 is given in the **Table-10**. The market share of different mobile operators as on 31st March 2018 is displayed in **Figure-9**.

Table-10: Subscriber Base of Wireless [GSM (including LTE) and CDMA] Services from 2013-14 to 2017-18

(Subscriber base in million)

| Service Providers | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | %age growth/reduction over FY 2016-17 |
|-------------------|--------------|---------------|---------------|----------------|----------------|----------------|---------------------------------------|
| Bharti | 188.20 | 205.39 | 226.02 | 251.24 | 273.65 | 304.19 | 11.16 |
| Vodafone | 152.35 | 166.56 | 183.80 | 197.95 | 209.06 | 222.70 | 6.52 |
| Idea | 121.61 | 135.79 | 157.81 | 175.07 | 195.37 | 211.21 | 8.11 |
| RCOM/RTL | 122.97 | 110.89 | 109.47 | 102.41 | 83.50 | 0.19 | -99.77 |
| BSNL | 101.21 | 94.65 | 77.22 | 86.35 | 100.99 | 111.68 | 10.59 |
| Aircel | 60.07 | 70.15 | 81.40 | 87.09 | 90.90 | 74.15 | -18.43 |
| Reliance JIO (*) | - | - | - | - | 108.68 | 186.56 | 71.66 |
| Tata | 66.42 | 63.00 | 66.32 | 60.10 | 48.99 | 31.19 | -36.33 |
| Telenor | 31.68 | 35.61 | 45.62 | 52.45 | 50.49 | 37.98 | -24.78 |
| Sistema(&) | 11.91 | 9.04 | 8.86 | 7.69 | 4.91 | - | - |
| Videocon(@) | 2.01 | 4.99 | 7.13 | 6.56 | - | - | - |
| MTNL | 5.00 | 3.37 | 3.51 | 3.56 | 3.63 | 3.56 | -1.93 |
| Loop (#) | 3.01 | 2.90 | - | - | - | - | - |
| Quadrant(@) | 1.37 | 2.17 | 2.73 | 3.16 | - | - | - |
| Total | 867.8 | 904.51 | 969.89 | 1033.63 | 1170.18 | 1183.41 | 1.13 |

Source: Service Providers

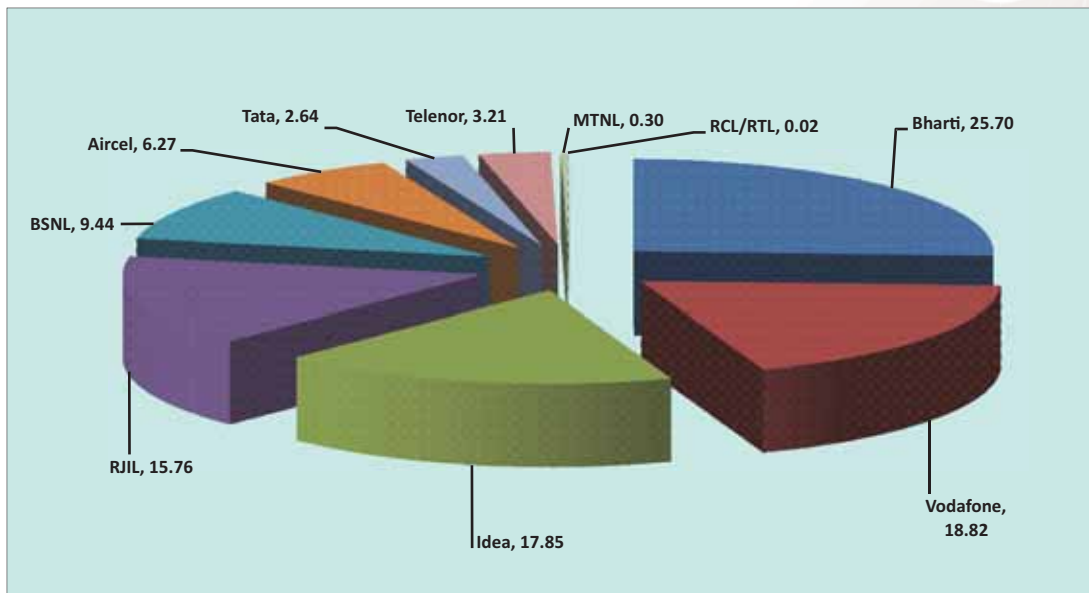
(*) M/s Reliance Jio Infocomm Ltd launched their commercial services in 2016-17

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

(@) M/s Videocon and M/s Quadrant discontinued its services in 2016-17

(&) The services of M/s Sistema Shyam Ltd. have been taken over by M/s RCOM/RTL in 2017-18

Figure-9: Market Share of Wireless Service Providers (as on 31st March 2018) (in %)



(iii) In the wireless segment, subscriber base of GSM (including LTE) was 1179.12 million subscribers at the end of March 2018, as compared to 1157.59 million at the end of March 2017. The GSM network has expanded adequately to accommodate the increase in the GSM subscriber base of 21.53 million new subscribers during the year.

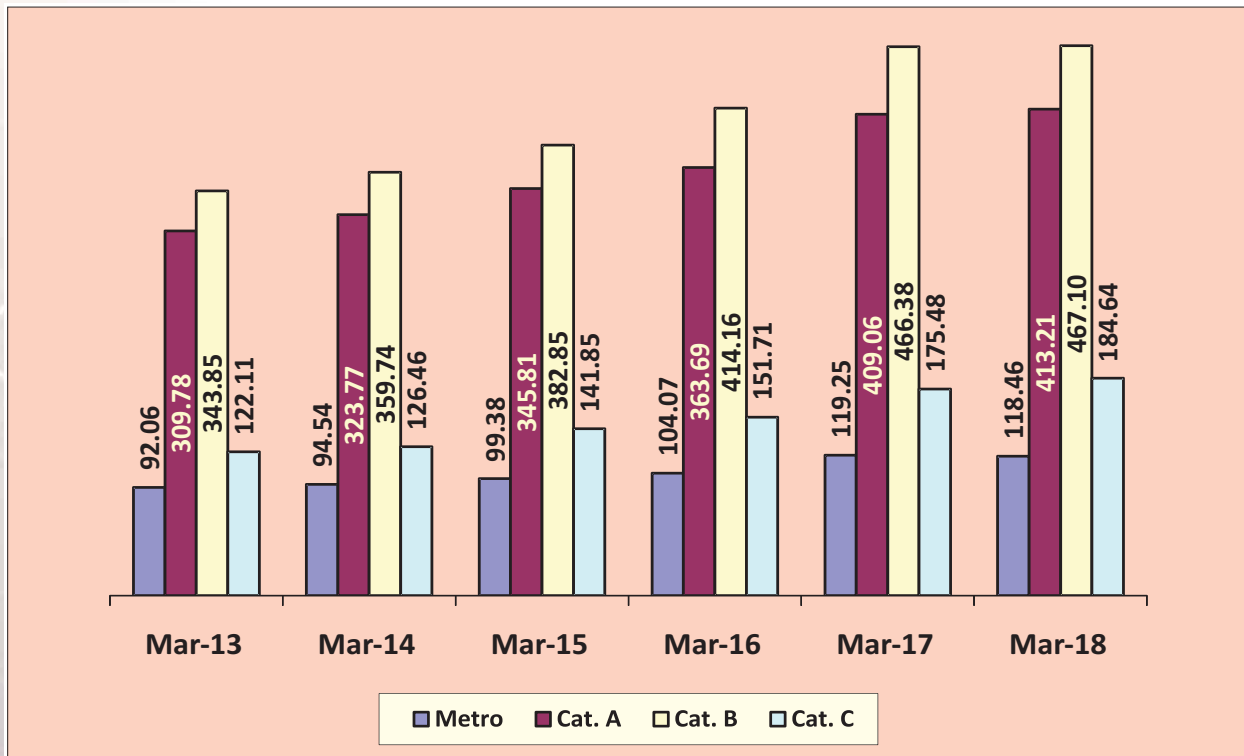
In terms of subscriber base and market share of GSM services, M/s Bharti with 304.19 million subscribers remains the largest GSM Service provider followed by M/s Vodafone, M/s Idea, M/s RJIL,

M/s BSNL with 222.70 million, 211.21 million, 186.56 million and 111.68 million respectively.

In the wireless segment, the CDMA subscriber base reduced to 4.29 million during the year ending 31st March 2018 as compared to 12.59 million at the end of the year ending 31st March 2017.

The subscriber base for Cellular Wireless services in different categories of service areas for the period March 2013 to March 2018 is indicated graphically in **Figure-10.**

Figure-10 : Subscriber Base for Wireless Services in Metros and Circles from March, 2013 to March, 2018 (Figures in Millions)



(iv) The list of service providers in various service areas is given in **Table-11**.

Table-11: Cellular (GSM & CDMA) Service Providers as on 31st March, 2018

| Sl. No | Service Provider | Number of SAs | Service Area (SAs) |
|--------|---|-----------------|---|
| 1. | Bharti Airtel Limited | 22 | All India |
| 2. | Aircel Group | 22* | All India |
| 3. | Reliance Communications Ltd. | 20 | All India (except Assam & North East) |
| 4. | Reliance Telecom Ltd. | 8 | Kolkata, Madhya Pradesh, West Bengal, Himachal Pradesh, Bihar, Odisha, Assam & North East |
| 5. | Vodafone Ltd | 22 | All India |
| 6. | Tata Teleservices Ltd | 19 | All India except Assam, North East & Jammu & Kashmir |
| 7. | IDEA Cellular Ltd | 22 [#] | All India |
| 8. | Sistema Shyam Telelink | 9 | Delhi, Kolkatta, Gujarat, Karnataka, Tamil Nadu (incl. Chennai), Kerala, Uttar Pradesh (West), Rajasthan, West Bengal |
| 9. | Bharat Sanchar Nigam Ltd. | 20 [^] | All India (except Delhi & Mumbai) |
| 10. | Mahanagar Telephone Nigam Ltd. | 2 [^] | Delhi, Mumbai |
| 11. | Telenor Communication (India) Pvt. Ltd. | 6 | Maharashtra, Gujarat, Andhra Pradesh, Uttar Pradesh (West), Uttar Pradesh (East), Bihar |
| 12. | Reliance Jio Infocomm Ltd | 22 | All India |

(*) TN&AP – CMTS

(#) Delhi, HP & UP (E) - CMTS

(^) BSNL/MTNL – CMTS in all LSAs

In the remaining LSAs the TSPs have either UASL, UL or UL(AS)

Source: DoT Website.

Wireline Services

1.2.2.2 The Service Provider wise break-up of wireline subscribers of 22.81 million as on 31st March, 2018, is shown in **Table-12** and the break-up in terms of rural and urban subscriber is shown in **Table-13**. The incumbents BSNL and MTNL

have 53.78% and 14.67% market share respectively in the wireline subscriber base, while all the six private operators together have 31.55% share. The share of private operators has increased from 29.71% as on 31st March, 2017 to 31.55% as on 31st March, 2018, registering an increase of 6.19 %.

Table-12: Service Provider wise details of Wireline Subscriber base as on 31st March, 2018

| Sl. No. | Name of the Service Provider | Area of Operation | Subscriber base (Wireline) |
|---------|---|---|----------------------------|
| 1 | BSNL | All India except Delhi & Mumbai | 12,267,391 |
| 2 | MTNL | Delhi & Mumbai | 3,346,568 |
| 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. | 3,932,533 |
| 4 | Quadrant Televentures Ltd. | Punjab | 243,820 |
| 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 | 923,414 |
| 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 | 1,876,009 |
| 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 | 220,981 |
| | TOTAL | | 22,810,716 |

Source: As per data furnished by the TSPs.

Table-13: Wireline Subscriber Base of Service Providers as on 31st March, 2018

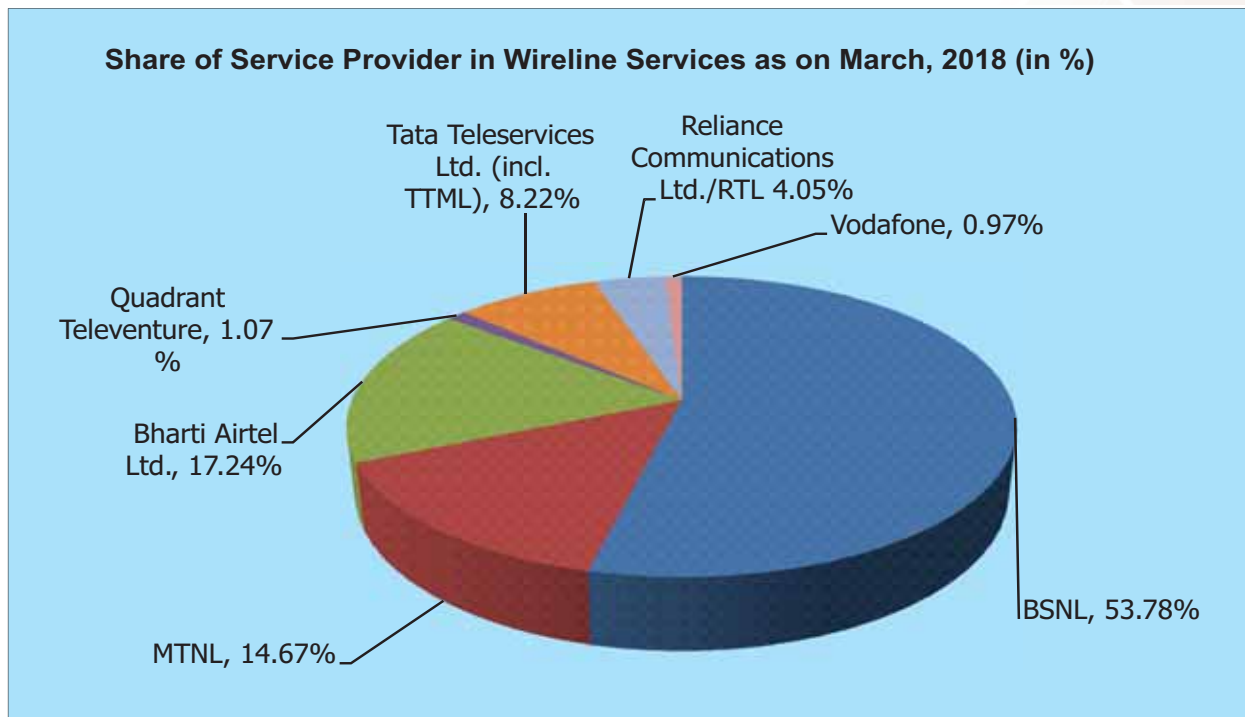
| Sl. No. | Service Provider | Urban Subscribers | Rural Subscribers | Total Wireline subscribers |
|---------|-------------------------------------|-------------------|-------------------|----------------------------|
| 1 | BSNL | 8,997,388 | 3,270,003 | 12,267,391 |
| 2 | MTNL | 3,346,568 | | 3,346,568 |
| 3 | Bharti Airtel Ltd. | 3,932,533 | | 3,932,533 |
| 4 | Quadrant Televenture | 191,352 | 51,868 | 243,820 |
| 5 | Sistema Shyam Teleservices Ltd. | | | 0 |
| 6 | Tata Teleservices Ltd. (incl. TTML) | 1,821,175 | 54,834 | 1,876,009 |
| 7 | Reliance Communications Ltd. | 921,774 | 1,640 | 923,414 |
| 8 | Vodafone | 220,981 | | 220,981 |
| | Total | 19,431,771 | 3,378,345 | 22,810,716 |

Share of Service Providers in wireline subscribers

1.2.2.3 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-11.**

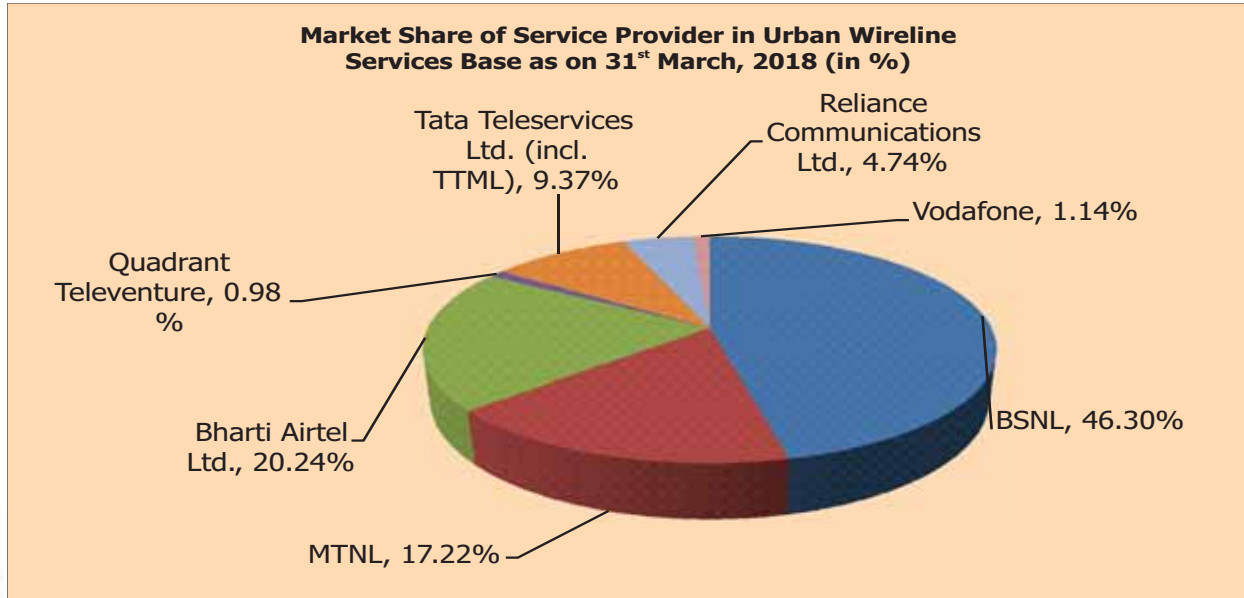
Figure-11 : Composition of share of Service Providers



(ii) As on 31st March, 2018 the total urban wireline subscribers were 19.43 million, out of which about 63.52% are provided by BSNL/MTNL. The market

share of different wireline service providers in urban areas is depicted in the **Figure-12**:

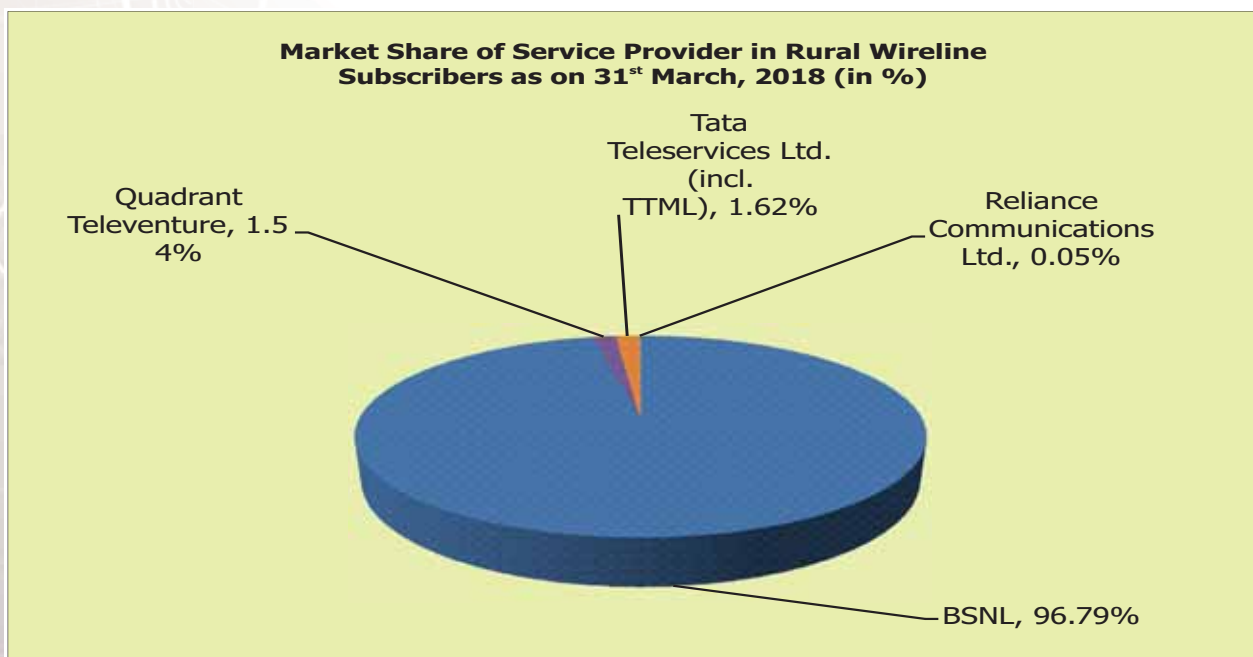
Figure 12: Composition of share of Service Providers in urban areas



(iii) As on 31st March, 2018, the total rural wireline subscribers were 3.38 million. The market share of different wireline

service providers in rural areas is depicted in the **Figure-13**:

Figure-13: Composition of share of Service Providers in Rural areas



Public Call Offices (PCOs):

1.2.2.4 PCOs were set up during the initial years of telecommunication expansion in India when the last mile wireline connectivity was not provided timely even in urban areas. With rapid expansion of telecom network and services, the utility of PCOs has come down. The penetration of mobile services has also affected the PCO sector. As on 31st March, 2018, the total number of Public Call Offices (PCOs) were 0.36 million, as compared to 0.45 million PCOs as on 31st March, 2017. The status of number of PCOs provided by BSNL, MTNL and Private Operators is indicated in **Table-14** below:-

Table-14: Public Call Offices in India

| S. No. | Name of the Service Provider | As on 31 st March, 2017 | As on 31 st March, 2018 |
|--------|------------------------------|------------------------------------|------------------------------------|
| 1 | BSNL | 2,78,700 | 2,22,721 |
| 2 | MTNL | 1,28,055 | 97,802 |
| 3 | Private Operators | 45,281 | 39,530 |
| | Total | 4,52,036 | 3,60,053 |

Village Public Telephones (VPTs):

1.2.2.5 Village Public Telephones (VPTs) which are rural public access phones

constitute an important initiative undertaken by the Universal Service Obligation Fund (USOF) to provide universal access to affordable telecommunications facilities to people in rural and remote areas. The expansion of telecom network and services particularly in rural areas has affected the utility of VPTs. As on 31st March, 2018, the total number of Village Public Telephones (VPTs) provided by the service providers were 1.99 lakh has come down from 2.30 lakh as on 31st March, 2017. **Table-15** provides the number of VPTs functioning in the country.

Table-15: Village Public Telephones in India

| S. No. | Name of the Service Provider | As on 31 st March, 2017 | As on 31 st March, 2018 |
|--------|------------------------------|------------------------------------|------------------------------------|
| 1 | BSNL | 2,28,403 | 1,99,057 |
| 2 | Private Operators | 1,282 | 0 |
| | Total | 2,29,685 | 1,99,057 |

Equipped Switching Capacity

1.2.2.6 As on 31st March, 2018, the service provider wise total equipped switching capacity and working connections are shown in **Table-16** below which explains the status of telecom network :-

Table-16: Service Provider wise Equipped switching capacity

| Sl. No. | Name of the Service Provider | Service Area | As on 31 st March, 2018 | |
|---------|---|--|---|---------------------|
| | | | Equipped Switching Capacity (Number of Lines) | Working Connections |
| 1 | Bharat Sanchar Nigam Ltd. | All India except Delhi & Mumbai | 3,23,38,274 | 1,22,67,391 |
| 2 | Mahanagar Telephone Nigam Ltd. | Delhi & Mumbai | 48,81,215 | 33,46,568 |
| 3 | Bharti Airtel Ltd. | Delhi, Gujarat, Haryana, Karnataka, Kerala, Kolkata, Madhya Pradesh, Maharashtra, Mumbai, Punjab, Rajasthan, Tamil Nadu, Telangana, UP (East) and UP (West). | 11,43,216 | 39,32,533 |
| 4 | Quadrant Televentures Ltd. | Punjab | 4,73,835 | 2,43,820 |
| 5 | Reliance Communications Ltd. | Andhra Pradesh, Bihar, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh, Maharashtra, Mumbai, Orissa, Punjab, Rajasthan, Tamilnadu, UP (East), UP(West) and West Bengal | 25,64,000 | 9,23,414 |
| 6 | Tata Teleservices Ltd. & Tata Teleservices (Maharashtra) Ltd. | Andhra Pradesh, Bihar, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh, Maharashtra, Mumbai, Orissa, Punjab, Rajasthan, Sikkim, Tamil Nadu, Talangana, UP(East), UP (West) and West Bengal | 26,41,483 | 18,76,009 |
| 7 | Vodafone | Andhra Pradesh, Assam, Bihar, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh, Maharashtra, Mumbai, North East, Orissa, Punjab, Rajasthan, Tamilnadu , Telangana, UP (East), UP (West) and West Bengal | 2,45,000 | 2,20,981 |

Source: As per report furnished by the Service Providers.

Internet and Broadband Subscribers

1.2.2.7 The Internet subscriber base in the country as on 31st March, 2018 stood at 493.96 million as compared to 422.19 million as on 31st March, 2017. The total broadband subscriber base of the country as on 31st March, 2018 is 412.60

million whereas it was 276.52 million on 31st March, 2017.

The details of subscription as reported by the service providers in the country as on 31st March, 2018 is indicated in **Table-17**.

Table-17: Details of Internet and Broadband Subscribers

[Subscribers in Millions]

| | Segment | | Category | Internet Subscribers | | % Growth |
|-----------------------------------|----------|--|--------------|----------------------|---------------|---------------|
| | | | | Mar-17 | Mar-18 | |
| A. | Wired | | Broadband | 18.24 | 17.95 | -1.58% |
| | | | Narrowband | 3.33 | 3.28 | -1.48% |
| | | | Total | 21.58 | 21.24 | -1.56% |
| B. | Wireless | Fixed Wireless (Wi-Fi, Wi-Max, Radio & VSAT) | Broadband | 0.560 | 0.457 | -18.45% |
| | | | Narrowband | 0.022 | 0.014 | -37.40% |
| | | | Total | 0.582 | 0.471 | -19.15% |
| | | Mobile Wireless (Phone + Dongle) | Broadband | 257.71 | 394.19 | 52.96% |
| | | | Narrowband | 142.32 | 78.06 | -45.16% |
| | | | Total | 400.04 | 472.25 | 18.05% |
| Total Internet Subscribers | | | Broadband | 276.52 | 412.60 | 49.22% |
| | | | Narrowband | 145.68 | 81.35 | -44.15% |
| | | | Total | 422.19 | 493.96 | 17.00% |

1.2.2.8 Quarter-wise Internet/Broadband subscription as reported by the service providers for 2017-18 is at **Table-18**:

Table-18: Quarter-wise Internet/Broadband Subscribers

(Subscribers in Millions)

| Service | June-17 | Sept-17 | Dec-17 | Mar-18 |
|-----------------------|---------------|---------------|---------------|---------------|
| Broadband | 300.84 | 324.89 | 362.87 | 412.60 |
| Narrowband | 130.38 | 104.34 | 83.09 | 81.35 |
| Total Internet | 431.21 | 429.23 | 445.96 | 493.96 |

1.2.3 Entry of Private Sector in basic and value added service

1.2.3.1 The number of licenses under UL / UL (AS) /UASL /CMTS to provide Access Services, as on 31st March 2018, are depicted in **Table-19**:

Table-19: Numbers of licenses under UL/UL (AS) / UASL / CMTS

| Name of licence | Number of licence |
|--|-------------------|
| Basic | 2 |
| Unified Licence (UL) | 15 |
| Unified Licence (Access Services [UL (AS)]) | 6 |
| Unified Access Service Licence (UASL) | 88 |
| Cellular Mobile Telephone Service (CMTS) Licence | 28 |

Source: DoT

1.2.4 Technical Compatibility and effective interconnection with service providers

1.2.4.1 Under the TRAI Act, the Authority is mandated to fix the terms and conditions of interconnectivity 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. During the report period following regulations were issued for effective interconnection between service providers:

The Telecommunication Interconnection Usage Charges (Thirteenth Amendment)

Regulations, 2017 dated 19th September 2017

1.2.4.2 Through these Regulations, the termination charge for wireless to wireless local and national long distance calls was reduced from 14 paise per minute to Rs. 0.06 (paise six only) per minute for the period from the 1st October 2017 to 31st December 2019; and Rs. 0 (Zero) with effect from the 1st January, 2020 onwards.

The Telecommunication Interconnection Regulations, 2018 dated 1st January 2018

1.2.4.3 The Authority issued “The Telecommunication Interconnection Regulations, 2018” on 1st January, 2018 comprising of regulation on important aspects of interconnection

e.g. interconnection agreement, provisioning of initial interconnection and augmentation of Points of Interconnection (POIs), etc. These regulations shall apply over all the service providers offering telecommunication services in India. These regulations came into effect from the 1st February, 2018.

The Telecommunication Interconnection Usage Charges (Fourteenth Amendment) Regulations, 2018 dated 12th January 2018

1.2.4.4 Through this Regulation, the Authority has reduced the termination charges payable by an International Long Distance Operator (ILDO) to the access provider in whose network the call terminates from Rs. 0.53 (paise fifty three only) per minute to Rs. 0.30 (paise thirty only) per minute. These regulations came into effect from the 1st February, 2018.

1.2.5 Telecommunication Technology

1.2.5.1 The telecommunication sector has witnessed rapid technological developments in the recent past. The Authority forwarded a number of Recommendations to the Government on emerging technologies and orderly growth of the various telecommunication technologies, and these recommendations are mentioned below.

- (i) Recommendations on “Cloud Services” dated 16th August 2017
- (ii) Recommendations on “Regulatory Framework for Internet Telephony” dated 24th October 2017
- (iii) Recommendations on “Net Neutrality” dated 28th November 2017.

The details of these Recommendations are available in Part-II of the Report.

1.2.6 Implementation of National Telecom Policy

1.2.6.1 One of the main objectives of the National Telecom Policy 2012 was to achieve the 175 million broadband connections by the year 2017. However, the broadband subscriber base has reached to 412.60 Million at the end of March 2018. There is a considerable growth from the subscriber base of 276.52 Million as on 31st March 2017.

To achieve the objective of “One Nation – Full Mobile Number Portability” (FMNP) of National Telecom Policy 2012 the Authority forwarded its recommendation on FMNP across licensed service areas, on 25th September 2013. Based on the recommendations of the Authority, the Department of Telecommunications on 3rd November, 2014, issued amendment(s) to the MNP License Agreement. 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. Further, through an amendment regulation “The Telecom Mobile Number Portability Per Port Transaction Charge and Dipping Charge (Amendment) Regulation 2018 dated 31st January 2018, the porting charges has been reduced from Rs.19/- per port to Rs.4/- for each successful porting making it more affordable to the consumers.

One of the objectives of the NTP 2012 is to strengthen the Grievance Redressal Mechanisms to provide timely and effective resolution. On this front, the Authority forwarded its recommendations on “Complaints/Grievance Redressal in Telecom Sector” on 10th March 2017.

Further, the Department of Telecommunications (DoT) has sent a reference to TRAI to suggest its policy inputs for formulation of National Telecom Policy – 2018. The Authority, after due consultation process, finalized its inputs for formulation the National

Telecom Policy-2018 and forwarded to DoT. The Recommendations forwarded by the Authority is elaborated in Part-II of the Report.

1.2.7 Quality of Service (QoS)

1.2.7.1 During the year 2017-18, the focus of monitoring of Quality of Service and disseminating information on QoS had undergone a change with more focus on technology based submissions. In June 2017, TRAI had launched upgraded version of two Apps and TRAI Analytics Portal. TRAI DND App facilitates easy lodging of complaints relating to UCC and also the App facilitate the consumers to check the status of their complaints. The “TRAI My Speed” App allows customers to measure their data speed experience and sends the results to TRAI. The application captures and sends coverage, data speed and other network information along with device and location of the tests to the TRAI - “MySpeed” Portal. The TRAI - “MySpeed” Portal allows the users to explore the mobile data experience of consumers across India. The information displayed on the web site is based on crowd sourced data collected over a period of time and spread over geographical area.

The TRAI QoS Analytics portal provides a graphical view on the map of India the

performance of the 2G service providers on call drop (on all India level, service area level, district level and Base Transceiver Station (BTS) level), BTS density per square kilometer and network utilization so that the consumers can have informed choice based on quality of service and coverage.

1.2.8 Universal Service Obligation

1.2.8.1 As per the Indian Telegraph Act 1885 (as amended in 2003 and 2006), Universal Service Obligation is defined as access to telegraph services to people in rural and remote areas at affordable and reasonable prices. In the present context, it may be said that Universal Service Obligation means providing telecommunication service to all users everywhere with a defined minimum service of specified quality at an affordable price.

Keeping this objective in mind, Universal Service Obligation Fund (USOF) was established on 1st April 2002 under the Indian Telegraph (Amendment) Act 2003 (further amended in 2006), to provide financial support for the provision of telecom services in commercially unviable rural and remote areas of the country.

In its recommendations dated 19th December 2016 on 'Encouraging Data usage in Rural Areas through Provisioning of Free Data', the Authority has recommended that in order to bridge the affordability gap for the persons residing in rural areas and to support Governments efforts towards cashless economy by incentivizing digital means, a scheme of providing free data of approx 100 MB per month to rural subscribers for free may be launched and the cost of implementation of the scheme may be met from USOF.

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

1.3.1 Television and Radio services together constitute the Broadcasting Sector. India has the world's second largest TV market after China. As per industry estimates, at the end of year 2018, out of a total of 286 million households in India, around 183¹ million households have Television sets. These 183 million households are being served by cable TV services, DTH services, HITS services, IPTV services, in addition to a terrestrial TV network of Doordarshan. The terrestrial TV network of Doordarshan covers about 92 per cent of country's population through a vast network of terrestrial transmitters. The pay TV universe consists of around 98.5¹ million Cable TV households, 67.53 million net active DTH subscribers and 1.5 million¹ HITS subscribers. The television broadcasting sector comprises of 358 broadcasters, out of which, 49³ are running pay channels. On the television distribution side, there are 1469⁵ Multi System Operators (MSOs) registered with the Ministry of Information and Broadcasting (MIB), an estimated 60,000¹ cable operators, 2 HITS operators, 5 pay DTH operators and a few IPTV operators. In addition, the public service broadcaster - Doordarshan also provides a free-to-air DTH service in India. At present, there are 875⁵ private satellite TV channels permitted by the Ministry of Information and Broadcasting as on 31 March 2018, out of which, 213 are SD pay TV channels (including 1 advertisement free pay channel) and 95⁶ are HD Pay TV channels.

¹ Source : FICCI –EY Report 2018

² Source : MIB Annual Report 2017-18

³ Source : As reported by DTH operators to TRAI

⁴ HITS stands for Head-end In The Sky

⁵ Source : MIB website www.mib.gov.in

⁶ Source : As reported by broadcasters to TRAI

India's television industry has grown from Rs 58,800 crore in 2016-17 to Rs 66,000⁷ crore in 2017-18, thereby registering a growth of 12.24%. Subscription revenues account for a 59.5 % share of the overall industry revenue, other part being the advertising revenue. Subscription revenues rose from Rs. 38,700⁷ crore in 2016-17 to Rs. 39,300⁷ crore in 2017-18. Advertisement revenues grew from Rs. 20,100⁷ crore in 2016-17 to Rs. 26,700⁷ crore in 2017-18 growing by a whopping 32.8 % during the year. The FM (Frequency Modulation) radio broadcasting sector has also registered an impressive growth. There were 324⁶ private FM radio stations operational at the end of March 2018, besides the terrestrial radio network of public service broadcaster- All India Radio (AIR). AIR has network of 469 centres and 662⁸ terrestrial radio transmitters [139⁸ MW (Medium Wave), 475 FM and 48⁹ SW (Short Wave)]. AIR service covers around 99.20% of the geographical area of the country while serving 99.19% of the population⁹. As regards Community Radio Stations, at the end of March 2018, 216 community radio stations have become operational. The radio industry is entirely dependent

⁷ Source : FICCI –EY Report 2018

⁸ Source : AIR website – www.air.org.in

⁹ Source : AIR website – www.air.org.in

on advertisement revenues and has registered a growth of around 6.03 percent during the year 2017-18. Advertisement revenues have also risen from Rs. 2046.54 crore¹⁰ in 2016-17 as compared to 2170.04 crore¹⁰ in year 2017-18.

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 comprises of cable TV services, DTH services, terrestrial TV services, HITS services, IPTV services, and broadcast radio services. The FM radio services have also demonstrated consistent growth. Commensurate with the growth in the subscriber base, the number of platforms & service providers has also increased. The present status of various services in the broadcasting sector is outlined as below.

Satellite TV Channels

1.4.1 The total number of satellite TV channels permitted by the Ministry of Information and Broadcasting has increased substantially from 524 in the year 2010 to 875 in the year 2018. **Figure-14** depicts the total number of TV channels year- wise figures during this period. The number of Standard Definition (SD)

¹⁰ Ministry of I & B

pay TV channels has grown from 147 in the year 2010 to 213 in 2018. **Figure-15** depicts year wise total number of SD Pay TV channels during this period. In the last nine years a substantial number of HD pay television channels have also been launched by the broadcasters. **Figure-16**

depicts the year wise reported number of HD channels during this period. As on 31st March 2018, there are a total of 95 operational HD channels. A list of broadcaster & their Pay TV channels (SD & HD) is at **Annexure- I** at the end of this part of this Report.

Figure -14 : Annual growth in number of satellite TV channels (Pay & FTA) in India

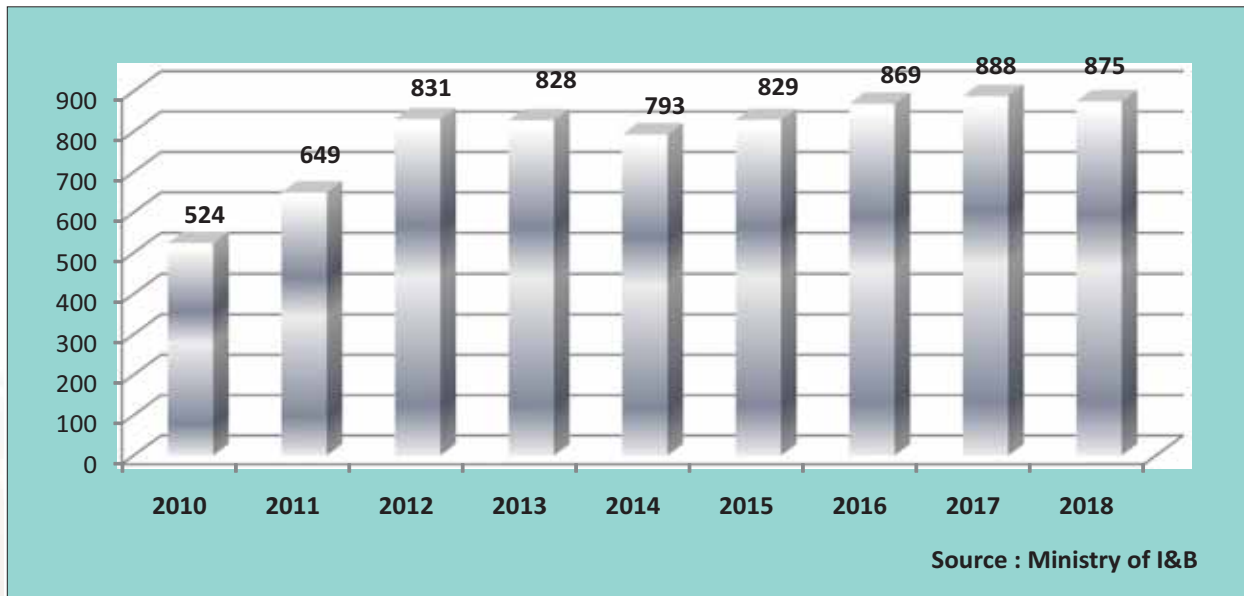


Figure-15 : Annual Growth in numbers of SD satellite pay TV channels

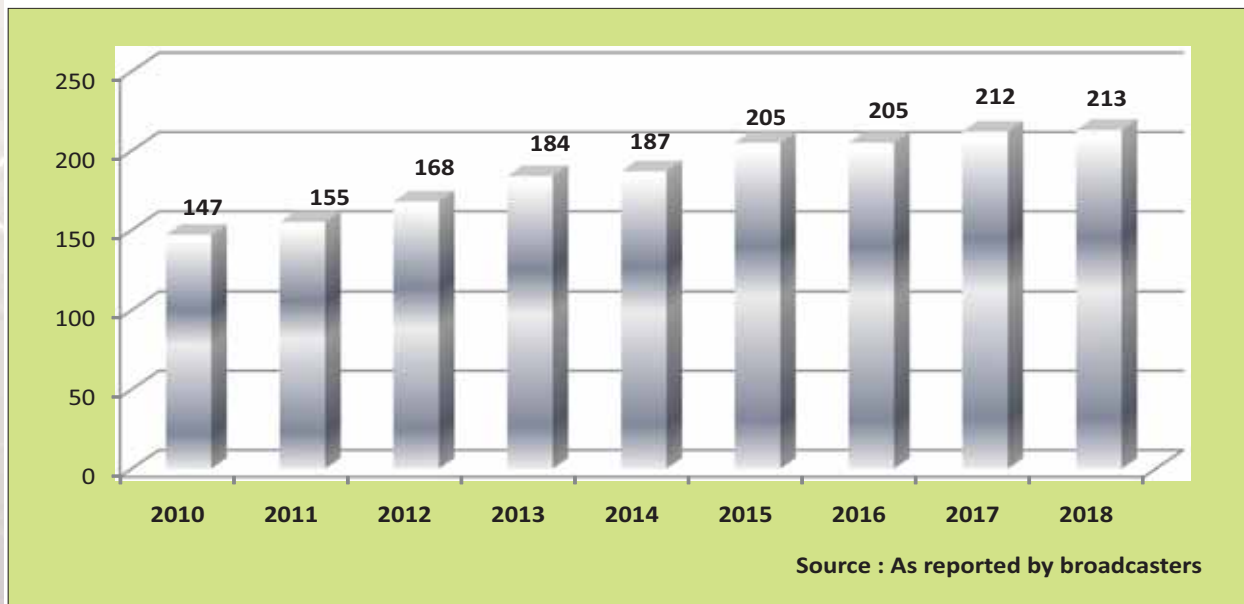
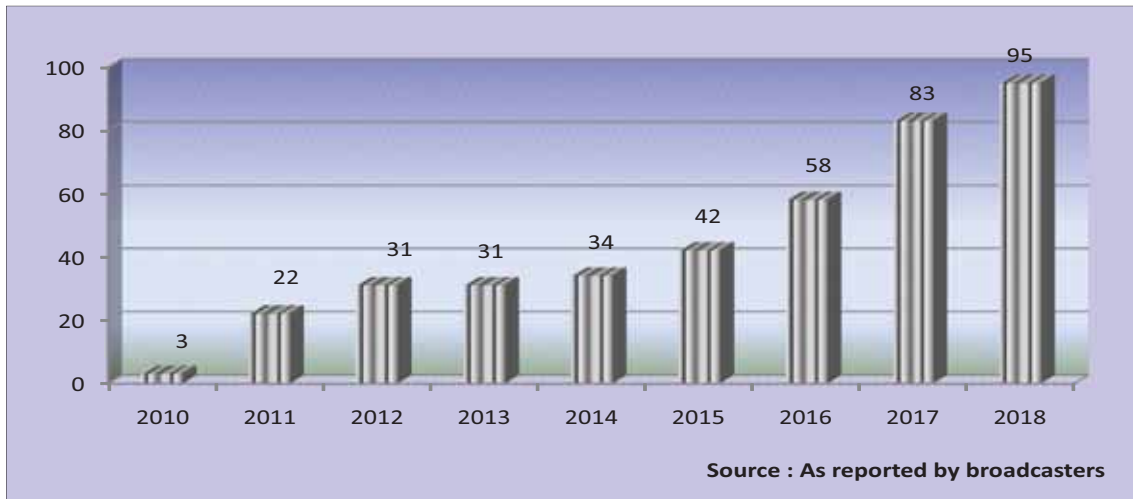


Figure-16: Annual growth in number of HD satellite pay TV channels



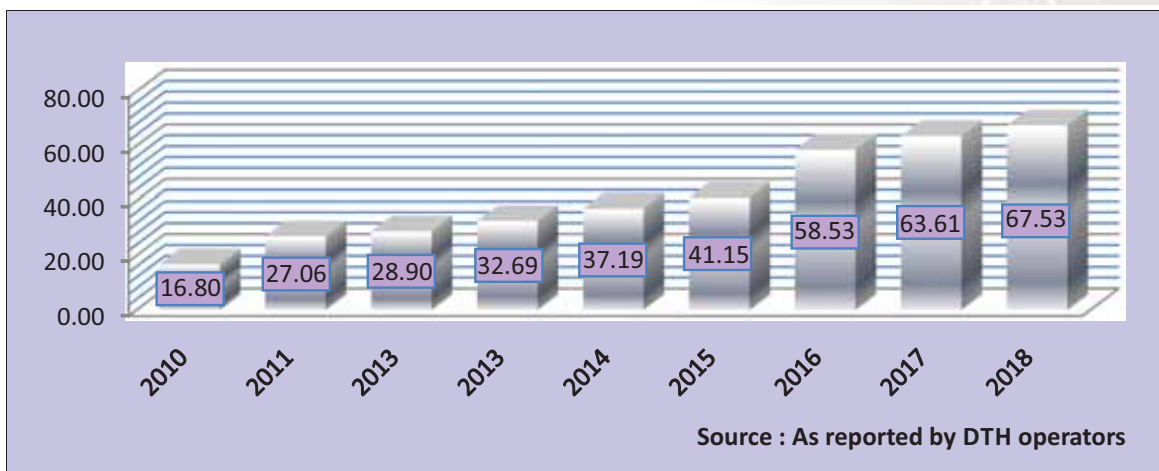
DTH services

1.4.2 Since its introduction in the year 2003, Indian DTH service has displayed a phenomenal growth. DTH has attained a net active subscriber base of around 67.53 million. At the end of March 2018, there are 5 pay DTH service providers catering to this subscriber base as compared to 6 pay DTH service providers

in the year 2016-17 (due to merger of M/s Videocon D2H with and into M/s Dish TV India Limited w.e.f. 22nd March 2018). A list of pay DTH operators is placed at **Annexure-II** 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-17**.

Figure-17: Annual growth in net active subscriber base of pay DTH sector

(In Millions)



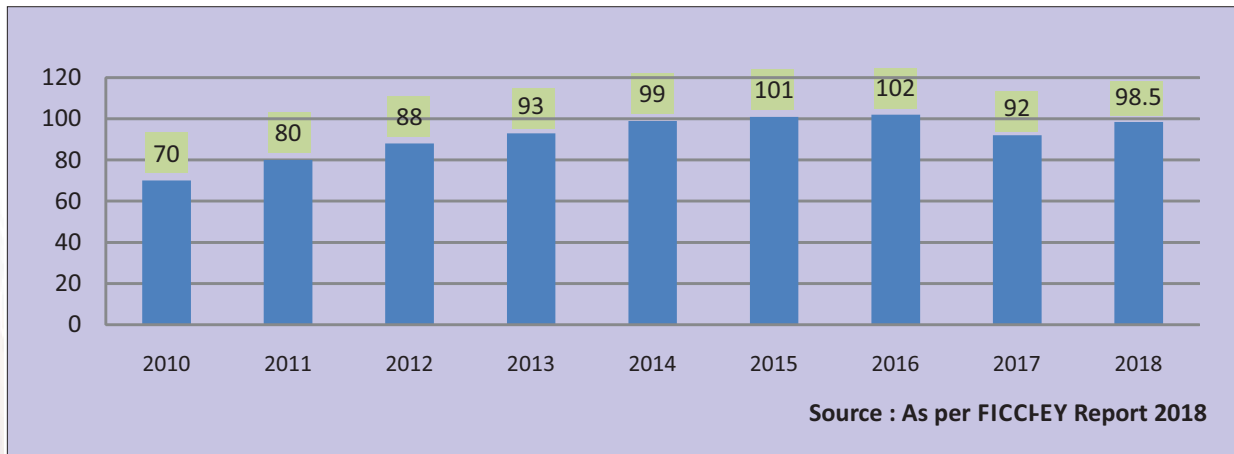
Apart from an increase in the availability of conventional TV channels, the pay DTH operators have continued to add several innovative offerings and value added services (VAS) such as movie-on-demand, gaming, shopping, education etc.

Cable TV Services

1.4.3 The Cable TV segment is the largest of the TV service sector with an estimated subscriber base of around 98.5 million subscribers. **Figure-18** depicts the growth of the pay cable TV sector in terms of yearly subscriber numbers, over the last nine years.

Figure -18: Annual growth in number of pay Cable TV Subscribers

(In Millions)



Digital Addressable Cable TV Systems (DAS)

1.4.4 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 digitization of the cable TV sector in India. Digitization, with addressability, of cable TV sector has been completed. The country achieved 100% digitization of Cable

TV network. This is a stupendous achievement making India as the only large country where 100% digital cable has been achieved through mandatory regulations.

Radio

1.4.5 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. There were **324** private FM radio stations operational at the end of March 2018, besides the terrestrial network of the public service broadcaster- All India Radio (AIR). AIR has network of **469** centres and **662** broadcast transmitters [**139** MW (Medium Wave), **475** FM and **48** SW (Short Wave)]. AIR service covers around **99.20%** of the geographical area of the country while serving **99.19%** of the population.

To expand the reach of FM Radio broadcasting in the country, the Government has embarked upon Phase-III to enable setting up of private FM Radio channels in all cities with a population of more than 1 lakh and in bordering areas of J&K, North Eastern States and island territories. The Government, on 25th July 2011, issued consolidated policy guidelines on Phase-III expansion of FM radio broadcasting through private entities. In Phase-III, an additional 966 channels across

333 cities have been made available for auction through an ascending e-auction process. Out of 333 cities, 69 cities already have operational FM Radio channel(s), whereas 264 cities are new cities where no FM Radio channel is operational by private FM radio broadcasters. In the first batch of Phase-III, 135 private FM Radio channels in 69 cities were auctioned in 2015. Out of these, 96 FM Radio channels in 55 cities have been successfully auctioned. In the second batch of Phase-III, 266 private FM Radio channels in 92 cities were auctioned in 2016. Out of these, 66 FM Radio channels in 48 cities have been successfully auctioned. As on 31st March 2018, 324 FM radio stations have been made operational in 86 cities by 34 private FM broadcasters. Introduction of private FM broadcasters in the radio broadcasting sector has significantly enhanced radio coverage while providing good quality reception and content to listeners. This has also led to encouraging local talent as well as enhancing employment opportunities in these areas. The year wise total number of private FM radio stations is depicted in **Figure-19**. The year wise total advertisement revenue of private FM Radio stations reflects a sustained growth as in **Figure-20**.

Figure-19 : Annual Growth in number of Private FM Radio Stations

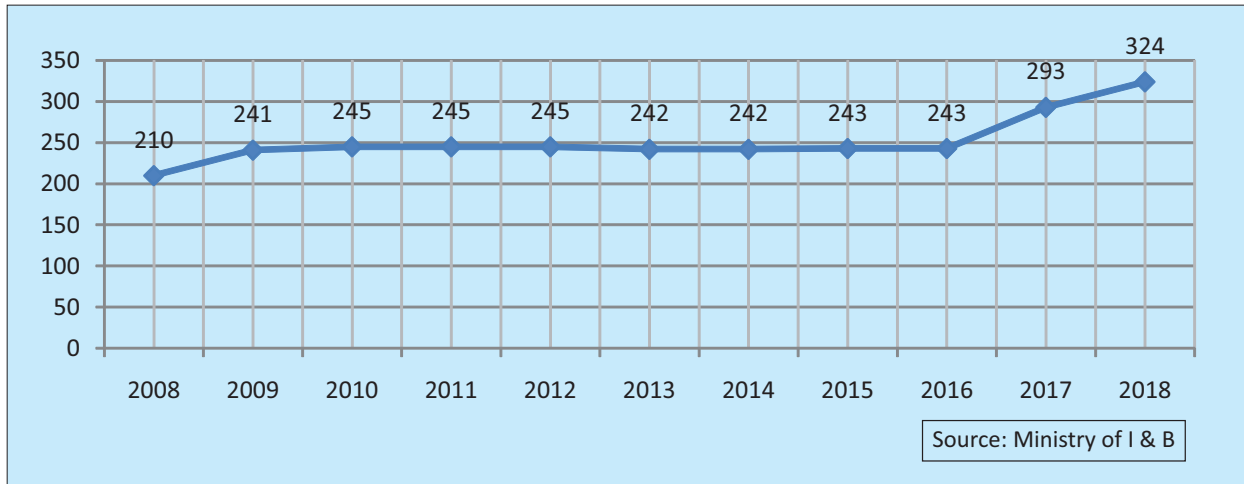
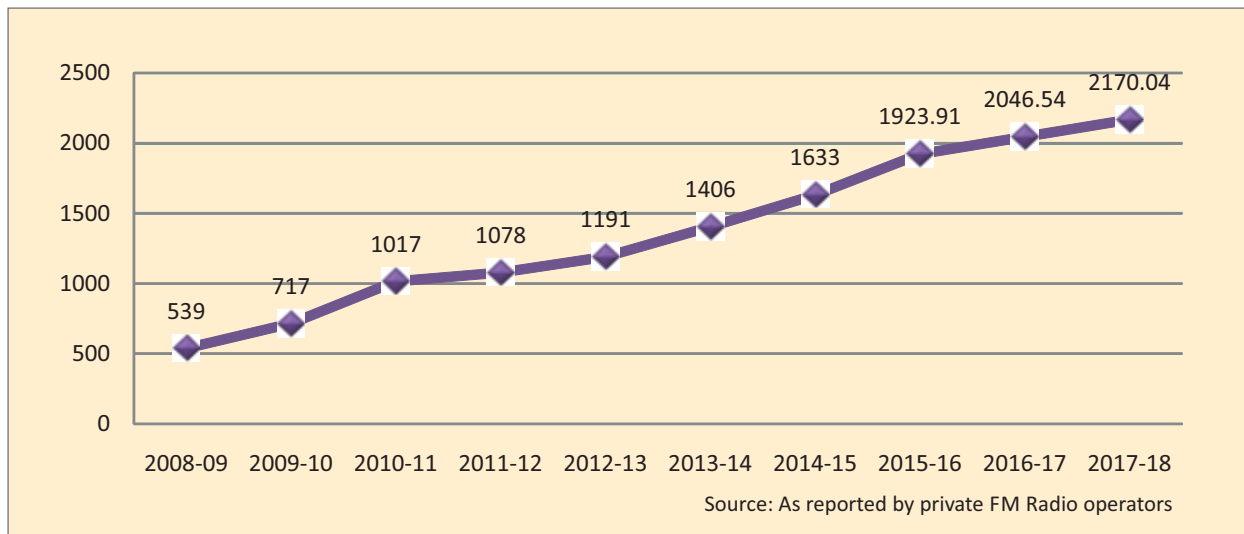


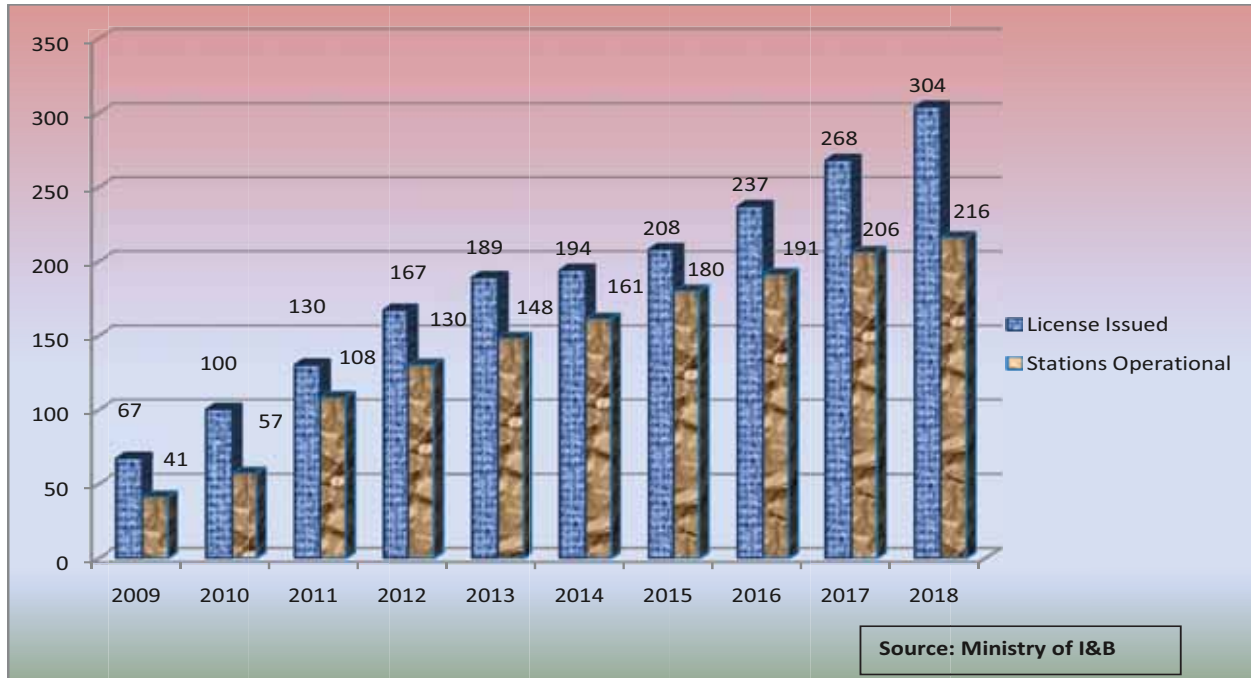
Figure-20 : Annual growth in FM Radio Advertisement Revenue

(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 31st March 2018, **216** community radio stations have become operational. The annual growth in the number of community radio stations is depicted in **Figure-21**.

Figure-21:- Annual Growth in number of Community Radio Stations


Teleports

1.4.6 Globally, teleports have evolved as providers of all kind of services including TV programme production, post-production, content hosting, distribution, system integration and network management. With liberal up-linking guidelines in India, the channels that were earlier being up-linked from abroad have shifted to up-linking from India in view of lower operating costs and easy availability of skilled manpower. If the country has to develop further as a 'Teleport hub', further ease of grant of up-linking permission will enable more channels to shift to teleport facilities in India. There is a huge potential and even those channels which do not require to

be down-linked in India can be uplinked using Indian facilities. 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 Up-linking/Down-linking of Television Channels in India', had suggested that India be developed as a teleport hub. The recommendations have been further reiterated with Ease of Doing Business Recommendations dated 28th February 2018.

Tariff trends in the TV broadcasting sector

1.4.7 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 by digital addressable systems such as DAS, DTH, HITS, IPTV etc. are governed by the tariff orders issued by TRAI. 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. TRAI has also reviewed and issued revised comprehensive ‘Tariff Order’ dated 3rd March, 2017 which once implemented will usher in ‘forbearance’ of pricing the pay channels in broadcasting sector. The

new Tariff Order, however, remains sub-judice.

Stakeholders in the Cable and satellite TV Service Sector

1.4.8 As on March 2018, the total number of private TV channels permitted by Ministry of Information and Broadcasting was 875 which include 213 SD pay channels (including 1 advertisement free pay channels) and 95 HD pay channels. List of SD pay channels and HD pay channels are placed Annexure-I at the end of this part of the report.

Broadcasting & Cable services performance indicators

1.4.9 Overall status of the broadcasting and Cable TV services sector in the country is placed at **Table - 20** below.

Table-20: Overall status of Broadcasting and Cable TV Services as on 31st March 2018

| | |
|---|---------------|
| Number of pay Cable TV households (estimated) | 98.5 Million |
| Number of net active pay Subscribers with private DTH service providers | 67.53 Million |
| Number of Cable operators (estimated) | 60,000 |
| Number of MSOs registered with MIB | 1469 |
| Number of pay DTH Operators | 5 |
| Number of satellite TV Channels | 875 |
| Number of SD Pay TV Channels | 213 |
| Number of HD TV Channels | 95 |
| Number of FM Radio Stations (excluding All India Radio) | 324 |
| Number of Operational Community Radio Stations | 216 |

1.4.10 Performance indicators of the Broadcasting sector over the four quarters of 2017-18 are given in Table-21:

Table-21: Performance Indicator of Broadcasting and Cable Services

| Broadcast & Cable Services | Quarter ending | | | |
|---|----------------|------------|-----------|------------|
| | June 2017 | Sept. 2017 | Dec. 2017 | March 2018 |
| Total Number of Registered Channels with I&B Ministry | 883 | 877 | 877 | 875 |
| Number of SD Pay Channels (Operational) | 210 | 215 | 216 | 213 |
| Number of HD Pay Channels (Operational) | 83 | 85 | 88 | 95 |
| Net Active DTH Subscribers base * (in millions) | 65.13 | 66.09 | 67.56 | 67.53 |
| Number of Private FM Radio Stations | 310 | 322 | 326 | 324 |

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

Annexure - I
List of pay TV channels as on 31st March 2018

| S.No | Name of the broadcaster | Sl. No | Name of the channel | Declared as SD or HD |
|------|---------------------------------------|--------|---|----------------------|
| 1 | 9X Media Private Limited | 1 | 9XM | SD |
| 2 | ABP News Network Pvt Limited | 2 | ABP Ananda | SD |
| | | 3 | ABP Majha | SD |
| 3 | AETN 18 Media Pvt Limited | 4 | The History Channel | SD |
| | | 5 | FY1 TV18 | HD |
| | | 6 | History TV 18 HD | HD |
| 4 | Asianet Communications Limited | 7 | Asianet | SD |
| | | 8 | Asianet Plus | SD |
| | | 9 | Asianet Movies | SD |
| | | 10 | Suvarna Plus | SD |
| | | 11 | Star Suvarna HD | HD |
| | | 12 | Asianet HD | HD |
| | | 13 | Star Suvarna (Earlier name "Suvarna") | SD |
| 5 | AXN Networks India Private Limited | 14 | SONY ESPN (Earlier name "SONY KIX") | SD |
| | | 15 | AXN HD | HD |
| 6 | Bangla Entertainment Private Limited | 16 | AATH | SD |
| 7 | BBC Global News India Private Limited | 17 | BBC World News | SD |
| 8 | Bennett, Coleman & Company Limited | 18 | Zoom | SD |
| | | 19 | Romedy Now | SD |
| | | 20 | MN +(Earlier name "Movies Now +") | HD |
| | | 21 | Mirror Now (Earlier name "Magicbricks Now") | SD |
| | | 22 | ET NOW | SD |
| | | 23 | Times Now | SD |
| | | 24 | Romedy Now HD | HD |
| | | 25 | Movies Now HD | HD |
| | | 26 | MNX HD (Earlier name "Movies Now 2 HD") | HD |
| | | 27 | MNX (Earlier name "Movies Now 2") | SD |
| | | 28 | Times Now HD | HD |

| S.No | Name of the broadcaster | Sl. No | Name of the channel | Declared as SD or HD |
|------|---|--------|---|----------------------|
| 9 | Business Broadcast News Private Limited | 29 | BTVi (Earlier name "Bloomberg TV India") | SD |
| 10 | Celebrities Management Pvt Limited | 30 | Travel XP HD (Earlier name "Travel XP") | HD |
| | | 31 | Travel XP Tamil | SD |
| 11 | CSL Info Media Private Limited | 32 | JAN TV PLUS | SD |
| 12 | Discovery Communications India | 33 | Animal Planet | SD |
| | | 34 | Discovery Channel | SD |
| | | 35 | Discovery Channel – Tamil | SD |
| | | 36 | Discovery Kids Channel | SD |
| | | 37 | Discovery Science | SD |
| | | 38 | Discovery Turbo | SD |
| | | 39 | Discovery Jeet (Earlier name "ID Investigation Discovery") | SD |
| | | 40 | Discovery HD World (earlier name "Discovery HD") | HD |
| | | 41 | Animal Planet HD World (earlier name "Discovery Home and Health") | HD |
| | | 42 | TLC HD world (earlier name "Military Channel") | HD |
| | | 43 | Discovery Jeet HD | HD |
| | | 44 | TLC | SD |
| | | 45 | Dsport | SD |
| 13 | Disney Broadcasting (India) Limited | 46 | Disney Junior (Earlier name "UTV Comedy") | SD |
| | | 47 | UTV Movies | SD |
| | | 48 | Disney XD (Earlier name "UTV World Movies") | SD |
| | | 49 | Disney International HD (Earlier name "Bindass Play") | HD |
| | | 50 | The Disney Channel | SD |
| 14 | E-24 Glamour Limited | 51 | E 24 | SD |
| 15 | Eenadu Television Private Limited | 52 | ETV Telugu | SD |
| | | 53 | ETV Andhra Pradesh (earlier name "ETV-2") | SD |
| | | 54 | ETV - Telangana (earlier name "ETV-3") | SD |

| S.No | Name of the broadcaster | Sl. No | Name of the channel | Declared as SD or HD |
|------|--|--------|--|----------------------|
| | | 55 | ETV Cinema | SD |
| | | 56 | ETV Life | SD |
| | | 57 | ETV Plus | SD |
| | | 58 | ETV Abhiruchi | SD |
| | | 59 | ETV HD | HD |
| 16 | EPIC Television Networks Pvt Limited | 60 | EPIC TV (HD Distribution) | HD |
| 17 | Genx Entertainment Limited | 61 | UTV Bindass | SD |
| | | 62 | UTV Action | SD |
| 18 | Greycells18 Media Limited | 63 | Topper TV (#) | SD |
| 19 | IBN Lokmat News Private Ltd | 64 | News 18 Lokmat (earlier name "IBN Lokmat") | SD |
| 20 | Living Entertainment Enterprises Private Ltd | 65 | Living Foodz HD | HD |
| 21 | Mavis Satcom Limited | 66 | J Movies | SD |
| | | 67 | Jaya Max | SD |
| | | 68 | Jaya Plus | SD |
| | | 69 | Jaya TV HD | HD |
| 22 | MSM World Wide Factual Media Private Limited | 70 | SONY BBC EARTH | SD |
| | | 71 | SONY BBC EARTH HD | HD |
| 23 | NDTV Life style Limited | 72 | NDTV Good Times | SD |
| 24 | Neo Sports Broadcast Pvt Limited | 73 | NEO Prime (Earlier name "Neo Cricket") | SD |
| | | 74 | Neo Sports | SD |
| 25 | New Delhi Television Limited | 75 | NDTV 24*7 | SD |
| | | 76 | NDTV Profit | SD |
| 26 | NGC Network (India) Pvt Limited | 77 | Fox Life | SD |
| | | 78 | National Geographic Channel (NGC) | SD |
| | | 79 | Fox Life HD | HD |
| | | 80 | Nat Geo Wild | SD |
| | | 81 | National Geographic HD | HD |
| | | 82 | Nat Geo Music HD | HD |
| | | 83 | Nat Geo Wild HD | HD |
| | | 84 | Nat Geo People HD | HD |
| | | 85 | Baby TV HD | HD |

| S.No | Name of the broadcaster | Sl. No | Name of the channel | Declared as SD or HD |
|------|--|--------|---|----------------------|
| 27 | NOIDA Software Technology Park Limited | 86 | NHK World Premium (HD Distribution) | HD |
| 28 | Odisha Television Limited | 87 | Prarthana | SD |
| | | 88 | Tarang | SD |
| | | 89 | Tarang Music | SD |
| | | 90 | Alankar | SD |
| 29 | Panorama Television Private Limited | 91 | News 18 Bihar Jharkhand (Earlier name "ETV Bihar Jharkhand") | SD |
| | | 92 | News 18 Madhya Pradesh / Chattisgarh (Earlier name ETV Madhya Pradesh / Chattisgarh") | SD |
| | | 93 | News 18 Rajasthan (Earlier name "ETV Rajasthan") | SD |
| | | 94 | News 18 Uttar Pradesh/ Uttaranchal (Earlier name "ETV Uttar Pradesh/ Uttaranchal") | SD |
| | | 95 | News 18 Urdu (Earlier name "ETV Urdu") | SD |
| | | 96 | News 18 Kannada (earlier name "ETV News Kannada") | SD |
| | | 97 | News 18 Bangla (Earlier name "ETV News Bangla") | SD |
| | | 98 | News 18 Punjab / Haryana / Himanchal Pradesh (Earlier name "ETV Haryana / Himanchal Pradesh") | SD |
| | | 99 | News 18 Gujarati (Earlier name "ETV News Gujarati") | SD |
| | | 100 | News 18 Odia (Earlier name "ETV News Odia") | SD |
| 30 | Paul Entertainments Pvt Limited | 101 | 9X Tashan (Earlier name "Purvaiya") | SD |
| 31 | Raj Television Network Limited | 102 | Raj Musix Kannada | SD |
| | | 103 | Raj Digital Plus | SD |
| | | 104 | Raj Musix | SD |
| | | 105 | Raj News | SD |
| | | 106 | Raj TV | SD |
| | | 107 | Vissa TV | SD |

| S.No | Name of the broadcaster | Sl. No | Name of the channel | Declared as SD or HD |
|------|--|--------|--|----------------------|
| 32 | Sahara India Commercial Corporation Ltd | 108 | Sahara Filmy | SD |
| | | 109 | Sahara One | SD |
| 33 | Sarthak Entertainment Pvt Limited | 110 | Sarthak TV | SD |
| 34 | Silverstar Communications Limited | 111 | Mega 24 | SD |
| | | 112 | Mega Musiq | SD |
| | | 113 | Mega TV | SD |
| 35 | Sony Pictures Networks India Private Limited | 114 | Sony YAY! (Earlier name "Animax") | SD |
| | | 115 | AXN | SD |
| | | 116 | SET MAX | SD |
| | | 117 | MIX | SD |
| | | 118 | SAB | SD |
| | | 119 | SONY ENTERTAINMENT CHANNEL (SET) | SD |
| | | 120 | PIX | SD |
| | | 121 | SIX | SD |
| | | 122 | MAX 2 (Earlier name "MAX HD") | SD |
| | | 123 | PAL (Earlier Name "SAB HD") | SD |
| | | 124 | SET HD | HD |
| | | 125 | SIX HD | HD |
| | | 126 | PIX HD | HD |
| | | 127 | MAX HD | HD |
| | | 128 | SONY ESPN HD | HD |
| | | 129 | Le PLEX HD | HD |
| | | 130 | Ten 2 HD | HD |
| | | 131 | Ten 3 HD | HD |
| | | 132 | SAB HD | HD |
| | | 133 | SONY ROX HD | HD |
| 36 | Star India Private Limited | 134 | Channel (V) | SD |
| | | 135 | Star Sports 1 Tamil (Earlier name "Star Sports 4") | SD |
| | | 136 | Star Sports Select 2 (Earlier name "FX") | SD |
| | | 137 | Star Bharat (earlier name "Life OK") | SD |

| S.No | Name of the broadcaster | Sl. No | Name of the channel | Declared as SD or HD |
|------|-------------------------|--------|--|----------------------|
| | | 138 | Movies OK (earlier name "Gold Action") | SD |
| | | 139 | Star Sports 1 Hindi (Earlier name "Star Sports 3") | SD |
| | | 140 | Star Gold | SD |
| | | 141 | Star Jalsha | SD |
| | | 142 | Star Movies | SD |
| | | 143 | Star Gold Select (Earlier name "Star Movies Action") | SD |
| | | 144 | Star Plus | SD |
| | | 145 | Star Pravah | SD |
| | | 146 | Star Sports 1 | SD |
| | | 147 | Star Sports 2 | SD |
| | | 148 | Star World | SD |
| | | 149 | Jalsha Movies (Earlier name "Star Bengali") | SD |
| | | 150 | Star Sports HD 2 | HD |
| | | 151 | Star Sports HD 1 | HD |
| | | 152 | Star Bharat HD (earlier name "Life Ok HD") | HD |
| | | 153 | Star Gold HD | HD |
| | | 154 | Star Movies HD | HD |
| | | 155 | Star Plus HD | HD |
| | | 156 | Star World Pmiere HD | HD |
| | | 157 | Star Sports 1 HD Hindi (Earlier name "Star Sports HD 3") | HD |
| | | 158 | Star Sports Select 1 (Earlier name "Star Sports HD 4") | SD |
| | | 159 | Star Movies Select HD | HD |
| | | 160 | Star World HD | HD |
| | | 161 | Star Sports First (Earlier Name "FX HD") | SD |
| | | 162 | MAA Gold | SD |
| | | 163 | MAA Movies | SD |
| | | 164 | MAA Music | SD |
| | | 165 | MAA TV | SD |
| | | 166 | Star Pravah HD | HD |

| S.No | Name of the broadcaster | Sl. No | Name of the channel | Declared as SD or HD |
|------|-------------------------|--------|---|----------------------|
| | | 167 | Star Jalsha HD | HD |
| | | 168 | Jalsha Movies HD | HD |
| | | 169 | Star Sports Select HD 1 | HD |
| | | 170 | Star Sports Select HD 2 | HD |
| | | 171 | MAA HD | HD |
| | | 172 | Star Gold Select HD | HD |
| | | 173 | MAA Movies HD | HD |
| 37 | SUN TV Network Limited | 174 | Adithya TV | SD |
| | | 175 | Chintu TV | SD |
| | | 176 | Chutti TV | SD |
| | | 177 | Gemini Comedy | SD |
| | | 178 | Gemini Life | SD |
| | | 179 | Gemini Movies | SD |
| | | 180 | Gemini Music | SD |
| | | 181 | Gemini News | SD |
| | | 182 | Gemini TV | SD |
| | | 183 | KTV | SD |
| | | 184 | Surya Movies (Earlier name "Kiran TV") | SD |
| | | 185 | Kushi TV | SD |
| | | 186 | SUN Life | SD |
| | | 187 | Sun Music | SD |
| | | 188 | Sun News | SD |
| | | 189 | Surya Music (Earlier name "Sun News English") | SD |
| | | 190 | SUN TV | SD |
| | | 191 | Surya Comedy (Earlier name "SUN TV RI") | SD |
| | | 192 | Surya TV | SD |
| | | 193 | Udaya Comedy | SD |
| | | 194 | Udaya Movies | SD |
| | | 195 | Udaya Music | SD |
| | | 196 | Udaya News | SD |
| | | 197 | Udaya TV | SD |

| S.No | Name of the broadcaster | Sl. No | Name of the channel | Declared as SD or HD |
|------|--------------------------------------|--------|---|----------------------|
| | | 198 | Kochu TV | SD |
| | | 199 | Sun TV HD | HD |
| | | 200 | KTV HD | HD |
| | | 201 | Sun Music HD | HD |
| | | 202 | Gemini TV HD | HD |
| | | 203 | Gemini Music HD (Earlier name "Sun Action") | HD |
| | | 204 | Gemini Movies HD (Earlier name "Gemini Action") | HD |
| | | 205 | Surya HD (Earlier name "Surya Action") | HD |
| | | 206 | Udaya HD (Earlier name "Suriyan TV") | HD |
| 38 | Taj Television India Private Limited | 207 | Ten 2 (earlier name 'Ten Action') | SD |
| | | 208 | Ten 1 (earlier name 'Ten Sports') | SD |
| | | 209 | Ten 3 | SD |
| | | 210 | Ten Golf HD | HD |
| | | 211 | Ten 1 HD (earlier name 'Ten HD') | HD |
| 39 | Turmeric Vision Private Limited | 212 | Food Food TV | SD |
| 40 | Turner International India Pvt Ltd | 213 | Cartoon Network | SD |
| | | 214 | CNN International | SD |
| | | 215 | HBO | SD |
| | | 216 | POGO | SD |
| | | 217 | Toonami (Earlier name "Boomerang") | SD |
| | | 218 | WB | SD |
| | | 219 | HBO HD (Earlier name "HBO Hits HD") | HD |
| 41 | TV 18 Broadcast Limited | 220 | CNN News 18 (earlier name "CNN-IBN") | SD |
| | | 221 | CNBC Bazaar | SD |
| | | 222 | CNBC TV 18 Prime HD | HD |
| | | 223 | CNBC Awaaz | SD |
| | | 224 | CNBC TV 18 | SD |

| S.No | Name of the broadcaster | Sl. No | Name of the channel | Declared as SD or HD |
|------|---------------------------------------|--------|--|----------------------|
| 42 | TV Today Network Limited | 225 | Aaj Tak | SD |
| | | 226 | Delhi Aaj Tak | SD |
| | | 227 | India Today (Earlier name "Headlines Today") | SD |
| | | 228 | Aaj Tak Tez | SD |
| 43 | United Home Entertainment Pvt Limited | 229 | Hungama TV | SD |
| 44 | Viacom 18 Media Private Limited | 230 | Colors | SD |
| | | 231 | Comedy Central (HD Distribution) | HD |
| | | 232 | MTV | SD |
| | | 233 | NICK | SD |
| | | 234 | NICK JR (Earlier name "Nick Jr / Teen Nick") | SD |
| | | 235 | SONIC | SD |
| | | 236 | VH 1 (HD Distribution) | HD |
| | | 237 | Colors Infinity HD | HD |
| | | 238 | Colors Infinity | SD |
| | | 239 | Colors HD | HD |
| | | 240 | NICKS HD+ | HD |
| | | 241 | MTV Indies (HD Distribution) | HD |
| | | 242 | Rishtey Cineplex | SD |
| | | 243 | MTV Beats (Earlier name "X Zone") | SD |
| | | 244 | Colors Kannada HD | HD |
| | | 245 | Colors Marathi HD | HD |
| | | 246 | Colors Bangla HD | HD |
| | | 247 | Colors Super | SD |
| | | 248 | Colors Bangla (Earlier name "ETV Bangla") | SD |
| | | 249 | Colors Gujarati (Earlier name "ETV Gujarati") | SD |
| | | 250 | Colors Kannada (Earlier name "ETV Kannada") | SD |
| | | 251 | Colors Marathi (Earlier name "ETV Marathi") | SD |

| S.No | Name of the broadcaster | Sl. No | Name of the channel | Declared as SD or HD |
|------|---------------------------------------|--------|--|----------------------|
| | | 252 | Colors Oriya (Earlier name "ETV Oriya") | SD |
| | | 253 | MTV Beats HD | HD |
| | | 254 | Colors Tamil (earlier name "NXT") | SD |
| | | 255 | Cineplex HD | HD |
| | | 256 | VH 1 | SD |
| | | 257 | Colors Tamil HD | HD |
| | | 258 | Comedy Central | SD |
| 45 | Vijay Television Pvt Limited | 259 | Vijay TV (except Tamil Nadu) | SD |
| | | 260 | Vijay Super | SD |
| | | 261 | Vijay HD | HD |
| 46 | Zee Akaash News Private Limited | 262 | 24 Ghanta | SD |
| 47 | Zee Entertainment Enterprises Limited | 263 | Zee ETC Bollywood (Earlier name "Zee Bollywood") | SD |
| | | 264 | Action Cinema | SD |
| | | 265 | Zee Bangla Cinema | SD |
| | | 266 | Zee Café HD | HD |
| | | 267 | Zee Café | SD |
| | | 268 | Zee Cinema | SD |
| | | 269 | Classic Cinema | SD |
| | | 270 | Zee Studio | SD |
| | | 271 | Zee Talkies | SD |
| | | 272 | Zee TV | SD |
| | | 273 | Zing | SD |
| | | 274 | & Picture | SD |
| | | 275 | Zee Bangla | SD |
| | | 276 | Zee Marathi | SD |
| | | 277 | Living Foodz (earlier name "Zee Khana Khazana") | SD |
| | | 278 | Zee TV HD | HD |
| | | 279 | Zee Cinema HD | HD |
| | | 280 | Zee Studio HD | HD |
| | | 281 | & TV | SD |

| S.No | Name of the broadcaster | Sl. No | Name of the channel | Declared as SD or HD |
|------|------------------------------------|--------|--|----------------------|
| | | 282 | & TV HD | HD |
| | | 283 | Zee Kannada | SD |
| | | 284 | Zee Telugu | SD |
| | | 285 | & Pictures HD | HD |
| | | 286 | Zee Cinemalu | SD |
| | | 287 | Zee Yuva | SD |
| | | 288 | Zee Marathi HD | HD |
| | | 289 | Living Zen | SD |
| | | 290 | & Prive HD | HD |
| | | 291 | Zee Bangla HD | HD |
| | | 292 | Zee Tamil HD | HD |
| | | 293 | Zee Cinemalu HD | HD |
| | | 294 | Zee Telugu HD | HD |
| | | 295 | Zee Tamil | SD |
| | | 296 | Zee Kannada HD | HD |
| 297 | Zee Talkies HD | HD | | |
| 48 | Zee Media Corporation Limited | 298 | Zee 24 Taas | SD |
| | | 299 | Zee Kalinga (Earlier name "Zee 24 Ghantalu) | SD |
| | | 300 | Zee Business | SD |
| | | 301 | Zee Punjab Haryana Himachal (Earlier name "Zee Punjabi") | SD |
| | | 302 | Zee Madhya Pradesh Chattisgarh | SD |
| | | 303 | Zee Salaam | SD |
| | | 304 | Zee 24 Kalak | SD |
| | | 305 | WION | SD |
| | | 306 | Zee Uttar Pradesh Uttrakhand | SD |
| | | 307 | Zee Rajasthan News (Earlier name "Zee Marudhara" and "Zee Rajasthan Plus") | SD |
| 49 | Zoom Entertainment Network Limited | 308 | Movies Now | SD |

Annexure-II**List of Pay DTH Operators**

| S.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 |



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 and broadcasting sectors in the country and has highlighted the policies and programme of the Government during the year 2017-18. 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 & conditions of license, lay down the standards of quality of service to be provided by the service providers & ensure the quality of service, specify tariff policy and recommend conditions for entry of new service providers as well as terms & 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 a 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, industry organizations, Consumer Advocacy Groups (CAGs)/ Consumer Organizations and other experts in the 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 Discussion (OHD) Meetings arranged in different cities in 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 sectors to obtain their views. It has a system of registering consumer organizations/NGOs connected with telecom services and interact 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 events.

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 Telecommunications or Ministry of Information & Broadcasting in the case of Broadcasting and Cable Services. Recommendations given by TRAI to Government during 2017-18 are given below.

TELECOM SECTOR

| Sl. No. | List of Recommendations |
|---------|--|
| 1. | Recommendations dated 16 th May 2017 on “Adoption of e-KYC service UIDAI for Fixed-line, Internet and Broadband connections”. |
| 2. | Authority’s Response dated 24 th May 2017 to DoT’s reference dated 5 th April 2017 on the Authority’s recommendations dated 21 st October 2016 on “Violation of provisions of License agreements and the Standards of Quality of Service of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service Regulations, 2009” by M/s Bharti Airtel Ltd., M/s Vodafone Ltd. and M/s Idea Cellular Ltd. |
| 3. | Additional Recommendations dated 14 th June 2017 on “Sale/Rent of International Roaming SIM Cards/Global Calling Cards of Foreign Operators in India”. |
| 4. | Recommendations dated 18 th July 2017 on “Captive VSAT CUG Policy Issues”. |
| 5. | Recommendations dated 31 st July 2017 on “Issues related to Closure of Access Services”. |
| 6. | Recommendations dated 16 th August 2017 on “Cloud Services”. |
| 7. | Recommendations dated 5 th September 2017 on “Spectrum, Roaming and QoS related requirements in Machine-to-Machine (M2M) Communications”. |
| 8. | Recommendations dated 8 th September 2017 on “Introduction of UL (VNO) for Access Service Authorization for Category B License with district of a State as a service area”. |
| 9. | Recommendation dated 23 rd October 2017 on “Approach towards Sustainable Telecommunications”. |
| 10. | Recommendations dated 24 th October 2017 on “Regulatory framework for Internet Telephony”. |
| 11. | TRAI’s Response dated 21 st November 2017 on the Issues relating to Spectrum Cap as follow-up of Inter-Ministerial Group Report. |
| 12. | Recommendations dated 28 th November 2017 on “Net Neutrality”. |
| 13. | Authority’s response dated 29 th November 2017 to DoT’s reference dated 25 th September 2017 on TRAI’s Recommendations dated 19 th December 2016 on Provisioning of Free Data. |
| 14. | Recommendations dated 30 th November 2017 on “Ease of Doing Telecom Business”. |
| 15. | Recommendations dated 4 th December 2017 on “Network Testing Before Launch of Commercial Services”. |
| 16. | Recommendations dated 19 th January 2018 on “In-Flight Connectivity”. |
| 17. | Recommendations dated 2 nd February 2018 on “Inputs for Formulation of National Telecom Policy”. |
| 18. | TRAI Response dated 9 th March 2018 to back-reference dated 22 nd November 2017 on TRAI’s recommendations on In-Building Access by Telecom Service Providers dated 20 th January 2017. |

RECOMMENDATIONS

➤ **Recommendations dated 16th May 2017 on “Adoption of e-KYC service UIDAI for Fixed-line, Internet and Broadband connections”**

2.5.1 The Authority forwarded its Recommendations on “Adoption of e-KYC Service UIDAI for Fixed-line, Internet and Broadband Connections” to the Department of Telecommunications (DoT) on 16th May 2017.

DoT has prescribed Customer Application Form (CAF) for verification of new mobile connection using e-KYC services and for re-verification of existing mobile subscribers. So far this requirement has not been prescribed for the customers of Internet, Broadband as well as Fixed line.

As the Aadhar based e-KYC authentication is not only fast and reliable but may also result in substantial savings for the industry, the Authority recommended laying down an appropriate format (CAF) for verification/re-verification of all subscribers (including fixed line) availing Internet and Broadband services and adoption of Aadhar based e-KYC service, similar to mobile connections, for their verification.

➤ **Authority’s Response dated 24th May 2017 to DoT’s reference dated 5th April 2017 on the Authority’s recommendations dated 21st October 2016 on “Violation of provisions**

of License agreements and the Standards of Quality of Service of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service Regulations, 2009” by M/s Bharti Airtel Ltd., M/s Vodafone Ltd. and M/s Idea Cellular Ltd

2.5.2 The Department of Telecommunication on 5th April, 2017 has referred back the Authority’s Recommendations dated 21th October 2016 on “Violation of the provisions of License agreements and the Standards of Quality of Service of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service Regulations, 2009 by M/s Bharti Airtel Limited, M/s Vodafone India Limited and M/s Idea Cellular Limited” to provide its reconsidered opinion in the light of comments/observations of the DoT. The Authority, after due deliberations has finalized its response and forwarded the same to DoT on 24th May 2017.

➤ **Additional Recommendations dated 14th June 2017 on “Sale/Rent of International Roaming SIM Cards/ Global Calling Cards of Foreign Operators in India”**

2.5.3 The Department of Telecommunications on 10th March, 2017, requested the Authority to provide, additional recommendations, if any, on ‘Sale/Rent of International Roaming SIM Cards/ Global Calling Cards of foreign operators in India’ which was forwarded to DoT on 9th May, 2016.

The Authority, after due deliberations has finalized additional Recommendations on 'Sale/Rent of International Roaming SIM Cards/Global Calling Cards of foreign operators in India' and forwarded the same to DoT on 14th June 2017.

➤ **Recommendations dated 18th July 2017 on "Captive VSAT CUG Policy Issues"**

2.5.4 TRAI received a reference from the Department of Telecommunications (DoT) on 17th March, 2016. Through this reference DoT sought the recommendations of TRAI on minimum License Fee in respect of 2nd Hub in Captive VSAT Closed User Group (CUG) network and terms and conditions of Captive VSAT CUG License.

After receiving the reference, the Authority consulted some of the Captive VSAT licensees who raised some additional issues related to applicability of Royalty charges and procedural delay in approvals in augmentation of bandwidth for Captive VSAT. The Authority included these issues also in the consultation, so as to provide comprehensive recommendations on issues concerning Captive VSAT licensees. The Authority issued a Consultation Paper on 'Captive VSAT CUG Policy issues' on 28th October, 2016, seeking comments of the stakeholders. Based on the inputs of the consultation process and its internal analysis, the Authority formulated its recommendations on 'Captive VSAT CUG Policy issues' and sent it to the DoT

on 18th July. The salient features of the recommendations are:

- Levy of separate licence fee for 2nd hub for Captive VSAT should be done away with;
- Present annual license fee at @ Rs. 10,000/- per VSAT terminal being charged for VSAT terminals connected to first Hub shall be maintained for both the first and the second Hub and without levy of any minimum licence fee.
- The Entry Fee for Captive VSAT license may be reduced by 50% i.e. from Rs. 30 Lakh to Rs. 15 Lakh.
- FBG equivalent to License Fee for two quarters may be charged from Captive VSAT licensee.
- Royalty charge for Captive VSAT terminals should be calculated in line with the formula prescribed vide DoT circular dated 22nd March 2012. In the formula for calculation of Royalty charge, annual royalty factor needs to be multiplied by bandwidth factor and number of carriers assigned only.
- There is no justification for charging additional 25% amount as reuse factor for number of VSATs more than the number of carriers. These charges should be eliminated for calculation of Royalty charges. Accordingly, DoT may issue necessary clarification in this regard.
- In case delay in allotment of corresponding ground segment frequency by WPC extend beyond 3 months from the date

of allotment of space segment by DoS, the space segment charges payable by licensee to DoS may be borne by DoT till the time allocations/ clearances by WPC/ DoT/ NOCC are completed.

- Procedure for augmentation of bandwidth for Captive VSAT licensee shall be at par with those of Commercial VSAT, NLD, ILD licensees. Augmentation should be cleared at the level of NOCC and WPC only (not at the level of Apex Committee).
- Validity of WOL for Captive VSAT licensee should be for a period of 5 years at a time, instead of annual at present.
- The restriction/Cap of 512Kbps/2Mbps per VSAT as maximum data rates for Captive VSAT should be revised upwardly and accordingly DoT/TEC may revise its specifications.

➤ **Recommendations dated 31st July 2017 on “Issues related to Closure of Access Services”**

2.5.5 Due to adoption of market based spectrum management, the continuance of access service is now no longer assured. Recently, there have been cases where due to reasons such as licensee failing to re-acquire its spectrum holding in a band on expiry of its license validity period; change of technology deployed by licensee; sale of entire spectrum holding through spectrum trading; ending of roaming arrangement, few service providers were closing their services. As a result subscribers had to face lot of inconveniences.

In order to ensure that subscribers are not put to undue hardships due to closure of access services, the Authority, *suo-motu*, decided to initiate a consultation process on the issue. Accordingly, a Consultation Paper on “Issues related to closure of Access Services” was released on 30th November 2016 seeking the comments of the stakeholders. After examining the comments received from the stakeholders and internal analyses, the Recommendations on ‘Issues related to closure of Access Services’ were forwarded to the Government on 31st July 2017. Some of the main recommendations are as under:

- a) A Unified Access Service (UAS) licensee should be permitted to discontinue any of the services, permitted under the scope of licence without the need to surrender the licence.
- b) If a UAS licensee decides to close down its wireless access services, which were being provided through the administratively assigned spectrum, it must surrender such spectrum immediately upon closure of wireless access services.
- c) In case of closure of access services through any technology in the entire service area or a part of it, the TSP should be mandated to give a 60 days notice to the Licensor and TRAI and 30 days notice to its effected subscribers, clearly stating the options available to the subscribers, including that of MNP facility.

- d) The Authority has recommended various time-lines to be followed by DoT/WPC and the Licensee in the spectrum trading process. These timelines will bring greater clarity and certainty in the entire process of spectrum trading. If the entire spectrum in all bands is being sold by a licensee, which will result in discontinuation of services, recommended timelines will remove uncertainties and facilitate the TSPs to give 60 days notice to DoT/TRAI and 30 days notice to its subscribers.
- e) If a subscriber wants to switch from one technology to other, within the same TSP, the same should not come under the definition of Mobile Number Portability.

➤ **Recommendations dated 16th August 2017 on “Cloud Services”**

2.5.6 The Authority forwarded its recommendations on Cloud Services to DoT on 16th August 2017. Some of the main features of recommendations are mentioned below:-

- a) Light touch regulatory approach to be adopted to regulate cloud services.
- b) DOT shall prescribe a framework for registration of Cloud Service Providers (CSPs) industry body (ies), which are not for profit. All CSPs above the threshold to be notified by the Government have to become member of one of such industry body.
- c) Industry body will prescribe Code of Conduct (CoC) for its functioning which

has to be followed by the members. In addition to CoC, there will be a governance structure of the Industry body aimed to support effective and transparent implementation, management and evolution of the CoC. The not for profit Industry body, may charge a fair, reasonable and non-discriminatory fee from its members,

- d) Industry body should also have a disclosure mechanism to promote transparency regarding interoperability, billing, data security and other related matters.
- e) A Cloud Service Advisory Group (CSAG) to be created to function as oversight body to periodically review the progress of Cloud Services and suggest actions, if any, to the Government.
- f) Telecommunication Standard Development Society of India (TSDSI) has been tasked to develop standards for ensuring interoperability for cloud services.
- g) Government may consider enacting an overarching and comprehensive data protection law covering all sectors.
- h) Government shall draw a robust Mutual Legal Assistance Treaty (MLAT) to address the jurisdictional issues and amend existing MLATs to include lawful interception or access to data on the cloud.
- i) Government shall continue its policy to promote cloud services through cloud infrastructure projects. Ministry of MSME

may also continue to promote adoption of ICT in the sector including providing subsidies as being done at present.

➤ **Recommendations dated 5th September 2017 on “Spectrum, Roaming and QoS related requirements in Machine-to-Machine (M2M) Communications”**

2.5.7 Machine-to-Machine (M2M) communications is the basis for automated information exchange between machines and can impact various industry verticals like Smart City, Smart Grid, Smart Water, Smart Transportation, Smart Health etc. Government of India has recognized the potential of M2M and emphasized the same in the National Telecom Policy 2012. TRAI received a reference from Department of Telecommunications on 5th January 2016 seeking the recommendations of the Authority on three aspects related to M2M communications:

- (a) M2M Spectrum Requirements
- (b) M2M Roaming Requirements
- (c) Quality of Service in M2M Services.

After due consultation process, the Authority, on 5th September 2017 forwarded its recommendations on “Spectrum, Roaming and QoS related requirements in Machine-to-Machine (M2M) communications”. The salient features of these recommendations are:

I. Licensing and Spectrum related aspects:

- All access service providers’ viz. CMTS, UASL, UL (AS) and UL holders using

licensed access spectrum shall be allowed to provide M2M connectivity within the area of their existing authorizations. Also, all Basic Services licensees and ISP licensees shall be allowed to provide M2M connectivity, including on unlicensed band, within the area of their existing authorizations, barring M2M cellular services. DoT may suitably amend the license conditions in respective licenses.

- All UL (VNO) holders shall also accordingly be allowed to provide M2M connectivity as authorized in their existing authorizations. DoT may suitably amend the license condition of UL (VNO). Connectivity provider using LPWAN technologies operating in unlicensed spectrum should be covered under licensing through a new authorization under UL namely UL (M2M). Such licensees shall be allowed to bid for licensed spectrum to provide exclusively M2M services.
- UL (M2M) authorization shall comprise of three categories i.e. UL (M2M) Category-A-National area, UL (M2M) Category-B-Telecom Circle/Metro area, UL (M2M) Category-C-SSA/District area.
- Amount payable in the form of Entry Fee, PBG, FBG for obtaining authorizations under UL (M2M) Category ‘A’ for National area, UL (M2M) Category ‘B’ for Telecom circle/ Metro area and UL (M2M) Category ‘C’ for SSA area, should be at par with the existing provisions in UL for ISP category.
- Government, through DoT, should identify critical services in M2M sector

and these services should be mandated to be provided only by connectivity providers using licensed spectrum.

- Regulatory authorities whose sectors will get impacted by M2M communications like TRAI, Central Drug Standards Control Organization, National Highways Authority of India, Inland Waterways Authority of India, Central Electricity Regulatory Commission, etc. and Ministry of Law & Justice should also be members in M2M apex body formed by DoT.
- M2M Service Providers (MSPs) should register with DoT as M2M service provider. This registration will be exclusive for the MSP and not part of existing OSP registration.
- A National Trust Centre (NTC), under the aegis of TEC, should be created for the certification of M2M devices and applications (hardware and software).
- Spectrum allocation should be technology and service neutral. No separate spectrum band is to be allocated exclusively for M2M services.
- Requirement of additional licensed spectrum for access services to meet the projected influx of connected devices due to M2M communication will be revisited by the Authority after WRC-19.
- In order to facilitate smooth roll out of M2M services utilizing the license exempt spectrum, 1 MHz of spectrum at 868 MHz (867-868) and a chunk of 6 MHz of spectrum at 915-935 MHz is recommended to be delicensed.

- Delicensing the V-band (57-64 GHz) as recommended by the Authority on various occasions may be done on priority.

II. SIM and Roaming related aspects:

- Devices with pre-fitted embedded Universal Integrated Circuit Card (eUICC) should be allowed to be imported only if it has the ability to get reconfigured 'Over the air' (OTA) with local subscription. GSMA approved guidelines shall be followed for provisioning of new profile remotely with OTA mechanism.
- Devices fitted with eUICC shall be allowed in operation in roaming for maximum three years from the date of activation of roaming in the network of Indian TSP and mandatorily converted into Indian TSPs SIM within the stipulate period or on change of ownership of the device, whichever is earlier.
- International roaming in M2M shall be allowed under the well recognized framework of GSMA 'M2M Annex' to keep uniformity of the parameters and processes.
- In order to boost the M2M IoT manufacturing in India, the government may consider feasibility of allowing extra-terrestrial usage of IMSI ranges with suitable framework on the basis of country specific bilateral agreements.

III. QoS, Security and Privacy related aspects:

- Quality of Service is in the exclusive domain of TRAI. Therefore, once the M2M

sector develops, the authority will put in place comprehensive regulations on QoS parameters in M2M communication, as per service requirements.

- At present stage of deployment of M2M devices and services, a duty cycle of 10% both at device level and network level would suffice to meet the requirements.
- On the issues related to data security and privacy in M2M, the Authority will issue comprehensive recommendations after due deliberation on the issues highlighted through consultation paper “Privacy, Security and ownership of Data in telecom sector” issued on 9th August, 2017.

➤ **Recommendations dated 8th September 2017 on “Introduction of UL (VNO) for Access Service Authorization for Category B License with district of a State as a service area”**

2.5.8 Through its reference dated 11th July, 2016 the Department of Telecommunications (DoT) has requested TRAI to forward its recommendations for Access Service authorization for category ‘B’ license with districts of a State as a service area for Virtual Network Operators (VNOs).

In the wireline segment, in order to supplement its efforts of providing telecom facilities to the public, DoT introduced a scheme called Direct Inward Dialing (DID) in the year 1994 to provide facilities of group Electronic Private

Automatic Branch Exchange (EPABX) by private entities as franchisees of DoT.

Pursuant to TRAI recommendation on ‘Introduction of Virtual Network Operators in telecom sector’ dated 1st May 2015, DoT issued guidelines on 31st May, 2016 for the grant of Unified License (VNO). Further, vide its notification dated 5th July 2016, DoT separately issued guidelines for grant of UL (VNO) for authorization for category ‘B’ license with districts of a State as a service area for entrepreneurs like Direct Inward Dialing (DID) franchisees.

TRAI issued a Consultation Paper on ‘Introduction of UL (VNO) for Access Service authorization for category B license with districts of a State as a service area’ on 20th March, 2017, seeking the comments / counter comments of the stakeholders.

After analyzing various issues involved and considering the comments received from stakeholders in their written responses and during the OHD, in-house analysis & research, TRAI finalised its recommendations on ‘Introduction of UL (VNO) for Access Service authorization for category B license with districts of a State as a service area’ on 8th September 2017. The salient features of the recommendations are:

- A new category of authorization may be introduced under Unified License (VNO), for Access Service as Category ‘B’, license with districts as a Service Area on non-

exclusive basis. To continue their services, existing DID franchisees should migrate to UL (VNO) Category 'B'.

- New license should not be restricted only to existing DID franchisees and should be open to all entities intending to offer such services.
- Scope of proposed UL (VNO) Cat 'B' license should be to provide only wireline access services within a district. Wireless access services shall not be a part of the scope of UL VNO Cat B.
- Duration of UL (VNO) Cat 'B' license shall remain consistent with UL (VNO) policy.
- Entry Fee of Rs. 1,65,000 for 10 years of duration of license shall be applicable to the UL (VNO) Cat 'B' licensee. Financial Bank Guarantee (FBG) of Rs. 1,00,000 shall be applicable to UL (VNO) Cat 'B' licensee.
- UL (VNO) Cat 'B' licensee shall possess the minimum net worth of more than Rs. 5 lakhs per authorization.
- In order to promote fixed line Broadband, DoT should implement TRAI recommendations dated 17th April, 2015 on 'Delivering Broadband Quickly: What do we need to do?' wherein the license fee on the revenue earned from fixed line Broadband should be exempted for at least 5 years.
- On introduction of VNO regime an issue of double taxation has arisen. DoT may consider review of AGR components

and charges paid by VNO licensee to the TSP/NSO for procurement of services should be allowed to be deducted as pass through charges for the purpose of calculating the AGR, similar to other pass through charges permitted under UL like IUC, roaming charges etc. This will be in line with the Input Tax Credit (ITC) feature under Goods and Service Tax regime.

- The amount of maximum penalty on UL (VNO) Category 'B' licensee should be same as provisioned for ISP Cat 'C' in UL (VNO) policy. UL (VNO) Cat 'B' licensee has to comply with obligations arising from Tariff orders/regulations /directions etc. issued by TRAI from time to time.
- In order to meet the requirement of connectivity UL (VNO) Cat 'B' licensees may be allowed to have arrangement for connectivity at different locations with different TSPs/NSOs in its licensed area of operation i.e. within the geography of a district, only in case of provision of wireline access services through EPABX.
- UL (VNO) (Access service) license may be amended to enable the provision of allowing parenting with multiple NSOs by a VNO for wireline network at different locations of the LSA only in case of provision of wireline access services through EPABX.
- The arrangements for allowing connectivity from more than one TSP/NSO at same EPABX can be allowed only after suitable examination and approval by TEC/ DoT with desired specifications. Further

continuation of such arrangements shall depend on the outcome of the decision of DoT/TEC.

- The provider TSP/NSO shall mandatorily enter into Service Level Agreement (SLA) with UL (VNO) Cat 'B' licensee.

➤ **Recommendation dated 23rd October 2017 on “Approach towards Sustainable Telecommunications”**

2.5.9 TRAI received a reference from the Department of Telecommunications for Recommendations on (i) Methodology of measuring Carbon Emission (ii) Calibration of Directives issued by DoT in 2012 and approach for implementation. After due consultation and in-house analysis, the Authority forwarded its Recommendations on ‘Approach towards Sustainable Telecommunications’ to DoT on 23th October 2017. The salient features of Recommendations are as under:

- The formula for calculation of Carbon foot print has been revised as per ITU standard.
- Only the target for overall Carbon footprint reduction has been recommended and no sub targets for induction of Renewable Energy Targets (RET) has been recommended.
- Directives of DoT dated 04th January 2012 has been calibrated and targets for reduction in Carbon Emission has been tightened as 30% by year 2019-20 and 40% by the year 2022-23 taking base year as 2011-12.

➤ **Recommendations dated 24th October 2017 on “Regulatory framework for Internet Telephony”**

2.5.10 TRAI forwarded its Recommendations to the Government on “Regulatory framework for Internet Telephony” on 24th October 2017. The salient features of the recommendations are as under:

- i. As per Authority’s understanding of present Access service licences, Internet Telephony service is un-tethered from the underlying access Network. In other words, Internet Telephony Service can be provided by Access service provider to its subscriber who may be using Internet of other Access service providers. DoT should issue a clarification to the effect. If DoT has a different understanding, the Authority recommends that the DoT may issue amendment to Access service licences so that Internet Telephony service is un-tethered from the underlying access Network.
- ii. The UL (VNO) licensee with access service authorisation should also be allowed to provide un-tethered Internet Telephony in the designated service area.
- iii. Internet Telephony calls originated by International out roamers from international locations should be handed over at the International gateway of licensed ILDOs and International termination charges should be paid to the terminating access service provider. In case the Access provider is not able to ensure that Internet Telephony call

- originated outside of the country is coming through ILDO gateway, International out-roaming to Internet Telephony subscribers of the access provider should not be allowed.
- iv. The mobile numbering series should be used for providing Internet Telephony by a service provider. TSPs should be allowed to allocate same number to the subscriber both for Cellular Mobile service and Internet Telephony service.
- v. The SDCA linked numbering series may also be used for providing Internet Telephony by a service provider. However, in this case, mobility should be limited to consumer premises.
- vi. The access service licensee should use private ENUM in its network for Telephone number mapping from E.164 to SIP/H.323 addresses and vice-versa.
- vii. In case of provision of Internet Telephony by VNO with access service authorisation, the numbering resource allocation should be done by the parent NSO.
- viii. The access service providers providing Internet Telephony service may be encouraged to facilitate access to emergency number calls using location services; however they may not be mandated to provide such services at present. The subscribers may be informed about the limitations of providing access to emergency services to Internet Telephony subscribers in unambiguous terms.

- ix. QoS on Internet Telephony may be left to the market forces. The service providers must inform QoS parameters supported by them for Internet Telephony so that the subscribers can take an informed decision. The Authority shall review the decision regarding mandating QoS to Internet Telephony service providers at appropriate time.

➤ **TRAI's Response dated 21st November 2017 on the Issues relating to Spectrum Cap as follow-up of Inter-Ministerial Group Report**

2.5.11 The Government has constituted an Inter-Ministerial Group (IMG) on "Stress in balance sheet in Select Sectors". The IMG, among others, reviewed the spectrum cap applicable for Telecom Service Providers (TSPs). IMG, in its report, stated that the issue of spectrum cap merits detailed examination and variety inputs from sectoral regulators. In light of IMG report, DoT, through its letter dated 29th September 2017, requested TRAI to provide its views on spectrum cap.

As per the then existing provisions, there was a cap of 25% of the total spectrum assigned in 700/800/900/1800/2100/2300/2500 MHz bands and 50% within a given band in each of the service area.

TRAI sought comments of the telecom service providers and *inter-alia*, took note of the following:

- Overall spectrum cap of 25% was imposed at a time when there were

6-10 TSPs in a LSA. After the ongoing consolidation in the sector, the number of TSPs in a LSA may be much less.

- The spectrum being assigned through auction is a liberalized spectrum. At present, more than 80% of the spectrum held by various service providers is liberalized spectrum wherein they can use any technology of their choice in any band or using multiple bands.
- As LTE device eco system is evolving in each of the spectrum band, there is no real need to put spectrum cap in each spectrum band. In fact, asking a TSP to acquire spectrum in different band to deploy the same technology increase the cost of network with no real gains.
- Sub-1 GHz bands are perceived as the most optimal bands to ensure availability of wireless broadband services over large areas with low population density. Therefore, spectrum in sub-1 GHz range viz. 700 MHz, 800 MHz and 900 MHz should be treated separately and special provisions have to be made to safeguard against creation of monopoly.

In its response to DoT dated 21st November 2017, the TRAI expressed the following views:

- (i) The overall spectrum cap should be revised from the current limit of 25% to 35%.
- (ii) The current intra-band cap should be removed. Instead, there should be a cap of 50% on the combined spectrum

holding in the sub-1 GHz bands (700 MHz, 800 MHz and 900 MHz bands).

➤ **Recommendations dated 28th November 2017 on “Net Neutrality”**

2.5.12 TRAI has submitted its recommendations on Net Neutrality to DoT. Some of the main features of recommendations are mentioned below:-

- a) The licensing terms should be amplified to provide explicit restrictions on any sort of discrimination in Internet access based on the content being accessed, the protocols being used or the user equipment being deployed. Content would include all content, applications, services and any other data, including its end-point information, that can be accessed or transmitted over the Internet.
- b) The “discriminatory treatment” in the context of treatment of content would include any form of discrimination, restriction or interference in the treatment of content, including practices like blocking, degrading, slowing down or granting preferential speeds or treatment to any content.
- c) The service providers should be restricted from entering into any arrangement, agreement or contract, by whatever name called, with any person, natural or legal, that has the effect of discriminatory treatment based on content, sender or receiver, protocols or user equipment.

- d) The scope of the proposed principles on non-discriminatory treatment applies specifically to “Internet Access Services”, which are generally available to the public.
- e) In order to remove any ambiguity, Internet Access Services have been defined.
- f) Specialised services, i.e. services other than Internet Access Services, which are optimised for specific content, protocols or user equipment, and where the optimisation is necessary in order to meet specific quality of service requirements shall be exempted from the principles of discriminatory treatment.
- g) DoT may identify specialised services. However, specialised services may be offered by the service provider only if they are not usable (or offered) as a replacement for Internet Access Services; and the provision of such services is not detrimental to the availability and overall quality of Internet Access Services.
- h) Internet of Things (IoT), as a class of services, are not excluded from the scope of the restrictions on non-discriminatory treatment. However, critical IoT services, which may be identified by DoT, and which satisfy the definition of specialised services, would be automatically excluded.
- i) Content Delivery Networks (CDNs), which enable a Telecom Service Provider (TSP) to deliver content within its network without going through the public Internet, are exempted from the scope of any restrictions on non-discriminatory treatment.
- j) The Internet Access Service Providers may take reasonable measurements for traffic management, provided the same are proportionate, transient, and transparent. They may also take reasonable measures to preserve integrity and security of network, for provision of Emergency Services, implementation of an order of the court or direction of the Government, or in pursuance of an international treaty.
- k) TSPs shall be required to declare their Traffic Management Practices (TMP), as and when deployed and the impact it may have had on the users. The disclosure requirements shall also include information about specialised services, direct or indirect arrangements entered into by them.
- l) For monitoring and investigation of violations, a collaborative mechanism has been recommended to be established in the form of a multi-stakeholder body comprising members representing different categories of TSPs and ISPs, large and small content providers, representatives from research and academia, civil society organisations and consumer representatives. This body, which would be responsible for developing technical standards pertaining to monitoring of TMPs and enforcement of the principles on non-discriminatory

treatment and making appropriate recommendations to the Authority. The Government/ Authority shall reserve the right to seek any information from the committee, investigate its conduct to ensure transparency and fair treatment to all its members, and issue appropriate regulations, directions, orders or guidelines, as and when needed.

- m) These recommendations are being made without prejudice to the powers and functions conferred upon the Authority as per TRAI Act, 1997. Therefore, pending the consideration of these recommendations, the Authority may regulate the manner in which the current licensing requirement of unrestricted access to all content on the Internet is implemented and enforced. The Authority may also frame regulations or take other measures, as and when deemed necessary.

➤ **Authority's response dated 29th November 2017 to DoT's reference dated 25th September 2017 on TRAI's Recommendations dated 19th December 2016 on Provisioning of Free Data**

- 2.5.13 DoT, through its letter dated. 25th September 2017, had referred back certain Recommendations for reconsideration wherein TRAI had recommended making available 100 MB data per month to rural subscribers for free and funding the cost of implementation out of USOF. DoT had also sought more clarity on business model of the aggregator and consumer

grievance redressal mechanism for aggregator related complaints. After careful consideration of the contents of the letter dated 25th September.2017, the Authority's response was finalized and forwarded to DoT on 29th November 2017.

➤ **Recommendations dated 30th November 2017 on "Ease of Doing Telecom Business"**

- 2.5.14 Promoting "Ease of doing business" is essential for unhindered growth of the telecom sector and is amongst the priorities of the Government. A number of steps have already been taken for ease of doing telecom business by the Government, generally on the recommendations of TRAI. With the change in the policies over a period of time or with the technological development, there could be some processes, which may have become redundant or may be executed in an efficient and transparent way. In this background, TRAI, *suo motu*, issued a Consultation Paper on 14th March 2017 requesting the stakeholders to review the existing processes and identify the bottlenecks, obstacles or hindrances that are making it difficult to do telecom business in India and thus, require regulatory intervention. Based on the comments received from the stakeholders and further analysis, TRAI formulated its recommendations on 'Ease of Doing Telecom Business' and sent to DoT on 30th November 2017. Some of the key recommendations are:

- a) The entire process of SACFA clearance as well as grant of all licences/approvals, that are issued by WPC, should be made paper-less and executed end-to-end through online portal.
- b) There should be a defined time-line not exceeding 30 days within which an Import Licence should be granted and the same may be declared in the portal as well as in the Citizen's Charter.
- c) DoT should spell out a definite timeline, not exceeding 30 days post NCLT approval, for providing written approval to transfer/merger of licences by the Licensor and it should be made a part of the M&A Guidelines.
- d) If the merger results in excess spectrum holding beyond permissible spectrum cap, the transferee company/resultant entity should be given an option to either surrender or trade its spectrum holding, within the stipulated period of one year.
- e) Spectrum trading should be permitted in all the access spectrum bands which have been put to auction. The permissible block size for trading in a band should be same as specified in the NIA for the latest auction held.
- f) The TSPs should be charged for roll-out obligations test fee only for the DHQs/ BHQs/ SDCAs which are actually tested by TERM Cells.
- g) Performance Bank Guarantee (PBG) for a particular phase of roll-out obligations should be released after successful

certification by TERM Cell. If TERM Cell fails to submit its report within 12 months after the date of offer, PBG should not be held back on account of pendency of testing. Further, DoT should review the process adopted by CCA for the refund of bank guarantee and should ensure that CCA do not take more than 30 days for the release of bank guarantee.

- h) DoT should devise a suitable matrix, linking the penalty to the severity of the incident and recurrence of the violation for imposition of financial penalties.

➤ **Recommendations dated 4th December 2017 on "Network Testing Before Launch of Commercial Services"**

2.5.15 The Telecom Service Providers (TSPs) are required to install applicable systems for providing mobile services to the subscribers. A TSP has to ensure that its service meets the Quality of Service (QoS) standards prescribed by the Department of Telecommunications (DoT) and Telecom Regulatory Authority of India (TRAI). Therefore, it is important that all applicable systems are tested before commencement of commercial service. DoT, through its letter dated 9th September 2016, communicated that at present, network testing is being carried out by licensees on the basis of erstwhile practices followed by DoT/BSNL; and test SIM Cards are issued by such licensees to check the quality of network before the commercial launch of services. The present licences for various services

issued by DoT do not prescribe any time period for network testing before commercial launch of services by the licensees. Therefore, DoT requested the Authority to provide its recommendations on testing of network before commercial launch of services including enrolment of customers for testing purposes before commercial launch, duration of testing period etc. In this regard, a consultation paper was released on 1st May 2017, wherein various issues involved and the possible framework to bring clarity on the matter were discussed and the stakeholders were requested to provide their comments and counter-comments. Based on the comments received and internal analysis, TRAI has finalized its recommendations on “Network Testing Before Launch of Commercial Services” and sent to DoT on 4th December 2017. The key recommendations are as under:

- a) A TSP should be allowed to enroll test subscribers in testing phase to carry out the network testing before commercial launch of its services.
- b) The number of test subscribers that can be enrolled by a TSP in an LSA should be limited to 5% of its installed network capacity for that LSA. The service provider will submit the detailed capacity calculations of the network to DoT and TRAI atleast 15 days before commencing enrolment of test subscribers.
- c) There should be a limit of 90 days on the test phase involving test subscribers.

However, if the TSP fails to conclude network testing due to valid reasons, it may make a representation to the Licensor, seeking additional time for network testing giving detailed justification, which may be decided by the Licensor on case to case basis.

- d) If a TSP wants to enroll test subscribers, it should give prior intimation to DoT and TRAI atleast 15 days before commencing enrolment of test subscribers.
- e) All licensing provisions related to the security and privacy such as ensuring adequate verification of each and every customer before enrolling him as a subscriber, protection and privacy of communication, maintaining Call Detail Record (CDR)/IP Detail Record (IPDR), Confidentiality of Information, Lawful interception & monitoring etc. must be complied with by the licensee.
- f) MNP facility should not be extended to network under testing.
- g) If a TSP wants to enroll test subscribers for the testing of its network, it should transparently give the following information to the test subscribers at the time of their enrolment:
 - i) During test phase, TSP is not mandated to adhere to specified level of QoS. Therefore, there may be sub-optimal level of network performance.
 - ii) The scope of services during the test period.

- iii) MNP facility won't be available till the services are commercially launched.
- iv) There won't be any charge (fixed charge or usage based charge) during the test phase.
- v) Likely date of commercial launch.

➤ **Recommendations dated 19th January 2018 on "In-Flight Connectivity"**

2.5.16 The Department of Telecommunications (DoT) through its letter dated 10th August 2017 had communicated that there is a proposal to introduce In-Flight Connectivity (IFC) for voice, data and video services over Indian airspace for domestic, international and overflying flights in Indian Air Space. DoT had also requested TRAI to furnish its recommendations on licensing terms and conditions for provision of IFC for voice, data and video services and associated issues such as entry fee, license fee, spectrum related issues including usage charges and method of allocation and other conditions.

In this regard, a Consultation Paper on 'In-Flight Connectivity' was released on 29th September 2017 seeking comments of stakeholders. An OHD on the issues concerned was held on 27th November 2017.

After analysing the comments received from stakeholders during the consultation and the open house discussions, TRAI has finalized its Recommendation on 'In-Flight Connectivity' and sent it to the

Government on 19th January 2018. The highlights of the recommendations are as follows:

- a) Both, Internet and MCA service should be permitted as In-Flight Connectivity (IFC) in the Indian airspace.
- b) The operation of MCA services should be permitted with minimum height restriction of 3000 meters in Indian airspace for its compatibility with terrestrial mobile networks.
- c) Internet Services through Wi-Fi onboard should be made available when electronic devices are permitted to use only in flight/ airplane mode.
- d) A separate category of "IFC Service Provider" should be created to permit IFC services in Indian airspace. The IFC service provider should be required to get itself registered with the DoT and it need not necessarily be an Indian entity.
- e) The IFC service provider be permitted to provide IFC services, after entering into an arrangement with Unified Licensee having appropriate authorization.
- f) If IFC service provider partners with Unified Licensee having Internet Service (Category 'A') authorization for the provision of Internet services onboard as part of IFC, then (i) If the licensee also has the Commercial VSAT CUG service authorization, it can provide the satellite links also. Alternatively, (ii) Unified Licensee with National Long Distance (NLD) service authorization can provide the satellite links.

- g) The regulatory requirements should be same for both Indian registered and foreign registered airlines for offering IFC services in Indian airspace.
- h) The deployment of a gateway in India provides an effective mechanism to lawfully intercept and monitor the in-cabin internet traffic while the aircraft is in Indian airspace. Therefore, the onboard Internet traffic must be routed to a Satellite Gateway on Indian soil. Such an obligation should be imposed regardless of whether the satellite in question is an Indian Satellite System or not.
- i) The IFC service provider should be permitted to use either INSAT systems (Indian Satellite System or foreign satellite capacity leased through DoS) or foreign satellites outside INSAT systems in the Indian airspace.
- j) To promote the adoption of IFC services in Indian airspace, the IFC service provider should be imposed a flat annual Licence Fee of token amount of Rs. 1. However, the same may be reviewed and amended at a later stage, if need be.
- k) Spectrum neutral approach should be adopted subject to the condition that the frequency bands have been harmonized and coordinated for their use at the ITU. It would facilitate the IFC services in all the bands (L, Ku and Ka) in which IFC services are currently being provided.
- l) The framework recommended for IFC services in Indian airspace should be

made applicable to all types of aircrafts such as commercial airlines, business jets, executive aircrafts etc.

➤ **Recommendations dated 2nd February 2018 on “Inputs for Formulation of National Telecom Policy”**

2.5.17 The Department of Telecommunications, through its letter dated 21st August 2017, requested TRAI to suggest its policy inputs for formulation of National Telecom Policy – 2018 (NTP-2018). Upon receiving the Government’s request, TRAI prepared an initial draft consisting of a range of issues proposed to be addressed in NTP-2018 and shared the same with stakeholders for preliminary discussions. Based on preliminary discussions with various stakeholders including telecom service providers, telecom equipment manufacturers, industry associations, consulting firms, cloud service providers etc.; the Authority prepared draft inputs for formulating the NTP-2018 and issued a Consultation Paper on 3rd January 2018 to seek views of stakeholders.

The Authority, after due consultation process and internal analysis formulated its recommendation on the issues and forwarded the same to DoT on 2nd February 2018. The Authority has recommended the following Vision, Mission and Objectives for NTP-2018:

VISION

To develop a competitive, sustainable and investor friendly Information and

Communication Technology (ICT) market for rollout of state-of-art ubiquitous digital communication infrastructure to provide resilient, reliable, affordable and consumer friendly products and services to meet local as well as global needs; and in the process, transform India's knowledge economy, support inclusive development, foster innovation and stimulate job creation.

MISSION

1. To fulfil the information and communication needs of the individuals including persons with disabilities, governments, enterprises and industries with high quality experience at affordable prices on a sustainable basis;
2. To facilitate growth of state-of the-art, secure and energy-efficient digital communication infrastructure for delivering ubiquitous, resilient, reliable and ultra-high speed connectivity with extremely low latency for objects machines and devices;
3. To stimulate the environment for innovation and entrepreneurial opportunities making India a global centre for research and development, patent-creation and standardization on Information and Communication Technologies and services;
4. To develop indigenous technologies, equipments, platforms and applications ecosystem for providing digital services to local and global markets;
5. To establish India as a global hub for cloud computing, content hosting and delivery and data communication systems and services in a net-neutral environment;
6. To protect consumer interests by increasing awareness and putting in place an effective grievance redressal mechanism, improving quality of experience, ensuring network, communication and data security, encouraging adoption of environment and safety standards of ICT and modernizing public safety and emergency communications networks;
7. To attract investment by enhancing ease of doing business through simplification of licensing and regulatory frameworks, rationalization of taxes, levies and related compliance and facilitating availability of resources including spectrum.

OBJECTIVES

1. To enable access at affordable prices for wireless broadband services, including through satellite to 90% population by 2022;
2. To ensure availability of bandwidth on demand through wireline, including cable TV and optical fibre networks to 30% households by 2020 and 50% households by 2022;
3. To provide at least 1Gbps data connectivity to all Gram Panchayats to enable wireless broadband services to inhabitants by 2022;

4. To achieve 900 million broadband subscriptions supporting download speed of 2 Mbps, out of that at-least 150 million broadband subscriptions supporting download speed of 20 Mbps and 25 million at a download speed of 50 Mbps by 2022;
 5. To achieve 'unique mobile subscriber density' of 55 by 2020 and 65 by 2022 by enhancing mobile network coverage to 95% of inhabitants by 2020 and 100% by 2022;
 6. To deploy 2 million public WLAN including Wi-Fi hotspots in the country by 2020 and 5 million by 2022;
 7. To leapfrog India into the top-50 nations in the ICT Development Index (IDI), released by ITU every year, by 2022;
 8. To enable access for connecting to 1 billion IoT/ M2M sensors/ devices by 2020 and 5 billion by 2022;
 9. To attract an investment equivalent to USD 60 billion in communication sector by 2020 and USD 100 billion by 2022;
 10. To become net positive in international trade of communication systems and services by 2022;
 11. To create 2 million additional jobs in ICT sector by 2022;
 12. To put in place an ombudsman based consumer grievance redressal mechanism by end of 2018;
 13. To establish online centralised platform for provision of Right of Way (RoW) permissions for single window clearance by 2019;
 14. To achieve backhaul connectivity on optical fibre for at least 60% base stations by 2022;
 15. To put in place an online platform for all Government to Business (G2B) activities including spectrum and license related information, applications, clearances, compliances, and payments by 2019;
 16. To simplify licensing and regulatory frameworks, and rationalize taxes, levies and related compliances by 2019;
 17. To put in place a flexible, robust data protection regime powered by a strong encryption policy by 2019;
 18. To establish a policy framework for facilitating setting up of data centres by 2019.
- **TRAI Response dated 9th March 2018 to back-reference dated 22nd November 2017 on TRAI's recommendations on In-Building Access by Telecom Service Providers dated 20th January 2017**
- 2.5.18 The Authority had sent its recommendations on "In-Building Access by Telecom Service Providers" dated 27th January 2017 to the Department of Telecommunications (DoT). On 22nd November 2017, DoT sought considered opinion on the comments / observations on the recommendations. The Authority has furnished its response to the Government on 9th March 2018. The response to the Government has been placed on TRAI's website www.trai.gov.in.

BROADCASTING SECTOR

| Sl. No. | List of Recommendations |
|---------|---|
| 1. | Recommendations dated 1 st February 2018 on “Issues related to Digital Radio Broadcasting in India”. |
| 2. | Recommendations dated 26 th February 2018 on “Ease of Doing Business in Broadcasting Sector”. |

RECOMMENDATIONS

➤ Recommendations dated 1st February 2018 on “Issues related to Digital Radio Broadcasting in India”

2.5.19 TRAI on 1st February 2018, forwarded its Recommendations on “Issues related to Digital Radio Broadcasting” in India to the Government. The salient features of the recommendations are as under:

- i) Government should notify the policy framework for digital radio broadcasting in India in time bound manner with clear roadmap for rollout of digital radio broadcasting services.
- ii) The WPC wing of DoT should carry out necessary amendments in NFAP-2011 for permitting Digital Radio Broadcasting in MW, SW, and VHF-II frequency bands
- iii) Private sector should be permitted to provide digital radio broadcasting services within the existing frequency band of 88 –108 MHz used for FM radio broadcasting.
- iv) Frequency and geographical area coverage planning for digital radio broadcasting using the vacant 600 KHz

spectrum in VHF-II (88 –108 MHz) and VHF-III (174-230 MHz) bands should be completed by BECIL, AIR, and WPC together in phased manner.

- v) 200 KHz bandwidth spectrum in VHF-II band should be auctioned for providing digital Radio broadcasting services. Auction should be carried out in phases – starting with cities of category ‘A+’ and ‘A’ and subsequently in cities of other categories.
- vi) Immediately after the successful auction of spectrum for digital radio broadcasting, an offer should be made to the existing FM Radio broadcasters to get their existing frequency bandwidth of + 100 KHz, already allocated through auction in Phase-III of FM Radio, liberalized and provide digital radio broadcasting services in simulcast mode with analog FM Radio services.
- vii) For liberalizing of existing spectrum, already allocated to the FM radio broadcasters in Phase-III of FM Radio, they will have to pay an amount equal to the difference of auction determined price of equivalent spectrum for digital

- radio broadcasting in a city and amount paid for allocation of FM radio frequency.
- viii) In case market determined price of 200 KHz for digital radio broadcasting is less than or equal to the price paid by FM radio broadcasters than FM radio broadcasters will not be required to pay any additional amount and he will be permitted to provide digital radio broadcasting services also for the remaining period of permission.
- ix) The broadcasters should be allowed to make use of any available digital technology, recognized by ITU, within the allocated/liberalized spectrum for providing digital radio broadcasting services subject to adaptation, if any, recommended by MIB/TRAI from time to time.
- x) No date for digital switch over of radio broadcasting services should be declared at this stage.
- xi) Existing analog FM Radio channels should be allowed to remain operational for the remaining period of their Phase-III permissions.
- xii) The continuance of operation of existing analog FM Radio channels that do not migrate to digital radio broadcasting, should be reviewed after the expiry of their existing Phase-III permissions.
- xiii) The auction of remaining channels of Phase-III should be done by delinking them from technology. Broadcasters should be permitted to use any technology (analog or digital or both) for radio

broadcasting on the frequency allocated to them through auction in future.

- xiv) For initial three years after declaration of digital radio broadcasting policy, the Government should grant fiscal incentives in the form of lower tax rates to manufacturers of digital radio receivers.

➤ **Recommendations dated 26th February 2018 on “Ease of Doing Business in Broadcasting Sector”**

2.5.20 To facilitate ease of doing business in the Broadcasting sector, the Authority has given its recommendations to the Government on 26th February 2018. In its recommendations, the Authority has stated that it is necessary that the MIB should review the procedural framework for grant of permission/ registration/ licenses in broadcasting sector that were introduced over a period of time. The processes which are redundant or which do not have any connection with the stated objective of the policy and/or those which do not lead to any value addition should be done away with. Further, the processes which are inefficient and obsolete should be re-engineered. TRAI has given its recommendations after holding an exhaustive consultation with the stakeholders. Some of the key recommendations are:

- i) The process of granting of permission/ license/ registration for broadcasting services should be streamlined by removing redundant processes, re-

- engineering necessary processes, and making them efficient using ICT.
- ii) The Government should setup an online integrated portal for broadcasters, teleport operators, and distributors of TV channels, which should facilitate the filing, processing and tracking of applications, payments, frequency assignments, endorsements and renewals with common database.
 - iii) The security clearances required for grant of permission/ license for broadcasting service should be issued within a period of 60 days.
 - iv) Allocation of spectrum for the commercial satellite usage should be carried out throughout the year. The current procedure of intermittent opening of window neither has any stated objective nor it ensure judicious use of space spectrum.
 - v) All processes, including time taken by MIB, WPC, DoS, MHA, and NOCC for issuing permissions/ licenses for broadcasting services, should be completed within 6 months period.
 - vi) The registration of LCO and its renewal should be carried out through online portal.
 - vii) The Government should contemplate creating a centre of excellence exclusively for broadcasting services.
- 2.6 During the year 2017-18, 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. | List of Regulations |
|---------|---|
| 1. | The Telecom Regulatory Authority of India (Officers and Staff Appointment) (Twelfth Amendment) Regulation, 2017 dated 28 th July 2017. |
| 2. | The Standards of Quality of Service of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service (Fifth Amendment) Regulations, 2017 dated 18 th August 2017. |
| 3. | The Telecommunication Interconnection Usage Charges (Thirteenth Amendment) Regulations, 2017 dated 19 th September 2017. |
| 4. | TRAI Meetings of Transaction of Business (Third Amendment) Regulation, 2017 dated 16 th November 2017. |
| 5. | The Telecommunication Interconnection Regulations, 2018 dated 1 st January 2018. |
| 6. | The Telecommunication Interconnection Usage Charges (Fourteenth Amendment) Regulations, 2018 dated 12 th January 2018. |
| 7. | Telecommunication Mobile Number Portability Per Port Transaction Charge and Dipping Charge (Amendment) Regulations, 2018 dated 31 st January 2018. |

REGULATIONS

➤ **The Telecom Regulatory Authority of India (Officers and Staff Appointment) (Twelfth Amendment) Regulation, 2017 dated 28th July 2017**

2.6.1 The Authority notified TRAI (Officers & Staff Appointment) (Twelfth Amendment) Regulation, 2016 on 28th July 2017. Salient points are as under:

i) A new grade of Technical Officer (Engineering) and two new grades of Driver (Special Grade) and Driver (Ordinary Grade) which were included in the main regulation vide Eleventh Amendment dated 8th June 2016 have been deleted vide this twelfth amendment of the regulation.

(ii) The eligibility requirement for the post of Secretary, TRAI has been revised. With this amendment, the officers holding post in the HAG (pre-revised) on substantive basis or who have been granted HAG (pre-revised) in their cadre on non-functional upgradation (NFU) basis and have four years regular service in the "SAG" grade have been made eligible for the post of Secretary, TRAI.

➤ **The Standards of Quality of Service of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service (Fifth Amendment) Regulations, 2017 dated 18th August 2017**

2.6.2 The Telecom Regulatory Authority of India (TRAI) issued "The Standards of

Quality of Service of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service (Fifth Amendment) Regulations, 2017" on 18th August, 2017. The silent features of these regulations are as under: -

- The performance on call drop are being assessed for the service area as a whole based on average of performance of all cells in the service area for one month.
- The averaging in effect hides poor performance of cells in some areas.
- Although all the service providers are meeting the benchmark on call drop the customers were complaining about poor Quality of Service.
- In this background TRAI reviewed the network parameters for mobile services and issued amendment to the regulations on 18.8.2017.
- Revised methodology for assessment of Drop Call Rate (DCR) will be on percentile basis instead of existing methodology of average of call drop of all BTSs, which will remove the anomaly of averaging.
- Revised approach for DCR will give better insight into the network performance of service provider and will help to identify local areas where Cell(s) have not performed well for many days and also to identify Day(s) on which many cells in the network have not performed well.
- In the amendment regulations the existing two parameters on call drop have been replaced with two new parameters.

- The new parameter DCR spatial distribution measure or DCR Network_ $Q_{SD}(90,90)$ (benchmark 2%) implies that at-least 90% of Cells in the network should perform better than specified 2% benchmark on at-least 90% of days.
- Similarly, another new parameter DCR temporal distribution measure or DCR Network_ $Q_{TD}(97,90)$ will give confidence that on at-least 90% of Days, network performed better than specified 3% benchmark for at-least 97% of the Cells.
- Graded financial disincentive for failure to comply with the benchmarks for the new parameters on call drop, with maximum financial disincentive capped at Rs.10 lakhs combined for both the parameters.
- Another feature of the amendment regulations is that the network parameters have been made technology neutral and will be applicable for 2G, 3G and 4G network.

➤ **The Telecommunication Interconnection Usage Charges (Thirteenth Amendment) Regulations, 2017 dated 19th September 2017**

2.6.3 TRAI issued “The Telecommunication Interconnection Usage Charges (Thirteen Amendment) Regulation, 2017 (5 of 2017)” on 19th September, 2017. Through these Regulations, the termination charge for wireless to wireless local and national long distance calls has been reduced from erstwhile 14 paise per minute to as detailed below:

- (a) Re. 0.06 (paise six only) per minute with effect from the 1st October, 2017 to the 31st December, 2019; and
- (b) 0 (Zero) with effect from the 1st January, 2020.

➤ **TRAI Meetings of Transaction of Business (Third Amendment) Regulation, 2017 dated 16th November 2017**

2.6.4 The TRAI Meetings for Transaction of Business Regulation, 1999, provides for time, place and the procedure to be followed at the meetings of the Authority held under Sub-section (1) of Section 8 of TRAI Act, including quorum necessary for the transaction of Business.

As per the clause 6 of Section IV of the TRAI Meetings for Transaction of Business Regulation, 1999, the Meeting for Transaction of Business shall be held once a month. Further, the clause 5 of Section IV empowers chairperson to decide the place and timing of the meeting of the Authority.

Regulation 15(1) provides that decisions can be taken through circulation of files and these decisions are ratified in the subsequent meetings. Therefore, it is felt that the regulation may be amended to hold the meeting of the authority at least once in three months.

Accordingly amendments were made in the Regulation vide ‘TRAI Meetings of Transaction of Business (Third Amendment) Regulation, 2017’ dated 16th

November 2017 for holding the Meetings of the Authority once in three months.

➤ **The Telecommunication Interconnection Regulations, 2018 dated 1st January 2018**

2.6.5 TRAI issued “The Telecommunication Interconnection Regulations, 2018” dated 1st January, 2018 comprising of regulation on important aspects of interconnection e.g. interconnection agreement, provisioning of initial interconnection and augmentation of Points of Interconnection (POIs), interconnection matters. These regulations shall apply over all the service providers offering telecommunication services in India. These regulations came into effect from the 1st February, 2018.

➤ **The Telecommunication Interconnection Usage Charges (Fourteenth Amendment) Regulations, 2018 dated 12th January 2018**

2.6.6 TRAI issued “The Telecommunication Interconnection Usage Charges (Fourteenth Amendment) Regulations, 2018” dated 12th January, 2018 which prescribes International Termination Charges.

International Termination charges (ITC) are the charge payable by an International Long Distance Operator (ILDO), which is carrying calls from outside the country, to the access provider in the country in whose network the call terminates.

Through this Regulation, the Authority has reduced the termination charges

payable by an International Long Distance Operator (ILDO), to the access provider in whose network the call terminates from Rs. 0.53 (paise fifty three only) per minute to Rs. 0.30 (paise thirty only) per minute. These regulations came into effect from the 1st February, 2018.

➤ **Telecommunication Mobile Number Portability Per Port Transaction Charge and Dipping Charge (Amendment) Regulations, 2018 dated 31st January 2018**

2.6.7 The Authority issued “The Telecommunication Mobile Number Portability Per Port Transaction Charge and Dipping Charge (Amendment) Regulations, 2018 (03 of 2018)” dated 31st January, 2018 thereby reducing the ‘Per Port Transaction Charge’ of Rupees Nineteen to Rupees Four for each successful porting.

“The Telecommunication Mobile Number Portability Per Port Transaction Charge and Dipping Charge Regulations, 2009” was notified on 20th November, 2009 prescribed Rs. 19/- as ‘Per Port Transaction Charge’ and “The Telecommunication Tariff (Forty-Ninth Amendment) Order, 2009” dated 20th November 2009, prescribed the Per Port Transaction charge Rs. 19/- as ceiling.

Considering the upsurge in the volume of porting requests w.e.f. 3rd July, 2015 (when pan India Mobile Number Portability was permitted) and the financial results of both the Mobile Number Portability Service Providers (MNPSs) for the last

two available years, the Authority is of the view that the present ceiling of Rs. 19/- is quite high as compared to cost and volume of transaction involved. The Authority has, therefore, decided to review the ceiling for per port transaction charge. Accordingly, draft “The Telecommunication Mobile Number Portability Per Port Transaction Charge and Dipping Charge (Amendment) Regulations, 2017” was uploaded on TRAI’s website on 18th December 2017 for public consultation. An Open House Discussion on the same was also held on 16th January 2018.

After taking into consideration the comments received from stakeholders during consultation process and other relevant facts, the Authority has decided that the per port transaction charge may be reduced as the costs of operations of MNPSs have substantially gone down and the volume of MNP traffic has increased. Accordingly, the Authority has notified “The Telecommunication Mobile Number Portability Per Port Transaction Charge and Dipping Charge (Amendment) Regulations, 2018(03 of 2018)” prescribing the ‘Per Port Transaction Charge’ of Rupees Four for each successful porting.

“The Telecommunication Mobile Number Portability Per Port Transaction Charge and Dipping Charge (Amendment) Regulations, 2018 (03 of 2018)” shall come into force from the date of its notification in the Official Gazette.

The Telecommunication Tariff (Forty-Ninth Amendment) Order, 2009 prescribed the ceiling of Per Port Transaction Charge leviable from subscriber by the recipient operator through “The Telecommunication Mobile Number Portability Per Port Transaction Charge and Dipping Charge Regulations, 2009 (9 of 2009)” (as amended from time to time). Now, with notification of this amendment to the aforesaid Regulations, the ceiling of charges leviable from subscriber stands automatically reduced to Rupees Four. However, recipient operators are free to charge a lesser amount from the subscriber for Mobile Number Portability.

- 2.7 During the year 2017-18, the Authority issued the following Tariff Orders in Telecom and Broadcasting Sectors.

Telecom Sector

| Sl. No. | List of Tariff Orders |
|---------|---|
| 1. | Telecommunication Tariff (Sixty Third Amendment) Order, 2018. |

TARIFF ORDERS

- **The Telecommunication Tariff (Sixty Third Amendment) Order 2018**

- 2.7.1 Telecom Regulatory Authority of India (TRAI) notified the “Telecommunication Tariff (63rd Amendment) Order, 2018 on 16th February, 2018 on ‘Regulatory Principles of Tariff Assessment’ to ensure Transparency, Non-discrimination and

Non-predation in telecommunication services.

Above amendments have been issued after a detailed public consultation, beginning with the Consultation Paper on 'Regulatory Principles of Tariff Assessment' issued on 17th February, 2017, followed by an Open House Discussion held in New Delhi on 30th May, 2017 and extensive research, *inter alia*, the international best practices. The Authority held a meeting with CEO's of Telecom Companies on 15th June, 2017 on the issue, *inter alia*, of setting some form of floor price for retail tariff. This was followed by another meeting with the Telecom Service Providers on 21st July, 2017 on the same issue, wherein the majority view was that as of now, TRAI should not undertake fixation of floor price and the IUC should not be taken as a floor for retail tariff. The amendments further clarify and bolster the provisions relating to the regulatory principles of tariff - Transparency, Nondiscrimination and Non-predation. Amendments deal with reporting requirements, guiding principles for checking transparency in tariff offers, definition of non-discrimination, adherence to the principle of non-predatory pricing, definition of predatory pricing, relevant market, assessment of significant market power (SMP) and other related provisions.

These amendments will be beneficial for the consumers, telecom service providers and the regulator.

As such, the transparency in tariff offers will be objectively observed by the telecom service providers vis-a-vis the guiding principles of transparency. Similarly, TRAI will also examine the tariffs of telecom service providers on the touchstone of accessibility, accuracy, comparability and completeness. It will also take in account whether tariffs are distinct and identifiable, explicit and non-misleading, simple and unambiguous etc. This would ensure transparent offering of telecom tariffs to consumers.

Further, the definition of Non-discrimination provides a clear benchmark to telecom service providers to bring tariff offers to consumers on non-discriminatory basis.

The amendments relating to the definitions of SMP, Predatory Pricing etc would ensure fair play and healthy competition amongst the telecom service providers. This in turn would result in more 'value for money' for consumers.

The amendments provide greater clarity on aforementioned regulatory principles of enabling telecom service providers for designing their tariff in more innovative manner and also smoothly comply with the regulatory principles.

2.8 Telecom Regulatory Authority of India issued the following Directions to the Service Providers during the year 2017-18 for compliance of its order / Regulations, some of these Directions are detailed below:-

TELECOM SECTOR

| Sl. No. | List of Directions |
|---------|--|
| 1. | Direction dated 25 th May 2017 to all Access Service Providers regarding filling of tariff offers. |
| 2. | Direction dated 10 th August 2017 to service providers regarding unsolicited bulk SMSs relating to investment in securities market. |
| 3. | Direction dated 18 th August 2017 to submit monthly report on wireless subscriber base as per methodology prescribed by the Department of Telecommunications. |
| 4. | Direction dated 24 th August 2017 to M/s Idea Cellular Ltd., on calls between Mumbai Metro & Maharashtra Telecom Circle, Chennai Metro & Tamil Nadu Telecom Circle, Kolkata Metro & West Bengal Telecom Circle and UP (East) & UP (West) Telecom Service Areas – Compliance with licence conditions notified by DoT vide letter No. 842-503/2004-VAS dated 20 th May 2005. |
| 5. | Direction dated 19 th September 2017 with regard to closure of commercial services by M/s Reliance Communications Ltd. in Gujarat service area. |
| 6. | Direction dated 1 st November 2017 to M/s Reliance Telecom Limited regarding disruption in 2G services. |
| 7. | Direction dated 1 st November 2017 to M/s Reliance Communications Limited regarding disruption in 2G services. |
| 8. | Direction dated 3 rd November 2017 to all Access Service Providers (Wireless) and MNPSs with regard to discontinuation of 2G/GSM Services and upgrading of Network from CDMA to LTE/4G in 800 MHz band in various licensed service areas by M/s Reliance Communications Ltd. |
| 9. | Direction dated 17 th November 2017 to M/s Reliance Communication Ltd., with regard to unspent prepaid balance consequent to closure of 2G/GSM services and discontinuation of CDMA Services in various LSAs. |
| 10. | Direction dated 30 th November 2017 to M/s Vodafone to deposit in TCEPF the excess amount charges from the subscribers in violation of the licence conditions. |
| 11. | Direction dated 30 th November 2017 to M/s Bharti Airtel to deposit in TCEPF the excess amount charges from the subscribers in violation of the licence conditions. |
| 12. | Direction dated 13 th December 2017 to M/s Reliance Telecom Ltd. Regarding facilitation of MNP for subscribers pursuant to disconnection of voice services in licensed service areas. |
| 13. | Direction dated 13 th December 2017 to M/s Reliance Communication Ltd. regarding facilitation of MNP for subscribers pursuant to disconnection of voice services in licensed service areas. |
| 14. | Direction dated 14 th December 2017 to submit compliance reports of benchmarks of Quality of Service parameters. |
| 15. | Direction dated 14 th December 2017 for publishing information relating to performance with respect to Quality of Service Parametres. |

| Sl. No. | List of Directions |
|---------|---|
| 16. | Directions dated 20 th December 2017 to Aircel Ltd and M/s Dishnet Wireless Ltd. regarding facilitating MNP. |
| 17. | Direction dated 1 st January 2018 regarding extension of the validity period of UPCs issued to the subscribers of M/s Reliance Communication Ltd. pursuant to the direction dated 3 rd November 2017. |
| 18. | Direction dated 19 th January 2018 to M/s Reliance Telecom Ltd. to refund the unspent balance and security deposits of their Mobile Subscribers. |
| 19. | Direction dated 19 th January 2018 to M/s Reliance Communications Ltd. to refund the unspent balance and security deposits of their Mobile Subscribers. |
| 20. | Direction dated 22 nd February 2018 to M/s Reliance Telecom Ltd. regarding extension of validity of UPCs issued pursuant to Directions dated 13 th December 2017. |
| 21. | Direction dated 22 nd February 2018 to M/s Reliance Communications Ltd. Regarding extension of validity of UPCs issued pursuant to Directions dated 13 th December 2017. |
| 22. | Direction dated 27 th February 2018 to M/s Aircel Ltd. and M/s Dishnet Wireless Ltd. regarding provision of additional codes for UPC generation. |
| 23. | Direction dated 16 th March 2018 to all UASPs/BSOs/CMSPs regarding withdrawal of direction No.406-1/2005-FN dated 9 th June 2005. |
| 24. | Direction dated 20 th March 2018 to all Access Providers, NDLOs and ILDOs regarding reporting of International Long Distance Traffic Minutes. |

DIRECTIONS

➤ **Direction dated 25th May 2017 to all Access Service Providers regarding filing of tariff offers**

2.8.1 The Authority, issued this direction on 25th May 2017 to all the Access Service Providers. This direction was issued by the Authority in exercise of powers conferred upon it under section 13 read with section 11 (2) and 12(4) of TRAI Act, 1997 and the provisions of the Telecommunication Tariff Order, 1999. In order to protect the interests of the consumers all the Access Service

Providers were directed to ensure that all the tariffs offered to the consumers are in accordance with the provisions of Telecommunication Tariff Order, 1999 and are non- discriminatory between the subscribers of the same class and to ensure that every tariff that is offered to a customer is invariably reported to the Authority as per reporting framework under the forbearance regime unless an express exemption has been provided in the Telecommunication Tariff Order, 1999 (as amended from time to time).

➤ **Direction dated 10th August 2017 to service providers regarding**

unsolicited bulk SMSs relating to investment in securities market

2.8.2 This direction mandates the cellular mobile telephone service providers, to take following steps for controlling bulk messages relating to securities:

- a) SMSs relating to investment advice/ stock tips only from SEBI registered investment advisers, stock brokers, sub brokers, portfolio managers and merchant bankers shall be sent or allowed to be sent as transactional message only through registered Telemarketers;
- b) Necessary arrangements shall be made to filter and block the SMSs sent by Telemarketers using bulk SMS channel containing certain key words relating to securities, such as buy, Sell, Hold, Accumulate, Target followed by Scrip code/ Scrip name provided by any recognized as stock exchange; and
- c) Verify the identity of the sender by the service provider as registered telemarketer, as the case may be, and collect and keep the identify documents for one year.

➤ **Direction dated 18th August 2017 to submit monthly report on wireless subscriber base as per methodology prescribed by the Department of Telecommunications**

2.8.3 Department of Telecommunications had, in order to have a uniform subscriber base reporting, through letter dated 29th August, 2005, as amended vide letter dated 7th September, 2005, issued instructions to all licensees prescribing

new methodology for reporting the subscriber base. It was, however, noticed that some of the Telecom Service Providers were not strictly following the afore-mentioned methodology prescribed by DoT for reporting of subscriber base. Therefore, a Direction was issued to all the TSPs on 18th August 2017 to submit monthly report on wireless subscriber base as per methodology prescribed by the Department of Telecommunications.

➤ **Direction dated 24th August 2017 to M/s Idea Cellular Ltd., and dated 30th November 2017 to M/s Vodafone and M/s Bharti Airtel to deposit in TCEPF the excess amount charges from the subscribers in violation of the licence conditions**

2.8.4 The Department of Telecommunications on 20th May 2005 permitted inter-service area connectivity between access providers in paired circles i.e. the States of Maharashtra (Mumbai Metro and Maharashtra telecom circle service areas), Tamil Nadu (Chennai Metro and Tamil Nadu telecom circle service areas), Uttar Pradesh (including Uttaranchal) [UP (E) and UP (W) telecom service areas] and West Bengal (Kolkata Metro and West Bengal telecom service area).

TRAI found that certain mobile service providers were offering higher differential charges for calls to the networks of BSNL and MTNL. TRAI, therefore, issued direction on 27th February, 2006 to all Mobile Service Providers in the aforesaid four states to immediately discontinue

differential tariff and report compliance of the same to TRAI. The said direction was, however, challenged through various petitions / appeals before different courts. TRAI through another direction dated 22nd March 2007 directed all the TSPs to deposit the excess amount charged from the subscribers in a separate bank account until further directions.

Consequent upon the Hon'ble Supreme Court dismissing the appeal filed by the TSPs, TRAI issued directions to the following TSPs to deposit in the Telecom Consumers Education and Protection Fund (TCEPF) the excess amount charged from the subscribers in violation of the license conditions which cannot be refunded to the subscribers due to non-availability of call detail records:

- (i) M/s Idea Cellular Ltd on 24th August 2017;
- (ii) M/s Bharti Airtel Ltd on 30th November 2017; and
- (iii) M/s Vodafone India Ltd on 30th November 2017.

➤ **Direction dated 19th September 2017 with regard to closure of commercial services by M/s Reliance Communications Ltd. in Gujarat service area**

2.8.5 TRAI, with a view to facilitate mobile number portability of mobile subscribers, issued Direction on 19th September 2017 to M/s RCL; MNPSPs; and TSPs with regard to closure of GSM services by M/s. Reliance Communications Limited in

Gujarat licensed service area consequent to expiry of its Unified Access Service (UAS) license and upgrading of network to LTE/4G in 800 MHz band under the authorization for providing Access Service under the Unified License in the said service area w.e.f. 30th September 2017.

➤ **Direction dated 1st November 2017 to M/s Reliance Telecom Limited and M/s Reliance Communications Limited regarding disruption in 2G services**

2.8.6 It was brought to the notice of TRAI through media reports regarding disruption of 2G services of M/s Reliance Communications Limited (RCL) / M/s Reliance Telecom Limited (RTL) in all Licensed Service areas. TRAI, therefore, issued a Direction on 1st November 2017 to M/s RCL / RTL, inter-alia, to

- (i) furnish reasons for disruption of 2G services in different licensed service areas;
- (ii) ensure QoS of the entire network as prescribed by the LICENSOR and the Authority from time to time;
- (iii) issue and communicate unique porting code to the subscribers through SMS immediately, as and when such request is received and respond to all the requests of mobile number portability made by the subscribers as per provisions of the regulations;
- (iv) furnish licensed service area wise details of the number porting requests received, details of unique porting codes generated on such requests and number of

subscribers ported out in last two weeks (w.e.f. 31st October, 2017).

- **Direction dated 3rd November 2017 to all Access Service Providers (Wireless) and MNPSPs with regard to discontinuation of 2G/GSM Services and upgrading of Network from CDMA to LTE/4G in 800 MHz band in various licensed service areas by M/s Reliance Communications Ltd.**

2.8.7 A Direction was issued on 3rd November 2017 to MNPSPs, TSPs so as to facilitate Mobile Number Portability of subscribers of M/s Reliance Communications Limited (RCL) with regard to discontinuation of 2G/GSM services by M/s RCL in Andhra Pradesh, Haryana, Maharashtra, UP(East), UP(West), Tamil Nadu, Karnataka and Kerala licensed service areas and upgrading of network from CDMA to LTE/4G in 800 MHz band in Delhi, Rajasthan, UP(West), Tamil Nadu, Kerala, Karnataka, West Bengal, Gujarat and Kolkata licensed service areas consequent to conclusion of merger of licenses of M/s Sistema Shyam Telecommunications Limited into M/s Reliance Communications Limited.

- **Direction dated 13th December 2017 to M/s Reliance Telecom Ltd. and M/s Reliance Communication Ltd. regarding facilitation of MNP for subscribers pursuant to disconnection of voice services in licensed service areas**

2.8.8 Direction was issued to all Access Service Providers, MNPSPs and M/s Reliance Communications Limited and M/s

Reliance Telecom Ltd on 13th December 2017 to facilitate Mobile Number Portability for the subscribers, pursuant to discontinuation of voice services in licensed service areas of Bihar, Delhi, Himachal Pradesh, Jammu & Kashmir, Kolkata, Madhya Pradesh, Mumbai, Orissa, Punjab, Rajasthan and West Bengal by M/s Reliance Communications Limited and in the licensed service areas of Assam, Bihar, Himachal Pradesh, Kolkata, Madhya Pradesh, North East, Orissa and West Bengal by M/s Reliance Telecom Limited w.e.f. 31st January 2018.

- **Direction dated 14th December 2017 to submit compliance reports of benchmarks of Quality of Service parameters**

2.8.9 This direction mandates the cellular mobile telephone service providers, to submit their compliance reports, within a period of twenty one days of the end of each quarter ending on the 31st March, the 30th June, the 30th September and the 31st December of the year, respectively, in writing and also in the electronic format in Microsoft Excel format, duly signed by the authorized signatory of the service provider, on quarterly basis, in respect of parameters of Cellular Mobile Telephone Service at serial number (i), (ii), (iii) and (iv) under Network Service Quality parameters at Serial Number A of Regulation 5 of the Regulations, in the format annexed as Annexure-1 to this direction.

- **Direction dated 14th December 2017 for publishing information relating to**

performance with respect to Quality of Service Parametres

2.8.10 This direction directs the cellular mobile telephone service providers, to publish on their website, on quarterly basis, the performance with respect to the benchmarks of Quality of Service parameters specified in Regulation 5 of the Regulations, in the Revised Format attached with this direction within forty five days after the end of every quarter.

➤ **Directions dated 20th December 2017 to Aircel Ltd and M/s Dishnet Wireless Ltd. regarding facilitating MNP**

2.8.11 Direction was issued to all Access Service Providers, MNPSs and M/s Aircel Ltd in order to facilitate Mobile Number Portability for the subscribers of M/s Aircel Ltd pursuant to notice of surrender of License given under clause 10.3 of Unified Access Service in licensed service areas of Gujarat, Haryana, Himachal Pradesh, Madhya Pradesh, Maharashtra and Uttar Pradesh (West) by M/s Aircel Ltd. and M/s Dishnet Wireless Ltd w.e.f. 30th January 2018.

➤ **Direction dated 1st January 2018 regarding extension of the validity period of UPCs issued to the subscribers of M/s Reliance Communication Ltd. pursuant to the direction dated 3rd November 2017**

2.8.12 A Direction was issued on 3rd November 2017 to MNPSs, TSPs so as to facilitate Mobile Number Portability of subscribers

of M/s Reliance Communications Limited (RCL) consequent upon to discontinuation of 2G/GSM services by M/s RCL in Andhra Pradesh, Haryana, Maharashtra, UP(East), UP(West), Tamil Nadu, Karnataka and Kerala licensed service areas and upgrading of network from CDMA to LTE/4G in 800 MHz band in Delhi, Rajasthan, UP(West), Tamil Nadu, Kerala, Karnataka, West Bengal, Gujarat and Kolkata licensed service areas consequent to conclusion of merger of licenses of M/s Sistema Shyam Telecommunications Limited into M/s Reliance Communications Limited.

Through the Direction dated 1st January 2018, M/s RCL was, inter-alia, directed to keep all UPCs generated pursuant to the direction dated the 3rd November, 2017 and UPCs that are expiring on the 31st December, 2017, valid till 23:59:59 hours of the 31st January, 2018. The direction has been uploaded in the TRAI's website www.traigov.in.

➤ **Direction dated 19th January 2018 to M/s Reliance Telecom Ltd. and M/s Reliance Communications Ltd. to refund the unspent balance and security deposits of their Mobile Subscribers**

2.8.13 Consequent upon closure of 2G/GSM, CDMA services and discontinuation of voice services in all the licensed services, TRAI received large number of complaints from the subscribers of M/s RCL and M/s RTL regarding refund of balance amount left with M/s RCL and M/s RTL in the form

of recharge or vouchers / plans in their prepaid mobile account and non-refund of security deposits for the post paid mobile accounts. In order to protect the interest of the consumers at large TRAI directed M/s RCL and M/s RTL on 19th January 2018 to refund the unspent balance and security deposits to its mobile subscribers. The directions have been uploaded in the TRAI’s website www.trai.gov.in.

➤ **Direction dated 22nd February 2018 to M/s Reliance Telecom Ltd. and M/s Reliance Communications Ltd. regarding extension of validity of UPCs issued pursuant to Directions dated 13th December 2017**

2.8.14 A Direction was issued on 22nd February, 2018 to M/s Reliance Communications Ltd. and M/s Reliance Telecom Ltd. Through this Direction both M/s RCL and M/s RTL were, inter-alia, directed to keep all UPCs generated pursuant to the direction dated the 3rd November, 2017 and UPCs that are expiring on the 31st December, 2017, valid till 20th March 2018 and allow porting of their mobile numbers till 20th March, 2018. The direction has been uploaded in the TRAI’s website www.trai.gov.in.

➤ **Direction dated 27th February 2018 to M/s Aircel Ltd. And M/s Dishnet Wireless Ltd. regarding provision of additional codes for UPC generation**

2.8.15 A Direction was issued on 27th February, 2018 to MNPSPs, M/s Aircel Ltd and TSPs to facilitate Mobile Number Portability

of subscribers of M/s Aircel Ltd. and M/s Dishnet Wireless Ltd with a view to help subscribers to exercise their right to port their mobile number consequent to the sites of M/s Aircel Ltd., being turned off by its Infra-Provider in different LSAs across the country and causing disruption in the network.

➤ **Direction dated 16th March 2018 to all UASPs/BSOs/CMSPs regarding withdrawal of direction No. 406-1/2005-FN dated 9th June 2005**

2.8.16 A committee was formed in TRAI, comprising of telecom service providers and associations, for purging of infructuous/redundant regulations.

The committee, in its recommendation dated 31st January, 2018, recommended that Direction No. 406-1/2005-FN dated 9th June, 2005 to be purged as no more complaints are being received on the issue and most of the TSPs are operating Pan India. The Recommendations of the Committee regarding this Direction are as under:

| Direction | Recommendation of the committee |
|--|--|
| Direction No. 406-1/2005-FN dated 9 th June 2005 – TSPs are required to submit quarterly report on radio spillage for provision of Wireless Services outside the Licensed Service Area. | To be Purged as no more complaints are being received on the issue and most of the TSPs are operating pan-India. |

In accordance with the recommendation of the committee, TRAI, vide its Direction dated 16th March, 2018 decided to withdraw its direction no. 406-1/2005-FN dated 09th June, 2005.

➤ **Direction dated 20th March 2018 to all Access Providers, NDLOs and ILDOs regarding reporting of International Long Distance Traffic Minutes**

2.8.17 A committee was formed in TRAI, comprising of telecom service providers and associations, for purging of infructuous/redundant regulations. The committee observed regarding report on International Long Distance Traffic Minutes that the service providers, that do not provide switched voice services under NLD/ILD license, have been filing 'NIL' report.

The recommendation of the committee dated 31st January, 2018 on the subject is as under.

| Direction | Recommendation of the committee |
|--|--|
| ILD/NLDOs, not providing switched voice services under ILD/NLD License, can be exempted from submitting these reports, namely, POI Interconnect Report, ILD Traffic, ILD Format 3,5,6,7 etc. | To be purged with a rider that these operators need to submit their report as and when they start voice service. |

In accordance with the recommendation of the committee,

TRAI, vide its Direction dated 20th March, 2018 directed Access Providers, NLDOs & ILDOs, that do not provide switched voice services are exempted from submitting reports of the International Long Distance Traffic Minutes on monthly basis. However, these operators shall submit their reports in the prescribed format as and when they start providing switched voice service.

2.9 In addition, the Authority issued following Consultation Papers/ Consultation Notes/ Pre-Consultation Paper to seek views of the various stakeholders on the various issues concerning the telecom and broadcasting sector:

TELECOM SECTOR

| Sl. No. | List of Consultation Papers |
|---------|--|
| 1. | Consultation Paper dated 1 st May 2017 on "Network testing before commercial launch of services. |
| 2. | Consultation Paper dated 1 st June 2017 on "Data Speed under wireless broadband plan". |
| 3. | Consultation Paper dated 9 th August 2017 on "Privacy Security and Ownership of data in the telecom sector". |
| 4. | Consultation Paper dated 16 th August 2017 on "Draft Telecommunication Mobile Number Portability (Seventh Amendment) Regulations, 2017. |
| 5. | Consultation Paper dated 28 th August 2017 on "Auction of Spectrum in 700MHz, 800MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz, 2500 MHz, 3300-3400 MHz and 3400-3600 MHz Bands. |

| Sl. No. | List of Consultation Papers |
|---------|--|
| 6. | Consultation Paper dated 14 th September 2017 on “Unsolicited Commercial Communication”. |
| 7. | Consultation Paper dated 18 th September 2017 on “Promoting Local Telecom Equipment manufacturing”. |
| 8. | Consultation dated 19 th September 2017 on “Draft recommendations on Ease of doing business”. |
| 9. | Consultation Paper dated 29 th September 2017 on “In Flight Connectivity (IFC)”. |
| 10. | Consultation Paper dated 9 th October 2017 on “Next Generation Public Protection and Disaster Relief (PPDR) Communication Networks”. |
| 11. | Consultation dated 18 th December 2017 on “The Telecommunication Mobile Number Portability Per Port Transaction Charge and Dipping Charge (Amendment) Regulations, 2017”. |
| 12. | Consultation Paper dated 20 th December 2017 on “Making ICT Accessible for Persons with Disabilities”. |
| 13. | Consultation Paper dated 3 rd January 2018 on “Inputs for formulation of National Telecom Policy -2018”. |
| 14. | Consultation Paper dated 8 th February 2018 on “Method of Allocation of Spectrum for Public Mobile Radio Trunking Service (PM-RTS) including auction as a transparent mechanism”. |
| 15. | Consultation Paper dated 26 th February 2018 on “Voice Services to LTE Users (including VoLTE and CS Fallback)”. |

CONSULTATION PAPERS

➤ **Consultation Paper dated 1st May 2017 on “Network testing before commercial launch of services**

2.9.1 The Telecom Service Providers (TSPs) are required to install applicable systems

for providing mobile services to the subscribers. A TSP has to ensure that its service meets the Quality of Service (QoS) standards prescribed by the Department of Telecommunications (DoT) and Telecom Regulatory Authority of India (TRAI). Therefore, it is important that all applicable systems are tested before commencement of commercial service.

DoT, through its letter dated 9th September 2016, communicated that at present, network testing is being carried out by licensees on the basis of erstwhile practices followed by DoT/BSNL; and test SIM Cards are issued by such licensees to check the quality of network before the commercial launch of services. The present licences for various services issued by DoT do not prescribe any time period for network testing before commercial launch of services by the licensees. Therefore, DoT requested the Authority to provide its recommendations on testing of network before commercial launch of services including enrolment of customers for testing purposes before commercial launch, duration of testing period etc.

In this regard, a consultation paper was released on 1st May 2017, wherein various issues involved and the possible framework to bring clarity on the matter were discussed and the stakeholders were requested to provide their comments and counter-comments.

➤ **Consultation Paper dated 1st June 2017 on “Data Speed under wireless broadband plan”**

2.9.2 TRAI came out with a Consultation Paper on “Data Speed under Wireless Broadband Plans” on 1st June 2017. Through this Consultation Paper the Authority intends to seek the inputs of stakeholders on ensuring transparency and customer awareness regarding data speeds under wireless broadband plans.

➤ **Consultation Paper dated 9th August 2017 on “Privacy Security and Ownership of data in the telecom sector”**

2.9.3 TRAI has come out with a Consultation Paper on “Privacy, Security and Ownership of the Data in the Telecom Sector” on 9th August, 2017. Through this Consultation Paper the Authority had decided to seek inputs of the stakeholders on the following:

- (a) To identify the scope and definition of Personal data, Ownership and Control of data of users of telecom services.
- (b) Understand and Identify the Rights and Responsibilities of Data Controllers.
- (c) To assess the adequacy and efficiency of data protection measures currently in place in the telecom sector.
- (d) Identify the key issues pertaining to data protection in relation to the delivery of digital services. This includes the provision of telecom and Internet services by telecom and Internet service providers (TSPs) as well the other devices, networks and applications that connect with users through the services

offered by TSPs and collect and control user data in that process.

➤ **Consultation Paper dated 16th August 2017 on “Draft Telecommunication Mobile Number Portability (Seventh Amendment) Regulations, 2017**

2.9.4 TRAI issued the Telecommunication Mobile Number Portability (MNP) Regulations 2009 (8 of 2009) dated 23rd September 2009 laying down the basic business process framework for implementation of MNP in the country. In a continuous endeavour to make MNP process more subscriber friendly, based on feedback from the stakeholders and its own analysis, TRAI has issued various Directions and amendments to the MNP regulations. The present consultation on amendment of MNP regulations is also a part of the same process.

Rejection of porting requests creates dissatisfaction and frustration among subscribers. It is observed that, grounds of rejection dependent on Unique Porting Code (UPC), namely ‘UPC Mismatch’ and ‘invalid/expired UPC’, jointly contribute around 40% of the total rejection of porting requests. Through this amendment, TRAI proposes a mechanism for sharing the UPC generated by Donor Operator with MNP Clearing House, which in turn can be approached by the Recipient Operator, to confirm the correctness and validity of the UPC submitted by the subscriber. This will result in reduction of rejection of porting

requests and will increase subscriber satisfaction. The draft amendment also proposes to make provision to transmit the relevant information viz. date of the bill, amount outstanding, last date of payment, date of the notice and period of notice given to the subscriber by Donor Operator through the MNP Clearing House alongwith the non-payment disconnect requests initiated by the Donor operator. The draft Amendment Regulation was issued on 16th August 2017 seeking the comments of the stakeholders.

➤ **Consultation Paper dated 28th August 2017 on “Auction of Spectrum in 700MHz, 800MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz, 2500 MHz, 3300-3400 MHz and 3400-3600 MHz Bands**

2.9.5 Department of Telecommunications through their reference dated 19th April 2017 sought recommendations of the TRAI on applicable reserve price, quantum of spectrum to be auctioned and associated conditions for auction of spectrum in 700, 800, 900, 1800, 2100, 2300, 2500, 3300-3400 and 3400-3600 MHz Bands. Based on the available information, a consultation paper was issued on 28th August 2017 seeking the comments of the stakeholders.

In this consultation paper specific issues have been raised for consideration of stakeholders. The key issues raised are quantum of spectrum to be auctioned,

optimal block size, duplexing scheme, spectrum cap, roll-out conditions and methods to be used for valuation and estimation of reserve price of spectrum.

➤ **Consultation Paper dated 14th September 2017 on “Unsolicited Commercial Communication”**

2.9.6 TRAI issued Consultation Paper on Unsolicited Commercial Communication for seeking the comments of the stakeholders.

Consultation paper deliberates following issues:

- Regulatory framework for UCC is required to be reviewed for appropriate changes in the framework or for introducing new entities or processes required.
- Analyses of present preference registration system and explores ways and means to make system more effective and efficient.
- Explores options to provide more choices to the customer for preferences.
- Registration System for related entities. It explores the possibility of registration of new entities like Content Providers, Aggregators and Intermediaries.
- Suggests introducing new entities for Header Assignments, consent recording etc.
- Issues related to UCC Complaint handling and suggests to make system more efficient e.g. by reducing time-line.

➤ **Consultation Paper dated 18th September 2017 on “Promoting Local Telecom Equipment manufacturing”**

2.9.7 TRAI came out with a Consultation Paper on “Promoting Local Telecom Equipment Manufacturing” on 18th September 2017. The consultation paper is issued with the following objectives:-

- (a) To identify the policy measures required to boost Innovation and productivity of local Telecom manufacturing in India.
- (b) Examine the existing patent laws in context of promoting local manufacturers.
- (c) Examine the issues of Standardization, Certification and Testing of Telecom Equipments and suggest a framework for improvement to support local telecom equipment manufacturing.
- (d) Examine issues related to IPR affecting the local telecom equipment manufacturing industry.
- (e) Examine the current fiscal incentives to promote the local telecom manufacturing and recommend measures for implementation in the future.
- (f) Identify measures to be taken to attract foreign investment for setting up establishments in India.

➤ **Consultation dated 19th September 2017 on “Draft recommendations on Ease of doing business”**

2.9.8 Promoting “Ease of doing business” is essential for unhindered growth of the telecom sector and is amongst the priorities of the Government. A number of steps have already been taken for ease of doing telecom business by

the Government, generally on the recommendations of TRAI. With the change in the policies over a period of time or with the technological development, there could be some processes, which may have become redundant or may be executed in an efficient and transparent way.

In this background, TRAI, *suo motu*, issued a paper on 14th March 2017 requesting the stakeholders to review the existing processes and identify the bottlenecks, obstacles or hindrances that are making it difficult to do telecom business in India and thus, require regulatory intervention. Based on the inputs received from various stakeholders and internal analysis, draft recommendations were framed and uploaded on TRAI website on 19th September 2017, seeking comments of the stakeholders.

➤ **Consultation Paper dated 29th September 2017 on “In Flight Connectivity (IFC)”**

2.9.9 The Department of Telecommunications (DoT) through its letter dated 10th August 2017 had communicated that there is a proposal to introduce In-Flight Connectivity (IFC) for voice, data and video services over Indian airspace for domestic, international and overflying flights in Indian Air Space. DoT had also requested TRAI to furnish its recommendations on licensing terms and conditions for provision of IFC for voice,

data and video services and associated issues such as entry fee, license fee, spectrum related issues including usage charges and method of allocation and other conditions.

In this regard, a Consultation Paper on ‘In-Flight Connectivity’ was released on 29th September 2017 seeking comments of stakeholders.

➤ **Consultation Paper dated 9th October 2017 on “Next Generation Public Protection and Disaster Relief (PPDR) Communication Networks”**

2.9.10 Public Protection and Disaster Relief (PPDR) communications supports a wide range of services related to day to day life of public such as maintenance of law and order, protection of life and property, disaster relief and emergency responses.

The advancement of the technology has provided PPDR networks with latest and enhanced features in terms of capability, capacity and interoperability. Broadband PPDR supports wide range of applications such as sending live images, videos and texts apart from the voice communications. Existing PPDR networks in the country are analog and digital systems supporting narrowband voice and data communications. Introduction of advanced PPDR communication networks can be a great enabler in decision making and handling of PPDR operations for personnel and organizations involved.

Keeping in view the need to have a robust policy framework for the introduction of an advanced, reliable, robust and responsive PPDR communication system in the country, TRAI has initiated *suo-motu* a Consultation Paper (CP) on 9th October 2017 on ‘Next Generation Public Protection and Disaster Relief (PPDR) communication networks’ for the comments of the stakeholders.

The consultation paper has elaborated on the issues and shortcoming with existing PPDR networks, features of Next Generation PPDR networks, technical specifications and spectrum availability and future requirements. Execution models prevailing in various countries for Next Generation PPDR network have been deliberated and included in this consultation paper as international practices.

➤ **Consultation Paper dated 20th December 2017 on “Making ICT Accessible for Persons with Disabilities”**

2.9.11 A Consultation process on “Making ICT Accessible for Persons with Disabilities” was *suo-moto* initiated on 20th December 2017 with the objective to identify key areas where policy interventions are needed to understand the barriers being faced by the PwDs in accessing the telecom and broadcasting services so that affirmative actions at policy level in the form of recommendations to the

Government or formulation of regulation or advisory to equipment/service providers or a combination of these can be taken.

➤ **Consultation Paper dated 3rd January 2018 on “Inputs for formulation of National Telecom Policy -2018”**

2.9.12 The Department of Telecommunications, through its letter dated 21st August, 2017, requested TRAI to suggest its policy inputs for formulation of National Telecom Policy - 2018.

Based on preliminary discussions with various stakeholders including telecom service providers, telecom equipment manufacturers, industry associations, consulting firms, cloud service providers etc.; the Authority has prepared a Consultation Paper on ‘inputs for formulating the National Telecom Policy - 2018 in line with the technological advancements in the sector and customer aspirations for digital services.’ This Consultation Paper was released on 3rd January 2018 for comments of the stakeholders.

Through this Consultation Paper, the Authority sought the views of stakeholders on the inputs for formulating National Telecom Policy- 2018.

➤ **Consultation Paper dated 8th February 2018 on “Method of Allocation of Spectrum for Public Mobile Radio Trunking Service (PMRTS) including auction as a transparent mechanism”**

2.9.13 Public Mobile Radio Trunking (PMRT) service is a niche service having wide-spread application in sectors such as Public Safety, Manufacturing, Oil & Gas, Mining, Construction, Courier, Emergency Services (for logistics and fighting natural calamities), Utilities (like Municipal services, electricity, water etc.), Transportation (Road, Airports, Harbors), Energy & Communication (for efficient service & maintenance), and service industry. In the past, as an alternative, PMRT services have been often used for communications by agencies involved in protection of life and property, disaster relief and emergency responses.

The Department of Telecommunications (DoT) through its letter No.L-14027/08/2016-NTG dated 13th July, 2017 has requested TRAI to provide its recommendations under section 11(1) (a) of TRAI Act, 1997 i.e. on method of allocation of spectrum for Public Mobile Radio Trunking Service (PMRTS) including auction, as a transparent mechanism.

In this regard, a Consultation Paper has been issued on 8th February, 2018 for seeking comments of the stakeholders. The Consultation Paper, apart from the aspects of methodology of allocation of spectrum has also elaborated on the issues viz. duration of license, assignment of spectrum (throughout the license area or city wise), preferable frequency bands for PMRT services, block size, reserve price, spectrum cap etc. The practices

adopted in few countries have also been discussed. The Consultation Paper has been placed on TRAI’s website www.trai.gov.in.

➤ **Consultation Paper dated 26th February 2018 on “Voice Services to LTE Users (including VoLTE and CS Fallback)”**

2.9.14 TRAI on 26th February, 2018 issued Consultation Paper on ‘Voice Services to LTE users (including VoLTE and CS Fallback)’ for seeking the comments of the stakeholders.

This consultation paper deliberates following issues:

- LTE is an all-IP, data-only transport technology based on packet switching.
- Voices services in LTE network is mainly carried by two technologies viz. Voice over LTE (VoLTE) and Circuit Switch Fall Back (CSFB).
- VoLTE allows carriers to transmit voice calls over LTE network and controlled through their IP Multimedia Subsystem (IMS). This means that voice calls and data sessions travel side-by-side over LTE. Whereas in CSFB, LTE network is used only for data traffic and voice services are provided on traditional circuit switched technologies of 2G and 3G.

BROADCASTING & CABLE TV SECTOR

| Sl. No. | List of Consultation Papers |
|---------|--|
| 1. | Consultation Paper dated 10 th July 2017 on “Issues related to Digital Radio Broadcasting in India”. |
| 2. | Consultation Paper dated 31 st July 2017 on “Ease of doing Business in Broadcasting Sector” |
| 3. | Consultation Note dated 11 th August 2017 on “Solution Architecture for Technical Interoperable Set Top Box”. |
| 4. | Consultation Paper dated 19 th December 2017 on “Issues relating to Uplinking and Downlinking of Television Channels in India”. |
| 5. | Consultation Paper dated 22 nd December 2017 on “Empanelment of Auditors for Digital Addressable Systems”. |

CONSULTATION PAPERS

➤ **Consultation Paper dated 10th July 2017 on “Issues related to Digital Radio Broadcasting in India’**

2.9.15 TRAI on 10th July 2017, released consultation paper on “Issues related to Digital Radio Broadcasting in India” in order to seek stakeholders’ comments on

various issues relating to development of an eco-system for deployment of digital radio broadcasting by private FM radio broadcasters. Some benefits of Digital Radio were as follows :-

- Better quality of signal or clear reception with high and consistent sound performance.

- Efficient use of allocated frequency – multiple radio channels can be broadcasted on a single frequency.
- Frequency reuse possible – to cover a large geographical area.
- Reduced transmission power requirements.
- Automatic tuning of various available private and public radio stations.
- Efficient reception of radio channels in static, portable and mobile environments such as moving vehicles, mobile phones etc.
- Value Added Services such as Emergency Program Guide, Emergency Warning Feature (EWF), updates on news and weather etc can be provided simultaneously along with program relay.
- Enable the government to retrieve spectrum and re-allocate it for more efficient use.
- Possibility of Simulcast allowing broadcasters to save cost of transmitting signal in both formats, analog as well as digital formats.

➤ **Consultation Paper dated 31st July 2017 on “Ease of Doing Business in Broadcasting Sector**

2.9.16 TRAI, on 31st July 2017, released Consultation Paper on the “Ease of Doing Business in Broadcasting Sector” with the following objectives:-

- (i) To review various policy issues related to the broadcasting sector with a view to

create a conducive and business friendly environment in the sector.

- (ii) To identify procedural bottlenecks that affect ease of doing business in broadcasting sector and recommended measures for simplifying the rules, regulations and bring more transparency and clarity in policies/ framework of the broadcasting sector.
- (iii) To remove entry barriers by laying down well defined and transparent procedures and processes thereby creating level playing field and competition in the sector
- (iv) To facilitate innovation and technology adoption in the sector for providing better quality of services to the consumers.
- (v) To steer further growth of the sector by attracting investment through investor friendly policies
- (vi) To promote indigenous manufacturing of broadcasting equipments.

➤ **Consultation Note dated 11th August 2017 on “Solution Architecture for Technical Interoperable Set Top Box”**

2.9.17 TRAI, on 11th August 2017, released Consultation Note on “Solution Architecture for Technical Interoperable Set Top Box’ presenting the solution for technically interoperable STB to all the concerned stakeholders to seek their comments on the proposed solution. Consultation note along with solution architecture document was uploaded of

TRAI's website www.trai.gov.in at URL: http://www.trai.gov.in/sites/default/files/Consultation_note_on_STB_interoperability_110817.pdf.

➤ **Consultation Paper dated 19th December 2017 on “Issues relating to Uplinking and Downlinking of Television Channels in India”**

2.9.18 TRAI on 19th December 2017, released Consultation Paper on “Issues relating to Uplinking and Downlinking of Television Channels” in India seeking comments of the stakeholders on the issues relating to permission for uplinking and downlinking of satellite TV channels and setting up of teleports.

For regulating the business of satellite TV channel broadcasting in India, the Central Government has laid down policy guidelines for uplinking of television channels from India, and policy guidelines for downlinking of television channels in India.

MIB vide its letter dated 21st August, 2017, stated that the present uplinking and downlinking guidelines which came into effect from 5th December 2011 are now more than 5 years old. Further, MIB also stated that keeping in view the change in technology, market scenarios, and the lesson learnt in the last few years of their operations, there is a need to review/amend some of the provisions of these guidelines to ensure healthy growth of the broadcasting sector. MIB has sought

recommendations of the Authority on various issues relating to permission for uplinking and downlinking of satellite TV channels, and setting up of teleports.

➤ **Consultation Paper dated 22nd December 2017 on “Empanelment of Auditors for Digital Addressable Systems”**

2.9.19 TRAI on 22nd December 2017, released Consultation Paper on “Empanelment of Auditors for Digital Addressable Systems” seeking comments of the stakeholders on various audit – empanelment related issues such as scope of audit, eligibility criteria and experience, length of empanelment, audit fee and payment terms, time period for completion of audit work, de-empanelment, reporting requirement of auditors.

It is pertinent to mention that TRAI brought a regulatory framework for digital addressable systems and notified the interconnection regulations namely the Telecommunication (Broadcasting and Cable) Services Interconnection (Addressable Systems) Regulations, 2017 dated 3rd March 2017. These regulations have provisions relating to technical audit and subscription audit wherein it has been provided that the Authority may empanel auditors for this purpose. Presently, these regulations are sub-judice in the Hon'ble High Court of Madras and Hon'ble High Court of Delhi. However, this consultation paper is a preparatory work before

calling proposals for empanelment of auditors, and has no bearing on the said regulations or ongoing litigations. This consultation process will enable TRAI to prepare a comprehensive document to seek proposals from auditors in line with the industry requirement and formulate guidelines to auditors. The full text of the consultation papers are available on the TRAI's website www.trai.gov.in

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

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 There has been growth in the rural subscriber base during the year. The total rural subscriber base has reached 524.61 million as on 31st March 2018 from 501.61 million on 31st March 2017. 43.49 % of total subscribers are now in rural areas.

However, the rural wireline subscriber base is decreasing. As on 31st March, 2018, the rural wireline subscriber base stood at 3.38 million as compared to 3.85 million at the end of 31st March, 2017. Only 14.82% of total wireline subscribers are now in rural areas.

Whereas, the rural wireless subscriber base increased during the same period. As on 31st March 2018, the Wireless rural market has reached 521.23 million mark as against 497.76 million as on 31st March 2017. 44.04% of total wireless subscribers are now in rural areas. The adequate rural network facilities has been able to accommodate the subscriber growth in rural areas.

(b) Expansion of Telephone Network

2.11. As on 31st March, 2018, the total wireline subscriber base stood at 22.81 million. The incumbents BSNL and MTNL have 53.78% and 14.67 % market share respectively in the subscriber base, while all the six private operators together have 31.55% share. The share of private operators has increased from 29.71% as on 31st March, 2017 to 31.55% as on 31st March 2018 registering an increase of 6.19%.

The expansion of telephone network has helped to accommodate the new subscribers. The subscriber base has increased by 13.23 million subscribers in the financial year 2017-18. The Wireless Subscriber base is 1183.41 million as on

31st March 2018 in comparison to the subscriber base of 1170.18 million as on 31st March 2017. Out of 1183.41 million subscribers at the end of financial year 2017-18, 1179.12 million (99.64%) are GSM and 4.29 million (0.36%) were CDMA Subscribers.

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

2.12. As on 31st March 2018, following are the number of licenses under UL/UL (AS)/ UASL / CMTS to provide Access Services:

| Name of licence | Number of licence |
|--|-------------------|
| Basic | 2 |
| Unified Licence (UL) | 15 |
| Unified Licence (Access Services [UL (AS)]) | 6 |
| Unified Access Service Licence (UASL) | 88 |
| Cellular Mobile Telephone Service (CMTS) Licence | 28 |

Source: DoT

(d) Technical Compatibility and effective interconnection with service providers

2.13 Under the TRAI Act, the Authority is mandated to fix the terms and conditions of interconnectivity 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.

During the report period following regulations were issued for effective interconnection between service providers:

- (i) The Telecommunication Interconnection Usage Charges (Thirteenth Amendment) Regulations, 2017 dated 19th September 2017.
- (ii) The Telecommunication Interconnection Regulations, 2018 dated 1st January 2018.
- (iii) The Telecommunication Interconnection Usage Charges (Fourteenth Amendment) Regulations, 2018 dated 12th January 2018.

The details of these regulation has already been elaborated in earlier part of the report.

(e) Telecommunication Technology

2.14 Following technological measures were taken by the Authority to enhance the outreach and interaction of the Authority with the Telecom Consumers:

TRAI Website: TRAI launched the revamped version of website (www.traigov.in) as per Govt. of India Guidelines for Websites (GIGW) including standard content management framework. The intuitive design of new TRAI website is focused on easy & fast retrieval of information of work done by TRAI.

MySpeed App: This app was launched on 05th July, 2016 and allows to measure data speed experience and sends the results to TRAI on crowdsourcing basis. The

application captures and sends coverage, data speed and other network information along with device and location of the tests. Further on 5th June, 2017 new version with feature to automatically test the data speed and collect network information in the background was launched and app is available on the Google and Apple App store. The app does not collect any personal user information and all results & information are reported anonymously. The Analytics on the crowdsourced average data speeds of telecom operators can be viewed on MySpeed portal (www.myspeed.trai.gov.in).

DND2.0 App: Telecom Commercial Communications Customer Preference (TCCCP) Regulations being complaint based regulation, there was a need to put in place a complaint mechanism which is easy to use by the consumer. Hence, TRAI launched a first version of mobile App for easy registration of UCC complaints to the service providers on 1st June, 2016. Further on 5th June, 2017, TRAI launched advanced version of app as 'DND 2.0' having machine learning based SPAM detection engine, improved UI and with lots of new features. With this App, the consumer can also check the status of his DND registration and complaints. The app is available on the Google App store and Mobile Seva App store.

MyCall App: It was launched on 5th June, 2017 and available on Google & Apple App store. Through this app Mobile phone users will be able to rate their experience

about voice call quality in real time and help TRAI gather customer experience data along with other QoS Network data, on crowdsourcing basis. App provides intuitive interface to rate call based on the perceived experience on a scale of 1 to 5. The analytics on crowdsourced average voice ratings can be viewed on MyCall portal (www.mycall.trai.gov.in).

BCCMS Portal: TRAI has laid down framework for redressal of complaints of broadcasting & cable services consumers which provides for a two tier grievance redressal mechanism of complaint centre and appellate authority by every service provider. TRAI also receives large number of complaints from consumers directly. The complaints are shared with respective broadcasting & cable services providers for necessary action through newly launched Broadcasting Consumer Complaints Monitoring System (BCCMS) portal (www.bccms.trai.gov.in). The access of BCCMS portal was provided to respective service providers on 6th February, 2018.

Service Provider Portal (SPP) for Broadcasting & Cable Services:

The Portal (www.spp.trai.gov.in) was launched on 5th June, 2018 to facilitate TRAI to collect information relating to service providers providing Broadcasting services and Cable services.

Data Analytics and Cloud Services:

TRAI is endeavoring continuous effort towards data collection through

crowdsourcing & from respective service providers and creating meaningful insights & information. For this exercise concerted data analysis is being done using free/licensed tools & technology for internal report generations for various divisions of TRAI. Also majority of the TRAI applications are hosted on Cloud environment thus leveraging the opportunity of savings in terms of time and infrastructure costs.

Consumer Outreach:

In order to provide information regarding Consumer Outreach Programme (COP) conducted by TRAI across the country, new section in the TRAI website was introduced through which upcoming COP schedule can viewed along with other consumer centric information. On the same section consumers can view schedule of TRAI COPs and consumer education workshops being conducted by TSPs. TRAI advertisements published in newspapers, short films and radio jingles can also be downloaded or can be shared on social media from the consumer page itself.

(f) Implementation of National Telecom Policy

2.15.1. The National Telecom Policy 2012 has set the target of the broadband connection of 175 Million by the year 2017 and 600 Million by 2020. The broadband connections in the country at the end of March 2018 has reached 412.60

Million and the country in well on its way to achieve the target of 600 Million connections by the year 2020.

One of the objectives of the NTP 2012 is to strengthen the Grievance Redressal Mechanisms to provide timely and effective resolution. To address this issue, the Authority forwarded its recommendations on “Complaints/ Grievance Redressal in Telecom Sector” on 10th March 2017.

Further, the Department of Telecommunications (DoT) requested TRAI to suggest its policy inputs for formulation of National Telecom Policy – 2018. The Authority, after due consultation process, finalized its inputs for formulation the National Telecom Policy-2018 and forwarded to DoT.

(g) Quality of Service (QoS)

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

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

The regulations for Wireline, Cellular and Broadband provides the network and

customer parameters for compliance. On non-compliance of parameters, there is a provision for imposing Financial Disincentives on Service Providers.

The Quality of Service performance of service providers against the benchmarks are assessed through compliance reports submitted by service providers. The compliance reports for Cellular Mobile Telephone Services, Wireless Data Services, Basic services (Wireline) and Broadband services are submitted on a quarterly basis.

The QoS regulations were reviewed in 2017 and TRAI issued “The Standards of Quality of Service of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service (Fifth Amendment) Regulations, 2017” dated 18th August, 2017. The silent features of this regulations are as under:

- Revised methodology for assessment of Drop Call Rate (DCR) will be on percentile basis instead of existing methodology of average of call drop of all BTSs, which will remove the anomaly of averaging.
- Revised approach for DCR will give better insight into the network performance of service provider and will help to identify local areas where Cell(s) have not performed well for many days and also to identify Day(s) on which many cells in the network have not performed well.
- In the amendment regulations the existing two parameters on call drop

have been replaced with two new parameters.

- The new parameter DCR spatial distribution measure or DCR Network_QSD(90,90) (benchmark 2%) implies that at-least 90% of Cells in the network should perform better than specified 2% benchmark on at-least 90% of days.
- Similarly, another new parameter DCR temporal distribution measure or DCR Network_QTD(97,90) will give confidence that on at-least 90% of Days, network performed better than specified 3% benchmark for at-least 97% of the Cells.
- Graded financial disincentive for failure to comply with the benchmarks for the new parameters on call drop, with maximum financial disincentive capped at Rs.10 lakhs combined for both the parameters.

Before the issue of “The Standards of Quality of Service of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service (Fifth Amendment) Regulations, 2017” compliance reports for cellular mobile services were submitted separately for 2G & 3G networks. Under the new regulations, there are submitted for all the technologies together.

For ensuring compliance with the Quality of Service benchmarks and to protect the interests of the consumers, TRAI had prescribed 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 delay in submission of compliance report financial disincentives of Rs. 5,000/- per day. For false reporting, the financial disincentive is Rs. 10,00,000/- per parameter.

The details of the financial disincentives for Non-Compliance are given below:

Cellular Services

- 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.

Basic Services (Wireline)

For non-compliance with the benchmarks the financial disincentive is Rs. 50,000/- per parameter.

Broadband Wireless Services

For non-compliance with the benchmarks first instance the financial disincentive is Rs. 50,000/- per parameter and for alternate instance the financial disincentive is Rs. 1,00,000/- per parameter.

TRAI also undertakes audit and assessment of Quality of Service through independent agencies. The Audit and Assessment work was divided into two different ways and different tenders were floated to award the work. (1) For conducting Independent Drive Tests of Quality of service on zonal basis to M/s Phimetrics for all the four zones. (2) For conducting Audit and Assessment of Quality of service on zonal basis to M/s Phimetrics also for all the four zones. The IDT reports submitted by this IDT agency during the year 2017-18 were analysed and released on the website of TRAI for information of all stakeholders. The details of surveys are given in Part-III.

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 2017-18 on account of QoS regulations violations was Rs.2.18 crore. 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 IVR 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.

During the year 2017-18 TRAI has issued various Consultation Papers/Regulation/White Paper, relating to Quality of Service as detailed below:

- (i) Consultation Paper on Unsolicited Commercial Communication dated 14th September 2017.
- (ii) Consultation Paper on Voice Services to LTE users (including VoLTE and CS Fallback) dated 26th February 2018.
- (iii) The Standards of Quality of Service of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service (Fifth Amendment) Regulations, 2017” on 18th August, 2017.
- (iv) White Paper on Wireless Data Speed dated 5th February 2018.

TRAI had also issued Directions 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 regarding submission of compliance report of Quality of Service parameters & publishing of information relating to performance with respect to Quality of Service benchmarks on the website of service providers. TRAI had

also issued Directions 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) to service providers regarding unsolicited bulk SMSs relating to investment in securities market.

(h) Universal Service Obligation

2.17. The Authority made Recommendations for Support for Rural Wire-line Connections installed before 1st April 2002 vide its recommendations dated 14th May 2012. For the first year an amount of Rs.1500 Crore was recommended as support and for the year an amount Rs.1250 Crore was recommended.

Further vide its Recommendation dated 22nd July 2014, on “Improving Telecom Services in Andaman & Nicobar Islands and Lakshadweep”, the Authority forwarded a comprehensive telecom development plan for Andaman & Nicobar Islands and Lakshadweep.

In accordance with TRAI recommendation to Telecom Commission, an integrated and comprehensive telecom development plan for Andaman & Nicobar Islands and Lakshadweep was approved. As per the plan, CAPEX worth Rs. 2035 Crore will be funded by USO fund to provide submarine OFC connectivity with islands, Satellite bandwidth augmentation, seamless 2G coverage, and intra-island OFC network in Andaman & Nicobar Islands.

In 2016, the Union Cabinet approved the proposal to extend subsidy support of Rs.1250 crore to BSNL from the USOF as compensation for the deficit incurred by BSNL in operating rural wire-line connections installed prior to 1st April 2002.

In its recent recommendations dated 19th December 2016 on “Provisioning of free data”, the Authority has recommended that In order to bridge the affordability gap for the persons residing in rural areas and to support Governments efforts towards cashless economy by incentivizing digital means, a scheme of providing free data of approx 100 MB per month to rural subscribers for free may be launched and the cost of implementation of the scheme may be met from USOF.

ADVISORY

Advisory dated 7th November 2017 to all DTH Operators for Enabling Online Payment System using BHIM/UPI & Bharat QR code

2.18. On 7th November 2017, an advisory for all DTH Operators was released for all the DTH Operators for enabling online payment system using BHIM / UPI & Bharat QR code. The Advisory was issued for enabling digital payments for convenience to consumers as well as for service providers. The full text of the Advisory are available on TRAI’s website www.trai.gov.in.

Other Activities

Creating awareness among the consumers is part of TRAI's mandate and TRAI has always reached out to the consumers through conducting of Consumer Outreach Programmes across the country. The TRAI website also helps to disseminate relevant consumer related information. 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. TRAI is constantly working for enhancing consumer awareness about their rights and service related issues through educational/publicity material including media campaigns in the print and electronic media.

Consumer Outreach Programme (CoP)

2.19.1. During the year 2017-18, TRAI organized 85 Consumer Outreach Programmes (CoPs) across the country. State-wise list of CoPs organized by TRAI is given as annexure at the end of this part. This apart, 6 Regional Workshops for capacity building of TRAI registered Consumer Advocacy Groups were also organized at Bhopal, Jodhpur, Bodhgaya, Coimbatore, Gangtok and Manali. These workshops are aimed at empowering CAGs with adequate knowledge about major developments happening in the sector and about TRAI's consumer centric

initiatives. For knowledge enhancement of CAGs, the workshops also included an interactive session from experts on important areas/topics from 2017-18.

Seminars on Consumer Welfare and Consumer Education in the field of Telecommunications

2.19.2. The telecommunication network is being increasingly utilised for delivery of a large number of services like banking, commerce, media, education, health etc. The inroads made by telecom services into all walks of life have also given rise to new kinds of consumer issues and concerns. Keeping in this view, it was felt necessary to educate the consumers and create awareness among them about the new and emerging developments in the sector and also to address the consumer concerns and issues in the new services and technologies. With these objectives, a new initiative was taken and it was decided to organise 4 seminars in the FY 2017-18 on relevant topics in collaboration with stakeholders like CAGs, Central/State Government Departments, Reputed Educational Institutes, Research Organisations, Telecom Industry and other Industry/Service Sectors which uses telecom network as a key inputs for delivery of services etc.

Accordingly, 4 seminars on "Smart City & IOT", "Big Data Analysis & Cyber Security", "Consumer Protection in Digital Era" and

“Smart Phone Usage in Internet Age” were organised at Vishakhapatnam (Andhra Pradesh), Bangalore (Karnataka), Jaipur (Rajasthan) and Lucknow (Uttar Pradesh) respectively during the year 2017-18.

Media Campaigns

2.19.3 TRAI has undertaken media campaigns on several important issues of consumer interest for creating awareness among the consumers. Taking forward its media campaign, advertisements have been published on issues like ‘DND 2.0 App’, ‘Tower Fraud’ and ‘Myspeed App’ in leading newspapers in different languages across the Country. This apart, Radio spots/Jingles on “MyCall App” has been aired on FM Radio in several cities in different regional languages.

Registration of Consumer Advocacy Groups

2.19.4 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 interests of the consumers. Regional Offices of TRAI are interacting with the CAGs, coordinating their activities and helping them to sort out consumer related issues with the Service Providers. CAGs are actively participating in the CoPs and workshops organized in their respective areas. As on

31st March, 2018, 55 CAGs are registered with TRAI.

Broadcasting Sector

➤ Seminar on “Digital Broadcasting in India-way forward”

2.19.5 A two days seminar on “Digital Broadcasting in India-way forward” was organised on 4th May 2017 & 5th May 2017 at New Delhi. Many senior officers from different central ministries and organizations like Information & Broadcasting, Communications & IT, Prasar Bharti, All India Radio, BECIL along with service providers of broadcasting sector participated in the event.

➤ Workshop on “Solution Architecture for Technical Interoperable Set Top Box”

2.19.6 A workshop on “Solution Architecture for Technical Interoperable Set Top Box” was held in Delhi on 26th September 2017 at “Gulmohar” Habitat World, India Habitat Centre, Lodhi Road, New Delhi-110003.

➤ Open House Discussion (OHD) on Consultation Paper on “Issues related to Digital Radio Broadcasting in India”

2.19.7 An Open House Discussion (OHD) on Consultation Paper on “Issues related to Digital Radio Broadcasting in India” was held on 25th October, 2017 at “Tagore Chamber”, Scope Convention Centre, SCOPE Complex, Gate No. 18, 7, Lodhi Road, New Delhi-110003.

➤ **Open House Discussion on the Consultation Paper on “Ease of Doing Business in Broadcasting Sector”**

2.19.8 An Open House Discussion (OHD) on Consultation Paper on “Ease of Doing Business in Broadcasting Sector” was held on 1st November, 2017 at “Mirza Ghalib Chamber, SCOPE Convention Centre, SCOPE Complex, Gate no. 18, 7, Lodhi Road, New Delhi-110003.

➤ **Report on Activities**

2.19.9 A Report on Activities of TRAI from 1st January 2017 to 31st December 2017 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**

2.19.10. Agreement signed/proposals initiated with other Regulators

Letters of Intent (LoI)

- Letter of Intent (LoI) was signed between Malaysian Communications and Multimedia Commission (MCMC) and TRAI on 22nd August, 2017 at New Delhi, India.

➤ **Proposals with other Regulators which are in pipeline**

- MoU with Algeria Regulatory Authority for Post and Telecommunications, Algeria
 - Letter of Intent (LoI) with Australian

Communications & Media Authority (ACMA), Australia

- Letter of Intent (LoI) with Telecommunications & Radio-communications Regulator (TRR), Vanuatu

➤ **International Trainings / Meetings organized**

- SATRC Working Group Meeting on Spectrum was organized at New Delhi from 16 -17 May 2017.

- International Telecommunications Union (ITU) and TRAI jointly organized Asia Pacific Regulator Roundtable (RR) on 21-22 August, 2017 at New Delhi, India.

- International Telecommunications Union (ITU) and TRAI jointly organized International Training Programme (ITP) from 23-25 August 2017 at New Delhi, India.

- Joint Seminar on ‘Net Neutrality’ was organized by TRAI and National Telecommunications Regulatory Authority (NTRA), Egypt at Cairo, Egypt on 21st July, 2017.

➤ **Bilateral Meetings**

i. A ten member Moroccan delegation led by Mr. Nouredine Boutayeb, Minister of Interior of the Kingdom of Morocco visited TRAI on 30th October, 2017 at 1600 hrs for a bilateral meeting with Chairman TRAI.

ii. Mr. Houlin Zhao, Secretary General, ITU visited TRAI and addressed the officers of TRAI on 22nd November, 2017.

- iii. A delegation from Bangladesh Telecommunication Regulatory Commission (BTRC) visited TRAI for a bilateral meeting on 24th August, 2017.
 - iv. A delegation from United National Capital Development Fund visited TRAI on 5th September 2017 to discuss on Digital Payments Ecosystem.
 - v. A three member delegation from National Telecommunication Regulatory Authority (NTRA), Egypt visited TRAI on 22nd November, 2017 to have bilateral discussions.
 - vi. An eight member delegation from Malaysian Communications and Multimedia Commission (MCMC), Malaysia visited TRAI on 6th December, 2017 for a bilateral meeting.
 - vii. A three member delegation from Independent Communications Authority of South Africa (ICASA), South Africa visited TRAI on 22nd January, 2018 to gain understanding of community broadcasting licensing and regulation for both Television & Radio.
 - viii. A five member delegation from Ministry of Economy, Trade and Industry (METI), Japan visited TRAI on 22nd February, 2018 for a bilateral discussion with the Chairman, TRAI on “Indo-Japan Strategic Cooperation in Telecom Infrastructure”.
 - ix. A four member delegation from Electronics and Telecommunications Research Institute (ETRI), Korea visited TRAI on 27th February, 2018 to have discussion on Broadcasting issues.
 - x. A five member delegation from National Broadcasting and Telecommunication Commission (NBTC) visited TRAI for bilateral meeting on broadcasting issues on 16th March 2018.
- **Bi-lateral Meetings held during International Visits of Authority**
- i. A bi-lateral meeting was held with Mr. Brett Tarnutzer-GSMA Head of Spectrum during Asia-Pacific Digital Societies Policy Forum, held from 8-10 May 2017, at Bangkok, Thailand.
 - ii. A bi-lateral meeting was held with Ms Annela Kiirats, Head of e-Governance Training at the sidelines of Programme e-Governance projects, Digital technologies and Digital systems held from 29th – 30th June, 2017 at Estonia.
 - iii. A bi-lateral meeting was held with Mr. Tom Sullivan, Federation Communications Commission (FCC) new International Bureau Chief during Global Symposium for Regulators (GSR-17) held from 11-14 July 2017 at Nassau, Bahamas.
 - iv. Bilateral meetings were held during Forum of Innovative Financial Technologies FINNROPOLIS 2017 from October 5-6 at Sochi, Russia and International Institute of Communications (IIC) Annual Events, held from 9-12 October 2017 at Brussels with
- Mr. Alexey Kozyrev, Deputy Minister of Communications and Mass Media of the Russian Federation

- Ms. Susan Athey, Professor of economics, Stanford University, Member of the Board of Directors, Ripple;
- v. A bilateral meeting was held with Mr. Ajit Pai, Chairman FCC during Startup Bridge India leadership conference held from 4-8 December 2017 at United States.
- vi. Bi-lateral meetings were held with French Business Delegation, FCC and BEREC Global Leadership Team during GSMA Mobile World Congress, 26-28 February, Barcelona.
- vii. Bilateral meetings were held during Regional conference on “A New Economy for Middle East and North Africa Countries: Youth, Technology and Finance” held from 26 – 27 March 2018 at Algiers, Algeria and UNESCO-ITU Mobile learning week 2018 held from 28 – 30 March 2018 at Paris.
- Mr. Edward Scicluna, Minister of Finance of Malta.
- Mr. Abderrahmane Raouya, Minister of Finance, People’s Democratic Republic of Algeria.
- Mr. Parmesh Shah, Global Lead for Jobs, Agriculture Global Practice, World Bank Group.

Video Conferences held during the year

- With Federal Communications Commission (FCC), USA on 27th July, 2017 to discuss Spectrum related issues.

- With Body of European regulators for Electronic Communication (BEREC) on 29th November, 2017 to discuss issues related to Net Neutrality.
- With Federal Communication Commission (FCC) USA on 21st February 2018 to discuss Regulatory Principles of tariff.

Administrative, Legal and Financial Issues under consideration of the Department of Telecommunications (DoT)

2.20 In addition with the various matters discussed in the report, there are certain important issues under consideration of the 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

2.20.1 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.

Therefore, a comprehensive proposal for amendment in TRAI Act was sent to DoT on 3rd June 2016. Thereafter, certain information was sought by DoT which were also provided to them. Subsequently, several Meetings have been held between TRAI and DoT to finalise the proposed amendment in TRAI Act .

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

2.20.2 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 & Librarian, which were re-designated as Technical Officer and Section Officer, are to be deleted from Schedule-I of Rule 2002.

Further, for operating the posts of PCMO and Despatch Rider in TRAI, DoT had given in-principle approval vide letter No. 10-2/2004-Restg. dated 15th July 2004. These posts are to be included in Schedule-I of Rules, 2002. DoT was also requested vide letter No. 5-1/2009-A&P dated 5th

February, 2017 and reminders dated 5th November, 2014 & 27th November, 2014 to incorporate in Schedule I of the said Rules four grade of Drivers in compliance of the OM No AB-14017/10/2014-Estt (RR) (3104937) dated 4th July, 2014 of DoP&T containing Model Recruitment Rules for Drivers. Vide letter No. 5-1/2014-A&P dated 14th September, 2017, DoT has been requested to include in Schedule-I the above said posts and posts of Staff Officer, Technical Officer (Engineering) & Jr. Hindi Translator and to also rename the post of Group-'D' Attendant as Multi Tasking Staff in Schedule-I of the DoT Rules, 2002.

(iii) Medical facility to employees of TRAI after their retirement

2.20.3 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. In this regard, a reminder letter dated 23rd October, 2017 has been sent to DoT.

(iv) Issues relating to EL and HPL admissible to the Authority

2.20.4 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. Further, DoT was once again requested for amendment of the Rules vide letter No. 13-1/2014-A&P dated 8th May, 2017.

Annexure

**State Wise Details of COPs during the year
2017-18**

| S. NO. | State | Year 2017-18 |
|--------|--------------|--------------|
| 1 | Assam | Mangaldoi |
| 2 | | Shivasagar |
| 3 | | Karimganj |
| 4 | A.P. | Suryapet |
| 5 | Telangana | Tenali |
| 6 | | Vizianagaram |
| 7 | | Kadapa |
| 8 | | Bhongir |
| 9 | | Bhimavaram |
| 10 | Bihar | Kishanganj |
| 11 | | Darbhanga |
| 12 | Chhattisgarh | Korba |
| 13 | | Durg |
| 14 | Delhi | NLU-Dwarka |
| 15 | Gujarat | Navsari |
| 16 | | Vadodara |
| 17 | | Bhavnagar |
| 18 | | Dahod |
| 19 | | Patan |
| 20 | | Dwarka |
| 21 | Haryana | Palwal |
| 22 | | Sonipat |
| 23 | H P | Panchkula |
| 24 | | Dharamshala |
| 25 | | Kasauli |
| 26 | | Chamba |
| 27 | J&K | Leh |
| 28 | | Udhampur |
| 29 | Jharkhand | Hazaribag |
| 30 | | Dhanbad |

| S. NO. | State | Year 2017-18 |
|--------|-------------|---------------------------|
| 31 | Karnataka | Bangalore(B&CS) |
| 32 | | Ramnagara |
| 33 | | Mangalore |
| 34 | | Haveri |
| 35 | | Chikballapur |
| 36 | | Chikmangalur |
| 37 | Kerala | Neyyattinkar |
| 38 | M.P. | Panna |
| 39 | | Anuppur |
| 40 | | Burhanpur |
| 41 | | Ujjain |
| 42 | | Tikamgarh |
| 43 | | Datia |
| 44 | Maharashtra | Parbhani |
| 45 | | Hingoli |
| 46 | | Bhandara |
| 47 | | Latur |
| 48 | | Buldhana |
| 49 | | Akola |
| 50 | | Chandrapur |
| 51 | | Alibad |
| 52 | Gondia | |
| 53 | Meghalaya | Shillong |
| 54 | Manipur | Imphal |
| 55 | Nagaland | Kohima |
| 56 | | Jajpur |
| 57 | Odisha | Rourkela |
| 58 | | Jharsuguda |
| 59 | Punjab | Firozpur |
| 60 | | Tarantaran |
| 61 | | Shahid Bhagat Singh Nagar |
| 62 | Rajasthan | Tonk |
| 63 | | Boondi |

| S. NO. | State | Year 2017-18 |
|--------|------------|----------------|
| 64 | | Rajsamand |
| 65 | | Hanumangarh |
| 66 | Tamil Nadu | Teni |
| 67 | | Nagapattinam |
| 68 | | Tuticorin |
| 69 | | Tiruppur |
| 70 | | Viluppuram |
| 71 | | Tiruchirapalli |
| 72 | U. P. | Mirzapur |
| 73 | | Sultanpur |
| 74 | | Rampur |

| S. NO. | State | Year 2017-18 |
|--------|-------------|--------------|
| 75 | | Meerut |
| 76 | | Firozabad |
| 77 | | Sitapur |
| 78 | Uttarakhand | Srinagar |
| 79 | | Haldwani |
| 80 | West Bengal | Darjeeling |
| 81 | | Jhargram |
| 82 | | Barasat |
| 83 | | Alipurduar |
| 84 | | Haldia |
| 85 | | Coochbehar |



ITU-TRAI Asia-Pacific Regulators' Roundtable held during 21-22 August, 2017 in New Delhi



ITU-TRAI International Training Programme held during 23-25 August 2017 in New Delhi



Launch of TRAI Mobile Apps & Portal held on 5th June 2017 in New Delhi



OHD on Consultation Paper on Inputs for formulation of National Telecom Policy 2018 held on 17th January 2018



*Signing of Letter of Intent (LoI) with Malaysian Communications and Multimedia Commission (MCMC)
on 22nd August, 2017 at New Delhi*



Bilateral discussion held on 22nd February 2018 with delegation from Ministry of Economy, Trade and Industry (METI), Japan on “Indo-Japan Strategic Cooperation in Telecom Infrastructure”.

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 relatable 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 as follows.

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 2017-18 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:

➤ **The Telecommunication Tariff (Sixty Third Amendment) Order 2018.**

3.1.1.1 The Authority notified 'The Telecommunication Tariff (63rd Amendment) Order, 2018' on 16th February, 2018 on 'Regulatory Principles of Tariff Assessment' to ensure Transparency, Non-discrimination and Non-predation in telecommunication services.

The amendments clarify and bolster the provisions relating to the regulatory principles of tariff - Transparency, Nondiscrimination and Non-predation. Amendments deal with reporting requirements, guiding principles for checking transparency in tariff offers, definition of non-discrimination, adherence to the principle of non-predatory pricing, definition of predatory pricing, relevant market, assessment of significant market power (SMP) and other related provisions.

These amendments will be beneficial for the consumers and, telecom service providers also. As such, the transparency in tariff offers will be objectively observed by the telecom service providers vis-a-vis the guiding principles of transparency. Similarly, TRAI will also examine the tariffs of telecom

service providers on the touchstone of accessibility, accuracy, comparability and completeness. It will also take in account whether tariffs are distinct and identifiable, explicit and non-misleading, simple and unambiguous etc. This would ensure transparent offering of telecom tariffs to consumers.

Further, the definition of Non-discrimination provides a clear benchmark to telecom service providers to bring tariff offers to consumers on non-discriminatory basis.

The amendments relating to the definitions of SMP, Predatory Pricing etc would ensure fair play and healthy competition amongst the telecom service providers. This in turn would result in more 'value for money' for consumers.

The amendments provide greater clarity on aforementioned regulatory principles of enabling telecom service providers for designing their tariff in more innovative manner and also smoothly comply with the regulatory principles.

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 2017-18 are given below:-

- (i) Recommendations dated 16th May 2017 on "Adoption of e-KYC service UIDAI for Fixed-line, Internet and Broadband connections"
- (ii) Additional Recommendations dated 14th June 2017 on "Sale/Rent of International Roaming SIM Cards/Global Calling Cards of Foreign Operators in India"
- (iii) Recommendations dated 18th July 2017 on "Captive VSAT CUG Policy Issues"
- (iv) Recommendations dated 31st July 2017 on "Issues related to Closure of Access Services"
- (v) Recommendations dated 16th August 2017 on "Cloud Services"
- (vi) Recommendations dated 5th September 2017 on "Spectrum, Roaming and QoS related requirements in Machine-to-Machine (M2M) Communications"
- (vii) Recommendations dated 8th September 2017 on "Introduction of UL(VNO) for Access Service Authorization for Category B License with district of a State as a service area"
- (viii) Recommendation dated 23rd October 2017 on "Approach towards Sustainable Telecommunications"
- (ix) Recommendations dated 24th October 2017 on "Regulatory framework for Internet Telephony"
- (x) Recommendations dated 28th November 2017 on "Net Neutrality"

- (xi) Recommendations dated 30th November 2017 on “Ease of Doing Telecom Business”
- (xii) Recommendations dated 4th December 2017 on “Network Testing Before Launch of Commercial Services”
- (xii) Recommendations dated 19th January 2018 on “In-Flight Connectivity”
- (xiv) Recommendations dated 1st February 2018 on “Issues related to Digital Radio Broadcasting in India”
- (xv) Recommendations dated 2nd February 2018 on “Inputs for Formulation of National Telecom Policy”
- (xvi) Recommendations dated 26th February 2018 on “Ease of Doing Business in Broadcasting Sector”

The details of these Recommendations have already been discussed in Part-II of the 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 regulations were issued by TRAI during the reporting period:-

➤ Regulation dated 1st January, 2018 on “The Telecommunication Interconnection Regulations, 2018”

3.3.1 TRAI issued “The Telecommunication Interconnection Regulations, 2018”

(1 of 2018) dated 1st January, 2018 comprising of regulation on important aspects of interconnection e.g. interconnection agreement, provisioning of initial interconnection and augmentation of Points of Interconnection (POIs), interconnection matters. These regulations shall apply over all the service providers offering telecommunication services in India. These regulations came into effect from the 1st February, 2018.

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

3.4 Interconnection Usage Charges (IUC) regime is an essential requirement to enable subscribers of one service provider to communicate with subscribers of another service provider. Providing interconnection entails costs for which service providers need to be fairly compensated. The IUC regime not only determines the revenue accruable to the service providers but also how this revenue is to be distributed among them. An efficient interconnection and charging regime is central to efficient and seamless connectivity between various networks.

The Authority specified IUC for the first time in 2003. Subsequently, these charges have been revised through various amendments. These charges were further revised vide two regulations issued during the report period, as detailed below:

(i) The Telecommunication Interconnection Usage Charges (Thirteenth Amendment) Regulations, 2017 dated 19th September 2017 - Through these Regulations, the termination charge for wireless to wireless local and national long distance calls has been reduced from fourteen (14) Paise per minute to Six (6) Paise per minute for the period from 1st October 2017 to 31st December 2019 and thereafter charges has been reduced to zero.

(ii) The Telecommunication Interconnection Usage Charges (Fourteenth Amendment) Regulations, 2018 dated 12th January 2018 – Through this Regulation the Authority has reduced the termination charges payable by an International Long Distance Operator (ILDO), to the access provider in whose network the call terminates from Rs. 0.53 (paise fifty three only) per minute to Rs. 0.30 (paise thirty only) per minute.

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

3.6 During the report period, following directions were issued to Telecom Service providers to ensure compliance of the Terms and conditions of license:

➤ **Direction dated 18th August 2017 to submit monthly report on wireless subscriber base as per methodology prescribed by the Department of Telecommunications**

3.6.1 Department of Telecommunications had, in order to have a uniform subscriber base reporting, through letter dated 29th August, 2005, as amended vide letter dated 7th September, 2005, issued instructions to all licensees prescribing new methodology for reporting the subscriber base. It was, however, noticed that some of the Telecom Service Providers were not strictly following the afore-mentioned methodology prescribed by DoT for reporting of subscriber base. Therefore, a Direction was issued to all the TSPs on 18th August 2017 to submit monthly report on wireless subscriber base as per methodology prescribed by the Department of Telecommunications.

➤ **Directions dated 20th December 2017 to Aircel Ltd and M/s Dishnet Wireless Ltd. regarding facilitating MNP**

3.6.2 Direction was issued to all Access Service Providers, MNPSs and M/s Aircel Ltd in order to facilitate Mobile Number Portability for the subscribers of M/s Aircel Ltd pursuant to notice of surrender of License given under clause 10.3 of Unified Access Service in licensed service areas of Gujarat, Haryana, Himachal Pradesh, Madhya Pradesh, Maharashtra and Uttar Pradesh (West) by M/s Aircel Ltd. and M/s Dishnet Wireless Ltd w.e.f. 30th January 2018.

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

TRAI, with a view to enhance consumer education and awareness organises Consumer Outreach Programmes, Seminars, Workshops on Capacity Building of TRAI registered consumer organization and brings out consumer education material and undertake media campaigns. Programmes organized and campaigns undertaken during 2017-18 have been detailed in the Part-II of the report.

Auditing of Metering and Billing System

3.7.1 TRAI had 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 purpose of this amendment is 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.

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.

Steps taken to protect the Interest of the Consumers of Broadcasting Services

3.7.2 In order to protect the interest of the consumers, TRAI issued Standards of Quality of Services and Consumer Protection (Addressable System) Regulations 2017 applicable to broadcasting services related to television provided, through addressable systems, throughout the territory of India.

Further, during the period, an advisory for all DTH Operators was released for all the DTH Operators for enabling online payment system using BHIM/UPI & Bharat QR code. The Advisory was issued for enabling digital payments for convenience to consumers as well as for service providers.

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 and 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.

To facilitate competition and promote efficiency in the operation of telecommunications and Broadcasting services following steps were taken by TRAI in 2017-18:

TELECOM SECTOR

➤ **Recommendations dated 16th May, 2017 on "Adoption of e-KYC Service UIDAI for Fixed-line, Internet and Broadband Connections"**

3.8.1. Recommendations on "Adoption of e-KYC Service UIDAI for Fixed-line, Internet and Broadband Connections" has been sent to DoT on 16th May, 2017. DoT has prescribed Customer Application Form (CAF) for verification of new mobile connection using e-KYC services and for re-verification of existing mobile subscribers. So far this requirement has not been prescribed for the customers of Internet, Broadband as well as Fixed line.

As the Aadhar based e-KYC authentication is not only fast and reliable but may also result in substantial savings for the industry, the Authority recommended laying down an appropriate format (CAF) for verification/re-verification of all subscribers (including fixed line) availing Internet and Broadband services and adoption of Aadhar based e-KYC

service, similar to mobile connections, for their verification.

- **Authority's response to DoT reference dated 5th April, 2017 on the Authority's Recommendations dated 21st October, 2016 on "Violation of the provisions of License agreements and the Standards of Quality of Service of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service Regulations, 2009 by M/s Bharti Airtel Limited, M/s Vodafone India Limited and M/s Idea Cellular Limited**

3.8.2. The Department of Telecommunication on 5th April, 2017 has referred back the Authority's Recommendations dated 21st October, 2016 on "Violation of the provisions of License agreements and the Standards of Quality of Service of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service Regulations, 2009 by M/s Bharti Airtel Limited, M/s Vodafone India Limited and M/s Idea Cellular Limited to provide its reconsidered opinion in the light of comments/observations of the DoT.

The Authority, after due deliberations has finalized its response and forwarded the same to DoT on 24th May 2017.

- **Additional Recommendations 14th June, 2017 on 'Sale/Rent of International Roaming SIM Cards/ Global Calling Cards of foreign operators in India'**

3.8.3 The Department of Telecommunication on 10th March, 2017 requested the

Authority to intimate, if any, additional recommendations on "Sale/Rent of International Roaming SIM Cards/ Global Calling Cards of foreign operators in India" which was forwarded to DoT on 9th May, 2016, are planned to be submitted.

The Authority, after due deliberations has finalized additional Recommendations on 'Sale/Rent of International Roaming SIM Cards/ Global Calling Cards of foreign operators in India' and forwarded the same to DoT on 14th June, 2017.

- **Recommendations 24th October, 2017 on "Regulatory framework for Internet Telephony"**

3.8.4 TRAI had released its Recommendations on "Regulatory framework for Internet Telephony" on 24th October, 2017.

The salient features of the recommendations are:

- i. As per Authority's understanding of present Access service licences, Internet Telephony service is un-tethered from the underlying access Network. In other words, Internet Telephony Service can be provided by Access service provider to its subscriber who may be using Internet of other Access service providers. DoT should issue a clarification to the effect. If DoT has a different understanding, the Authority recommends that the DoT may issue amendment to Access service licences so that Internet Telephony service is un-tethered from the underlying access Network.

- ii. The UL (VNO) licensee with access service authorisation should also be allowed to provide un-tethered Internet Telephony in the designated service area.
- iii. Internet Telephony calls originated by International out roamers from international locations should be handed over at the International gateway of licensed ILDOs and International termination charges should be paid to the terminating access service provider. In case the Access provider is not able to ensure that Internet Telephony call originated outside of the country is coming through ILDO gateway, International out-roaming to Internet Telephony subscribers of the access provider should not be allowed.
- iv. The mobile numbering series should be used for providing Internet Telephony by a service provider. TSPs should be allowed to allocate same number to the subscriber both for Cellular Mobile service and Internet Telephony service.
- v. The SDCA linked numbering series may also be used for providing Internet Telephony by a service provider. However, in this case, mobility should be limited to consumer premises.
- vi. The access service licensee should use private ENUM in its network for Telephone number mapping from E.164 to SIP/H.323 addresses and vice-versa.
- vii. In case of provision of Internet Telephony by VNO with access service authorisation, the numbering resource

allocation should be done by the parent NSO.

- viii. The access service providers providing Internet Telephony service may be encouraged to facilitate access to emergency number calls using location services; however they may not be mandated to provide such services at present. The subscribers may be informed about the limitations of providing access to emergency services to Internet Telephony subscribers in unambiguous terms.
- ix. QoS on Internet Telephony may be left to the market forces. The service providers must inform QoS parameters supported by them for Internet Telephony so that the subscribers can take an informed decision. The Authority shall review the decision regarding mandating QoS to Internet Telephony service providers at appropriate time.

➤ **Authority's response to DoT's reference dated 25th September, 2017 on TRAI's Recommendations dated 19th December, 2016 on " Provisioning of free data"**

3.8.5 DoT, through its letter dated. 25th September 2017, had referred back certain Recommendations for reconsideration wherein TRAI had recommended making available 100 MB data per month to rural subscribers for free and funding the cost of implementation out of USOF. DoT had also sought more clarity on business model of the aggregator and consumer grievance redressal mechanism for aggregator related complaints.

After careful consideration of the contents of the letter dated 25th September, 2017, the Authority's response was finalized and submitted to DoT on 29th November, 2017.

3.8.6 A Consultation process on "Making ICT Accessible for Persons with Disabilities" was suo-moto initiated on 20th Dec, 2017 with the objective to identify key areas where policy interventions are needed to understand the barriers being faced by the PwDs in accessing the telecom and broadcasting services so that affirmative actions at policy level in the form of recommendations to the Government or formulation of regulation or advisory to equipment/service providers or a combination of these can be taken. The recommendations on the matter are presently being finalized.

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.

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. 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. Further, to encourage data usage in rural areas the Authority forwarded its Recommendations dated 19th December, 2016 on "Encouraging data usage in Rural Areas through provisioning of free data". In this recommendation, the Authority has recommended that the scheme may be funded through USOF.

k) Details of advice rendered to the Central Government in the matter relating to development of telecommunication technology and any other matter relatable 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:

(i) Recommendations dated 16th May 2017 on "Adoption of e-KYC service UIDAI for Fixed-line, Internet and Broadband connections"

- (ii) Additional Recommendations dated 14th June 2017 on “Sale/Rent of International Roaming SIM Cards/Global Calling Cards of Foreign Operators in India”
- (iii) Recommendations dated 18th July 2017 on “Captive VSAT CUG Policy Issues”
- (iv) Recommendations dated 31st July 2017 on “Issues related to Closure of Access Services”
- (v) Recommendations dated 16th August 2017 on “Cloud Services”
- (vi) Recommendations dated 5th September 2017 on “Spectrum, Roaming and QoS related requirements in Machine-to-Machine (M2M) Communications”
- (vii) Recommendations dated 8th September 2017 on “Introduction of UL(VNO) for Access Service Authorization for Category B License with district of a State as a service area”
- (viii) Recommendation dated 23rd October 2017 on “Approach towards Sustainable Telecommunications”
- (ix) Recommendations dated 24th October 2017 on “Regulatory framework for Internet Telephony”
- (x) Recommendations dated 28th November 2017 on “Net Neutrality”
- (xi) Recommendations dated 30th November 2017 on “Ease of Doing Telecom Business”
- (xii) Recommendations dated 4th December 2017 on “Network Testing Before Launch of Commercial Services”
- (xiii) Recommendations dated 19th January 2018 on “In-Flight Connectivity”
- (xiv) Recommendations dated 1st February 2018 on “Issues related to Digital Radio Broadcasting in India”

- (xv) Recommendations dated 2nd February 2018 on “Inputs for Formulation of National Telecom Policy”
- (xvi) Recommendations dated 26th February 2018 on “Ease of Doing Business in Broadcasting Sector”

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

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

(i) Reports received from service providers Basic and Cellular Mobile Services

3.12.1. TRAI monitors the performance of Basic and Cellular Mobile service against the benchmarks prescribed by TRAI through quarterly performance monitoring report (PMR) received from service providers in accordance with the above directions. 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.

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 improving the speed of Broadband.

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.

White Paper on Wireless Data Speed

TRAI issued a White Paper on Wireless Data Speed on 5th February, 2018. TRAI has taken various initiatives to bring transparency and empowerment to the consumers in this regard. One of the initiatives includes setting the benchmarks for wireless data networks and also assessing the network performance on a periodic basis. TRAI has also introduced mobile apps known as TRAI MySpeed App for the users to measure the broadband speed on their own and report back to TRAI. This paper provides more information about the test set up and methodologies behind the working of TRAI MySpeed app.

Key points of conclusion are:

- Measuring broadband speed is a complex process and the outcome depends upon both the test methodology and test conditions.
- Inferences and interpretation of results of test results are to be done keeping in mind the purpose for which these test process were designed and developed.
- Wide variations during the individual test of speed measurement may sometimes be observed because of network state and short time window of measurement. Individual user results in conjunction of results of network performance in area of concern with tests conducted at the moment may provide better picture about expected performance of broadband network.
- For comparing the results from various speed measurement app providers, all such providers need to make available

complete details of their methodologies and data processing in public domain so that various stakeholders including users can better understand and interpret them.

- Speed measurement at all India level may need to be presented with spatial and temporal distributions across districts and across different times of the day instead of presenting by a single value.
- Download throughput distribution graphs are highly asymmetric, it may require to be presented by five point summary as depicted in a box plot instead of only single value like mean or median.

TRAI MyCall App

The “TRAI MyCall App” is intended to measure the call quality through crowd sourcing. TRAI MyCall is an Android application for Crowd sourced Voice Call Quality Monitoring. The Application will help Mobile phone users rate their experience about voice call quality in real time and help TRAI gather customer experience data along with Network data. The app is intuitive and user friendly. A popup requests the user to rate the call after it ends. (The frequency of the popup can be configured by the users). Caller simply selects their rating in the form of stars and indicates if the calls were made in indoor, outdoor or while travelling. Callers can also provide additional details such as noise or audio delay or mark a call – drop, if they believe that’s how the call got terminated.

Assessment of Quality of Service through independent agencies

TRAI also monitors 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.

As part of the Independent Drive Test of Quality of Service, TRAI had undertaken extensive drive tests of mobile network in select cities through the independent agencies. The cities covered in these drive tests conducted by TRAI through independent Agencies are Kolkata, Amritsar, Agra, Surat, Patna, Chennai, Lucknow, Kanpur, Ranchi, Dhanbad, Hyderabad, Trivandrum, Nashik, Coimbatore, Rajkot, Guwahati, Jodhpur, Vadodara, Dehradun, Allahabad, Jabalpur, Warangal, Thrissur, Goa, Pune, Bangalore, Agartala, Asansol, Bhiwani, Kota, Indore, Raipur, Pondicherry, Vijaywada, Bhubneswar, Kozhikode, Nagpur, Mysor, Aizwal, Itanagar, Ahmedabad, Gwalior, Nashik, Belagaum, Jamshedpur, Kohima and Imphal. In addition the above cities, TRAI conducted Drive Tests through independent Agencies on National Highways between Ahmedabad-Mumbai, Indore-Bilaspur, Bhubneswar-Kharagpur-Tatanagar, Howrah-Dhanbad-Gaya, Dibrugarh-Dimapur-Guwahati and Delhi - Chandigarh & on Train Routes between Jaipur-Kota, Lucknow-Gorakhpur-Allahabad, Hyderabad-Bangalore, Bangalore-Belgaum, Patna-Hazaribagh-Ranchi, Silchar-Shillong-Guwahati and Belgaum-. The results of these drive tests are available on TRAI Analytic Portal of TRAI website.

Assessment of customer perception of service through IVR 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 IVR Survey is being awarded as a pilot project in Delhi, Madhya Pradesh and Karnataka. The IVR survey work awarded to the independent IVR survey agency namely M/s Vivaconnect Pvt. Ltd. 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 completed during the year and report is available on TRAI website.

As per the methodology of the IVR survey, IVR survey questionnaire has been framed to assess customer perception service relating to five 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, data speed, call charges, Tariff plan and UCC regulation. The respondent were asked to rate their satisfaction on a scale of 1-5 , where 1

and 2 response will be considered as 'dissatisfied', 3 will be neutral and 4 & 5 will be satisfied customers and N is the total sample size achieved.

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

m) Inspection of equipment used in the network and recommendation made on the type of equipment to be used by the service providers

3.13 The specific steps taken under this head during the report period are as under:

➤ Recommendations dated 4th December 2017 on "Network Testing Before Launch of Commercial Services"

3.13.1 The Telecom Service Providers (TSPs) are required to install applicable systems for providing mobile services to the subscribers. A TSP has to ensure that its service meets the Quality of Service (QoS) standards prescribed by the Department of Telecommunications (DoT) and Telecom Regulatory Authority of India (TRAI). Therefore, it is important that all applicable systems are tested before commencement of commercial service. DoT, through its letter dated 9th September 2016, requested the Authority to provide its recommendations on testing of network before commercial launch of services including enrolment of customers for testing purposes before commercial launch, duration of testing

period etc. In this regard, a consultation paper was released on 1st May 2017, wherein various issues involved and the possible framework to bring clarity on the matter were discussed and the stakeholders were requested to provide their comments and counter-comments. Based on the comments received and internal analysis, TRAI has finalized its recommendations on “Network Testing Before Launch of Commercial Services” and sent to DoT on 4th December 2017. The details of the recommendations are elaborated in Part-II of the report.

➤ **Consultation Paper dated 18th September 2017 on “Promoting Local Telecom Equipment manufacturing”**

3.13.2 The Authority issued a Consultation Paper on 18th September 2017 on “Promoting Local Telecom Equipment Manufacturing”. The consultation paper is issued with the following objectives:-

- (a) To identify the policy measures required to boost Innovation and productivity of local Telecom manufacturing in India.
- (b) Examine the existing patent laws in context of promoting local manufacturers.
- (c) Examine the issues of Standardization, Certification and Testing of Telecom Equipments and suggest a framework for improvement to support local telecom equipment manufacturing.

- (d) Examine issues related to IPR affecting the local telecom equipment manufacturing industry.
- (e) Examine the current fiscal incentives to promote the local telecom manufacturing and recommend measures for implementation in the future.
- (f) Identify measures to be taken to attract foreign investment for setting up establishments in India.

Based on the outcome of the Consultation Process, Recommendations will be formulated on this issue.

➤ **Consultation Paper dated 20th December 2017 on “Making ICT Accessible for Persons with Disabilities”**

13.13.3 A Consultation process on “Making ICT Accessible for Persons with Disabilities” was suo-moto initiated on 20th December 2017 with the objective to identify key areas where policy interventions are needed to understand the barriers being faced by the PwDs in accessing the telecom and broadcasting services so that affirmative actions at policy level in the form of recommendations to the Government or formulation of regulation or advisory to equipment/service providers or a combination of these can be taken. The recommendations on the matter are presently being finalized.



PART – IV

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



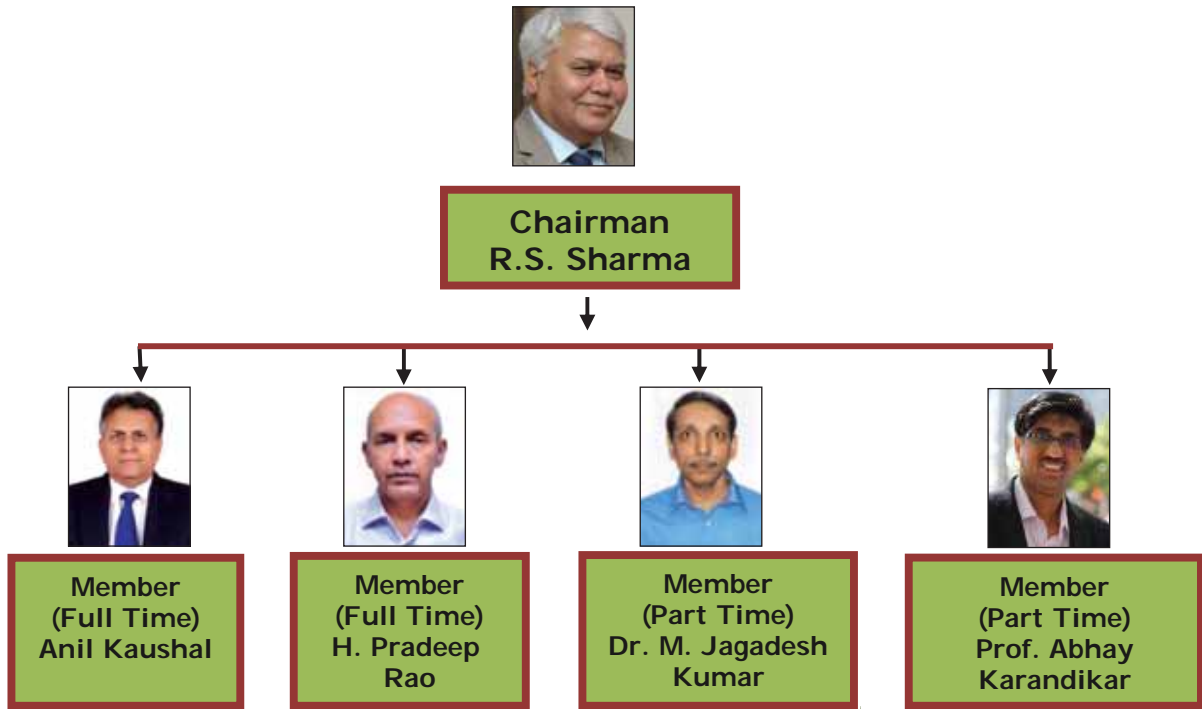
A) ORGANIZATIONAL MATTERS OF TELECOM REGULATORY AUTHORITY OF INDIA

A) Organizational matters of Telecom Regulatory Authority of India

4.1. This section provides information on organizational matters of TRAI relating particularly to organization structure, funding, human resources covering the areas of recruitment, capacity building and other general issues.

(a) ORGANISATION

4.2. The Telecom Regulatory Authority of India was established under the Telecom Regulatory Authority of India Act, 1997 enacted on 28th March, 1997. 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 shall, by the said name, sue or be sued. 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, that are appointed by the Central Government. The head office of the Authority is at New Delhi. The constitution of the Authority as on 31st March 2018 was as indicated in next page:



(b) SECRETARIAT OF TRAI (HQ)

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

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

ADMINISTRATION & INTERNATIONAL RELATION DIVISION

4.4. 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 for the Authority's use. Administration Division has the responsibility of management and control of activities of Administration & Personnel Section (A&P), General Administration Section (GA), Communication & Public Relation (Comm. & PR) Section, OL Section, Management Representative and RTI (MR&RTI) Section. The Division also handles International relations which includes coordination with all International Organizations / Bodies viz International Telecommunication Union (ITU), Asia Pacific Telecommunity (APT), World Bank, World Trade Organization (WTO), Asian Development Bank (ADB), South Asian Telecommunication Regulator's Council (SATRC), Organisation for Economic Cooperation and Development (OECD) and Regulatory Bodies in other countries.

BROADCASTING & CABLE SERVICES (B&CS) DIVISION

4.5. The Broadcasting and Cable Services (B&CS) Division is responsible for advising the Authority to lay down the overall regulatory framework; encompassing tariff, interconnection and quality of services aspects; for the broadcasting sector including broadcasting of satellite TV channels, Direct to Home (DTH) services, Cable TV services, Head-end in the Sky (HITS) services, Internet Protocol Television (IPTV) services, FM Radio broadcasting etc. The division is also responsible for examining the issues relating to modernization/ digitalisation of the broadcasting sector and making recommendations on various policy issues and terms & conditions of licenses/ permissions issued by the Government to various service providers in broadcasting sector. The division advises the Authority regarding the measures required to protect the interests of all the stakeholders of the broadcasting sector, which include facilitation of consumer choice, availability of services of desirable quality at affordable prices and promoting competition.

FINANCIAL & ECONOMIC ANALYSIS (F&EA) DIVISION

4.6. 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.

NETWORKS, SPECTRUM AND LICENSING (NSL) DIVISION

4.7. The Network, Spectrum and Licensing (NSL) Division is responsible for fixing the terms and conditions of Interconnection, ensuring effective interconnection between various Telecom Service Providers, handling of all interconnection issues including determination of Interconnect Usage Charges (IUC) and regular review thereof. The interconnection issues of Submarine Cable Landing Stations are also handled by the Division. Further, the Division is responsible for making recommendations on matters related to license conditions of Access Services including Internet/Broadband, National Long Distance (NLD) Service, International Long Distance (ILD) Service, Mobile Radio Trunking Service and value added services such as Audio Conferencing/ Audiotex/ Voice Mail. The Division also provides recommendations on efficient

management of spectrum including its refarming. The Division is also responsible for providing recommendations on matters related to introduction of new technologies and services. The matters related to Infrastructure Sharing, Sustainable Telecommunications and Radio Communications Systems for Public Protection & Disaster Relief (PPDR) are also handled. The Division also deals with issues related to National Numbering Plan, Intelligent Network (IN) Service and Calling Cards.

The Division monitors compliance of license conditions by service providers for all type of services mentioned above. The Division handles recommendations on issues related to Universal Service Obligation (USO) and all related matters. The Division also regulates Mobile Number Portability (MNP) and ensures its compliance.

QUALITY OF SERVICE (QoS) DIVISION

4.8. QoS 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

4.9. Legal Division is responsible for rendering legal advice to the Authority on all regulatory issues, drafting and vetting of

all legal documents. The Division manages all litigation matters in which TRAI is a party.

CONSUMER AFFAIRS & INFORMATION TECHNOLOGY (CA & IT) DIVISION

4.10. **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 the division include organizing consumer education/outreach programmes, capacity building of consumer organizations registered with TRAI by organising regional workshops & seminar on relevant topics, undertake media campaigns, developing and publishing consumer education material in Hindi, English and regional languages for enhancing consumer education etc.

Information Technology (IT) Division:

The role of an IT department is important in the success of any organization. The IT division in TRAI is responsible for catering IT needs of various divisions like analytics & visualization of data, implementation & maintenance of various portals & TRAI website, web applications, mobile app development, video conferencing etc. TRAI's IT division also maintains

computer hardware assets and LAN setup of TRAI.

IT Division is also conducting technical sessions, on monthly basis, from eminent persons in their respective fields, so as to create awareness regarding new technology trends and capacity building among officers of TRAI. The division is also publishing monthly technical information paper in the form of 'Technology Digest' for spreading knowledge in telecom and broadcasting domain.

(c) HUMAN RESOURCES

4.11. A staff of 182 (as on 31st March, 2018) 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.

(i) Staff strength of TRAI HQ (as on 31st March, 2018)

4.12. As on 31st March, 2018, the Staff strength of the TRAI (Headquarters) was as under:

| S. No. | POSTS | SANCTIONED | ACTUAL |
|--------------|---------------------------------|------------|------------|
| 1. | SECRETARY | 01 | 01 |
| 2. | PR. ADVISOR | 14 | 13 |
| 3. | ADVISOR | | |
| 4. | JT. ADVISOR | 25 | 21 |
| 5. | DY. ADVISOR | 10 | 10 |
| 6. | SR. PR. PRIVATE SECRETARY | 03 | 03 |
| 7. | SR. RESEARCH OFFICER | 35 | 23 |
| 8. | PRINCIPAL PRIVATE SECRETARY | 05 | 04 |
| 9. | TECHNICAL OFFICER | 12 | 12 |
| 10. | TECHNICAL OFFICER (ENGINEERING) | 5 | 0 |
| 11. | SECTION OFFICER | 20 | 16 |
| 12. | PRIVATE SECRETARY | 12 | 11 |
| 13. | ASSISTANT | 48 | 36 |
| 14. | PERSONAL ASSISTANT | 18 | 08 |
| 15. | JR. HINDI TRANSLATOR | 01 | 00 |
| 16. | LDC | 07 | 02 |
| 17. | DRIVER SPECIAL GRADE | 01 | 00 |
| 18. | DRIVER GRADE-I | 04 | 02 |
| 19. | DRIVERS GRADE-II | 04 | 04 |
| 20. | DRIVERS ORDINARY GRADE | 04 | 05 |
| 21. | PCMO | 02 | 02 |
| 22. | DESPATCH RIDER | 01 | 01 |
| 23. | ATTENDANT | 05 | 08 |
| TOTAL | | 237 | 182 |

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

| SL. NO. | NAME OF THE OFFICER/ POST HELD | |
|---------|--|---|
| 1 | Sh. Sunil Kumar Gupta Secretary |  |
| 2 | Sh. U.K. Srivastava Principal Advisor (NSL) |  |
| 3 | Sh. Sunil Bajpai Principal Advisor (CA, QOS & IT) |  |
| 4 | Sh. S.K. Mishra Principal Advisor (F&EA) |  |
| 5 | Sh. Debkumar Chakrabarti Principal Advisor (B&CS) |  |
| 6 | Sh. Sanjeev Kumar Sharma Advisor (Admn. & IR) |  |
| 7 | Sh. Anil Kumar Advisor (B&CS)-I) |  |

| | | |
|----|--|---|
| 8 | Sh. Sunil Kumar Singhal Advisor (BB&PA) |  |
| 9 | Sh. Sanjeev Banzal Advisor (CA & IT) |  |
| 10 | Sh. Arvind Kumar Advisor (B&CS)-I |  |
| 11 | Sh. S.T. Abbas Advisor (NSL)-II |  |
| 12 | Sh. Rajiv Ranjan Tiwari Advisor (Legal) |  |
| 13 | Sh. Asit Kadayan Advisor (QoS) |  |
| 14 | Sh. Kaushal Kishore Advisor (F&EA) |  |
| 15 | Vacant Advisor (F&EA) |  |

4.14. TRAI personnel are mostly drawn 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

4.15. 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 /Departments / PSUs. 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 the reason

that 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

4.16. 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 are to be identified / designed and run to meet the specific needs of TRAI. The Authority sponsors its officers for international trainings for further developing their expertise within the organization.

4.17. 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. TRAI personnel were deputed for various domestic training programmes which include “Digital Transformation through e-governance” conducted through NPC, New Delhi, “Public Procurement” through NIFM, Faridabad, “Collaborative Regulation for Digital Societies” through ITU-TRAI, New Delhi, “Leadership & Performance Excellence” through NPC, New Delhi, “Goods and Service Tax (GST)” through NIFM, Faridabad, etc.

4.18. 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. 57 personnel of TRAI were deputed, for various such workshop cum Training programmes, inter alia, including those on “Effective Policy Framework for changing Digital Landscape in India” through GSMA, London, “Prevention of Sexual Harassment at Work Place” through JWP-India.

(iv) Seminar/Workshops

4.19. In order to keep pace with the developments taking place globally, the Authority has deputed members of its staff to various international events,

meetings and symposia which has not only helped gather valuable feedback/ inputs for its own policy formulation but also to keep abreast with the latest development in the fields of technology. This has also helped to bring International focus on the issues of major regulatory concerns in India and other similarly placed countries, thus enabling India to play a leading role in emerging global information society.

v) Office accommodation

4.20. 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. A proposal for procurement of 1,30,000 Sq. ft. of built-up Office Space for TRAI in NBCC commercial complex at Nauroji Nagar, New Delhi has been sent for consideration of Government of India through Deptt. of Telecommunication.

A Conference Hall with seating capacity between 70 and 80 persons for conducting Open House Discussions (OHDs), Meetings and workshop/training, is now

operational after taking over additional space from MTNL.

vi) Residential quarters for TRAI staff

4.21. 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 to the officers and staff, after they get absorbed in TRAI.

Arrangement for providing accommodation to the employees of TRAI has been made by signing MoU with MTNL/BSNL.

(d) Funding

4.22. TRAI is an autonomous body set up by the Act of Parliament. It is wholly funded by grant received from the Consolidated Fund of India. As per section 22(1) a & b of the TRAI Act 1997, there shall

be constituted a fund to be called the Telecom Regulatory Authority of India general fund and there shall be credited there to all grants, fees and charges received by the Authority under this act; and all sums received by the Authority from such other sources as may be decided upon the Central Government.

The total expenditure on the functioning of TRAI in the year 2017-18 was Rs. 93.20 crores on revenue head. The major expenditures for functioning of TRAI include expenses on salaries, rent, professional fees to senior advocates, training and consultancies.

4.23. 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

4.24. 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 2017-18) are as follows:-

| S.NO | Location of the 6 TRAI Regional Offices | License Service Areas covered by each Regional Offices |
|------|---|--|
| 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, Gujarat, Haryana, Punjab, |
| 6 | Delhi | Delhi, Himachal Pradesh, Jammu & Kashmir |

Staff strength of TRAI Regional Offices (as on 31st March, 2018)

4.25. As on 31st March, 2018, the Staff strength of the TRAI (Regional Offices) was as under:

| SL. NO. | POSTS | SANCTIONED | WORKING |
|--------------|-------------------------|------------|-----------|
| 1. | ADVISORS | 06 | 04 |
| 2. | JT. ADVISOR/DY. ADVISOR | 12 | 09 |
| 3. | SR. RESEARCH OFFICER | 12 | 10 |
| 4. | ASSISTANT | 06 | 3 |
| TOTAL | | 36 | 26 |

4.26. Details of Advisor level officers in TRAI Regional Offices (as on 31st March, 2018)

| Sl. No. | Location of Regional Office | NAME OF THE OFFICER (S/SHRI/SMT.) | POST |
|---------|-----------------------------|-----------------------------------|--------------|
| 1. | Kolkata | Souvick Kumar Das | Advisor |
| 2. | Hyderabad | Vacant | Advisor |
| 3. | Bhopal | Arvind Sinha | Pr. Advisor* |
| 4. | Bengaluru | Shreenivas S. Galgali | Advisor |
| 5. | Jaipur | Bhavana Sharma | Advisor |
| 6. | Delhi | Vacant | -- |

*With effect from 9th March, 2017 on personal basis.

4.27. 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;
- x) Monitoring of registration of MSOs/LCOs on the portal and validity of registration of LCOs; and
- xi) 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

4.28. During the year 2017-18, 1245 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

4.29. TRAI had been awarded ISO 9001:2000 certification in December 2004 by Bureau of Indian Standards (BIS). The same was renewed four times in the year 2007, 2010, 2013 and 2016 with the validity period of three years. The present series of ISO Standards IS/ISO 9001:2008 certification has been awarded to

Telecom Regulatory Authority of India for a validity period upto September 2018. To evaluate the implementation and effectiveness of Quality Management System (QMS) in TRAI, BIS has conducted surveillance audit once every year and four 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. The work for issue of new series of certification for IS/ISO 9001:2015 is under process. A training programme on "Awareness on Transition to IS/ISO 9001:2015" was also conducted during 5th to 6th February 2018.

(h) Implementation of Official Language Policy

4.30. 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.

4.31. 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 also taken to gear up the work relating to Official Language. During the period of the report, 4 meetings of OLIC were held on 30th June, 2017, 29th September, 2017, 30th December, 2017 and 28th March, 2018.

4.32. In compliance with the directives received from Department of Official Language (Ministry of Home Affairs) and Department of Telecommunications, "Hindi Pakhwara" was organized in TRAI from 1st September 2017 to 15th September 2017 during which various Hindi competitions viz. Hindi essay writing, dictation, extemporization, Glossary of Terms, 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.

4.33. In order to increase the progressive use of Hindi in day-to-day official work, an annual incentive scheme viz. Varshik

Protsahan Yojana has been introduced in TRAI for officers / employees for the last nine 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.

4.34. 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 20th June, 2017, 25th September, 2017, 18th December, 2017 & 26th February, 2018.

(i) Implementation of reservation prescribed for reserved categories

4.35. 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/Director has been appointed.



Quarterly workshop on Hindi held on 26th February 2018 for effective implementation of Rajbhasha



Third International Yoga day held in TRAI on 21st June 2017



Swachta Pakhwada held in TRAI on 11th July 2017



The Authority during the felicitation function of the award winners of Hindi Pakhwada and Annual Sports competition held on 15th November 2017

B) AUDITED ACCOUNTS OF TRAI FOR THE YEAR 2017-18

Separate Audit Report of the Comptroller & Auditor General of India on the Annual Accounts of Telecom Regulatory Authority of India for the year ended 31st March 2018

1. We have audited the attached Balance Sheet of the Telecom Regulatory Authority of India as on 31st March 2018 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.

5. GRANTS IN AID

Out of the grants in aid of Rs. 100.00 crore (including unspent balance of Rs. 10.13 crore of the earlier year) received during the year, TRAI utilised a sum of Rs 92.42 crore, leaving a balance of Rs. 17.71 crore, as unutilised grant as on 31st March 2018.

- 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 of the state of affairs of the Telecom Regulatory Authority of India as on 31 March 2018; and
 - b. In so far as it relates to the Income and Expenditure Account of the Surplus for the year ended on that date.

Sd/

(Sangita Choure)

Director General of Audit
(Post and Telecommunications)

Annexure-I to Separate Audit Report on the accounts of Telecom Regulatory Authority of India for the year ended 31 March 2018

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 :

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 and it was decided that internal auditor will report to Secretary TRAI. Thereafter the 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. Internal Audit Report for the year 2017-18 was approved by Secretary TRAI.

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 TRAI is not 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) Checking whether recoveries and deductions made from the bills are in order, correctness and accuracy of calculations;
- (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.

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.

System of physical verification of fixed assets

The **Registers of Fixed Assets** are maintained manually as well as in computerized form. Physical verification of assets/stores is being conducted annually.

In our opinion, the System of physical verification of fixed assets of the organization is adequate and commensurate with its size and the nature of its functions.

System of physical verification of inventory

Proper records of inventory have been maintained. The physical verification of inventory for the year 2016-17 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.

Regularity in payment of statutory dues

There was no disputed amount payable in respect of any other statutory dues including Contributory Provident Fund.

Sd/
(Rajesh Ranjan)
Director (AMG-I)

Brief Note on Internal Control System in Telecom Regulatory Authority of India 2017-18

An evaluation of the Internal Control System existing in Telecom Regulatory Authority of India (TRAI) was done during the course of certification of the annual accounts of TRAI for the year 2016-17 and the report on the same is furnished below:

1. Organizational Setup

The Authority consists of a Chairperson, two whole-time Members and two part-time Members, who are assisted by the Secretary in discharging their functions. The Secretariat of TRAI is headed by the Secretary and works through six functional divisions, viz. Network, Spectrum and Licensing; Consumer Affairs & Quality of Service (CA & QoS); Financial and Economic Analysis (F&EA); Administration and Personnel (A&P); Legal; Broadcasting and Cable Services (B&CS) and Technology division (TD). Each of these divisions is headed by a Principal Advisor/Advisor and they report to the Secretary. Each Principal Advisor/Advisor is assisted by Deputy Advisors or Joint Advisors, who in turn are assisted by the respective Senior Research Officers.

2. Policies and Procedures

The policies and procedures for appointment of staff/officers, fixation of pay, extension of terms of consultants, settlement of personal claims, TA claims, training and study tours of officers and staff and regulations on various matters are framed according to provisions contained in the TRAI Act.

3. Scope and independence of Internal Audit

TRAI has its own Internal Audit division headed by Technical Officer 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. Internal Audit Report for the year 2016-17 was approved by Secretary TRAI.

4. Receipts and Disbursement of Cash

The work relating to receipt and disbursement of cash is done by the Cashier under the supervision of the Senior Research Officer (Finance). The Cash Book remains under the custody of the Cashier and the physical verification of cash is being regularly done. The maximum limit of the cash balance, as prescribed by the Authority, is being maintained.

5. Maintenance of Funds (Plan/ Non-Plan)

Till the financial year 2016-17, TRAI was maintaining two types of funds – one is Plan Fund and the other is Non-Plan Fund. The expenditure pertaining to each fund was met from the respective funds and the books of accounts were also maintained separately. But vide TRAI was informed by DoT vide letter No.1-15/2016-B dated 27.04.2017 that Ministry of Finance has changed the policy for project/allotment of funds from Plan and Non Plan Funds under Revenue /Capital from BE 2017-18. Therefore allocation/projection of funds under Revenue and Capital Section instead of Plan and

Non-Plan is required to be made henceforth. No Capital Grant has been received by TRAI in the Financial Year 2017-18.

6. TRAI General Fund

TRAI General Fund is maintained by Department of Telecommunications (DOT). Grants from the Government of India to TRAI under Plan and Non Plan heads are credited to this fund separately. Expenditure of TRAI is met out of the release of grants by DOT under plan and non plan fund and utilization certificates in respect of grants released are furnished by TRAI to DOT. The balance in the TRAI general fund with DOT is shown in the accounts of TRAI under the head "Advance and other amounts recoverable in cash or in kind or for value to be received on Capital Account" under Current Assets, Loans and Advances (Schedule-11) in the Balance Sheet. Confirmation of the balance in the fund and reconciliation with DoT for the year 2017-18 has not been done.

7. Fixed Assets

The Registers of Fixed Assets are maintained manually as well as in computerized form. Physical verification of assets/stores is being conducted annually.

8. Receipts and Receivable/disbursement of cash

All sanctions of the competent authority, which are forwarded to the Finance Division for payment, are checked with the existing rules/orders, approval of the Competent Authority, availability of funds under the allocation of Head of Accounts, etc. and final orders for payment are issued accordingly. Orders of authority which is not in consonance with GOIs decisions/orders are rectified by the Finance.

9. Pay Rolls/ Loans and Advances to individuals

The salary/ loans and advances of the TRAI employees are being prepared and paid as per the provisions contained in the orders issued by the Government of India from time to time.

10. Bank Balance / Bank Reconciliation

Cheques are issued on the basis of sanctions received from the respective Divisions. TRAI is maintaining a Cheque Issue Register in which the details of cheques issued and received are entered. Bank Reconciliation Statements are prepared on a monthly basis. Funds received through Government grants are kept in Current Account in Bank.

11. Register of HBA/MCA/Computer/Scooter advance

HBA/MCA/Computer/Scooter advances are being paid to its employees by TRAI. While making payments of these advances to its employees, TRAI has been considering the debit balances of the parent/previous offices of the employees who took absorption.

Sd/
(Rajesh Ranjan)
Director (AMG-I)

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)
TELECOM REGULATORY AUTHORITY OF INDIA
BALANCE SHEET AS AT 31-03-2018



| | | REVENUE | |
|---------------|--|---------------------|----------------------|
| | | 2017-18 | 2016-17 |
| 1 | CORPUS/CAPITAL FUND | | 52,33,50,597 |
| 2 | RESERVES AND SURPLUS | (8,19,98,757) | |
| 3 | EARMARKED/ENDOWMENT FUNDS | | |
| 4 | SECURED LOANS AND BORROWINGS | | |
| 5 | UNSECURED LOANS AND BORROWINGS | | |
| 6 | DEFERRED CREDIT LIABILITIES | | |
| 7 | CURRENT LIABILITIES AND PROVISIONS | 41,28,66,474 | 49,96,34,422 |
| | TOTAL | 33,08,67,717 | 102,29,85,019 |
| ASSETS | | | |
| 8 | FIXED ASSETS | | 7,95,98,854 |
| 9 | INVESTMENTS-FROM EARMARKED/ENDOWMENT FUNDS | 9,60,03,048 | |
| 10 | INVESTMENTS-OTHERS | | |
| 11 | CURRENT ASSETS, LOANS, ADVANCES ETC | 23,48,64,669 | 94,33,86,165 |
| | MISCELLANEOUS EXPENDITURE (to the extent not written off or adjusted) | | |
| | TOTAL | 33,08,67,717 | 102,29,85,019 |
| 24 | SIGNIFICANT ACCOUNTING POLICIES | | |
| 25 | CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS | | |

Sd/-
Chairperson

Sd/-
Member

Sd/-
Secretary

Sd/-
Pr. Advisor (F&EA)

**FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)
TELECOM REGULATORY AUTHORITY OF INDIA
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31-03-2018**

| | Schedule | REVENUE | |
|---|----------|-------------------------|--------------------------|
| | | Current Year 2017-18 | Previous Year 2016-17 |
| INCOME | | | |
| Income from Sales/Services | 12 | | |
| Grants/Subsidies | 13 | 100,03,96,000 | 73,00,00,000 |
| 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 | | |
| Other Income | 18 | 3,92,449 | 40,60,160 |
| Increase (decrease) in stock of Finished goods and works-in-progress | 19 | | |
| TOTAL (A) | | 100,07,88,449 | 73,40,60,160 |
| EXPENDITURE | | | |
| Establishment Expenses | 20 | 41,68,47,773 | 31,41,33,702 |
| Other Administrative Expenses etc | 21 | 50,44,03,030 | 45,87,16,872 |
| Expenditure on Grants, Subsidies etc | 22 | | |
| Interest | 23 | | |
| Depreciation (Net Total at the year end-corresponding to Schedule 8) | | 1,07,67,990 | 1,21,68,065 |
| TOTAL (B) | | 93,20,18,793 | 78,50,18,639 |
| 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 | | 6,87,69,656 | -50,958,479 |
| SIGNIFICANT ACCOUNTING POLICIES | | | |
| CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS | | | |
| | 24 | | |
| | 25 | | |
| | | Sd/- | Sd/- |
| | | Pr. Advisor (F&EA) | Chairperson |
| | | Sd/- | Sd/- |
| | | Secretary | Member |

**FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)
TELECOM REGULATORY AUTHORITY OF INDIA
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2018**

SCHEDULE I - CORPUS/CAPITAL FUND

| | REVENUE | |
|---|-------------------------|--------------------------|
| | Current Year 2017-18 | Previous Year 2016-17 |
| Balance as at the beginning of the year | 52,33,50,597 | 107,44,98,135 |
| Add:/Less Contributions towards Corpus/Capital Fund | (67,41,19,010) | (50,01,89,059) |
| Add/(Deduct): Balance of net income/(expenditure) transferred from the Income and Expenditure Account | 6,87,69,656 | -50,958,479 |
| BALANCE SHEET AS AT THE YEAR-END | (8,19,98,757) | 52,33,50,597 |

SCHEDULE 2 - RESERVES AND SURPLUS

| | NON-PLAN | |
|----------------------------------|-------------------------|--------------------------|
| | Current Year 2017-18 | Previous Year 2016-17 |
| 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

| | FUND-WISE BREAKUP | | | | | TOTALS | |
|---|-------------------|---------|---------|---------|--------------|---------------|--|
| | Fund WW | Fund XX | Fund YY | Fund ZZ | Current Year | Previous Year | |
| | | | | | 2017-18 | 2016-17 | |
| 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) | | | | | 396,000.00 | | |
| c) Utilisation/expenditure towards objectives of funds | | | | | | | |
| i. Capital Expenditure | | | | | | | |
| - Fixed Assets | | | | | | | |
| - Others | | | | | | | |
| Total | | | | | NIL | NIL | |
| ii. Revenue Expenditure | | | | | | | |
| - Salaries, Wages and Allowances etc | | | | | | | |
| - Rent | | | | | | | |
| - Other Administrative Expenses | | | | | | | |
| Total | | | | | 396,000.00 | | |
| TOTAL (c) | | | | | | | |
| NET BALANCE AS AT THE YEAR-END (a+b+c) | | | | | | 0 | |

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

| | REVENUE | |
|------------------------------------|-------------------------|--------------------------|
| | Current Year 2017-18 | Previous Year 2016-17 |
| 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 5 - UNSECURED LOANS AND BORROWINGS

(Amount Rs.)

| | REVENUE | |
|------------------------------------|-------------------------|--------------------------|
| | Current Year 2017-18 | Previous Year 2016-17 |
| 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

| | REVENUE | |
|---|-------------------------|--------------------------|
| | Current Year 2017-18 | Previous Year 2016-17 |
| a) Acceptances secured by hypothecation of capital equipment and other assets | - | - |
| b) Others | - | - |
| TOTAL | - | - |

Note: Amounts due within one year

Sd/-
Consultant (F&EA)

SCHEDULE 7 - CURRENT LIABILITIES AND PROVISIONS

(Amount-Rs.)

| | REVENUE | |
|--|-------------------------|--------------------------|
| | Current Year 2017-18 | Previous Year 2016-17 |
| 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) | 48,66,903 | 64,44,155 |
| 2) For Telemarketers Registration Fees | 8,631,619 | 1,22,00,149 |
| 3) For Customer Education Fees | | |
| 4) Penalty from Telemarketers | 20,05,675 | 20,37,519 |
| 5) Financial disincentive | 3,67,15,100 | 13,31,91,141 |
| TOTAL (A) | 5,22,19,297 | 15,38,72,964 |
| B. PROVISIONS | | |
| 1. For Taxation | | |
| 2. Gratuity | 6,11,30,896 | 4,55,16,025 |
| 3. Superannuation/Pension | | |
| 4. Accumulated Leave Encashment | 6,56,17,861 | 5,99,88,841 |
| 5. Trade Warranties/Claims | | |
| 6. Other (Specify) | 23,38,98,420 | 24,02,56,592 |
| Provisions for expenses | | |
| TOTAL (B) | 36,06,47,177 | 34,57,61,458 |
| TOTAL (A+B) | 41,28,66,474 | 49,96,34,422 |

Sd/-
Consultant (F&EA)

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 | 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 | 67,79,327 | | | 67,79,327 | 47,61,207 | 5,82,206 | | 14,35,914 | 20,18,120 |
| 5. FURNITURE, FIXTURES | 2,60,21,191 | 13,00,885 | | 2,73,22,076 | 1,93,41,829 | 14,04,613 | | 65,75,634 | 66,79,362 |
| 6. OFFICE EQUIPMENT | 3,46,81,508 | 13,66,726 | | 3,60,48,234 | 2,04,95,265 | 41,29,755 | | 1,14,23,214 | 1,41,86,243 |
| 7. COMPUTER/PERIPHERALS | 10,61,77,714 | 22,52,656 | | 10,84,30,370 | 5,15,09,984 | 40,30,139 | | 5,28,90,247 | 5,46,67,730 |
| 8. ELECTRIC INSTALLATIONS | 89,40,243 | 1,49,414 | | 90,89,657 | 70,63,845 | 5,71,031 | | 14,54,781 | 18,76,398 |
| 9. LIBRARY BOOKS | 44,22,182 | 12,010 | | 44,34,192 | 42,51,181 | 50,246 | | 1,32,765 | 1,71,001 |
| 10. TUBEWELLS & W. SUPPLY | | | | | | | | | |
| 11. AUDITORIUM | | 2,20,90,493 | | 2,20,90,493 | | | | 2,20,90,493 | |
| TOTAL OF CURRENT YEAR | 18,70,22,165 | 2,71,72,184 | - | 21,41,94,349 | 10,74,23,311 | 1,07,67,990 | 0 | 11,81,91,301 | 9,60,03,048 |
| PREVIOUS YEAR | 17,64,23,133 | 1,11,94,783 | 5,95,751 | 18,70,22,165 | 9,56,56,195 | 1,21,68,065 | 4,00,949 | 10,74,23,311 | 7,95,98,854 |
| B. CAPITAL WORK-IN-PROGRESS | | | | | | | | | |
| TOTAL | | | | | | | | | |

Sd/-

Consultant (F&EA)

SCHEDULE 9 - INVESTMENTS FROM EARMARKED/ENDOWMENT FUNDS

(Amount-Rs.)

| | REVENUE | |
|------------------------------------|-------------------------|--------------------------|
| | Current Year 2017-18 | Previous Year 2016-17 |
| 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

| | REVENUE | |
|------------------------------------|-------------------------|--------------------------|
| | Current Year 2017-18 | Previous Year 2016-17 |
| 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 DESCRIPTION

(Amount-Rs.)

| DESCRIPTION | REVENUE | |
|---|-------------------------|--------------------------|
| | Current Year 2017-18 | Previous Year 2016-17 |
| 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) | 1,54,309 | 97,388 |
| 4. Bank Balances: | | |
| a) With Scheduled Banks | | - |
| - On Current Accounts TRAI General fund | 17,71,43,721 | 10,12,76,399 |
| - On Current Accounts Registration Fees | 86,31,619 | 1,22,00,149 |
| Penalty from Telemarketers | 20,05,675 | 20,37,519 |
| - On Savings Account Customer Education Fees | | |
| - On Savings Account Financial Disincentive | 3,67,15,100 | 13,31,91,141 |
| a) With non-Scheduled Banks | | |
| - On Current Accounts | | - |
| - On Deposit Accounts | - | - |
| - On Savings | - | - |
| 5. Post Office-Savings Accounts | - | - |
| TOTAL (A) | 22,46,50,424 | 24,88,02,596 |

 Sd/-
 Consultant (F&EA)

SCHEDULE 11 - CURRENT ASSETS, LOANS, ADVANCES ETC

(Amount-Rs.)

| | REVENUE | |
|--|-------------------------|--------------------------|
| | Current Year 2017-18 | Previous Year 2016-17 |
| B. LOANS, ADVANCES AND OTHER ASSETS | | |
| 1. Loans | | |
| a) Staff | | |
| b) Other Entities engaged in activities/objectives similar to that of Entity | | |
| c) Others (TA, LTC and Festival Advances to Officers & Staff) | 1996602 | 21,51,171 |
| 2. Advance and other amounts recoverable in cash or in kind or for value to be received: | | |
| a) On Capital Account | | 67,10,00,000 |
| b) Prepayments | | |
| c) Others | 70,95,925 | 2,00,68,317 |
| 3. Income Accrued | | |
| a) On Investments from Earmarked/Endowment Funds | | |
| b) On Investments-Others | | |
| c) On Loans and Advances | 11,21,718 | 13,64,081 |
| d) Others | | |
| (includes income due unrealised Rs.) | | |
| 5. Claims Receivable | | |
| TOTAL (B) | 1,02,14,245 | 69,45,83,569 |
| TOTAL (A+B) | 23,48,64,669 | 94,33,86,165 |

Sd/-
Consultant (F&EA)

SCHEDULE 12 - INCOME FROM SALES/SERVICES

(Amount-Rs.)

| | REVENUE | |
|--|-------------------------|--------------------------|
| | Current Year 2017-18 | Previous Year 2016-17 |
| 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

| (Irrevocable Grants & Subsidies Received) | REVENUE | |
|---|-------------------------|--------------------------|
| | Current Year 2017-18 | Previous Year 2016-17 |
| 1) Central Government | 100,00,00,000 | 73,00,00,000 |
| 2) State Government (s) | | |
| 3) Government Agencies | | |
| 4) Institutions/Welfare Bodies | | |
| 5) International Organisations | | |
| 6) Other (Specify) | 3,96,000 | |
| TOTAL | 100,03,96,000 | 73,00,00,000 |

SCHEDULE 14 - FEES/SUBSCRIPTIONS

| | REVENUE | |
|------------------------------|-------------------------|--------------------------|
| | Current Year 2017-18 | Previous Year 2016-17 |
| 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.)

| (Income on Invest. from Earmarked/Endowment Funds Transferred to Funds) | Investment from Earmarked Fund | |
|---|--------------------------------|--------------------------|
| | REVENUE | |
| | Current Year 2017-18 | Previous Year 2016-17 |
| 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 | | |

SCHEDULE 16 - INCOME FROM ROYALTY, PUBLICATION ETC

| | REVENUE | |
|-----------------------------|-------------------------|--------------------------|
| | Current Year 2017-18 | Previous Year 2016-17 |
| 1. Income from Royalty | - | - |
| 2. Income from Publications | - | - |
| 3. Others (specify) | - | - |
| TOTAL | - | - |

SCHEDULE 17 - INTEREST EARNED

| | REVENUE | |
|--|-------------------------|--------------------------|
| | Current Year 2017-18 | Previous Year 2016-17 |
| 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 | - | - |
| b) Others | - | - |
| 4) Interest on Debtors and Other Receivables | - | - |
| TOTAL | 0 | 0 |

Note-Tax deducted at source to be indicated

SCHEDULE 18-OTHER INCOME

(Amount-Rs.)

| | REVENUE | |
|--|-------------------------|--------------------------|
| | Current Year 2017-18 | Previous Year 2016-17 |
| 1. Profit on Sale/disposal of Assets | | |
| a) Owned assets | | 24,363 |
| b) Assets acquired out of grants, or received free of cost | | |
| 2. Export Incentives realized | | |
| 3. Fees for Miscellaneous Services | | |
| 4. Miscellaneous Income | 3,92,449 | 40,35,797 |
| 5. Registration Fees from Telemarketers | | |
| 6. Customer Education Fees from Telemarketers | | |
| 7. Penalty from Telemarketers | | |
| 8. Financial Disincentive | | |
| TOTAL | 3,92,449 | 40,60,160 |

**SCHEDULE 19- INCREASE/(DECREASE)
IN STOCK OF FINISHED GOODS & WORK IN PROGRESS**

| | REVENUE | |
|--------------------------------------|-------------------------|--------------------------|
| | Current Year 2017-18 | Previous Year 2016-17 |
| 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

| | NON-PLAN | |
|---|-------------------------|--------------------------|
| | Current Year 2017-18 | Previous Year 2016-17 |
| a) Salaries and Wages | 31,41,02,227 | 28,76,41,384 |
| b) Allowances and Bonus | 4,62,836 | 7,57,692 |
| c) Contribution to Provident Fund | 1,24,02,305 | 1,24,16,795 |
| d) Contribution to Other Fund (specify) | | |
| e) Staff Welfare Expenses | 4,48,109 | 7,02,197 |
| f) Expenses on Employees Retirement and Terminal Benefits | 7,08,96,107 | 5,01,06,861 |
| g) Others (LTC, Medical to Officers & Staff and OTA to Staff) | 1,85,36,189 | 1,67,68,810 |
| TOTAL | 41,68,47,773 | 36,83,93,739 |

SCHEDULE 21 - OTHER ADMINISTRATIVE EXPENSES ETC

(Amount-Rs.)

| | REVENUE | |
|--|-------------------------|--------------------------|
| | Current Year 2017-18 | Previous Year 2016-17 |
| a) Purchases | - | - |
| b) Labour and processing expenses | - | - |
| c) Cartage and Carriage Inwards | | - |
| d) Electricity and power | 23,29,210 | 19,41,981 |
| e) Water charges | | |
| f) Insurance and bank charges | 122,843 | 91,863 |
| g) Repairs and maintenance | 73,95,174 | 38,79,077 |
| h) Excise Duty | | |
| i) Rent, Rates and Taxes | 26,71,14,171 | 23,76,36,561 |
| j) Vehicles Running and Maintenance | 20,14,196 | 23,79,242 |
| k) Postage, Telephone and Communication Charges | 82,08,553 | 89,05,305 |
| l) Printing and Stationery | 63,65,429 | 64,89,580 |
| m) Travelling and Conveyance Expenses | 4,37,97,730 | 4,27,20,827 |
| n) Expenses on Seminar/Workshops | 1,91,07,126 | 63,97,032 |
| o) Subscription Expenses | 49,84,309 | 9,60,477 |
| p) prior period expenses | 808376 | |
| q) Auditors Remuneration | 1,66,900 | 1,77,785 |
| r) Hospitality Expenses | 22,31,940 | 17,13,295 |
| s) Professional Charges | 6,02,98,331 | 2,86,55,261 |
| t) Consultation expenses & training | 46,450,734 | 42,208,348 |
| u) Irrecoverable Balances Written-off | | |
| v) loss on sale of assets | | 17,569 |
| w) Freight and Forwarding Expenses | | |
| x) Software develop expenses | 5,901,731 | 2,796,271 |
| y) Advertisement and Publicity | 29,58,063 | |
| Z) Swachh Bharat expenses | 3,96,000 | |
| z(i) Others (Payment to Security, Housekeeping etc.) | 2,37,52,214 | 1,74,86,361 |
| TOTAL | 50,44,03,030 | 40,44,56,835 |

Sd/-
Consultant (F&EA)

SCHEDULE 22-EXPENDITURE ON GRANTS, SUBSIDIES ETC

(Amount-Rs.)

| | REVENUE | |
|--|-------------------------|--------------------------|
| | Current Year 2017-18 | Previous Year 2016-17 |
| 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

| | REVENUE | |
|--|-------------------------|--------------------------|
| | Current Year 2017-18 | Previous Year 2016-17 |
| a) On Fixed Loans | - | - |
| b) On Other Loans (including Bank Charges) | - | - |
| c) Others (specify) | - | - |
| TOTAL | - | - |

Sd/-
Consultant (F&EA)

**FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS) TELECOM REGULATORY AUTHORITY OF INDIA
RECEIPTS AND PAYMENTS FOR THE PERIOD/YEAR ENDED 31-03-2018**

| | RECEIPTS | | NON-PLAN | | PAYMENTS | | NON-PLAN | |
|--|-------------------------|--------------------------|-------------------------|--------------------------|--|--------------------------|-------------------------|--------------------------|
| | Current Year 2017-18 | Previous Year 2016-17 | Current Year 2017-18 | Previous Year 2016-17 | Current Year 2017-18 | Previous Year 2016-17 | Current Year 2017-18 | Previous Year 2016-17 |
| I. Opening Balance | | | | | | | | |
| a) Cash in hand | 97,388 | 50,225 | | | Establishment Expenses (corresponding to Schedule 20) | 37,50,37,598 | 28,08,90,744 | |
| i) In current accounts | 10,12,76,399 | 7,08,00,748 | | | b) Administrative expenses (corresponding to Schedule 21) | 53,80,89,126 | 40,42,38,027 | |
| ii) In deposit accounts | | | | | | | | |
| iii) Savings accounts penalty registration fees | 20,37,519 | 2,65,91,413 | | | 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) | | | |
| customer education fees | 1,22,00,149 | 8,47,72,637 | | | | | | |
| Financial disincentive | 13,31,91,141 | 2,32,000 | | | | | | |
| | | | | | | | | 1,96,953 |
| II. Grants Received | | | | | III. Investments and deposits made | | | |
| a) From Government of India | 100,00,00,000 | 73,00,00,000 | | | a) Out of Earmarked/Endowment funds | | | |
| b) From State Government | | | | | b) Out of Own Funds (Investments-Others) | | | |
| c) From other sources (details) (Grants for capital & revenue exp to shown separately) | 3,96,000 | | | | IV. Expenditure on Fixed Assets & Capital Work-in-progress | | | |
| | | | | | a) Purchase of Fixed Assets | 2,28,53,105 | 1,06,60,326 | |
| III. Income on Investments from | | | | | b) Expenditure on Capital Work-in-progress | | | |
| a) Earmarked/Endow Funds | | | | | V. Refund of surplus money/Loans | | | |
| b) Own Funds (Oth Investment) | 2,42,363 | | | | a) To the Government of India | | | |
| | | | | | b) To the State Government | | | |
| IV. Interest Received | | | | | c) To DOT for Telemarketer Registration fees | 1,22,00,149 | 8,47,72,637 | |
| a) On Bank deposits | | | | | To DoT for Customer education fees | | 232,000.00 | |
| b) Loans, Advances et | | | | | To DoT for Penalty from Telemarketeres | 20,37,519 | 2,65,91,413 | |
| | | | | | To DOT for Financial Disincentive | 13,31,58,278 | 38,74,71,105 | |
| c) Miscellaneous | 3,92,449 | 40,95,562 | | | VI. Finance Charges (Interest) | | | |
| V. Other Income (Specify) | | | | | VII. Other Payments (Specify) Loans and advances and security deposits | | | |
| To Miscellaneous Income | | | | | VIII. Closing Balances | | | |
| | | | | | | | | 1,28,76,818 |
| VI. Amount Borrowed | | | | | | | | |
| | | | | | | | | |

| | RECEIPTS | | NON-PLAN | | PAYMENTS | | NON-PLAN | |
|---|-------------------------|--------------------------|-------------------------|--------------------------|--|--------------------------|-------------------------|--------------------------|
| | Current Year 2017-18 | Previous Year 2016-17 | Current Year 2017-18 | Previous Year 2016-17 | Current Year 2017-18 | Previous Year 2016-17 | Current Year 2017-18 | Previous Year 2016-17 |
| VII. Any other receipts (give details) | | | | | | | | |
| To Security Deposits other advances | 1,26,47,464 | 50,93,455 | | | a) Cash in hand b) Bank Balances | | 1,54,309 | 97,388 |
| To Sale of Assets | | | | | 1) In current accounts TRAI General fund | | 17,71,43,720 | 10,12,76,687 |
| To EMD received | | | | | i) In current accounts Registration fees | | 86,31,619 | 1,22,00,149 |
| To registration fees | 86,31,619 | | | | ii) In deposit accounts | | | |
| To customer education fees | | 1,22,00,149 | | | 2) Savings accounts | | | |
| To penalty from telemarketers | 20,05,675 | 20,37,519 | | | i) customer education fees | | 20,05,675 | 20,37,519 |
| To financial disincentive | 3,66,82,237 | 13,31,91,141 | | | ii) penalty from telemarketers | | 3,67,15,100 | 13,31,91,141 |
| | | | | | iii) financial disincentive | | | |
| TOTAL | 130,98,00,403 | 145,65,35,954 | 130,98,00,403 | 145,65,35,954 | TOTAL | | 130,98,00,403 | 145,65,35,954 |

 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. DoT vide letter no 1-15/2016-B dated 27.04.2017 informed TRAI that Ministry of finance has changed the policy for projecting/allotment of funds from plan and non plan funds under Revenue/ Capital from BE 2017-18. Therefore allocation/projection of funds under Revenue and Capital section instead of Plan and non plan is required to be made henceforth. No capital grant has been received by TRAI in the year 2017-18, hence The accounts have been prepared under Revenue Head.
- (b) Accounts have been prepared on accrual basis for the current year i.e., 2017-18. 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.

Sd/-
Consultant (F&EA)

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 31.03.2018 in the case of employees on deputations 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 2017-18 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. However, DoT has granted a sum of Rs.3.96 lakhs as specific grant for operation of Swachh Bharat action Plan and the same has been disclosed separately.
- (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. 2017-18, a sum of Rs 100 crores has been received on account of Govt grant. Till the year 2014-15, TRAI had adopted the policy of accounting the grant on accrual basis, due to which a sum of Rs. 2.75 crores and 64.35 crores on account of Non Plan and Plan respectively were being shown as recoverable from DoT. since the accounting policies have been changed from

Sd/-
Consultant (F&EA)

accrual to cash basis on account of government grants the said amount of Rs. 67.10 crores has been routed through capital fund during the financial year 2017-18.

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 had opened four accounts with Corporation Bank for deposition of Registration Fee, Customer Education Fee, Penalty from Telemarketers and Financial Disincentive Accounts. During the year 2017-18 a sum of Rs. 86.31.619/- , Rs. 20,05,675/- Rs. 3,66,82,237/- were received on account of Customer Registration fee, penalty from telemarketers and financial disincentive imposed by TRAI on various regulations respectively. these have been shown in schedule 7 of current liabilities. TRAI had remitted a sum of Rs. 1,22,00,149/- , Rs. 20,37,519/- Rs, 13,35,82,78/- on account of Customer registration Fee, penalty from Telemarketers and financial disincentive to DoT for the financial year 2016-17. The closing balance of financial disincentive, penalty from telemarketers and Registration fees includes a sum of Rs. 50,57,246/- Rs, 1,99,375/- and 5,36,609/- respectively towards interest.

6 During the financial year 2017-18 a sum of Rs.3.96 lakhs was received from DoT on account of Swachh bharat action plan, whereas the actual expenditure amounting to Rs. 397097/- has been incurred, the excess amount of Rs. 1097/- was met out of TRAI general fund.

7 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.

8 Transactions in Foreign Currencies

Expenditure in Foreign Currency: Revenue *Nil*

- (a) Travel:
 - A sum of Rs.40,46,688/- was paid to officers towards TA/ DA expenditure for overseas travel.
 - A sum of Rs. 49,24,309/- 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*

9 Schedules 1 to 25 are annexed to and form an integral part of the Balance Sheet as at 31st March, 2018 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 ACCOUNTS OF TRAI FOR THE YEAR 2017-18

Separate Audit Report on the Annual Accounts of Telecom Regulatory Authority of India-Contributory Provident Fund Account for the year ended 31 March 2018.

1. INTRODUCTION

We have audited the attached Balance Sheet of the Telecom Regulatory Authority of India-Contributory Provident Fund Account as on 31 March 2018 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.

- vi. 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 2018; and
 - b. In so far as it relates to the Income and Expenditure Account of the 'Excess of Expenditure over Income' for the year ended on that date.

Sd/-
(Sangita Choure)
Director General of Audit (P&T)

**ANNEXURE-I TO SEPARATE AUDIT REPORT ON THE ACCOUNTS OF TELECOM
REGULATORY AUTHORITY OF INDIA-CONTRIBUTORY PROVIDENT FUND ACCOUNT FOR
THE YEAR ENDED 31 MARCH 2018**

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 August 2018 and got approved by Secretary, TRAI. 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.

**Sd/-
Director**

BRIEF NOTE ON THE INTERNAL CONTROL SYSTEM IN TELECOM REGULATORY AUTHORITY OF INDIA-CONTRIBUTORY PROVIDENT FUND ACCOUNT 2017-18

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 2017-18 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 10 April 2003. TRAI has a total sanctioned strength of 237 and 182 men in position. Out of this, 58 are on deputation and 124 are on regular strength as on 31.03.2018. 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. Organizational 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 TRAI Authority, the Joint Advisor (F & EA) is the Secretary to the Board of Trustees. The following are the trustees of the Board:

- | | |
|------------------------------|-----------------------------|
| (i) Advisor (Administration) | : President (Ex-officio) |
| (ii) Dy. Advisor (HR) | : Trustee (Ex-officio) |
| (iii) Joint Advisor (F & EA) | : Trustee |
| (iv) PS (F & EA) | : Trustee |
| (v) Joint Advisor (F & EA) | : Secretary, CPF Trust |

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 Technical Officer (IAU). The reports of Internal Audit, including CPF-Accounts, 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 a Section Officer 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/-
(Rajesh Ranjan)
Director (AMG-I)

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)
THE TELECOM REGULATORY AUTHORITY OF INDIA - CONTRIBUTORY PROVIDENT FUND ACCOUNT
INCOME AND EXPENDITURE ACCOUNT FOR THE PERIOD/ YEAR ENDED 31-MAR-2018

| 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 | 6,195,919.44 | 5,102,687.61 |
| Income for Royalty , Publication etc | 16 | - | - |
| Interest Earned | 17 | 6,751,556.19 | 5,566,021.47 |
| Other Income | 18 | - | 28,824.00 |
| Increase (decrease) in stock of Finished goods and works-in-progress | 19 | - | - |
| TOTAL (A) | | 12,947,475.63 | 10,697,533.08 |
| EXPENDITURE | | | |
| Establishment Expenses | 20 | - | - |
| Other Administrative Expenses etc | 21 | 61,725.00 | 1,717.50 |
| Expenditure on Grants, Subsidies etc | 22 | - | - |
| Interest | 23 | 14,110,703.81 | 9,432,500.00 |
| Diminution Value of Investments in Mutual Funds | | - | - |
| Depreciation (Net Total at the year end-corresponding to Schedule 8) | | - | - |
| TOTAL (B) | | 14,172,428.81 | 9,434,217.50 |
| Balance being excess of Income over Expenditure (A-B) | | -1,224,953.18 | 1,263,315.58 |
| Transfer to Misc Expenditure to the extent not written off - on account of Diminution Value of Investments | | - | - |
| Transfer to / from General Reserve | | -1,224,953.18 | 1,263,315.58 |
| Balance being Surplus/ (Deficit) carried to Corpus/ Capital Fund | | - | - |
| SIGNIFICANT ACCOUNTING POLICIES | | | |
| CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS | | | |
| | 24 | | |
| | 25 | | |

| Sd/- | Sd/- | Sd/- | Sd/- | Sd/- |
|--------------------|--------------------------|---------------------|---------------------|----------------------|
| Sh. A.K. Dhingra | Smt. Shalini Katoch | Sh. K. V. Sebastian | Sh. Anurag Sharma | Sh. Sanjeev Sharma |
| Jt. Advisor (F&EA) | Private Secretary (F&EA) | Jt. Advisor (F&EA) | Dy. Advisor (Admin) | Advisor (Admin) |
| Secretary (CPF) | Trustee | Trustee | Ex-Officio Trustee | Ex-Officio President |

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)
THE TELECOM REGULATORY AUTHORITY OF INDIA - CONTRIBUTORY PROVIDENT FUND ACCOUNT
BALANCE SHEET AS AT 31-MAR-2018

| CORPUS/CAPITAL FUND AND LIABILITIES | Schedule | Current Year | Previous Year |
|---|-----------------|-----------------------|-----------------------|
| TRAI - CPF MEMBERS' ACCOUNT | 1 | 183,120,188.00 | 146,057,794.00 |
| RESERVES AND SURPLUS | 2 | 5,459,305.12 | 6,684,258.30 |
| EARMARKED/ ENDOWMENT FUNDS | 3 | | |
| SECURED LOANS AND BORROWINGS | 4 | | |
| UNSECURED LOANS AND BORROWINGS | 5 | | |
| DEFERRED CREDIT LIABILITIES | 6 | | |
| CURRENT LIABILITIES AND PROVISIONS | 7 | - | 3,446,852.35 |
| TOTAL | | 188,579,493.12 | 156,188,904.65 |
| ASSETS | | | |
| FIXED ASSETS | 8 | | - |
| INVESTMENTS-FROM EARMARKED/ENDOWMENT FUNDS | 9 | | - |
| INVESTMENTS - OTHERS | 10 | 151,732,748.00 | 110,400,000.00 |
| CURRENT ASSETS, LOANS, ADVANCES ETC | 11 | 36,846,745.12 | 45,788,904.65 |
| MISCELLANEOUS EXPENDITURE | | | - |
| (to the extent not written off or adjusted) | | | |
| TOTAL | | 188,579,493.12 | 156,188,904.65 |
| SIGNIFICANT ACCOUNTING POLICIES | 24 | | |
| CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS | 25 | | |

| | | | |
|--------------------|--------------------------|---------------------|----------------------|
| Sd/- | Sd/- | Sd/- | Sd/- |
| Sh. A.K. Dhingra | Smt. Shalini Katoch | Sh. K. V. Sebastian | Sh. Anurag Sharma |
| Jt. Advisor (F&EA) | Private Secretary (F&EA) | Jt. Advisor (F&EA) | Dy. Advisor (Admin) |
| Secretary (CPF) | Trustee | Trustee | Ex-Officio Trustee |
| | | | Ex-Officio President |
| | | | Sh. Sanjeev Sharma |
| | | | Advisor (Admin) |

**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-2018**

SCHEDULE 1 - TRAI - CPF MEMBERS' ACCOUNT

(Amount-Rs.)

| | Current Year | Previous Year |
|--|-----------------------|-----------------------|
| Balance as at the beginning of the year | 146,057,794.00 | 107,944,782.00 |
| Deduct: Adjustments for previous year | | |
| Add: Contributions towards Members' Account | 37,062,394.00 | 38,113,012.00 |
| Add/(Deduct): Balance of net income/(expenditure) transferred from the Income and Expenditure Account | | |
| BALANCE AS AT THE YEAR-END | 183,120,188.00 | 146,057,794.00 |

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 | 6,684,258.30 | 5,420,942.72 |
| Addition during the year | -1,224,953.18 | 1,263,315.58 |
| Less: Deductions during the year | | |
| TOTAL | 5,459,305.12 | 6,684,258.30 |

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-2018
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 | | | | | | N. A. |
| 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

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-2018

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 | | N. A. |
| 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 | | N. A. |
| 5. Other Institutions and Agencies | | |
| 6. Debentures and Bonds | | |
| 7. Others (Specify) | | |
| TOTAL | | |

Note: Amount due within one year

**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-2018**

SCHEDULE 6-DEFERRED CREDIT LIABILITIES

| | Current Year | Previous Year |
|---|--------------|---------------|
| a) Acceptances secured by hopethecation 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 accused but not due on: | | |
| a) Secured loans/borrowings | | |
| b) Unsecured Loans/borrowings | | |
| 5) Statutory Liabilities | | |
| a) Overdue | | |
| b) Others | | |
| 6) Other current Liabilities | | |
| (l) Corporation Bank Asaf Ali Road - Book Overdraft | | 3,446,852.35 |
| TOTAL (A) | - | 3,446,852.35 |
| B. PROVISIONS | | |
| 1. For Taxation | | |
| 2. Gratuity | | |
| 3. Superannuation/Pension | | |
| 4. Accumulated Leave Encasement | | |
| 5. Trade Warranties/Claims | | |
| 6. Other (Specify) | | |
| TOTAL (B) | - | - |
| TOTAL (A+B) | - | 3,446,852.35 |

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-2018

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 | | N. A. |
| 5. Subsidiaries and Joint Ventures | | |
| 6. Others (to be specified) | | |
| TOTAL | | |

SCHEDULE 10 - INVESTMENTS OTHERS

| | Current Year | Previous Year |
|---|-----------------------|-----------------------|
| 1. In Government Securities | 80,700,000.00 | 59,700,000.00 |
| <i>Long - term Investments</i> - Rs. | | |
| <i>Current Investments</i> - | | |
| 2. Other Approved Securities | | |
| 3. Shares | | |
| 4. Debentures and Bonds | | |
| 5. Subsidiaries and Joint Ventures | | |
| 6. Others (Fixed Deposits in Banks/PSU) - Long - term | 71,032,748.00 | 50,700,000.00 |
| TOTAL | 151,732,748.00 | 110,400,000.00 |

**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-2018**

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) | 33,468,947.00 | 37,700,780.00 |
| - On Savings Account | 16,919.85 | 11,360.22 |
| a) With non-Scheduled Banks | | |
| - On Current Accounts | - | - |
| - On Deposit Accounts | - | - |
| - On Savings Account | - | - |
| 5. Post Office-Savings Accounts | - | - |
| TOTAL (A) | 33,485,866.85 | 37,712,140.22 |

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-2018

SCHEDULE 11 - CURRENT ASSETS, LOANS, ADVANCES ETC

| | (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 | 3,360,878.27 | 8,076,764.43 |
| c) On Loans and Advances | | |
| d) Others (includes income due unrealised Rs.) | | |
| 4. Claims Receivable - | | |
| TOTAL (B) | 3,360,878.27 | 8,076,764.43 |
| TOTAL (A+B) | 36,846,745.12 | 45,788,904.65 |

**FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)
THE TELECOM REGULATORY AUTHORITY OF INDIA - CONTRIBUTORY PROVIDENT FUND ACCOUNT
SCHEDULES FORMING PART OF INCOME & EXPENDITURE
FOR THE PERIOD/YEAR ENDED 31-MAR-2018**

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 | N.A. | |
| 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 | | | N.A. |
| 4) Institutions/Welfare Bodies | | | |
| 5) International Organisations | | | |
| 6) Other (Specify) | | | |
| TOTAL | | | |

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)
THE TELECOM REGULATORY AUTHORITY OF INDIA - CONTRIBUTORY PROVIDENT FUND ACCOUNT
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR
THE PERIOD/YEAR ENDED 31-MAR-2018

SCHEDULE 14 - FEES/ SUBSCRIPTIONS

| | (Amount-Rs.) | |
|------------------------------|--------------|---------------|
| | Current Year | Previous Year |
| 1. Entrance Fees | | |
| 2. Annual Fees/Subscriptions | | |
| 3. Seminar/Program Fees | | N. A. |
| 4. Consultancy Fees | | |
| 5. Others(specify) | | |
| TOTAL | | |

Note: Accounting Policies towards each item are to be disclosed

SCHEDULE 15 - INCOME FROM INVESTMENTS

| | Investment - Others | |
|---|---------------------|---------------------|
| | Current Year | Previous Year |
| (Income on Invest. from Earmarked/Endowment Funds Transferred to Funds) | | |
| 1) Interest | | |
| a) On Govt Securities | 6,195,919.44 | 5,102,687.61 |
| b) Other Bonds/Debentures | | |
| 2) Dividends | | |
| a) On Shares | | |
| b) On Mutual Fund Securities | | |
| 3) Rents | | |
| 4) Others | | |
| TOTAL | 6,195,919.44 | 5,102,687.61 |

TRANSFERRED TO EARMARKED/ ENDOWMENT FUNDS

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)
THE TELECOM REGULATORY AUTHORITY OF INDIA -CONTRIBUTORY PROVIDENT FUND ACCOUNT
SCHEDULES FORMING PART OF INCOME & EXPENDITURE
FOR THE PERIOD/YEAR ENDED 31-MAR-2018

SCHEDULE 16 - INCOME FROM ROYALTY, PUBLICATION ETC

| | Current Year | Previous Year |
|-----------------------------|--------------|---------------|
| 1. Income from Royalty | | |
| 2. Income from Publications | | N. A. |
| 3. Others (Specify) | | |
| TOTAL | | |

SCHEDULE 17 - INTEREST EARNED

| | Current Year | Previous Year |
|--|---------------------|---------------------|
| 1) On Term Deposits | | |
| a) With Scheduled Banks | 6,750,885.19 | 5,559,055.47 |
| b) With Non-Scheduled Banks | | |
| c) With Institutions | - | |
| d) Others | | |
| 2) On Savings Account | | |
| a) With Scheduled Banks | 671.00 | 6,966.00 |
| 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 | 6,751,556.19 | 5,566,021.47 |

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)
THE TELECOM REGULATORY AUTHORITY OF INDIA - CONTRIBUTORY PROVIDENT FUND ACCOUNT
SCHEDULES FORMING PART OF INCOME & EXPENDITURE
FOR THE PERIOD/YEAR ENDED 31-MAR-2018

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 | - | 28,824.00 |
| TOTAL | - | 28,824.00 |

SCHEDULE 19 - INCREASE/(DECREASE)
IN STOCK OF FINISHED GOODS & WORK IN PROGRESS

| | 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] | | N. A. |

SCHEDULE 20 - ESTABLISHMENT EXPENSES

| | 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 | | N. A. |

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)
THE TELECOM REGULATORY AUTHORITY OF INDIA -CONTRIBUTORY PROVIDENT FUND ACCOUNT
SCHEDULES FORMING PART OF INCOME & EXPENDITURE
FOR THE PERIOD/YEAR ENDED 31-MAR-2018

SCHEDULE 21-OTHER ADMINISTRATIVE EXPENSES ETC

| | 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 | - | - |
| DLIS | 60,000.00 | - |
| - Bank & Finance Charges | 1,725.00 | 1,717.50 |
| TOTAL | 61,725.00 | 1,717.50 |

FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)
THE TELECOM REGULATORY AUTHORITY OF INDIA -CONTRIBUTORY PROVIDENT FUND ACCOUNT
SCHEDULES FORMING PART OF INCOME & EXPENDITURE
FOR THE PERIOD/YEAR ENDED 31-MAR-2018

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 | N. A. | |
| TOTAL | | |

Note: Name of Entities, their Activities along with the amount of Grants/Subsidies are to be disclosed

SCHEDULE 23 - INTEREST

| | Current Year | Previous Year |
|---|----------------------|---------------------|
| a) On Fixed Loans | - | - |
| b) On Other Loans (including Bank Charges) | - | - |
| a) Others (specify) - Interest Payable to Members | 11,814,844.00 | 9,432,500.00 |
| FINANCE CHARGES | 2,295,859.81 | |
| TOTAL | 14,110,703.81 | 9,432,500.00 |

THE TELECOM REGULATORY AUTHORITY OF INDIA - CONTRIBUTORY PROVIDENT FUND ACCOUNT
RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 31-MAR-2018

| RECEIPTS | Current Year | Previous Year | PAYMENTS | Current Year | Previous Year |
|--|---------------|---------------|---|----------------|---------------|
| I. Opening Balance | | | 1. Expenses | | |
| a) Cash in hand | | | a) Establishment Expenses | | - |
| b) Bank Balances | | | b) Administrative Expenses | 1,725.00 | 1,717.50 |
| i) In current accounts | | | | | |
| ii) In deposit accounts | 37,700,780.00 | 2,773,365.00 | | | |
| iii) Savings accounts | 27,744.87 | 175,011.89 | | | |
| II. Grants Received | | | 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) | | |
| a) From Government of India | | | | | |
| b) From State Government | | | | | |
| c) From Other Sources (Details) (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 Mutual Funds) | | | b) Out of Own Funds (Investments - Others) | 116,032,748.00 | 21,000,000.00 |
| IV. Interest Received | | | (Investments - Flexi Account) | 33,468,947.00 | 37,700,780.00 |
| a) On Bank Deposits | 12,336,016.84 | 3,437,557.48 | IV. Expenditure on Fixed Assets & Capital Work-in-progress | | |
| | | | a) Purchase of Fixed Assets | | |

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., 2017-18. There is no change in Method of Accounting from the preceding year.
- iii) Investments depicted in Schedule 10 (Investments - Others) are carried at cost..

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. 8,07,00,000.00 and Others (FDs in Banks/ PSUs) amounting to Rs.7,10,32,748.00. Out of the investments in Govt. Securities, an amount of Rs. 8,07,00,000.00 are Long-term Investments as these are being held for more than one year from the date on which they have been made.
- 3 Corresponding figures for the previous year have been re-grouped/ re-arranged wherever necessary.

GLIS payment of Rs.60,000/- for two deceased employees pertains to 2016-17 which was inadvertently booked under CPF Members Account has now been rectified.

Sd/-
Sh. A.K. Dhingra
Jt. Advisor (F&EA)
Secretary (CPF)

Sd/-
Smt. Shalini Katoch
Private Secretary(F&EA)
Trustee

Sd/-
Sh. K. V. Sebastian
Jt. Advisor (F&EA)
Trustee

Sd/-
Sh. Anurag Sharma
Dy. Advisor (Admin)
Ex-Officio Trustee

Sd/-
Sh. Sanjeev Sharma
Advisor (Admin)
Ex-Officio President





सत्यमेव जयते

TELECOM REGULATORY AUTHORITY OF INDIA