



## **Telecom Regulatory Authority of India**

### **The Indian Telecom Services Performance Indicators** October – December, 2020

New Delhi, India

27 April, 2021

Mahanagar Doorsanchar Bhawan,  
Jawahar Lal Nehru Marg, New Delhi-110002  
Tel: +91-11- 23221856, Fax: +91-11- 23236650  
Website: [www.trai.gov.in](http://www.trai.gov.in)

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## Snapshot

(Data as on Q.E. 31 <sup>st</sup> December, 2020)	
Telecom Subscribers (Wireless+Wireline)	
Total Subscribers	1,173.83 Million
% change over the previous quarter	0.44%
Urban Subscribers	647.91 Million
Rural Subscribers	525.92 Million
Market share of Private Operators	88.74%
Market share of PSU Operators	11.26%
Tele-density	86.38%
Urban Tele-density	138.34%
Rural Tele-density	59.05%
Wireless Subscribers	
Total Wireless Subscribers	1,153.77 Million
% change over the previous quarter	0.45%
Urban Subscribers	629.67 Million
Rural Subscribers	524.11 Million
Market share of Private Operators	89.42%
Market share of PSU Operators	10.58%
Tele-density	84.90%
Urban Tele-density	134.44%
Rural Tele-density	58.85%
Total Wireless Data Usage during the quarter	26,405 PB
Number of Public Mobile Radio Trunk Services (PMRTS)	63,205
Number of Very Small Aperture Terminals (VSAT)	2,96,079
Wireline Subscribers	
Total Wireline Subscribers	20.05 Million
% change over the previous quarter	-0.12%
Urban Subscribers	18.24 Million
Rural Subscribers	1.81 Million
Market share of PSU Operators	50.51%
Market share of Private Operators	49.49%
Tele-density	1.48%
Rural Tele-density	0.20%
Urban Tele-density	3.89%
No. of Village Public Telephones (VPT)	68,606
No. of Public Call Office (PCO)	137,015

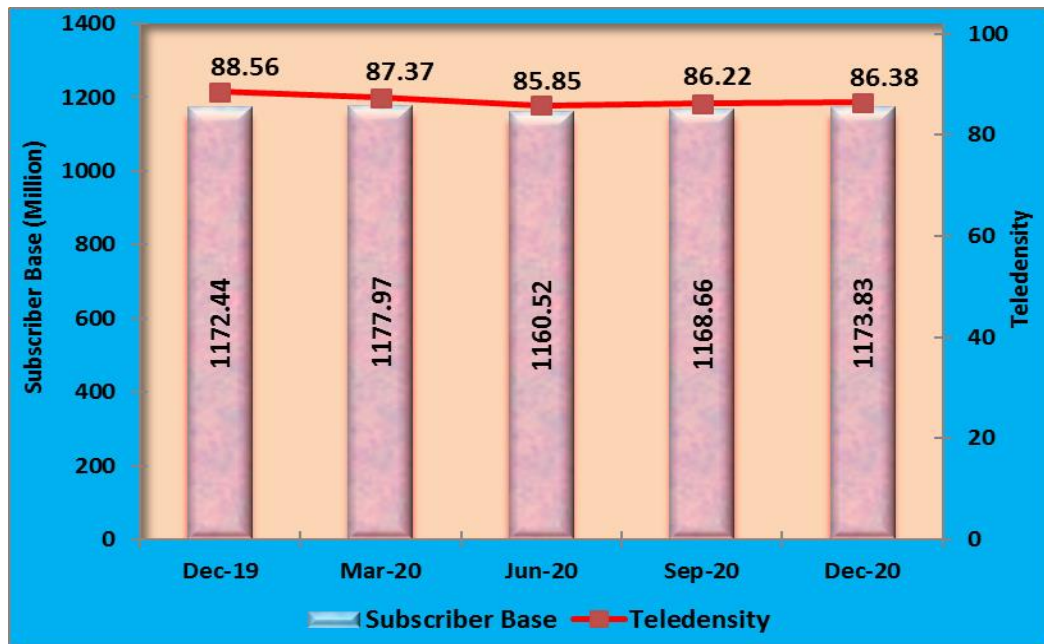
<b>Telecom Financial Data</b>	
Gross Revenue (GR) during the quarter	₹71,588 Crore
% change in GR over the previous quarter	4.92%
Adjusted Gross Revenue (AGR) during the quarter	₹47,623 Crore
% change in AGR over the previous quarter	4.19%
Share of Public sector undertakings in Access AGR	6.55%
Monthly Average Revenue Per User (ARPU) for Access Services	₹108.78
<b>Internet/Broadband Subscribers</b>	
Total Internet Subscribers	795.18 Million
% change over previous quarter	2.41%
Narrowband subscribers	47.77 Million
Broadband subscribers	747.41 Million
Wired Internet Subscribers	25.54 Million
Wireless Internet Subscribers	769.64 Million
Urban Internet Subscribers	487.01 Million
Rural Internet Subscribers	308.17 Million
Total Internet Subscribers per 100 population	58.51
Urban Internet Subscribers per 100 population	103.98
Rural Internet Subscribers per 100 population	34.60
<b>Broadcasting &amp; Cable Services</b>	
Number of private satellite TV channels permitted by the Ministry of I&B for uplinking only/downlinking only/both uplinking and downlinking	907
Number of Pay TV Channels as reported by broadcasters	326
Number of private FM Radio Stations (excluding All India Radio)	367
Number of total active subscribers with pay DTH operators	70.99 Million
Number of Operational Community Radio Stations	315
Number of pay DTH Operators	4
<b>Revenue &amp; Usage Parameters</b>	
Monthly ARPU of Wireless Service	₹101.65
Minutes of Usage (MOU) per subscriber per month - Wireless Service	785 Minutes
Total Outgoing Minutes of Usage for Internet Telephony	177.22 Million
<b>Wireless Data Usage</b>	
Average Wireless Data Usage per wireless data subscriber per month	12.13 GB
Average revenue realization per subscriber per GB wireless data during the quarter	₹11.01

\* For ARPU explanation please refer to footnote on Page 52

## Executive Summary

1. The number of telephone subscribers in India increased from 1,168.66 million at the end of Sep-20 to 1,173.83 million at the end of Dec-20, registering a growth rate of 0.44% over the previous quarter. This reflects Year-On-Year (Y-O-Y) growth rate of 0.12% over the same quarter of the last year. The overall Tele-density in India also increased from 86.22% as in QE Sep-20 to 86.38% as in QE Dec-20.

### Trends in Telephone subscribers and Tele-density in India

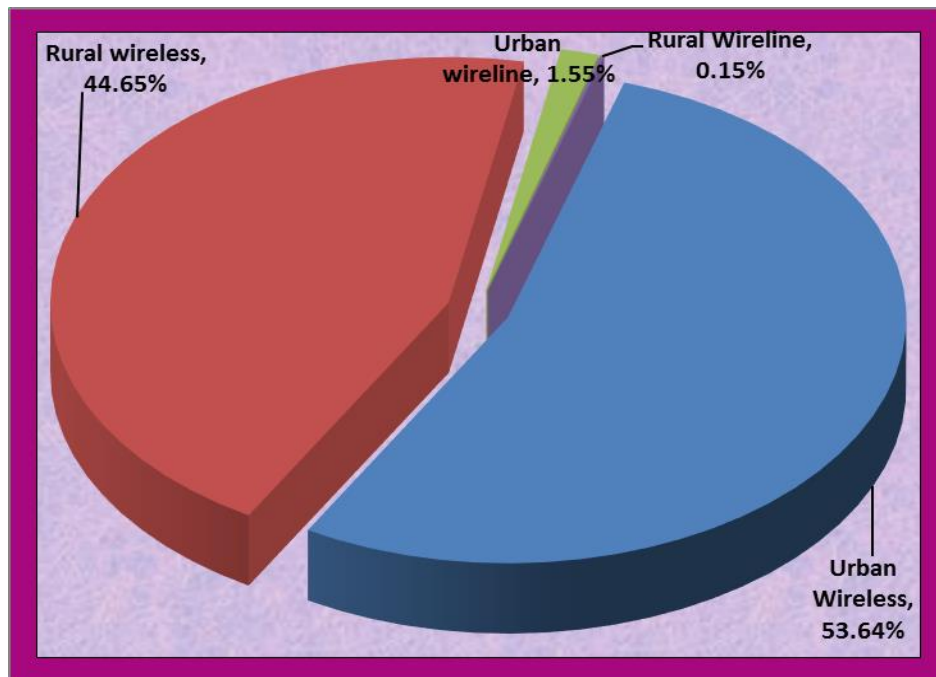


2. Telephone subscribers in Urban areas increased from 644.26 million at the end of Sep-20 to 647.91 million at the end of Dec-20 and Urban Tele-density also increased from 138.25% to 138.34% during the same period.
3. Rural telephone subscribers increased from 524.39 million at the end of Sep-20 to 525.92 million at the end of Dec-20 and Rural

Tele-density also increased from 58.96% to 59.05% during the same period.

4. Out of the total subscription, the share of Rural subscription decreased from 44.87% at the end of Sep-20 to 44.80% at the end of Dec-20.

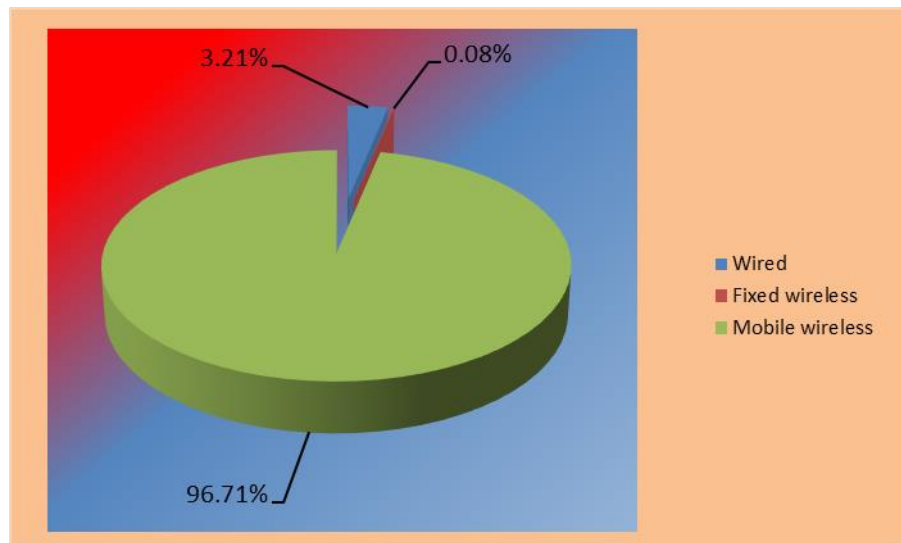
### **Composition of Telephone Subscribers**



5. With a net increase of 5.19 million subscribers during the quarter, the total wireless subscriber base increased from 1,148.58 million at the end of Sep-20 to 1,153.77 million at the end of Dec-20, registering a growth rate of 0.45% over the previous quarter. On Y-O-Y basis, wireless subscriptions also increased at the rate of 0.20% during the year.
6. Wireless Tele-density increased from 84.74% at the end of Sep-20 to 84.90% at the end of Dec-20 with quarterly growth rate of 0.19%.

7. Wireline subscribers decreased from 20.08 million at the end of Sep-20 to 20.05 million at the end of Dec-20 with a quarterly decline rate of 0.12% and, on Y-O-Y basis, wireline subscriptions also declined by 4.53% at the end of QE Dec-20.
8. Wireline Tele-density remained same i.e. 1.48% at the end of Dec, 2020, as it was at the end of Sep-20.
9. Total number of Internet<sup>1</sup> subscribers increased from 776.45 million at the end of Sep-20 to 795.18 million at the end of Dec-20, registering a quarterly growth rate of 2.41%. Out of 795.18 million internet subscribers, number of Wired Internet subscribers are 25.54 million and number of Wireless Internet subscribers are 769.64 million.

**Composition of internet subscription**



10. The Internet subscriber base is comprised of Broadband<sup>2</sup> Internet subscriber base of 747.41 million and Narrowband<sup>3</sup> Internet subscriber base of 47.77 million.

<sup>1</sup> Internet: Interconnected global networks that use the internet protocol.

<sup>2</sup> Broadband: Internet access with a minimum capacity of greater or equal 512 Kbit/s in one or both directions.



11. The broadband Internet subscriber base increased by 2.90% from 726.32 million at the end of Sep-20 to 747.41 million at the end of Dec-20. However, the narrowband Internet subscriber base declined by 4.72% from 50.14 million at the end of Sep-20 to 47.77 million at the end of Dec-20.
12. Monthly Average Revenue per User (ARPU)<sup>4</sup> for wireless service increased by 4.93%, from ₹96.87 in QE Sep-20 to ₹101.65 in QE Dec-20. On Y-O-Y basis, monthly ARPU for wireless service increased by 29.24% in this quarter.
13. Prepaid ARPU per month increased from ₹90 in QE Sep-20 to ₹95 in QE Dec-20, however, Postpaid ARPU per month decreased from ₹234 in QE Sep-20 to ₹227 in QE Dec-20.
14. On all India average, the overall Minutes of Usage (MOU)<sup>5</sup> per subscriber per month for wireless service increased by 3.14% from 761 in QE Sep-20 to 785 in QE Dec-20.
15. Prepaid MOU per subscriber per month increased from 765 in QE Sep-20 to 793 in QE Dec-20. Postpaid MOU per subscriber per month decreased from 680 in QE Sep-20 to 631 in QE Dec-20.
16. Gross Revenue<sup>6</sup> (GR) and Adjusted Gross Revenue<sup>7</sup> (AGR) of Telecom Service Sector for the Q.E. Dec-20 has been ₹71,588 Crore

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<sup>3</sup> Narrowband: Internet access with a capacity of less than 512 Kbit/s in one or both directions.  
(Source-ITU)

<sup>4</sup> ARPU per month is calculated by dividing net subscribers' revenue by average number of subscribers.

<sup>5</sup> MOU per subscriber per month is calculated by dividing total minutes of usage (incoming & outgoing) by average number of subscribers.

<sup>6</sup> Gross Revenue is inclusive of installation charges, late fees, sale proceeds of handsets (or any other terminal equipment etc.), revenue on account of interest, dividend, value added services, supplementary services, access or interconnection charges, roaming charges, revenue from permissible sharing of infrastructure and any other miscellaneous revenue, without any set-off for related item of expense etc.

and ₹47,623 Crore respectively. GR and AGR increased by 4.92% and 4.19% respectively in Q.E. Dec-20 as compared to previous quarter.

17. The Y-O-Y growth in GR and AGR in Q.E. Dec-20 over the same quarter in last year has been 12.27% and 16.50% respectively.
18. Pass-through<sup>8</sup> charges increased from ₹22,521 Crore in QE Sep-20 to ₹23,966 Crore in QE Dec-20 with quarterly growth rate of 6.41%. The Y-O-Y growth rate of 4.71% has been recorded in pass-through charges for QE Dec-20.
19. The License Fee<sup>9</sup> increased from ₹3,656 Crore for the QE Sep-20 to ₹3,809 Crore for the QE Dec-20. The quarterly and the Y-O-Y growth rates of license fee are 4.19% and 16.49% respectively in this quarter.

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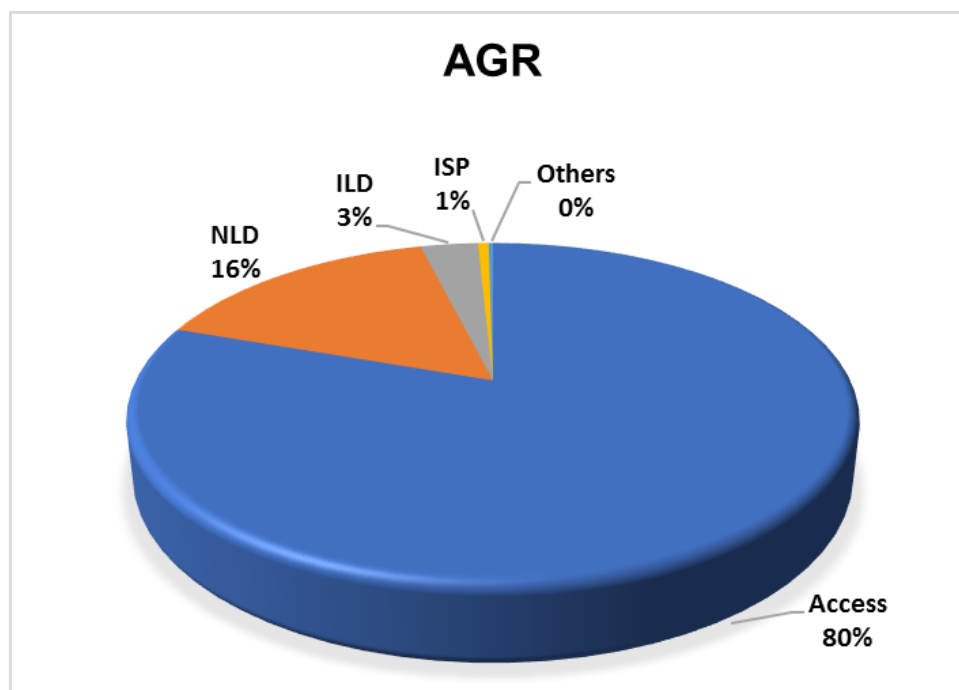
<sup>7</sup> Adjusted Gross Revenue: The following shall be excluded from the Gross Revenue to arrive at the AGR:

- I. PSTN related call charges (Access Charges) actually paid to other eligible/entitled telecommunication service providers within India;
- II. Roaming revenues actually passed on to other eligible/entitled telecommunication service providers; and
- III. Service Tax on provision of service and Sales Tax actually paid to the Government if gross revenue had included as component of Sales Tax and Service Tax

<sup>8</sup> Pass through charges means the charges excluded from gross revenue to arrive at adjusted gross revenue for the purpose of levying licence fee.

<sup>9</sup> License Fee means a fee payable by Licensee at prescribed intervals and rates for the period of the Licence.

## Service-wise composition of Adjusted Gross Revenue



20. Access services contributed 80% of the total Adjusted Gross Revenue of telecom services. In Access services, Gross Revenue (GR), Adjusted Gross Revenue (AGR), License Fee Spectrum Usage Charges (SUC)<sup>10</sup> and Pass Through Charges increased by 4.98%, 5.38%, 5.39%, 6.06% and 4% respectively in QE Dec-20.
21. Monthly Average Revenue per User (ARPU) for Access Services based on AGR, increased from ₹103.87 in QE Sep-20 to ₹108.78 in QE Dec-20.
22. The performance of wireline service providers in terms of QoS during the quarter vis-à-vis that in the previous quarter is given below: -

<sup>10</sup> Spectrum Usage Charge is payable by the licensees providing mobile access services, as a percentage of their Adjusted Gross Revenue (AGR).

(Source – DoT License Agreement)

Parameters showing improvement in QoS	Parameters showing deterioration in QoS
<ul style="list-style-type: none"> <li>❖ % Fault repaired by next working day (for urban areas) <math>\geq 85\%</math></li> <li>❖ % Fault repaired by next working day (for rural and hilly areas) <math>\geq 75\%</math></li> <li>❖ “Mean time to Repair” (MTTR) <math>\leq 10</math> Hrs</li> <li>❖ Metering and billing credibility - post-paid, <math>\leq 0.1\%</math></li> <li>❖ “Response time to the customer for assistance” Accessibility of call centre/ customer care <math>95\%</math></li> <li>❖ “Response time to the customer for assistance” %age of calls answered by the operators (voice to voice) within 90 seconds <math>\geq 95\%</math></li> <li>❖ “Termination/closure of service”- %age of request for Termination/closure of service complied within 7 days <math>100\%</math></li> </ul>	<ul style="list-style-type: none"> <li>❖ “Fault repair” Fault incidences No. of faults per 100 subs/month) <math>\leq 7</math></li> </ul>

23. The performance of Cellular Mobile service providers in terms of Quality of Service (QoS) during the quarter vis-à-vis that in the previous quarter is given as below: -

Parameters showing improvement in QoS	Parameters showing deterioration in QoS
<ul style="list-style-type: none"> <li>❖ TCH, RAB and E-RAB Congestion (%age)</li> <li>❖ Network QoS DCR Spatial Distribution Measure [Network_ QSD (90,90)]</li> <li>❖ Network QoS DCR Temporal Distribution Measure [Network_ QTD (97,90)]</li> <li>❖ Resolution of billing/charging/validity complaints</li> <li>❖ Period of applying credit/ waiver/ adjustment to customer’s account from the date of resolution of complaints</li> <li>❖ %age of calls answered by the operators (voice to voice) within 90 seconds</li> <li>❖ %age requests for Termination / Closure of service complied within 7 days</li> <li>❖ Time taken for refund of deposits after closures</li> </ul>	<ul style="list-style-type: none"> <li>❖ Worst affected BSs due to down-time (%age)</li> <li>❖ Up Link (UL) Packet Drop Rate or UL-PDR</li> <li>❖ Accessibility of call centre/ customer care</li> </ul>

24. A total number of 907 private satellite TV channels have been permitted by the Ministry of Information and Broadcasting (MIB) for uplinking only/downlinking only/both uplinking and downlinking, as on 31<sup>st</sup> December, 2020.
25. As per the reporting done by broadcasters in pursuance of the Telecommunication (Broadcasting and Cable) Services (Eighth) (Addressable Systems) Tariff Order, 2017 dated 3rd March 2017, as amended, there are 326 pay channels as on 31<sup>st</sup> December 2020, which include 233 SD (standard definition) pay TV channels and 93 HD (high definition) Pay TV channels.
26. Since the introduction of DTH Sector in the year 2003, Indian DTH (direct-to-home) services have displayed a phenomenal growth. During the QE 31<sup>st</sup> December 2020, there were 4 pay DTH service providers in the country.
27. Pay DTH has attained total active subscriber base of around 70.99 million in QE 31<sup>st</sup> December 2020. This is in addition the subscribers of DTH Free Dish (free DTH services of Doordarshan).
28. Apart from the radio stations operated by All India Radio – the public broadcaster, as on 31<sup>st</sup> December 2020, there are 367 operational private FM Radio stations in 105 cities with operational 31 Private FM Radio broadcasters are same as previous quarter.
29. The reported advertisement revenue during the quarter ending 31<sup>st</sup> December 2020 in respect of 366 private FM Radio stations is ₹323.01 crore as against ₹198.53 crore in respect of 366 private FM Radio stations for the previous quarter.
30. As per data received from MIB, as on 31<sup>st</sup> December 2020, 315 Community Radio Stations are operational in the country.

## Trends at a Glance

<b>A. Access Service (Wireline + Wireless)</b>									
	QE Dec 2019	QE Mar 2020	QE Jun 2020	QE Sep 2020	QE Dec 2020	%age change over Dec-2019	%age change over Mar-2020	%age change over Jun-2020	%age change over Sep-2020
						(12 months)	(9 months)	(6 months)	(3 months)
<b>1) Subscriber Base (in million)</b>									
Wireline	21.00	20.22	19.81	20.08	20.05	-4.53	-0.82	1.22	-0.12
Wireless	1151.44	1157.75	1140.71	1148.58	1153.77	0.20	-0.34	1.15	0.45
<b>Total</b>	<b>1172.44</b>	<b>1177.97</b>	<b>1160.52</b>	<b>1168.66</b>	<b>1173.83</b>	<b>0.12</b>	<b>-0.35</b>	<b>1.15</b>	<b>0.44</b>
Rural	509.99	521.51	523.69	524.39	525.92	3.12	0.85	0.43	0.29
Urban	662.45	656.46	636.83	644.26	647.91	-2.20	-1.30	1.74	0.57
<b>2) Tele-density</b>									
Wireline	1.59	1.50	1.47	1.48	1.48	-7.20	-1.60	0.69	-0.38
Wireless	86.98	85.87	84.38	84.74	84.90	-2.39	-1.13	0.62	0.19
<b>Total</b>	<b>88.57</b>	<b>87.37</b>	<b>85.85</b>	<b>86.22</b>	<b>86.38</b>	<b>-2.48</b>	<b>-1.14</b>	<b>0.62</b>	<b>0.18</b>
Rural	56.67	58.79	58.96	58.96	59.05	4.20	0.44	0.16	0.16
Urban	156.26	142.31	137.35	138.25	138.34	-11.47	-2.79	0.72	0.06
<b>3) Service Provider wise Subscribers Base (in Million) (wireless+wireline)</b>									
Bharti Airtel	331.61	332.21	320.94	331.03	343.27	3.52	3.33	6.96	3.70
Vodafone Idea	333.01	319.62	305.56	296.00	284.78	-14.49	-10.90	-6.80	-3.79
Reliance Jio	371.07	388.61	398.70	406.21	411.53	10.90	5.90	3.22	1.31
BSNL	127.70	128.60	126.48	126.73	125.88	-1.42	-2.12	-0.48	-0.67
MTNL	6.50	6.45	6.44	6.37	6.28	-3.41	-2.73	-2.53	-1.42
Tata Tele.	1.79	1.77	1.73	1.71	1.66	-7.38	-6.44	-4.01	-3.05
Reliance Com.	0.57	0.52	0.48	0.43	0.23	-59.41	-55.67	-51.54	-46.03
Quadrant	0.20	0.18	0.18	0.19	0.20	2.54	11.33	14.62	9.32
<b>Total</b>	<b>1172.44</b>	<b>1177.97</b>	<b>1160.52</b>	<b>1168.66</b>	<b>1173.83</b>	<b>0.12</b>	<b>-0.35</b>	<b>1.15</b>	<b>0.44</b>

<b>B. Internet Services</b>									
	QE Dec 2019	QE Mar 2020	QE Jun 2020	QE Sep 2020	QE Dec 2020	%age change over Dec-2019	%age change over Mar-2020	%age change over Jun-2020	%age change over Sep-2020
						(12 months)	(9 months)	(6 months)	(3 months)
<b>1) Subscriber's Base (in million)</b>									
<b>A. Wired Internet Subscribers</b>	22.39	22.42	23.06	24.36	25.54	14.07	13.92	10.74	4.83
<b>B. Wireless Internet Subscribers</b>	696.36	720.78	726.01	752.09	769.64	10.52	6.78	6.01	2.33
i. Mobile Wireless (Mobile & Dongle)	695.74	720.17	725.38	751.45	768.99	10.53	6.78	6.01	2.33
ii. Fixed Wireless (Wi-Fi, Wi-Max, Point-to-Point Radio & VSAT)	0.62	0.61	0.63	0.64	0.66	6.56	7.54	3.71	2.59
<b>Total Internet Subscribers</b>	<b>718.74</b>	<b>743.19</b>	<b>749.07</b>	<b>776.45</b>	<b>795.18</b>	<b>10.63</b>	<b>7.00</b>	<b>6.16</b>	<b>2.41</b>
<b>2) No. of Internet Subs per 100 Population</b>	54.29	55.12	55.41	57.29	58.51	7.77	6.16	5.60	2.14
<b>C. Usage and Revenue for Wireless Services</b>									
Traffic (MOU) (minutes of uses/subscriber/month)	712	750	744	761	785	10.31	4.73	5.59	3.14
ARPU (Rs./sub/month)	79	91	90	97	102	29.24	11.10	12.80	4.93
<b>D. Telecom Financial Data</b>									
	QE Dec 2019	QE Mar 2020	QE Jun 2020	QE Sep 2020	QE Dec 2020	%age change over Dec-2019	%age change over Mar-2020	%age change over Jun-2020	%age change over Sep-2020
						(12 months)	(9 months)	(6 months)	(3 months)
<b>1. Telecom Sector</b>									
i) Gross Revenue (₹ in Crores)	63764	67534	66858	68228	71588	12.27%	6.00%	7.07%	4.92%
ii) Adjusted Gross Revenue (₹ in Crores)	40877	44940	44128	45707	47623	16.50%	5.97%	7.92%	4.19%
<b>2. Access Services</b>									
Adjusted Gross Revenue (₹ in Crores)	30323	34496	34328	36318	38273	26.22%	10.95%	11.49%	5.38%
ARPU per month (AGR/ Average subscribers/3)	85.07	97.64	98.01	103.87	108.78	27.87%	11.41%	10.99%	4.73%

## **Introduction**

This Report presents the Key Parameters and growth trends for the Telecom Services in India for the quarter ending 31<sup>st</sup> December, 2020. It provides a broad perspective on the Telecom Services to serve as a reference document for various stakeholders, research agencies and analysts. Chapter-1 depicts the growth pattern, in terms of Subscriber base and Tele-density of Wireline, Wireless, Internet and Value Added Services (VAS) as well as Wireless Data Usage. Chapter-2 covers the key revenue and usage parameters. Chapter-3 gives the financial and accounting data. Chapter-4 covers performance of various telecom service providers in terms of QoS. The information relating to Cable TV, DTH & Radio Broadcast services is provided in Chapter-5.

2. The Report has been prepared based on the information furnished by the Service Providers. It is also available on TRAI's website ([www.trai.gov.in](http://www.trai.gov.in) under the link <http://www.trai.gov.in/release-publication/reports/performance-indicators-reports>). Any suggestion or any clarification pertaining to this report, Pr. Advisor (F&EA), TRAI may be contacted on Tel. +91-11-23221856, Fax. +91-11-23235249 and e-mail: [skmishra.trai@nic.in](mailto:skmishra.trai@nic.in).



# **Chapter 1 :**

# **Subscription Data**

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- In this report, Tele-density figures are derived from the subscriber data provided by the operators and the population projection of the country are taken from the Population Projections for India and States (2011-36), Report of the Technical Group on Population Projections, National Commission on Population, Ministry of Health & Family Welfare.” (Based on Census of India 2011).

## Section A : Access Service - An Overview

- 1.1 The number of telephone subscribers in India increased from 1,168.66 million at the end of Sep-20 to 1,173.83 million at the end of Dec-20, registering a growth rate of 0.44% over the previous quarter. This reflects year-on-year (Y-O-Y) growth rate of 0.12% over the same quarter of last year. The overall Tele-density in India also increased from 86.22% as on 30<sup>th</sup> September, 2020 to 86.38% as on 31<sup>st</sup> December, 2020 with quarterly growth rate of 0.18%.

**Chart 1.1: Trends in Telephone Subscribers and Tele-density in India**

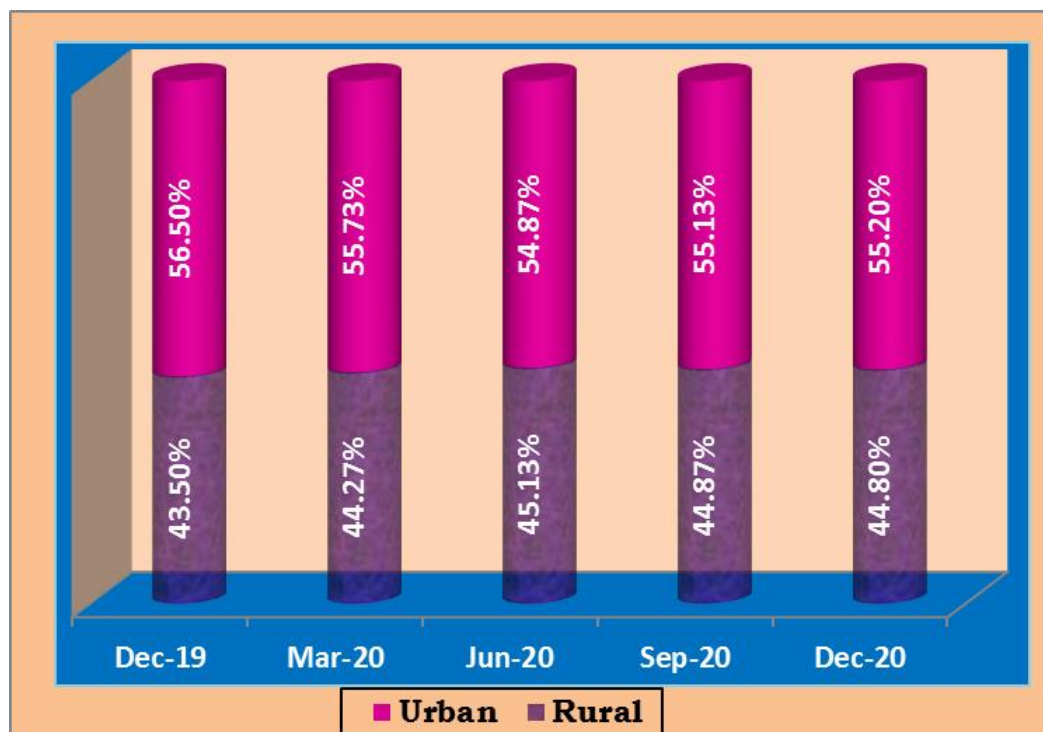


**Table 1.1: Subscriber Base & Tele-density - Rural & Urban**

Quarter ending	Subscriber Base (million)		Tele-density (%)	
	Rural	Urban	Rural	Urban
Dec-19	509.99	662.45	56.67	156.26
Mar-20	521.51	656.46	58.79	142.31
Jun-20	523.69	636.83	58.96	137.35
Sep-20	524.39	644.26	58.96	138.25
Dec-20	525.92	647.91	59.05	138.34

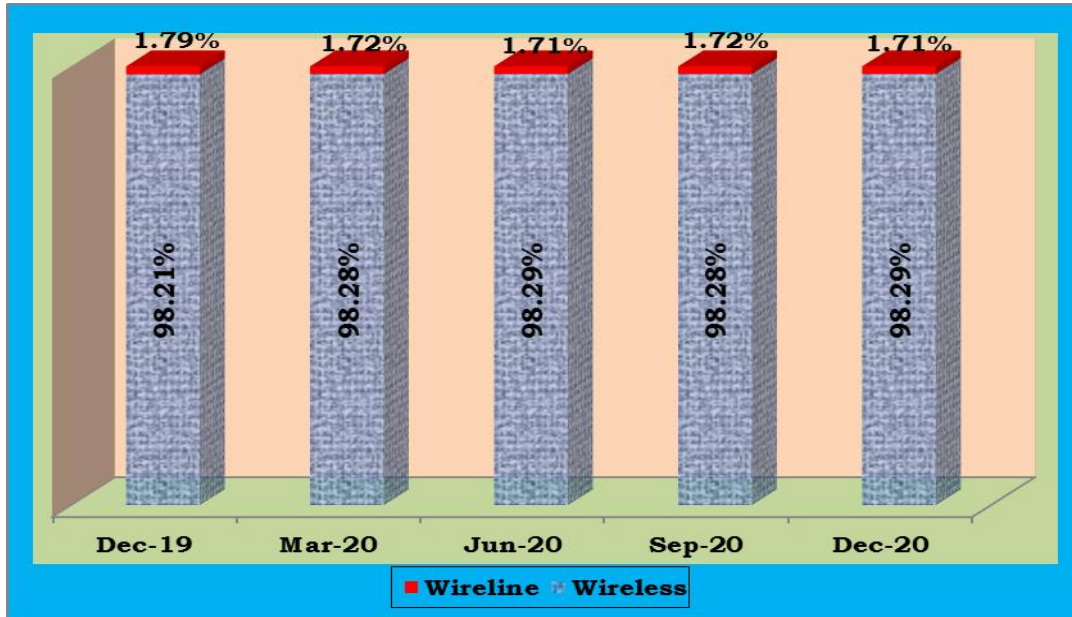
- 1.2 Telephone subscription in Urban areas increased from 644.26 million at the end of Sep-20 to 647.91 million at the end of Dec-20 and Urban Tele-density also increased from 138.25% to 138.34% at the end of the quarter.
- 1.3 Rural telephone subscription increased from 524.39 million at the end of Sep-20 to 525.92 million at the end of Dec-20 and Rural Tele-density also increased from 58.96% to 59.05% at the end of the quarter.
- 1.4 The Y-O-Y growth rates of Urban and Rural telephone subscriptions from Dec-19 to Dec-20 are -2.20% and 3.12% respectively. The Y-O-Y growth rates of Urban and Rural Tele-density from Dec-19 to Dec-20 are -11.47% and 4.20% respectively.

**Chart 1.2: Market Share - Rural & Urban Subscribers**



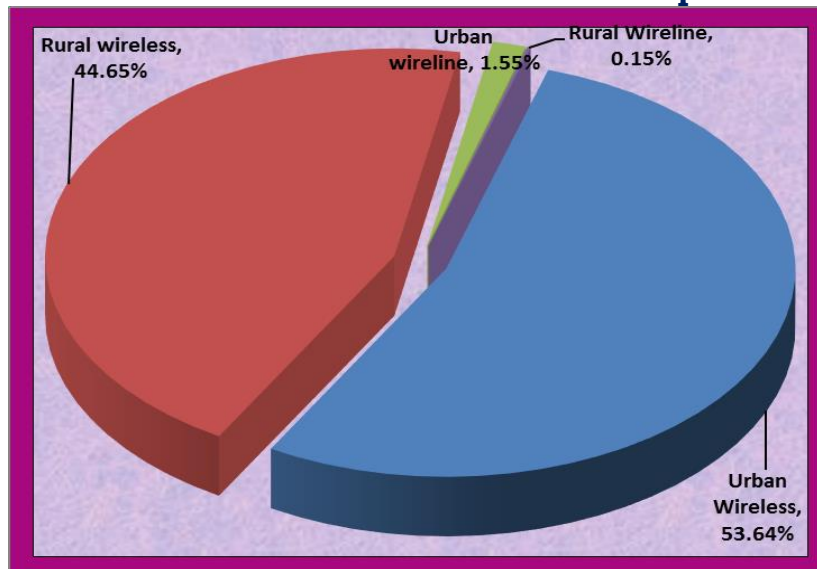
1.5 Share of subscriptions of rural areas in the total telephone subscriptions decreased from 44.87% at the end of Sep-20 to 44.80% at the end of Dec-20.

**Chart 1.3: Composition of Access subscription - Wireline & Wireless**



1.6 Share of wireline subscription in total telephone subscription decreased from 1.72% at the end of Sep-20 to 1.71% at the end of Dec-20.

**Chart 1.4: Composition of Rural-Urban Telephone Subscription at the end of the quarter**



**Table 1.2: Service Area wise Access (Wireless+Wireline) Subscriber base**

Service Area	Subscribers (million)			
	Sep-20	Dec-20	Net Additions	Rate of Growth
Andhra Pradesh	88.32	89.00	0.68	0.77%
Assam	23.76	24.17	0.42	1.75%
Bihar	84.47	85.10	0.63	0.75%
Delhi	55.76	55.90	0.14	0.26%
Gujarat	67.75	68.75	1.00	1.47%
Haryana	27.65	27.44	-0.21	-0.76%
Himachal Pradesh	11.00	11.14	0.14	1.29%
Jammu & Kashmir	11.88	11.96	0.08	0.64%
Karnataka	69.24	69.41	0.16	0.24%
Kerala	45.46	45.98	0.51	1.13%
Madhya Pradesh	76.44	76.20	-0.24	-0.32%
Maharashtra	93.07	94.54	1.46	1.57%
Mumbai	39.27	38.01	-1.27	-3.22%
North East	12.09	12.31	0.23	1.87%
Orissa	33.51	33.72	0.21	0.63%
Punjab	39.51	38.42	-1.09	-2.77%
Rajasthan	65.64	65.63	-0.01	-0.01%
Tamil Nadu	81.51	82.39	0.88	1.08%
U.P.(E)	98.14	98.98	0.84	0.86%
U.P.(W)	62.29	62.80	0.51	0.81%
Kolkata	26.79	26.83	0.04	0.15%
West Bengal	55.09	55.15	0.06	0.11%
<b>All India</b>	<b>1,168.66</b>	<b>1,173.83</b>	<b>5.17</b>	<b>0.44%</b>

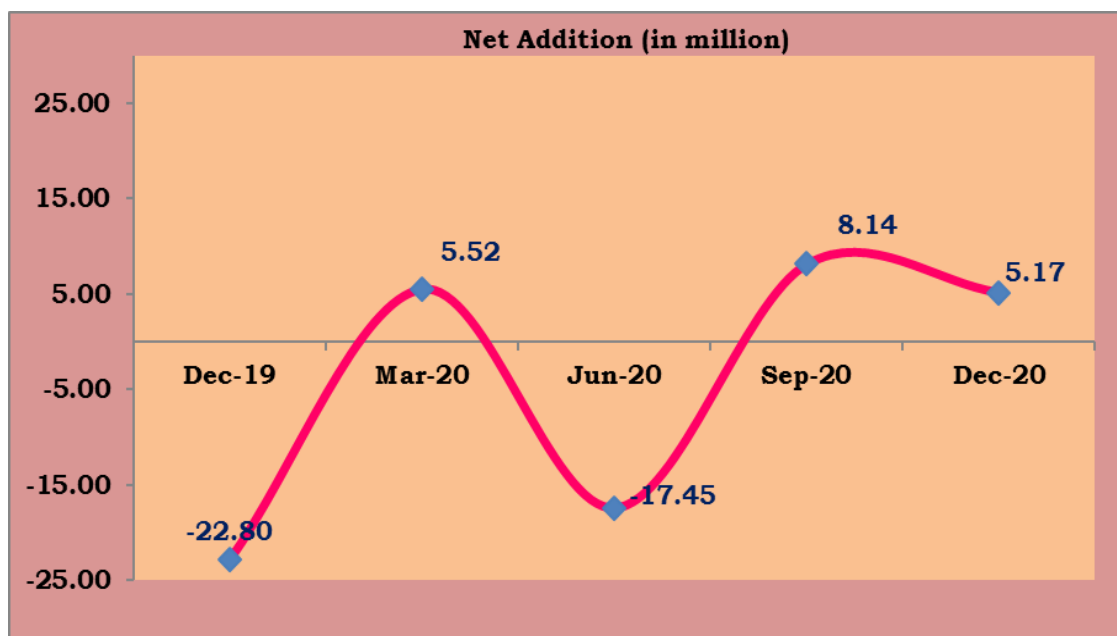
1.7 All service areas showed growth in their subscriber base except Haryana, Madhya Pradesh, Mumbai, Punjab and Rajasthan during the quarter ending Dec-20. North East service area showed maximum growth of 1.87% and Mumbai service area showed maximum decline rate of 3.22% during the quarter.

**Table 1.3: Service Area wise Rural-Urban Subscribers at QE Dec-20**

Service Area	Number of Subscribers (in million)			
	Total	Rural	Urban	% of Rural Subscribers
Andhra Pradesh	89.00	44.40	44.60	49.89
Assam	24.17	15.19	8.98	62.85
Bihar	85.10	55.60	29.51	65.33
Delhi	55.90	2.25	53.66	4.02
Gujarat	68.75	27.30	41.45	39.70
Haryana	27.44	12.05	15.39	43.91
Himachal Pradesh	11.14	7.52	3.62	67.48
Jammu & Kashmir	11.96	5.58	6.38	46.62
Karnataka	69.41	27.57	41.84	39.72
Kerala	45.98	21.24	24.74	46.20
Madhya Pradesh	76.20	34.41	41.79	45.16
Maharashtra	94.54	43.53	51.01	46.05
Mumbai	38.01	1.29	36.72	3.40
North East	12.31	6.55	5.76	53.19
Orissa	33.72	21.91	11.81	64.98
Punjab	38.42	13.17	25.25	34.28
Rajasthan	65.63	35.56	30.07	54.18
Tamil Nadu	82.39	23.87	58.51	28.98
U.P.(E)	98.98	61.35	37.64	61.98
U.P.(W)	62.80	29.68	33.12	47.26
Kolkata	26.83	1.85	24.99	6.88
West Bengal	55.15	34.07	21.08	61.78
<b>All India</b>	<b>1,173.83</b>	<b>525.92</b>	<b>647.91</b>	<b>44.80</b>

1.8 Only eight service areas have more than 50% share of rural subscribers in their total number of subscribers. Himachal Pradesh service area has maximum share of rural subscribers (67.48%) in its total telephone subscribers.

**Chart 1.5: Trend of Net Addition/decline in Telephone Subscription**



1.9 The net increase in telephone subscription is 5.17 million during QE Dec-20 as compared to the net addition of 8.14 million during QE Sep-20.

**Table 1.4 : Service Area wise Tele-density**

Service Area/ States	As on 30 <sup>th</sup> September, 2020			As on 31 <sup>st</sup> December, 2020		
	Rural Tele-density (%)	Urban Tele-density (%)	Total Tele-density (%)	Rural Tele-density (%)	Urban Tele-density (%)	Total Tele-density (%)
Andhra Pradesh	79.96	124.99	97.82	81.58	123.87	98.42
Assam	50.70	164.65	68.10	51.28	167.79	69.10
Bihar	41.21	115.44	52.60	40.76	119.14	52.80
Delhi	-	-	273.14	-	-	272.59
Gujarat	73.93	120.25	96.16	74.42	121.83	97.23
Haryana	69.93	129.92	94.33	69.22	128.17	93.29
Himachal Pradesh	112.47	470.54	149.18	113.45	478.12	150.86
J&K	58.82	153.11	86.99	58.23	155.61	87.38

Service Area/ States	As on 30 <sup>th</sup> September, 2020			As on 31 <sup>st</sup> December, 2020		
	Rural Tele- density (%)	Urban Tele- density (%)	Total Tele- density (%)	Rural Tele- density (%)	Urban Tele- density (%)	Total Tele- density (%)
Karnataka	71.20	146.86	103.93	72.92	144.51	103.97
Kerala	200.04	97.51	128.13	203.98	98.50	129.42
Madhya Pradesh	42.70	130.65	67.43	42.10	130.49	66.99
Maharashtra (incl. Mumbai)*	68.41	145.26	105.44	68.86	144.50	105.36
North East	62.32	110.92	78.48	63.69	111.80	79.75
Orissa	61.93	139.52	76.23	61.08	145.27	76.63
Punjab	74.99	192.31	125.66	73.71	185.14	121.94
Rajasthan	61.27	144.86	83.23	60.99	144.50	82.96
Tamil Nadu	65.02	140.05	104.75	65.29	141.54	105.75
Uttar Pradesh (incl. UPE & UPW)*	49.35	120.49	66.56	49.69	120.72	66.91
West Bengal (incl. Kolkata)*	56.96	128.90	82.76	56.61	129.22	82.73
<b>All India</b>	<b>58.96</b>	<b>138.25</b>	<b>86.22</b>	<b>59.05</b>	<b>138.34</b>	<b>86.38</b>

\* Population data/projections are available state-wise only.

Notes:-

1. Tele-density figures are derived from the subscriber data provided by the operators and the population projections, for Urban and Rural areas, of the country are taken from Report of the technical group on population projections published by National Commission on Population, Ministry of Health & Family Welfare (Based on Census of India 2011).
2. Delhi Service area, apart from the State of Delhi, includes wireless subscribers of the areas served by the local exchanges of Ghaziabad & Noida (in UP) and Gurgaon & Faridabad (in Haryana).
3. Data/information for Andhra Pradesh includes Telengana, Madhya Pradesh includes Chhatishgarh, Bihar includes Jharkhand, Maharashtra includes Goa, Uttar Pradesh includes Uttarakhand, West Bengal includes Sikkim and North-East includes Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland & Tripura states.

1.10 Kerala service area has the highest Rural Tele-density of 203.98 followed by Himachal Pradesh service area of 113.45. Bihar service area has the lowest Rural Tele-density of 40.76 followed by Madhya Pradesh service area with rural tele-density of 42.10 in QE Dec-20.



**Table 1.5 : State/UT wise subscriber base (wireline+wireless)**

Sl. No.	States/UT	Total Telephone Subscription (million)		
		Total	Rural	Urban
1	Andhra Pradesh	46.48	26.11	20.37
2	Arunachal Pradesh	1.34	0.85	0.49
3	Assam	24.17	15.19	8.98
4	Bihar	62.88	43.77	19.11
5	Chhattisgarh	20.61	10.07	10.54
6	Goa	2.74	0.94	1.80
7	Gujarat	67.97	27.05	40.92
8	Haryana	33.34	12.10	21.24
9	Himachal Pradesh	11.14	7.52	3.62
10	Jharkhand	22.22	11.83	10.40
11	Karnataka	69.41	27.57	41.84
12	Kerala	45.89	21.20	24.69
13	Madhya Pradesh	55.59	24.33	31.25
14	Maharashtra Incl. Mumbai	129.81	43.89	85.92
15	Manipur	2.37	1.08	1.28
16	Meghalaya	2.36	1.41	0.95
17	Mizoram	1.39	0.65	0.74
18	Nagaland	1.67	0.97	0.70
19	Odisha	33.72	21.91	11.81
20	Punjab	36.71	13.13	23.57
21	Rajasthan	65.63	35.56	30.07
22	Sikkim	0.99	0.58	0.41
23	Tamil Nadu	81.23	23.54	57.68
24	Telangana	42.51	18.29	24.22
25	Tripura	3.19	1.58	1.61
26	Uttar Pradesh (UPE + UPW)	156.73	84.51	72.23
27	Uttarakhand	12.97	6.52	6.45
28	West Bengal Incl. Kolkata	80.58	35.19	45.39
<b>Union Territories</b>				
1	Andaman & Nicobar Islands	0.42	0.16	0.26
2	Chandigarh	1.70	0.04	1.66
3	Dadra and Nagar Haveli and Daman and Diu	0.78	0.25	0.53
4	Delhi	42.09	2.19	39.90
5	Jammu & Kashmir	11.96	5.58	6.38
6	Ladakh			
7	Lakshdweep	0.09	0.04	0.047
8	Puduchery	1.16	0.33	0.83
<b>Total</b>		<b>1173.83</b>	<b>525.92</b>	<b>647.91</b>

**Table 1.6 : State/UT wise total Tele-density**

Sl.No.	State/UT	Total Tele-density (%)		
		Total	Rural	Urban
1	Andhra Pradesh	88.14	129.86	240.41
2	Arunachal Pradesh	87.70	74.32	127.54
3	Assam	69.10	51.28	167.79
4	Bihar	51.21	40.55	128.58
5	Chhattisgarh	70.04	46.53	135.47
6	Goa	175.81	226.46	157.51
7	Gujarat	97.60	74.21	123.30
8	Haryana	113.35	69.53	176.88
9	Himachal Pradesh	150.86	113.45	478.12
10	Jharkhand	57.90	41.54	104.96
11	Karnataka	103.97	72.92	144.51
12	Kerala	129.42	203.66	98.57
13	Madhya Pradesh	65.92	40.50	128.90
14	Maharashtra Incl. Mumbai	104.48	67.85	144.25
15	Manipur	74.95	50.33	127.66
16	Meghalaya	71.80	54.07	140.37
17	Mizoram	114.29	117.25	111.82
18	Nagaland	76.30	77.59	74.57
19	Odisha	76.63	61.08	145.27
20	Punjab	121.15	73.51	189.59
21	Rajasthan	82.96	60.99	144.50
22	Sikkim	146.17	153.70	136.79
23	Tamil Nadu (incl. Chennai)	106.40	65.22	143.32
24	Telangana	112.82	90.40	138.81
25	Tripura	78.47	61.61	107.43
26	Uttar Pradesh (UPE +UPW)	68.02	48.08	132.18
27	Uttarakhand	114.04	88.06	162.53
28	West Bengal Incl. Kolkata	82.20	55.99	129.04
<b>Union Territories</b>				
1	Andaman & Nicobar Islands	105.27	68.93	153.65
2	Chandigarh	140.73	-	-
3	Dadra and Nagar Haveli and Daman and Diu	73.16	107.66	63.65
4	Delhi	205.22	-	-
5	Jammu & Kashmir	89.32	59.47	159.00
6	Ladakh			
7	Lakshdweep	125.88	-	-
8	Puduchery	74.17	70.20	75.89
<b>Total</b>		<b>86.38</b>	<b>59.05</b>	<b>138.34</b>

**Table 1.7 : Service Provider wise Growth/Decline in Subscriber base**

Service Provider	Subscriber base (millions)			Rate of Growth (%)	Market Share in QE Sep-20 (%)	Market Share in QE Dec-20 (%)
	Sep-20	Dec-20	Net Additions			
Bharti Airtel	331.03	343.27	12.25	3.70	28.33	29.24
Reliance Jio	406.21	411.53	5.32	1.31	34.76	35.06
Quadrant	0.19	0.20	0.017	9.32	0.02	0.02
Tata Teleservices	1.71	1.66	-0.05	-3.05	0.15	0.14
MTNL	6.37	6.28	-0.09	-1.42	0.54	0.53
Reliance Com.	0.43	0.23	-0.20	-46.03	0.04	0.02
BSNL	126.73	125.88	-0.85	-0.67	10.84	10.72
Vodafone Idea Ltd	296.00	284.78	-11.22	-3.79	25.33	24.26
<b>Total</b>	<b>1,168.66</b>	<b>1,173.83</b>	<b>5.17</b>	<b>0.44</b>	<b>100</b>	<b>100</b>

Note: 1. M/s Bharti Airtel Ltd has reported the wireless subscribers including the subscribers of M/s Tata Teleservices Ltd.

2. M/s BSNL includes number of subscribers of its Virtual Network Operator (VNO).

1.11 M/s Reliance Jio Infocomm Ltd is the market leader with 35.06% in the access segment in terms of number of subscribers with 411.53 million subscribers at the end of Dec-20 followed by M/s Bharti Airtel Ltd with 343.27 million subscribers.

1.12 In term of net addition, Bharti Airtel Ltd. became the biggest gainer with net addition of 12.25 million telephone subscribers during the QE Dec-20.

**Table 1.8: Market Share of the service providers in total rural subscriber base**

<b>Service Provider</b>	<b>No. of Total Subscribers (in millions)</b>	<b>No. of Rural Subscribers (in millions)</b>	<b>Percentage of Rural subscribers</b>	<b>Market share of Rural subscribers (%)</b>
Vodafone Idea Ltd	284.78	152.98	53.72	29.09
Bharti Airtel	343.27	160.40	46.73	30.50
Reliance Jio	411.53	172.82	41.99	32.86
BSNL	125.88	39.61	31.47	7.53
Quadrant	0.20	0.03	14.54	0.01
Tata Teleservices	1.66	0.04	2.48	0.01
MTNL	6.28	0.05	0.72	0.01
Reliance Com.	0.23	0.00	0.00	0.00
<b>Total</b>	<b>1,173.83</b>	<b>525.92</b>	<b>44.80</b>	<b>100</b>

1.13 M/s Vodafone Idea Ltd is the telecom service provider with highest proportion of rural telephone subscribers of 53.72% followed by Bharti Airtel of 46.73% to their total telephone subscribers at the end of Dec-20.

## Section B : Wireless Service

**Table 1.9: List of Wireless Access Service Providers currently providing service [As on 31<sup>st</sup> December, 2020]**

Sl.No.	Service Provider	Licensed Service Areas
1	Bharti Airtel Ltd	All India
2	Reliance Jio Infocom Ltd	All India
3	Vodafone Idea Ltd	All India
4	BSNL	All India (except Delhi & Mumbai)
5	MTNL	Delhi & Mumbai
6	Reliance Communications Ltd / Reliance Telecom Ltd	All India (except Assam & NE) / Kolkata, MP, WB, HP, Bihar, Odisha, Assam & NE

*Source : DoT website*

### **UL Access Services Licensees Virtual Network Operators (VNOs) who are providing services as on 31<sup>st</sup> December, 2020**

1	Surftelecom Pvt. Ltd (Formerly Plintron India Pvt. Ltd.	All India
2	AdPay Mobile Payment India Pvt. Ltd	Tamil Nadu including Chennai

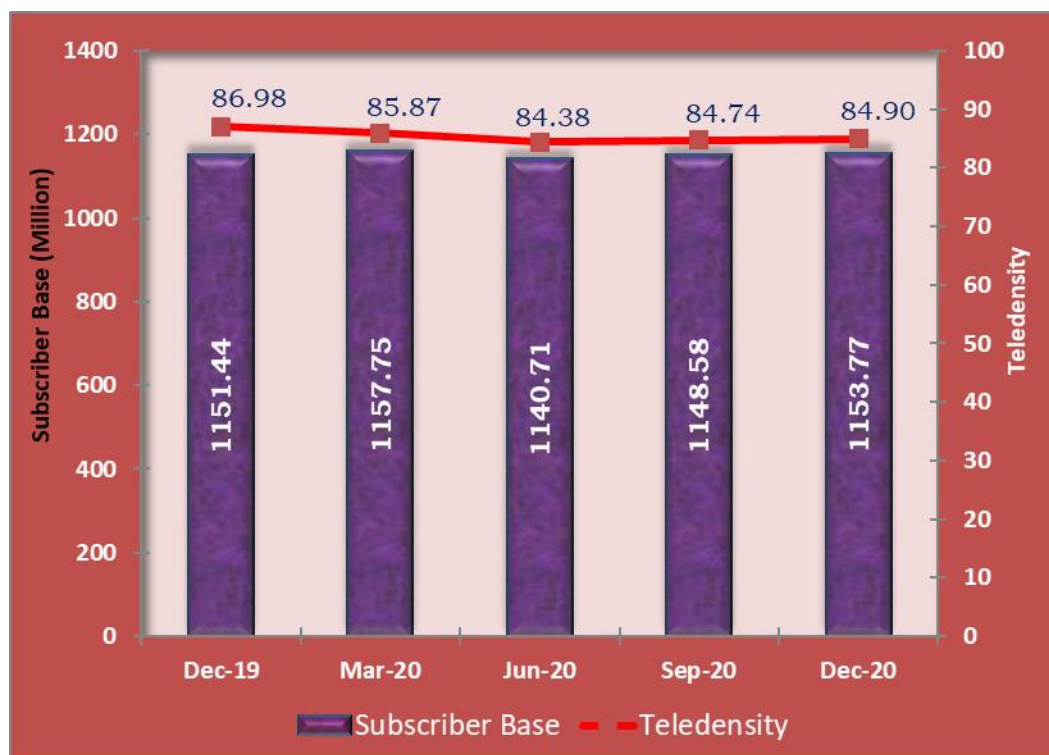
*Source : As reported by telecom service providers*

1.14 Number of total Wireless subscribers increased from 1,148.58 million at the end of Sep-20 to 1,153.77 million at the end of Dec-20, thereby showing a quarterly growth rate of 0.45%. During the quarter, net addition of 5.19 million wireless subscribers has been recorded.

1.15 The total wireless subscriber base recorded a Y-O-Y growth rate of 0.20% in QE Dec-20 over the same quarter in the previous year.

1.16 Wireless Teledensity in the country increased from 84.74% at the end of Sep-20 to 84.90% at the end of Dec-20.

**Chart 1.6: Wireless Subscriber Base and Teledensity**



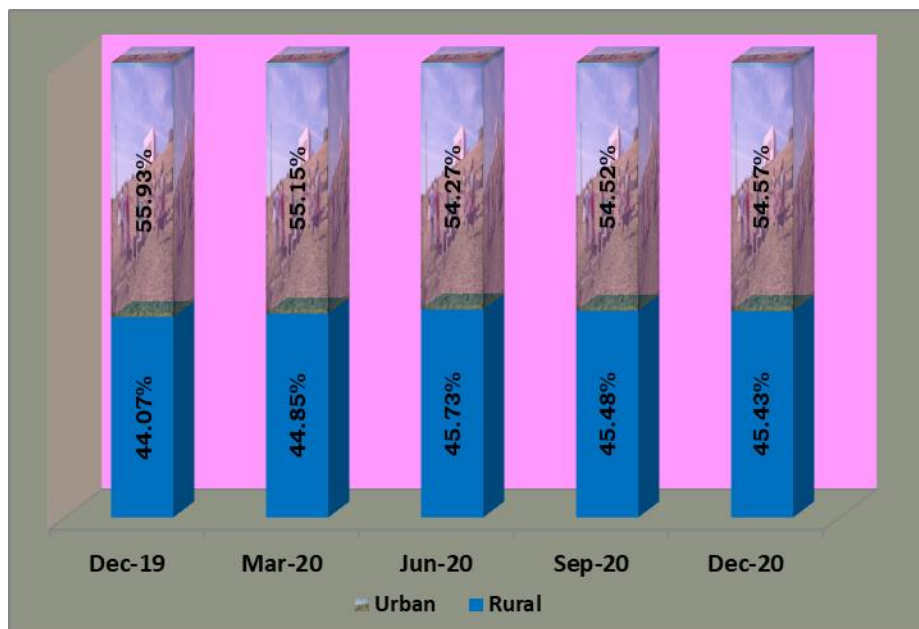
**Table 1.10: Wireless Subscriber Base & Tele-density - Rural & Urban**

Quarter ending	Subscriber Base (million)		Tele-density (%)	
	Rural	Urban	Rural	Urban
Dec-19	507.46	643.97	56.39	151.90
Mar-20	519.27	638.48	58.54	138.41
Jun-20	521.60	619.11	58.72	133.53
Sep-20	522.42	626.16	58.74	134.37
Dec-20	524.11	629.67	58.85	134.44

1.17 Number of Rural Wireless subscribers increased from 522.42 million at the end of Sep-20 to 524.11 million at the end of Dec-20 and number of urban wireless subscribers also increased from 626.16 million to 629.67 million during the quarter. Quarterly growth rates of Rural and Urban wireless subscriptions are 0.32% and 0.56% respectively during QE Dec-20.

1.18 The share of rural wireless subscription decreased from 45.48% to 45.43% in total wireless subscription in this quarter.

**Chart 1.7: Wireless Market Share - Rural & Urban**



**Table 1.11: Growth in Wireless Subscriber base**

Service Provider	Subscriber Base (millions)			Rate of Growth (%)	Market Share Sep-20 (%)	Market Share Dec-20 (%)
	Dec-20	Sep-20	Net Additions			
Reliance Jio	408.77	404.13	4.64	1.15	35.19	35.43
Bharti Airtel	338.71	326.61	12.10	3.70	28.44	29.36
Vodafone Idea Ltd	284.26	295.50	-11.24	-3.80	25.73	24.64
BSNL	118.71	118.99	-0.28	-0.24	10.36	10.29
MTNL	3.32	3.34	-0.02	-0.59	0.29	0.29
Reliance Com.	0.01	0.02	-0.01	-35.39	0.001	0.001
<b>Total</b>	<b>1153.77</b>	<b>1148.58</b>	<b>5.19</b>	<b>0.45</b>	<b>100</b>	<b>100</b>

1.19 M/s RJIL Limited is the market leader with a wireless subscriber base of 408.77 million which translates into market share of 35.43% w.r.t total wireless subscriber base. M/s Bharti Airtel Ltd. is at 2<sup>nd</sup>

position with a total subscriber base of 338.71 million and market share of 29.36%. M/s Bharti Airtel Ltd. has reported the net additions of 12.10 Million.

- 1.20 In terms of net additions during QE Dec-20, except M/s Bharti Airtel Limited and M/s RJIL Limited all service providers have showed negative growth in their wireless subscribers.

**Table 1.12: Service Area wise Wireless Subscriber base**

Service Area	Subscriber base (in million)			
	Dec-20	Sep-20	Net Additions	Rate of change (%)
Andhra Pradesh	87.62	86.97	0.65	0.75
Assam	24.05	23.64	0.41	1.72
Bihar	84.89	84.28	0.61	0.72
Delhi	52.59	52.49	0.10	0.19
Gujarat	67.78	66.79	1.00	1.49
Haryana	27.13	27.36	-0.23	-0.83
Himachal Pradesh	11.05	10.91	0.14	1.33
Jammu & Kashmir	11.80	11.73	0.07	0.62
Karnataka	67.23	67.06	0.17	0.25
Kerala	44.68	44.05	0.62	1.42
Madhya Pradesh	75.51	75.78	-0.28	-0.37
Maharashtra	93.27	91.75	1.52	1.66
Mumbai	34.99	36.20	-1.21	-3.36
North East	12.21	11.99	0.22	1.83
Orissa	33.51	33.31	0.21	0.62
Punjab	37.73	38.83	-1.10	-2.83
Rajasthan	65.16	65.16	0.00	0.00
Tamil Nadu	80.46	79.55	0.92	1.15
U.P.(E)	98.59	97.77	0.82	0.84
U.P.(W)	62.43	61.96	0.47	0.76
Kolkata	26.17	26.11	0.06	0.21
West Bengal	54.91	54.88	0.02	0.04
<b>All India</b>	<b>1,153.77</b>	<b>1,148.58</b>	<b>5.19</b>	<b>0.45</b>



**Table 1.13: Service Area wise Wireless Rural-Urban Subscriber base**

Service Area	Subscriber base (in million)			
	Total	Rural	Urban	% of Rural Subscribers
Andhra Pradesh	87.62	44.28	43.33	50.54
Assam	24.05	15.18	8.87	63.12
Bihar	84.89	55.57	29.32	65.46
Delhi	52.59	2.25	50.35	4.27
Gujarat	67.78	27.23	40.56	40.17
Haryana	27.13	12.02	15.12	44.28
Himachal Pradesh	11.05	7.47	3.58	67.60
Jammu & Kashmir	11.80	5.57	6.24	47.16
Karnataka	67.23	27.48	39.75	40.88
Kerala	44.68	20.53	24.14	45.96
Madhya Pradesh	75.51	34.39	41.12	45.55
Maharashtra	93.27	43.37	49.90	46.49
Mumbai	34.99	1.29	33.70	3.70
North East	12.21	6.54	5.68	53.53
Orissa	33.51	21.88	11.64	65.28
Punjab	37.73	13.07	24.66	34.63
Rajasthan	65.16	35.53	29.64	54.52
T.N. (incl. Chennai)	80.46	23.65	56.81	29.40
U.P.(E)	98.59	61.31	37.28	62.19
U.P.(W)	62.43	29.66	32.77	47.51
Kolkata	26.17	1.85	24.32	7.06
West Bengal	54.91	34.00	20.91	61.92
<b>All India</b>	<b>1,153.77</b>	<b>524.11</b>	<b>629.67</b>	<b>45.43</b>

1.21 Detailed table on service provider wise wireless subscriber base in each service area is at **Annexure-1.1**.

**Table 1.14 : Service Area wise Wireless Tele-density**

Service Area	As on 30 <sup>th</sup> September, 2020			As on 31 <sup>st</sup> December, 2020		
	Rural Tele-density (%)	Urban Tele-density (%)	Total Tele-density (%)	Rural Tele-density (%)	Urban Tele-density (%)	Total Tele-density(%)
A.P.	79.73	121.57	96.32	81.37	120.37	96.90
Assam	50.65	162.74	67.76	51.23	165.72	68.74
Bihar	41.20	114.75	52.48	40.74	118.36	52.67
Delhi	-	-	257.15	-	-	256.46
Gujarat	73.73	117.62	94.79	74.23	119.21	95.87
Haryana	69.71	127.79	93.33	69.02	125.90	92.24
H.P.	111.72	464.85	147.93	112.74	472.52	149.66
J&K	58.71	149.57	85.86	58.12	151.99	86.22
Karnataka	70.96	139.61	100.65	72.69	137.28	100.71
Kerala	192.59	95.03	124.16	197.20	96.14	125.76
M.P.	42.68	128.65	66.85	42.08	128.39	66.38
Maharashtra (incl. Mumbai)*	68.14	138.29	101.94	68.60	137.71	101.95
North East	62.21	109.33	77.87	63.58	110.08	79.11
Orissa	61.84	137.45	75.77	60.99	143.15	76.16
Punjab	74.35	188.11	123.49	73.12	180.84	119.75
Rajasthan	61.21	142.72	82.63	60.93	142.40	82.36
Tamil Nadu	64.37	135.87	102.23	64.69	137.42	103.28
Uttar Pradesh (incl. UPE&UPW)*	49.32	119.39	66.27	49.66	119.52	66.60
West Bengal (incl. Kolkata)*	56.85	126.58	81.86	56.50	126.87	81.81
<b>All India</b>	<b>58.74</b>	<b>134.37</b>	<b>84.74</b>	<b>58.85</b>	<b>134.44</b>	<b>84.90</b>

\* Population data/projections are available state-wise only.

Notes:

1. Tele-density figures are derived from the subscriber data provided by the operators and the population projections, for Urban and Rural areas, of the country are taken from the Report of the technical group on population projections published by National Commission on Population, Ministry of Health & Family Welfare (Based on Census of India 2011).
2. Delhi Service area, apart from the State of Delhi, includes wireless subscribers of the areas served by the local exchanges of Ghaziabad & Noida (in UP) and Gurgaon & Faridabad (in Haryana).
3. Data/information for Andhra Pradesh includes Telengana, Madhya Pradesh includes Chhatisgarh, Bihar includes Jharkhand, Maharashtra includes Goa, Uttar Pradesh includes Uttarakhand, West Bengal includes Sikkim and North-East includes Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland & Tripura states.

**Table 1.15 : State/UT wise Wireless Subscriber Base**

Sl. No.	States/UT	Wireless Subscribers (in million)		
		Total	Rural	Urban
1	Andhra Pradesh	45.74	26.02	19.72
2	Arunachal Pradesh	1.32	0.85	0.47
3	Assam	24.05	15.18	8.87
4	Bihar	62.78	43.75	19.03
5	Chhattisgarh	20.47	10.07	10.40
6	Goa	2.66	0.91	1.75
7	Gujarat	67.01	26.98	40.03
8	Haryana	33.02	12.07	20.96
9	Himachal Pradesh	11.05	7.47	3.58
10	Jharkhand	22.11	11.82	10.29
11	Karnataka	67.23	27.48	39.75
12	Kerala	44.60	20.50	24.10
13	Madhya Pradesh	55.04	24.32	30.72
14	Maharashtra	125.60	43.75	81.85
15	Manipur	2.35	1.08	1.27
16	Meghalaya	2.34	1.41	0.93
17	Mizoram	1.38	0.65	0.73
18	Nagaland	1.66	0.97	0.69
19	Odisha	33.51	21.88	11.64
20	Punjab	36.18	13.03	23.15
21	Rajasthan	65.16	35.53	29.64
22	Sikkim	0.98	0.58	0.41
23	Tamil Nadu	79.34	23.33	56.01
24	Telangana	41.88	18.26	23.62
25	Tripura	3.17	1.58	1.59
26	Uttar Pradesh	156.07	84.46	71.61
27	Uttarakhand	12.87	6.52	6.36
28	West Bengal	79.69	35.12	44.57
<b>Union Territories</b>				
1	Andaman & Nicobar Islands	0.40	0.15	0.25
2	Chandigarh	1.53	0.04	1.50
3	Dadra and Nagar Haveli and Daman and Diu	0.78	0.24	0.53
4	Delhi	38.80	2.19	36.61
5	Jammu & Kashmir	11.33	5.39	5.94
6	Ladakh	0.47	0.18	0.29
7	Lakshdweep	0.08	0.04	0.04
8	Puduchery	1.12	0.33	0.80
<b>Total</b>		<b>1153.77</b>	<b>524.11</b>	<b>629.67</b>

**Table 1.16 : State/UT wise Wireless Tele-density**

Sl.No.	State/UT	Wireless Tele-density (%)		
		Total	Rural	Urban
1	Andhra Pradesh	86.72	76.10	106.29
2	Arunachal Pradesh	86.38	73.98	123.31
3	Assam	68.74	51.23	165.72
4	Bihar	51.13	40.54	128.00
5	Chhattisgarh	69.54	46.50	133.70
6	Goa	170.88	220.90	152.81
7	Gujarat	96.23	74.03	120.62
8	Haryana	112.27	69.32	174.52
9	Himachal Pradesh	149.66	112.74	472.52
10	Jharkhand	57.61	41.51	103.90
11	Karnataka	100.71	72.69	137.28
12	Kerala	125.77	196.89	96.21
13	Madhya Pradesh	65.27	40.48	126.68
14	Maharashtra	101.09	67.63	137.42
15	Manipur	74.39	50.21	126.16
16	Meghalaya	71.19	54.00	137.67
17	Mizoram	113.32	117.12	110.15
18	Nagaland	75.95	77.56	73.79
19	Odisha	76.16	60.99	143.15
20	Punjab	119.41	72.93	186.19
21	Rajasthan	82.36	60.93	142.40
22	Sikkim	145.49	153.64	135.34
23	Tamil Nadu	103.93	64.63	139.17
24	Telangana	111.14	90.28	135.33
25	Tripura	77.91	61.54	106.05
26	Uttar Pradesh	67.73	48.05	131.04
27	Uttarakhand	113.16	87.94	160.24
28	West Bengal	81.30	55.88	126.70
<b>Union Territories</b>				
1	Andaman & Nicobar Islands	101.06	65.95	147.80
2	Chandigarh	127.10	-	-
3	Dadra and Nagar Haveli and Daman and Diu	72.73	106.84	63.33
4	Delhi	189.19	-	-
5	Jammu & Kashmir	84.61	57.45	148.05
6	Ladakh	163.48	89.82	332.56
7	Lakshdweep	119.48	-	-
8	Puduchery	71.72	69.02	72.88
<b>All India Tele-density</b>		<b>84.90</b>	<b>58.85</b>	<b>134.44</b>

**Table 1.17 : Rural Wireless Subscriber base and Market Share as on 31.12.2020**

<b>Service Provider</b>	<b>Total number of wireless Subscribers (in millions)</b>	<b>Rural Subscribers (in millions)</b>	<b>% of Rural subscribers in total</b>	<b>Market Share of Rural Subscribers (%)</b>
Reliance Jio	408.77	172.80	42.27	32.97
Bharti Airtel*	338.71	160.40	47.36	30.60
Vodafone Idea Ltd	284.26	152.98	53.82	29.19
BSNL	118.71	37.89	31.92	7.23
MTNL	3.32	0.05	1.37	0.01
Reliance Com.	0.01	0.00	0.00	0.00
<b>Total</b>	<b>1,153.77</b>	<b>524.11</b>	<b>45.43</b>	<b>100</b>

**Note:** 1. M/s Reliance Com. has not reported number of its rural wireless subscribers and hence its rural wireless subscription has been taken as NIL.

2. M/s Bharti Airtel Ltd has reported the wireless subscribers including the subscribers of M/s Tata Teleservices Ltd for QE December, 2020.

### Wireless Data Usage

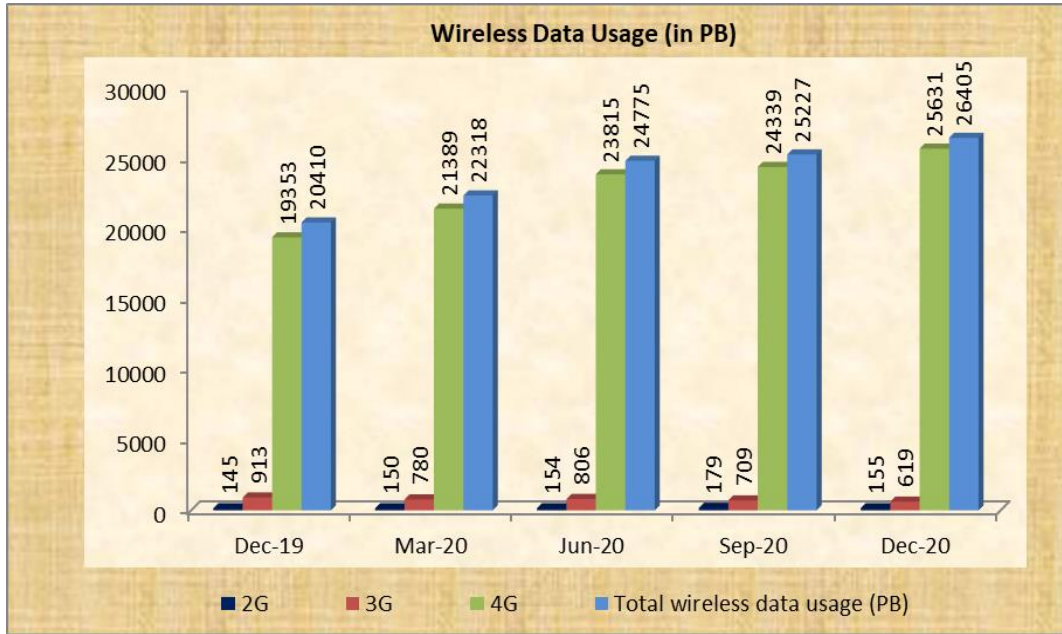
1.22 Volume of total wireless data usage increased from 25,227 PB during Q.E. Sep-20 to 26,405 PB during Q.E. Dec-20 with quarterly growth rate of 4.67%. Out of total data wireless usage, 2G data usage was 155 PB, 3G data usage was 619 PB and 4G data usage was 25,631 PB during the quarter.

1.23 Total number of wireless data subscribers increased from 751 million at the end of Sep-20 to 769 million at the end of Dec-20.

1.24 The contribution of 2G, 3G and 4G data usage in total volume of wireless data usage are about 0.59%, 2.34% and 97.07% respectively during the QE Dec-20.

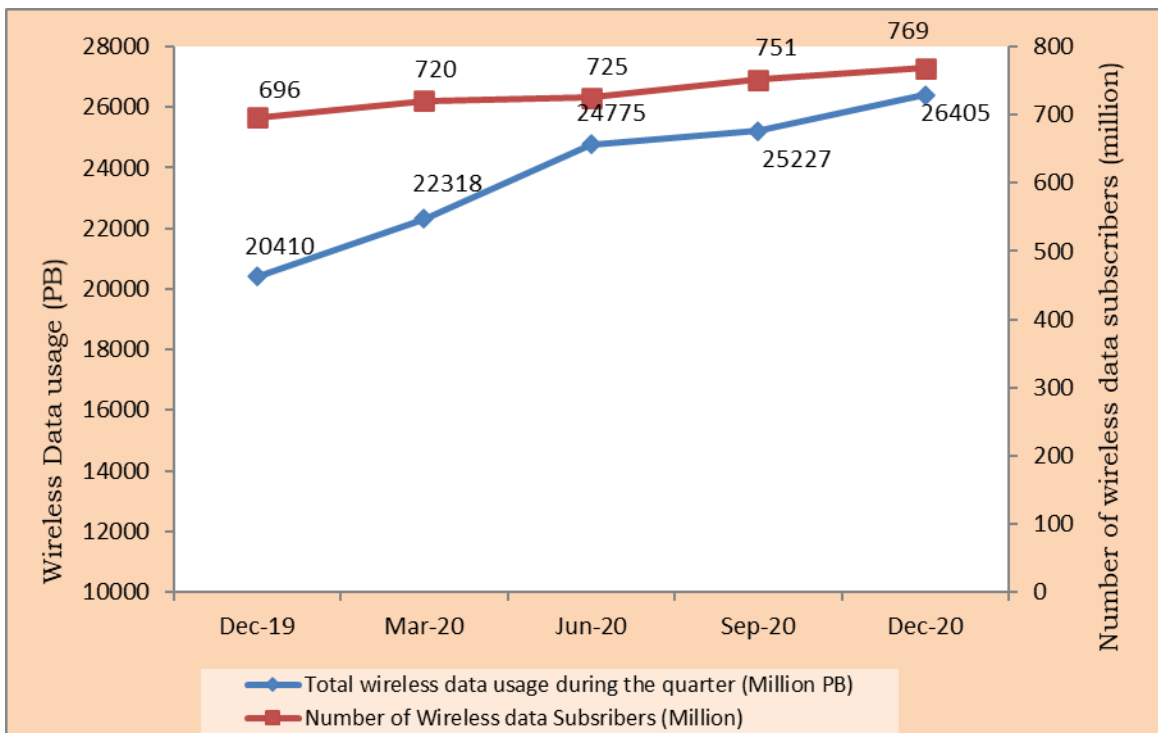
1.25 Technology-wise trend of growth in volume of wireless data usage is depicted in the following chart.

**Chart 1.8: Trend of technology wise wireless data usease (in PB)**



1.26 The following chart depicts the trend of number of wireless data subscribers and volume of wireless data usage in QE Dec-20.

**Chart 1.9: Trend of Wireless data subscribers (million) and volume of wireless data usage (PB)**



## Section C : Wireline Service

**Table 1.18 : Service Providers providing Wireline Service**

[As on 31<sup>st</sup> December, 2020]

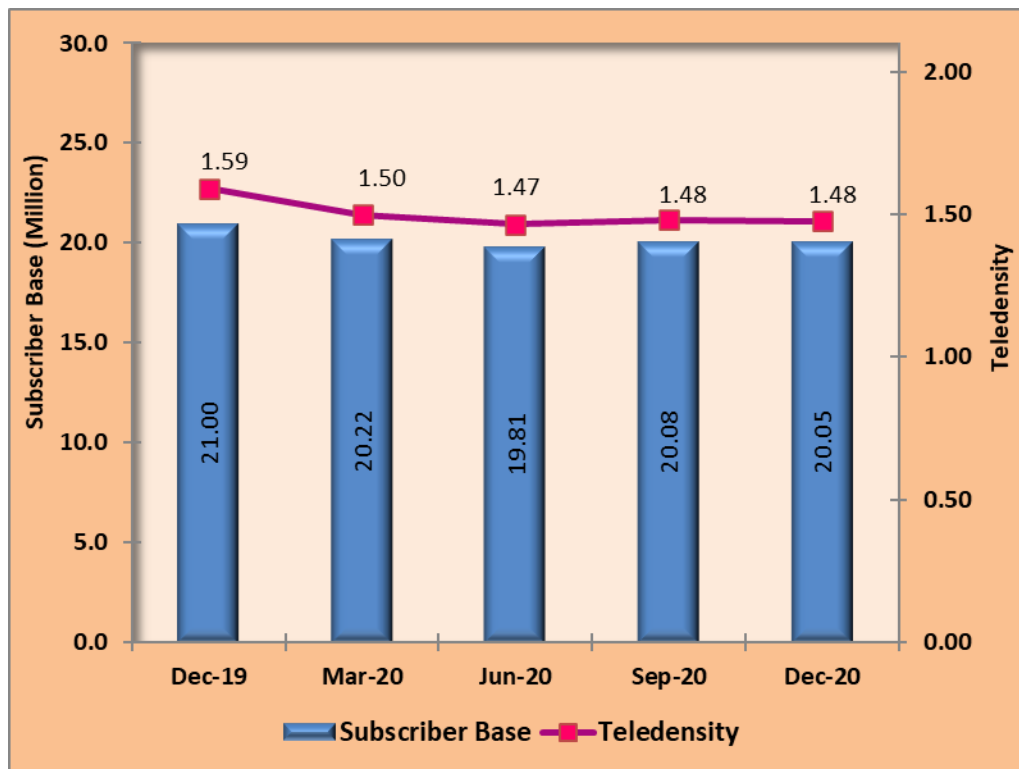
Sl. No.	Name of the Service Provider	Area of Operation
1	Bharti Airtel Ltd	Andhra Pradesh (excluding Telangana) Delhi, Gujarat, Haryana, Jammu & Kashmir, Karnataka, Kerala, Kolkata, Madhya Pradesh (excluding Chhattisgarh), Chhattisgarh, Maharashtra (excluding Mumbai), Mumbai, Punjab, Rajasthan, Tamil Nadu (excluding Chennai), Chennai, UP-East and UP-West (excluding Uttarakhand).
2	BSNL	All India except Delhi & Mumbai
3	MTNL	Delhi & Mumbai
4	Quadrant Televentures Ltd.	Punjab
5	Reliance Communications Ltd.	Andhra Pradesh (excluding Telangana), Telangana, Bihar (Excluding Jharkhand), Jharkhand, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh (excluding Chhattisgarh), Chhattisgarh, Maharashtra (Excluding Mumbai & Goa) Goa, Mumbai, Orissa, Punjab, Rajasthan, Tamil Nadu (excluding Chennai), Chennai, UP-East, UP-West (Excluding Uttarakhand), Uttarakhand and West Bengal (Excluding Andaman & Nicobar and Sikkim))
6	Tata Teleservices (Maharashtra) Ltd.	Maharashtra & Goa, Mumbai
	Tata Teleservices Ltd.	Andhra Pradesh (Excluding Telangana), Telangana, Bihar (Excluding Jharkhand), Jharkhand, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Maharashtra (excluding Mumbai & Goa), Goa, Mumbai Madhya Pradesh (Excluding Chhattisgarh), Chhattisgarh, Orissa, Punjab, Rajasthan, Tamil Nadu (Excluding Chennai), Chennai, UP-East, UP-West (Excluding Uttarakhand), Uttarakhand and West Bengal (Excluding Andaman & Nicobar and Sikkim)
7	Vodafone Idea Ltd	Andhra Pradesh (Excluding Telangana), Telangana, Assam, Bihar (Excluding Jharkhand), Jharkhand, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh (Excluding Chhattisgarh), Chhattisgarh, Maharashtra (Excluding Mumbai & Goa), Goa, Mumbai Meghalaya, Orissa, Punjab, Rajasthan, Tamil Nadu (Excluding Chennai), UP-East, UP-West (Excluding Uttarakhand), Uttarakhand and West Bengal (Excluding Andaman & Nicobar and Sikkim)

8	Reliance Jio	Andhra Pradesh (Excluding Telangana), Telangana, Assam, Bihar (Excluding Jharkhand), Jharkhand, Delhi, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Kolkata, Madhya Pradesh (Excluding Chhattisgarh), Chhattisgarh, Maharashtra (Excluding Mumbai), Mumbai, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Punjab, Rajasthan, Tamil Nadu (Excluding Chennai), Chennai, UP-East, UP-West (Excluding Uttarakhand), Uttarakhand and West Bengal (Excluding Andaman & Nicobar and Sikkim)
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1.27 Total number of Wireline subscribers decreased from 20.08 million at the end of Sep-20 to 20.05 million at the end of Dec-20 with quarterly decline rate of 0.12%. Overall Wireline Teledensity remained same i.e. 1.48% at the end of Dec-20.

1.28 Urban wireline subscriber base increased by 0.75% from 18.10 million at the end of Sep-20 to 18.24 million at the end of Dec-20. Rural wireline subscription declined by 8.13%, from 1.98 million to 1.81 million during the same period.

**Chart 1.10: Wireline Subscriber Base and Tele-density**





**Table 1.19: Wireline Subscriber Base & Tele-density - Rural & Urban**

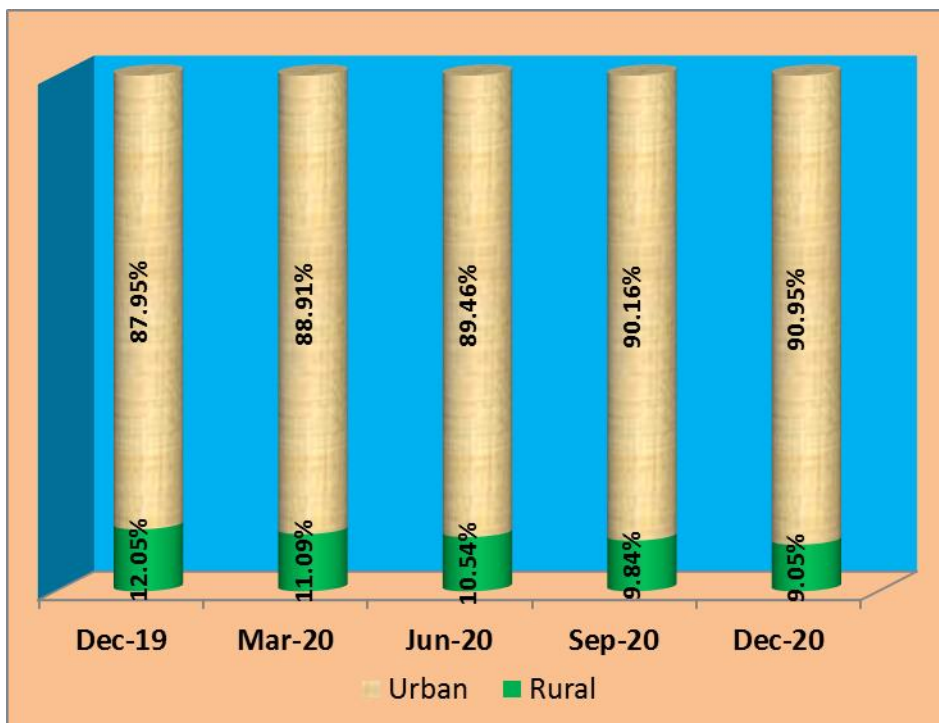
Quarter ending	Subscriber Base (million)		Tele-density (%)	
	Rural	Urban	Rural	Urban
Dec-19	2.53	18.47	0.28	4.36
Mar-20	2.24	17.97	0.25	3.90
Jun-20	2.09	17.72	0.24	3.82
Sep-20	1.98	18.10	0.22	3.88
Dec-20	1.81	18.24	0.20	3.89

**Table 1.20 : Service Provider wise Wireline Subscriber base (Rural - Urban) – As on 31.12.2020**

Service Provider	Subscriber Base (million)			Percentage of Rural subscribers	Share of Rural subscription
	Rural	Urban	Total		
BSNL	1.73	5.44	7.17	24.10%	95.19%
Bharti	0.00	4.57	4.57	--	0.00%
MTNL	0.00	2.96	2.96	--	0.00%
Tata Tele.	0.04	1.62	1.66	2.48%	2.26%
Reliance Com.	0.00	0.22	0.22	0.00%	0.00%
Quadrant	0.03	0.17	0.20	14.54%	1.63%
Vodafone Idea	0.00	0.52	0.52	--	0.00%
Reliance Jio	0.01	2.74	2.75	0.61%	0.93%
<b>Total</b>	<b>1.81</b>	<b>18.24</b>	<b>20.05</b>	<b>9.05%</b>	<b>100.00%</b>

1.29 Detailed table on service provider wise wireline subscriber base in each service area is at **Annexure-1.2**.

**Chart 1.11: Composition of Wireline Subscriber base - Rural & Urban**



1.30 Market Share of Rural wireline subscription declined from 9.84% in QE Sep-20 to 9.05% in QE Dec-20.

**Table 1.21 : Service Provider wise growth in Wireline Subscriber base**

Service Provider	Subscriber Base (million)			Rate of change (%)	Market share-Sep-20(%)	Market share-Dec-20(%)
	Sep-20	Dec-20	Net Addition			
Reliance Jio	2.08	2.75	0.68	32.57	10.35	13.74
Quadrant	0.19	0.20	0.02	9.32	0.92	1.01
Bharti	4.41	4.57	0.15	3.44	21.99	22.77
Vodafone	0.51	0.52	0.02	3.14	2.52	2.60
MTNL	3.03	2.96	-0.07	-2.34	15.10	14.76
Tata Tele.	1.71	1.66	-0.05	-3.05	8.51	8.26
BSNL	7.74	7.17	-0.57	-7.39	38.55	35.75
Reliance Com	0.41	0.22	-0.19	-46.45	2.06	1.10
<b>Total</b>	<b>20.08</b>	<b>20.05</b>	<b>-0.02</b>	<b>-0.12</b>	<b>100</b>	<b>100</b>

**Table 1.22: Service Area wise Wireline Subscriber base & Net Additions (in million)**

Service Area	Sep-20	Dec-20	Net Additions	Rate of Change (%)
Andhra Pradesh	1.35	1.38	0.02	1.78
Assam	0.12	0.13	0.01	7.67
Bihar	0.19	0.21	0.02	11.06
Delhi	3.26	3.31	0.04	1.35
Gujarat	0.96	0.96	0.00	0.03
Haryana	0.29	0.31	0.02	5.69
Himachal Pradesh	0.09	0.09	0.00	-3.34
Jammu & Kashmir	0.16	0.16	0.00	1.91
Karnataka	2.18	2.18	0.00	-0.22
Kerala	1.41	1.30	-0.11	-7.85
Madhya Pradesh	0.66	0.69	0.03	5.10
Maharashtra	1.32	1.27	-0.06	-4.18
Mumbai	3.07	3.02	-0.05	-1.64
North East	0.09	0.10	0.01	6.70
Orissa	0.20	0.21	0.00	1.93
Punjab	0.68	0.69	0.01	1.01
Rajasthan	0.48	0.47	-0.01	-1.99
Tamil Nadu	1.96	1.92	-0.04	-1.94
U.P.(E)	0.37	0.39	0.02	5.62
U.P.(W)	0.33	0.37	0.04	10.75
Kolkata	0.68	0.67	-0.02	-2.31
West Bengal	0.21	0.24	0.04	17.98
<b>All India</b>	<b>20.08</b>	<b>20.05</b>	<b>-0.02</b>	<b>-0.12</b>

1.31 West Bengal service area showed maximum growth of 17.98% and Kerala service area showed maximum decline of 7.85% in their wireline subscriber base during the quarter ending Dec-20.

**Table 1.23: Service Area wise Wireline Rural-Urban  
Subscriber Base (in million)**

<b>Service Area</b>	<b>Total Subscribers</b>	<b>Rural Subscribers</b>	<b>Urban Subscribers</b>	<b>% of Rural Subscribers</b>
Andhra Pradesh	1.38	0.12	1.26	8.39
Assam	0.13	0.02	0.11	12.04
Bihar	0.21	0.02	0.19	10.07
Delhi	3.31	0.00	3.31	0.01
Gujarat	0.96	0.07	0.89	7.14
Haryana	0.31	0.03	0.27	11.35
Himachal Pradesh	0.09	0.05	0.04	52.52
Jammu & Kashmir	0.16	0.01	0.15	6.09
Karnataka	2.18	0.09	2.09	3.92
Kerala	1.30	0.71	0.59	54.35
Madhya Pradesh	0.69	0.02	0.67	2.73
Maharashtra	1.27	0.16	1.10	12.98
Mumbai	3.02	0.00	3.02	0.00
North East	0.10	0.01	0.09	11.14
Orissa	0.21	0.03	0.17	16.55
Punjab	0.69	0.10	0.59	15.15
Rajasthan	0.47	0.03	0.44	6.41
Tamil Nadu	1.92	0.22	1.70	11.39
U.P.(E)	0.39	0.03	0.35	9.02
U.P.(W)	0.37	0.02	0.35	5.52
Kolkata	0.67	0.00	0.66	0.14
West Bengal	0.24	0.07	0.17	29.55
<b>All India</b>	<b>20.05</b>	<b>1.81</b>	<b>18.24</b>	<b>9.05</b>

1.32 Kerala service area has the maximum share 54.35% of rural wireline subscriber in its total wireline subscriber base at the end of Dec-20.

**Table 1.24: Service Area wise Wireline Tele-density**

Service Area	As on 30 <sup>th</sup> September, 2020			As on 31 <sup>st</sup> December, 2020		
	Rural Tele-density (%)	Urban Tele-density (%)	Total Tele-density (%)	Rural Tele-density (%)	Urban Tele-density (%)	Total Tele-density (%)
Andhra Pradesh	0.24	3.42	1.50	0.21	3.51	1.52
Assam	0.05	1.90	0.34	0.05	2.07	0.36
Bihar	0.02	0.70	0.12	0.02	0.77	0.13
Delhi	-	-	15.99	-	-	16.13
Gujarat	0.20	2.63	1.37	0.19	2.63	1.36
Haryana	0.22	2.12	0.99	0.20	2.27	1.05
Himachal Pradesh	0.75	5.69	1.25	0.71	5.59	1.21
Jammu & Kashmir	0.11	3.54	1.14	0.10	3.62	1.16
Karnataka	0.25	7.25	3.28	0.23	7.23	3.26
Kerala	7.46	2.49	3.97	6.78	2.36	3.66
Madhya Pradesh	0.03	2.00	0.58	0.02	2.11	0.61
Maharashtra (incl. Mumbai)*	0.27	6.97	3.50	0.25	6.79	3.41
North East	0.12	1.59	0.61	0.11	1.72	0.65
Orissa	0.10	2.07	0.46	0.10	2.12	0.47
Punjab	0.64	4.20	2.18	0.59	4.30	2.19
Rajasthan	0.06	2.14	0.60	0.05	2.10	0.59
Tamil Nadu (incl. Chennai)	0.65	4.19	2.52	0.60	4.12	2.47
Uttar Pradesh (incl. UPE & UPW)*	0.03	1.10	0.29	0.03	1.20	0.31
West Bengal (incl. Kolkata)*	0.11	2.31	0.90	0.12	2.35	0.92
<b>All India</b>	<b>0.22</b>	<b>3.88</b>	<b>1.48</b>	<b>0.20</b>	<b>3.89</b>	<b>1.48</b>

\* Population data/projections are available state-wise only

Note: 1. Tele-density figures are derived from the subscriber data provided by the operators and the population projections, for Urban and Rural areas, of the country from the Report of the technical group on population projections published by National Commission on Population, Ministry of Health & Family Welfare. (Based on Census of India 2011).

1. Data/information for Andhra Pradesh includes Telengana, Madhya Pradesh includes Chhatishgarh, Bihar includes Jharkhand, Maharashtra includes Goa, Uttar Pradesh includes Uttarakhand, West Bengal includes Sikkim and North-East includes Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland & Tripura states.

**Table 1.25: State/UT wise Wireline Subscriber base**

Sl. No.	States/UT	Wireline Subscribers (in million)		
		Total	Rural	Urban
1	Andhra Pradesh	0.75	0.09	0.65
2	Arunachal Pradesh	0.02	0.00	0.02
3	Assam	0.13	0.02	0.11
4	Bihar	0.10	0.02	0.09
5	Chhattisgarh	0.15	0.01	0.14
6	Goa	0.08	0.02	0.05
7	Gujarat	0.96	0.07	0.89
8	Haryana	0.32	0.03	0.28
9	Himachal Pradesh	0.09	0.05	0.04
10	Jharkhand	0.11	0.01	0.11
11	Karnataka	2.18	0.09	2.09
12	Kerala	1.29	0.70	0.59
13	Madhya Pradesh	0.55	0.01	0.54
14	Maharashtra Incl. Mumbai	4.21	0.14	4.07
15	Manipur	0.02	0.00	0.02
16	Meghalaya	0.02	0.002	0.02
17	Mizoram	0.01	0.001	0.01
18	Nagaland	0.01	0.000	0.01
19	Odisha	0.21	0.03	0.17
20	Punjab	0.53	0.10	0.42
21	Rajasthan	0.47	0.03	0.44
22	Sikkim	0.005	0.00	0.00
23	Tamil Nadu	1.88	0.21	1.67
24	Telangana	0.63	0.02	0.61
25	Tripura	0.02	0.00	0.02
26	Uttar Pradesh (UPE+UPW)	0.67	0.05	0.62
27	Uttarakhand	0.10	0.01	0.09
28	West Bengal Incl. Kolkata	0.89	0.07	0.82
<b>Union Territories</b>				
1	Andaman & Nicobar Islands	0.02	0.01	0.01
2	Chandigarh	0.16	0.001	0.16
3	Dadra and Nagar Haveli and Daman and Diu	0.005	0.002	0.003
4	Delhi	3.29	0.00	3.29
5	Jammu & Kashmir	0.16	0.01	0.15
6	Ladakh			
7	Lakshdweep	0.004	0.002	0.003
8	Puduchery	0.04	0.01	0.03
<b>Total</b>		<b>20.05</b>	<b>1.81</b>	<b>18.24</b>

**Table 1.26: State/UT wise Wireline Tele-density**

Sl.No.	State/UT	Wireline Tele-density		
		Total (%)	Rural (%)	Urban (%)
1	Andhra Pradesh	2.61	0.34	6.80
2	Arunachal Pradesh	1.32	0.34	4.23
3	Assam	0.36	0.05	2.07
4	Bihar	0.08	0.01	0.58
5	Chhattisgarh	0.49	0.04	1.77
6	Goa	4.93	5.56	4.70
7	Gujarat	1.38	0.18	2.68
8	Haryana	1.08	0.20	2.36
9	Himachal Pradesh	1.21	0.71	5.59
10	Jharkhand	0.29	0.02	1.06
11	Karnataka	3.26	0.23	7.23
12	Kerala	3.65	6.77	2.36
13	Madhya Pradesh	0.65	0.02	2.21
14	Maharashtra Incl. Mumbai	3.39	0.22	6.83
15	Manipur	0.56	0.12	1.50
16	Meghalaya	0.61	0.07	2.70
17	Mizoram	0.97	0.13	1.67
18	Nagaland	0.35	0.03	0.78
19	Odisha	0.47	0.10	2.12
20	Punjab	1.74	0.58	3.40
21	Rajasthan	0.59	0.05	2.10
22	Sikkim	0.68	0.06	1.45
23	Tamil Nadu	2.47	0.59	4.15
24	Telengana	1.68	0.12	3.48
25	Tripura	0.55	0.07	1.38
26	Uttar Pradesh (UPE + UPW)	0.29	0.03	1.14
27	Uttarakhand	0.88	0.11	2.30
28	West Bengal incl. Kolkata	0.91	0.11	2.34
<b>Union Territories</b>				
1	Andaman & Nicobar Islands	4.21	2.98	5.85
2	Chandigarh	13.63	26.03	13.59
3	Dadra and Nagar Haveli and Daman and Diu	0.43	0.82	0.32
4	Delhi	16.03	0.18	16.13
5	Jammu & Kashmir	0.59	0.05	1.85
6	Ladakh			
7	Lakshdweep	6.40	79.62	3.99
8	Puduchery	2.46	1.18	3.01
<b>Total</b>		<b>1.48</b>	<b>0.20</b>	<b>3.89</b>

## Public Call Offices (PCO)

1.33 Total number of PCOs in the country decrease from 155,182 at the end of Sep-20 to 137,015 at the end of Dec-20. Detailed table of service provider wise PCOs is available at **Annexure-1.3**.

**Chart 1.12: Trend of Number of PCOs**



1.34 Number of PCOs continued show declining trend over the year. It has recorded a overall quarterly decline rate of 11.71% and on Y-O-Y basis decline rate of 30.76% at the QE Dec-20.

**Table 1.27: Rate of change & Market share of PCOs**

Service Provider	Dec-20	Sep-20	Rate of change (%)	Market share (%) (Dec-20)
BSNL	78,722	90,386	-12.90	57.46
MTNL	53,713	55,734	-3.63	39.20
Bharti	4,058	8,501	-52.26	2.96
Quadrant	522	561	-6.95	0.38
<b>Total</b>	<b>137,015</b>	<b>155,182</b>	<b>-11.71</b>	<b>100</b>



## Village Public Telephones (VPTs)

- 1.35 There are 5,93,731 inhabited villages in India as per census 2001. During the Q.E. Dec-20, there are 68,606 villages having Village Public Telephones (VPTs).
- 1.36 Number of VPTs remained same i.e. 68,606 at the end of Dec-20 as were at the end of Sep-20.
- 1.37 As per the information received in TRAI, at the end of Dec-20, only M/s BSNL was providing VPT in the country. Service area wise detailed table of VPT is available at **Annexure-1.4**.

**Chart 1.13: Trend of number of VPTs**



## Section D: Internet Service

1.38 This section summarizes information submitted by internet service providers for the quarter ending Dec-20. **Part-I** consists of information of Internet service (narrowband+broadband), **Part-II** consists of broadband service and **Part-III** covers narrowband service.

### **Part-I: Internet Service (broadband + narrowband)**

1.39 As per reports received from 396 operators as compared to 388 operators in last quarter, total number of internet subscribers increased from 776.45 million at the end of Sep-20 to 795.18 million at the end of Dec-20 with quarterly growth rate of 2.41%. Out of total 795.18 million internet subscribers, 747.41 million were broadband subscribers and 47.77 million were narrowband subscribers.

1.40 Wired Internet subscribers increased from 24.36 million at the end of Sep-20 to 25.54 million at the end of Dec-20 with quarterly growth rate of 4.83%. Wireless Internet subscribers increased from 752.09 million at the end of Sep-20 to 769.64 million at the end of Dec-20 with quarterly growth rate of 2.33%.

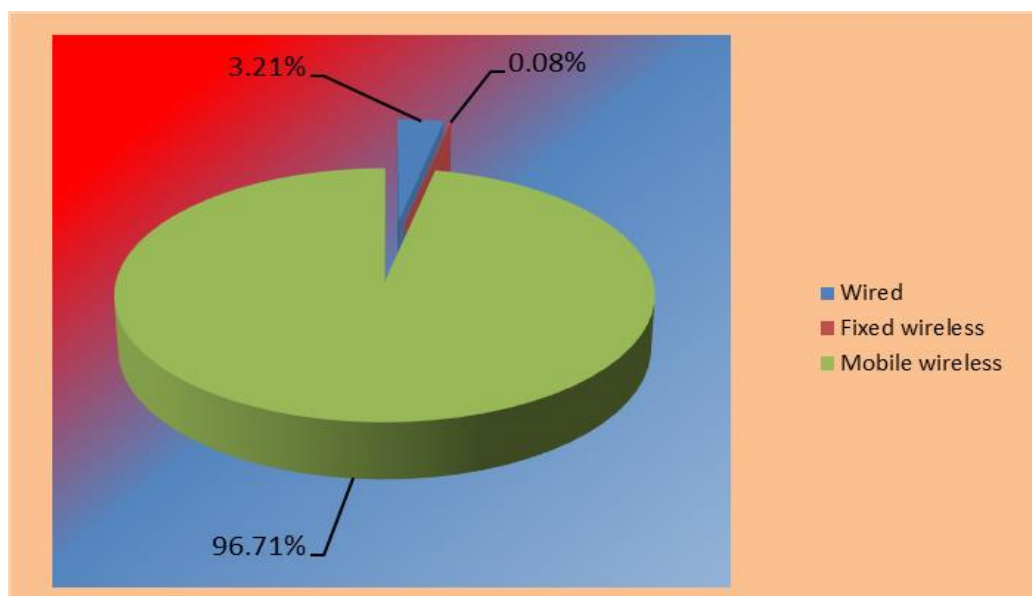
1.41 The number of Broadband subscribers increased from 726.32 million at the end of Sep-20 to 747.41 million at the end of Dec-20 with quarterly growth rate of 2.90%. However, the number of Narrowband subscribers declined from 50.14 million at the end of Sep-20 to 47.77 million at the end of Dec-20 with quarterly decline rate of 4.72%.

**Table 1.28: Trend of Internet subscriber base**

Segment	Mode of Access								Total Subscribers (in million)	
	Wired Subscribers (in million)		Wireless Subscribers (in million)							
			Fixed Wireless (Wi-Fi, Wi-Max, Radio & VSAT)		Mobile Wireless (Phone + Dongle)		Total Wireless			
	Sep-20	Dec-20	Sep-20	Dec-20	Sep-20	Dec-20	Sep-20	Dec-20	Sep-20	Dec-20
Broadband	21.12	22.29	0.64	0.65	704.57	724.46	705.20	725.12	726.32	747.41
Narrowband	3.24	3.24	0.006	0.004	46.89	44.52	46.89	44.53	50.14	47.77
<b>Total</b>	<b>24.36</b>	<b>25.54</b>	<b>0.64</b>	<b>0.66</b>	<b>751.45</b>	<b>768.99</b>	<b>752.10</b>	<b>769.64</b>	<b>776.45</b>	<b>795.18</b>

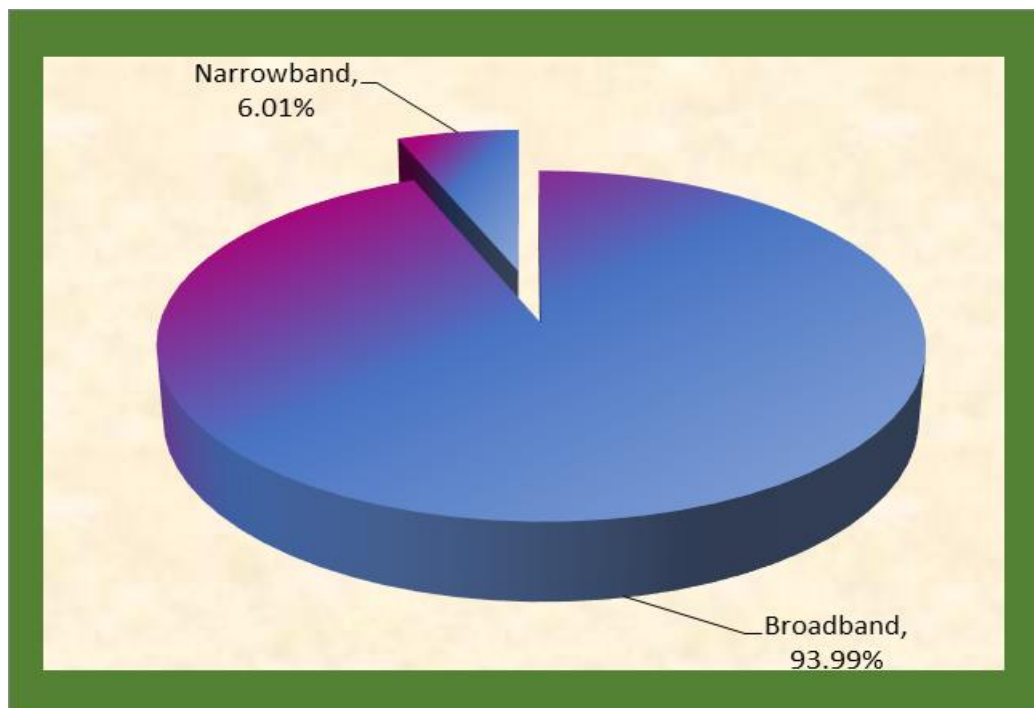
1.42 The following charts present the composition of Internet Subscribers by mode of access and composition of Broadband & Narrowband subscription as on 31<sup>st</sup> December, 2020.

**Chart 1.14: Composition of Internet subscription**



1.43 Out of total internet subscribers, 96.71% subscribers are using Mobile devices for access of internet service. Wired internet subscribers are only 3.21% in total internet subscribers at the end of Dec-20.

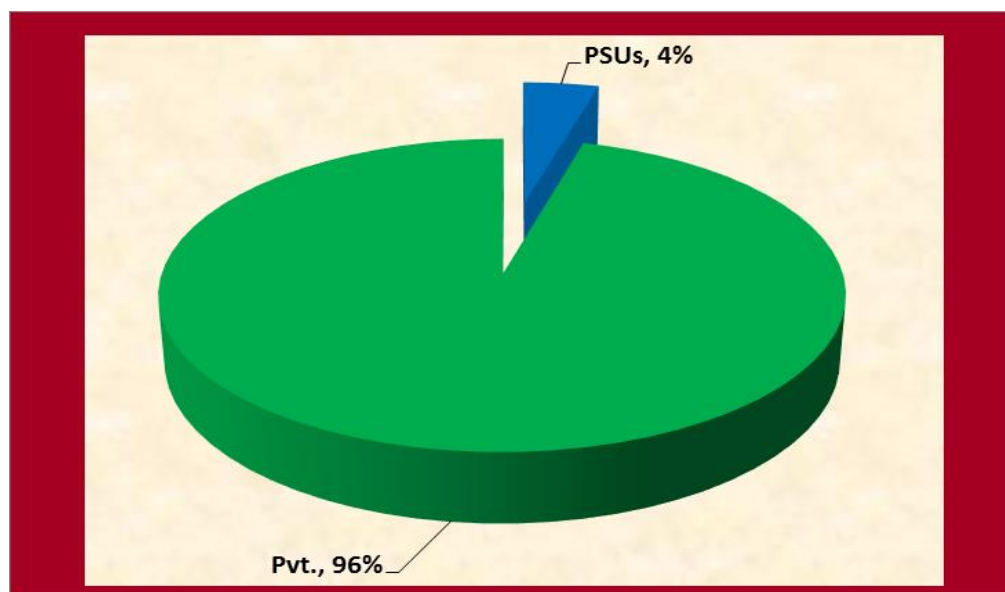
**Chart 1.15 : Composition of Broadband & Narrowband subscription**



1.44 Out of total internet subscribers, 93.99% subscribers are using broadband for access of internet.

1.45 Share of private internet service providers in total internet subscriber base remained same i.e. 96%, at QE Dec-20. The following charts present the composition of market share of PSUs and Private Internet service providers.

**Chart 1.16 : Market share of PSUs and Private Internet Service Providers**



1.46 The urban/rural break up of internet subscribers are as per the following table: -

**Table 1.29: Break up of Rural-Urban internet subscriber base (in millions)**

Telecom Service Area	Narrowband		Broadband		Total (Dec-20)		Total (Sep-2020)	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Andhra Pradesh	1.74	1.60	25.61	33.64	27.35	35.24	26.69	34.43
Assam	0.57	0.30	8.54	6.01	9.12	6.31	8.90	6.19
Bihar	2.91	1.09	30.10	18.91	33.01	20.00	32.83	18.86
Delhi	0.11	2.86	0.60	39.64	0.71	42.50	0.76	41.08
Gujarat	0.77	0.98	13.99	33.07	14.76	34.05	14.67	32.74
Haryana	0.37	0.46	6.63	10.31	7.00	10.77	7.08	10.79
Himachal Pradesh	0.17	0.14	4.01	2.24	4.18	2.39	4.09	2.31
Jammu & Kashmir	0.32	0.20	3.18	4.35	3.50	4.54	3.45	4.36
Karnataka	1.35	1.43	16.26	29.87	17.61	31.30	17.17	30.93
Kerala	0.65	0.87	11.40	16.72	12.05	17.59	11.50	16.96
Kolkata	0.12	1.19	1.32	15.96	1.44	17.15	1.44	16.78

Telecom Service Area	Narrowband		Broadband		Total (Dec-20)		Total (Sep-2020)	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Madhya Pradesh	1.76	1.58	19.71	29.87	21.46	31.45	20.84	30.48
Maharashtra	1.77	1.93	26.11	39.21	27.88	41.14	26.86	39.86
Mumbai	0.08	1.98	1.82	27.55	1.90	29.54	1.95	28.51
North East	0.24	0.19	4.25	4.05	4.49	4.24	4.31	4.16
Orissa	0.84	0.28	12.43	7.10	13.27	7.38	13.10	7.25
Punjab	0.46	0.71	8.34	18.09	8.80	18.80	8.66	19.31
Rajasthan	1.42	1.22	19.27	21.93	20.70	23.15	20.49	22.86
Tamil Nadu	1.60	1.79	13.00	38.06	14.61	39.85	14.63	38.43
UP (East)	3.32	1.42	28.00	25.84	31.33	27.27	30.52	26.36
UP (West)	1.20	1.17	14.14	23.60	15.33	24.76	14.90	24.14
West Bengal	1.76	0.84	15.93	16.76	17.69	17.61	17.52	17.33
<b>Grand Total</b>	<b>23.53</b>	<b>24.24</b>	<b>284.64</b>	<b>462.77</b>	<b>308.17</b>	<b>487.01</b>	<b>302.35</b>	<b>474.11</b>
	<b>47.77</b>		<b>747.41</b>		<b>795.18</b>		<b>776.45</b>	

**Table 1.30: Internet Subscriber Base and Market Share of top 10 Service Providers**

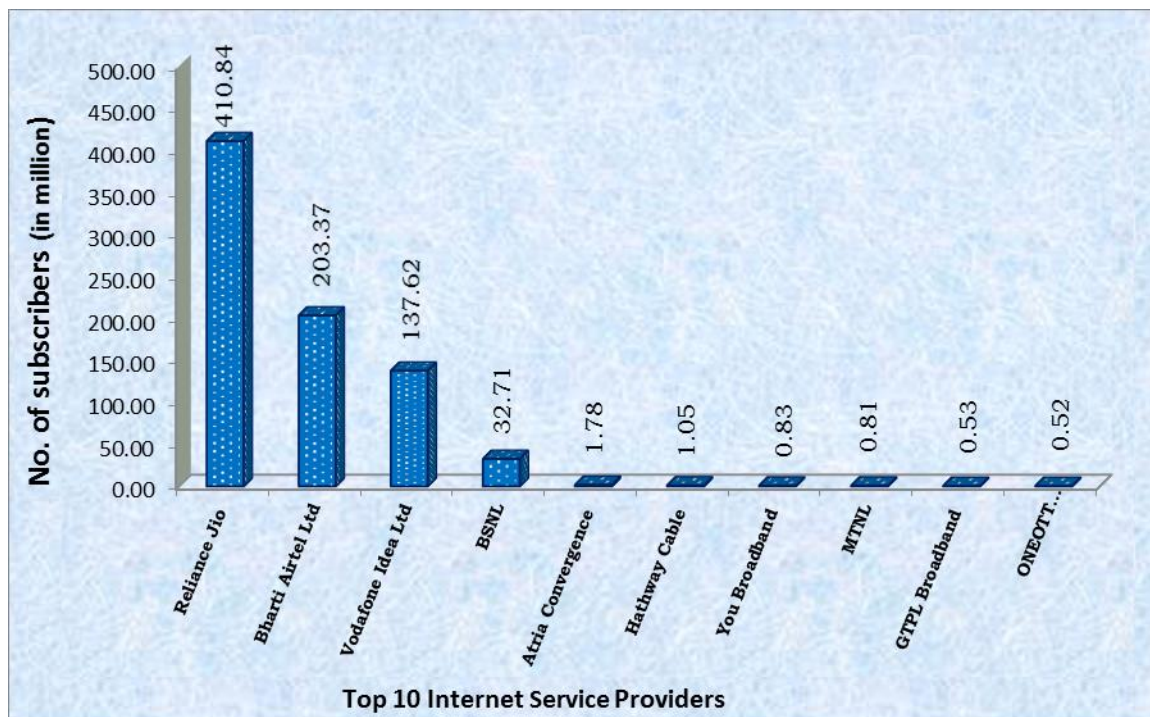
S.No	ISP	No. of Subscribers (In million)	Share (%)
1	Reliance Jio Infocomm Ltd	410.84	51.67
2	Bharti Airtel Ltd.	203.37	25.58
3	Vodafone Idea Limited	137.62	17.31
4	Bharat Sanchar Nigam Ltd.	32.71	4.11
5	Atria Convergence Technologies Pvt. Ltd.	1.78	0.22
6	Hathway Cable & Datacom Pvt. Ltd.	1.05	0.13
7	You Broadband India Pvt. Ltd.	0.83	0.10
8	Mahanagar Telephone Nigam Ltd.	0.81	0.10
9	GTPL Broadband Pvt. Ltd.	0.53	0.07
10	ONEOTT iNTERTAINMENT LTD	0.52	0.06
<b>Total of Top 10 ISPs</b>		<b>790.06</b>	<b>99.36</b>
<b>Others</b>		<b>5.12</b>	<b>0.64</b>
<b>Grand Total</b>		<b>795.18</b>	<b>100</b>

1.47 Reliance Jio holds the top position with 51.67% of market share of internet subscribers followed by Bharti Airtel Ltd with 25.58% at the QE Dec-20. M/s Vodafone Idea Ltd held the third position in respect of internet subscriber base with market share of 17.31%.

1.48 Out of total 396 internet service providers, top 10 Service Providers together hold 99.36% of total internet subscriber base at the QE Dec-20. Detailed table of number of internet subscriber base (broadband and narrowband) of all the service providers is available at **Annexure-1.5**.

1.49 The following chart depicts the internet subscriber base of top ten Internet Service Providers (ISPs) in the QE Dec-20.

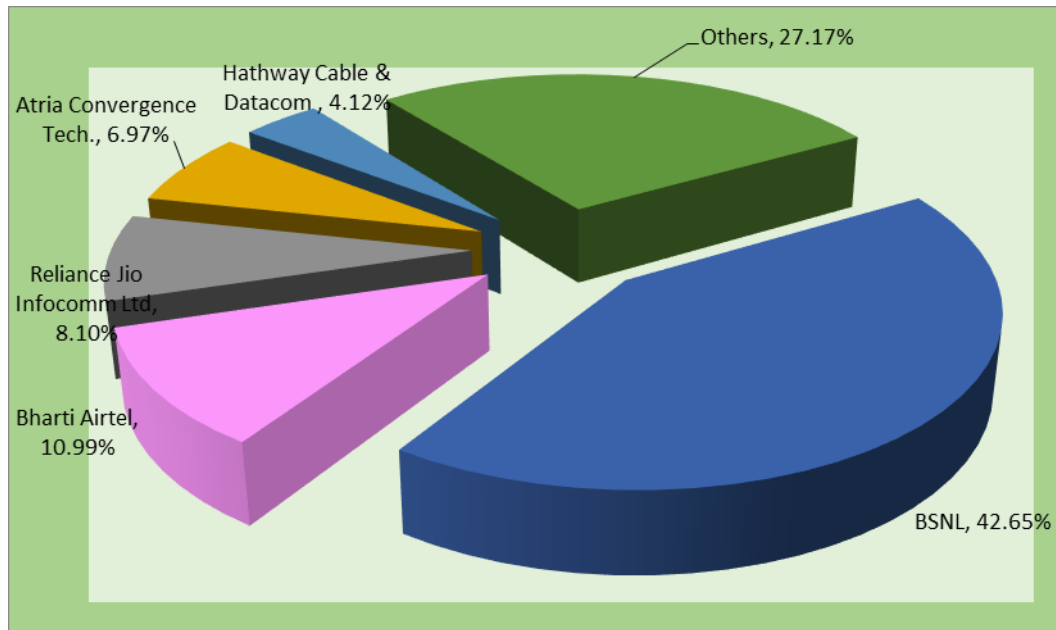
**Chart 1.17 : Subscriber base of top ten ISPs**



1.50 Out of total 25.54 million wired internet subscribers, BSNL holds 42.65% market share with 10.89 million subscribers, followed by Bharti with 2.81 million subscribers.

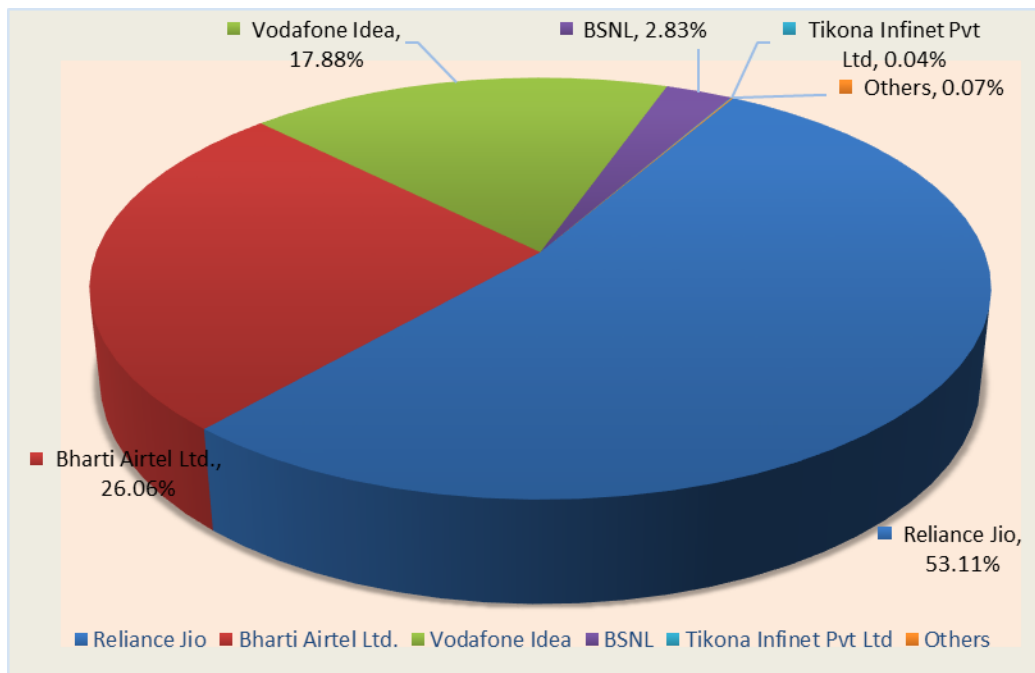


**Chart 1.18 : Composition of Wired Internet subscribers**



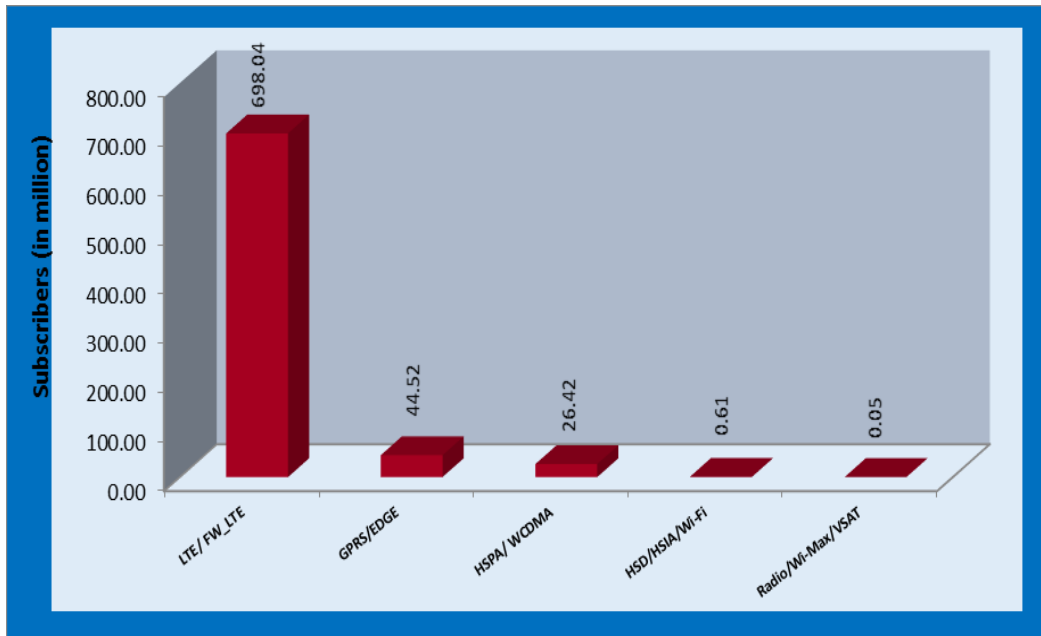
1.51 In wireless internet segment, Reliance Jio holds 53.11% market share with 408.77 million subscribers followed by Bharti Airtel Ltd with 26.06% of wireless internet subscribers at the QE Dec-20.

**Chart 1.19 : Composition of Wireless Internet subscription**

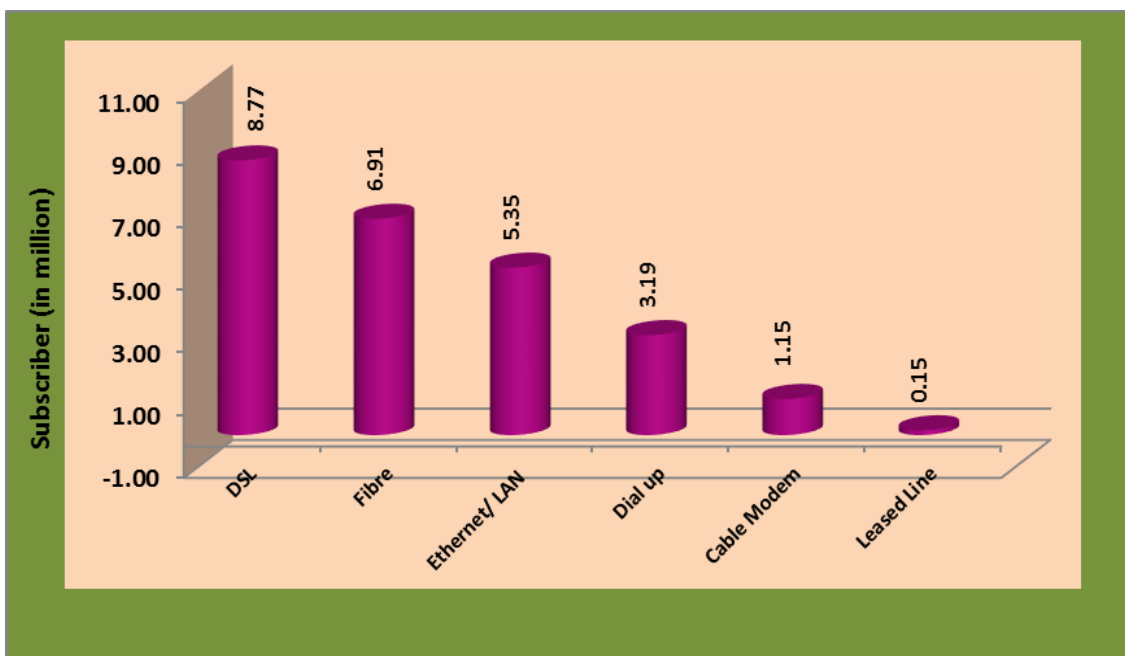




**Chart 1.20 : Technology trend for Wireless Internet Access**



**Chart 1.21: Technology trend for Wired Internet Access**



1.52 Top five service areas in terms of internet subscriptions (wired+ wireless) are Maharashtra (69.01 million), Andhra Pradesh including Telengana (62.59 million), U.P.(East) (58.59 million) Tamil Nadu (54.45 million) and Bihar including Jharkhand (53.01 million).

**Table 1.31 : Service Area wise number of Internet Subscribers per 100 population at the end of Dec-20**

Service Area	Internet Subscribers (in million)			No. of Internet subscribers per 100 population		
	Rural	Urban	Total	Rural	Urban	Total
Andhra Pradesh	27.35	35.24	62.59	50.26	97.90	69.22
Assam	9.12	6.31	15.43	30.77	117.93	44.11
Bihar	33.01	20.00	53.01	24.20	80.75	32.89
Delhi	0.71	42.50	43.20	515.30	208.60	210.65
Gujarat	14.76	34.05	48.81	40.25	100.07	69.04
Haryana	7.00	10.77	17.77	40.22	89.71	60.42
Himachal Pradesh	4.18	2.39	6.57	63.09	314.81	88.92
Jammu & Kashmir	3.50	4.54	8.04	36.54	110.71	58.75
Karnataka	17.61	31.30	48.91	46.58	108.10	73.26
Kerala	12.05	17.59	29.64	115.71	70.05	83.43
Madhya Pradesh	21.46	31.45	52.91	26.26	98.21	46.52
Maharashtra	27.88	41.14	69.01	45.75	116.42	79.85
Mumbai	1.90	29.54	31.44			
North East	4.49	4.24	8.73	43.68	82.17	56.53
Orissa	13.27	7.38	20.65	36.99	90.78	46.92
Punjab	8.80	18.80	27.59	49.23	137.86	87.59
Rajasthan	20.70	23.15	43.85	35.50	111.24	55.42
Tamil Nadu	14.61	39.85	54.45	39.94	96.39	69.89
UP (East)	31.33	27.27	58.59	25.47	88.77	40.82
UP (West)	15.33	24.76	40.09			
Kolkata	1.44	17.15	18.59	30.14	97.50	54.37
West Bengal	17.69	17.61	35.30			
<b>Total</b>	<b>308.17</b>	<b>487.01</b>	<b>795.18</b>	<b>34.60</b>	<b>103.98</b>	<b>58.51</b>

\* Population data/projections are available state-wise only.

Notes:

- No. of total internet subscribers per 100 population is derived from the subscriber data provided by the operators and the population projections of the country from the Report of the technical group on population projections published by National Commission on Population, Ministry of Health & Family Welfare. (Based on Census of India 2011)
- Data/information for Andhra Pradesh includes Telengana, Madhya Pradesh includes Chhatisgarh, Bihar includes Jharkhand, Maharashtra includes Goa, Uttar Pradesh includes Uttarakhand, West Bengal includes Sikkim and North-East includes Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland & Tripura states.

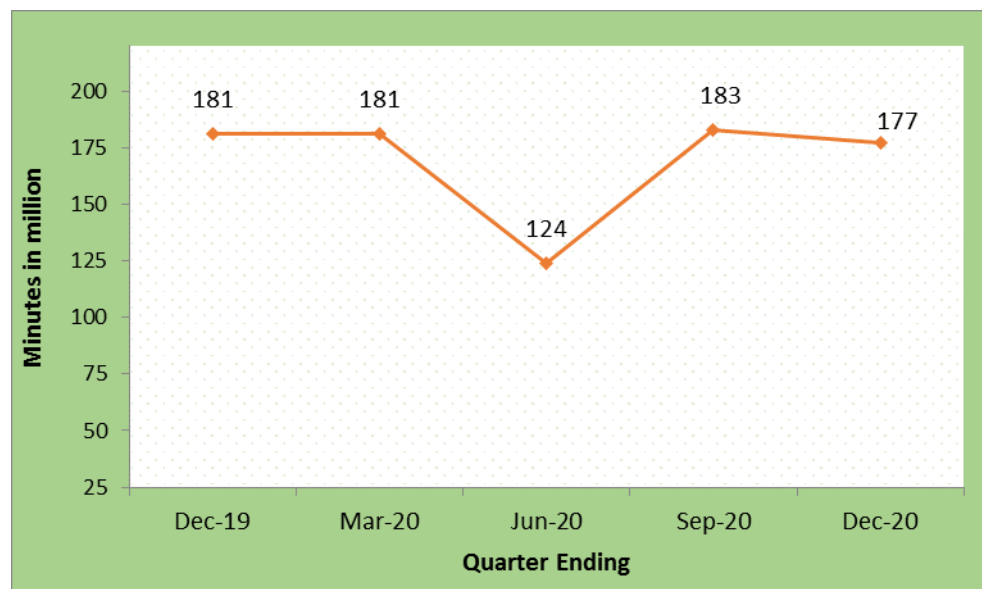
## ISP Connectivity

1.53 The International Internet bandwidth owned by various service providers is reported to be 20,811 Gbps during the quarter ending Dec-20 as compare to 19,291 Gbps during the previous quarter.

## Internet Telephony

1.54 As per the reports received from 15 service providers, providing Internet Telephony services, the total outgoing minutes of usage for internet telephony decreased from 182.58 million minutes at the end of Sep-20 to 177.22 million minutes at the end of Dec-20. List of Internet Telephony Service providers is available at **Annexure-1.6**.

**Chart 1.22 : Trends in MOU for Internet Telephony**

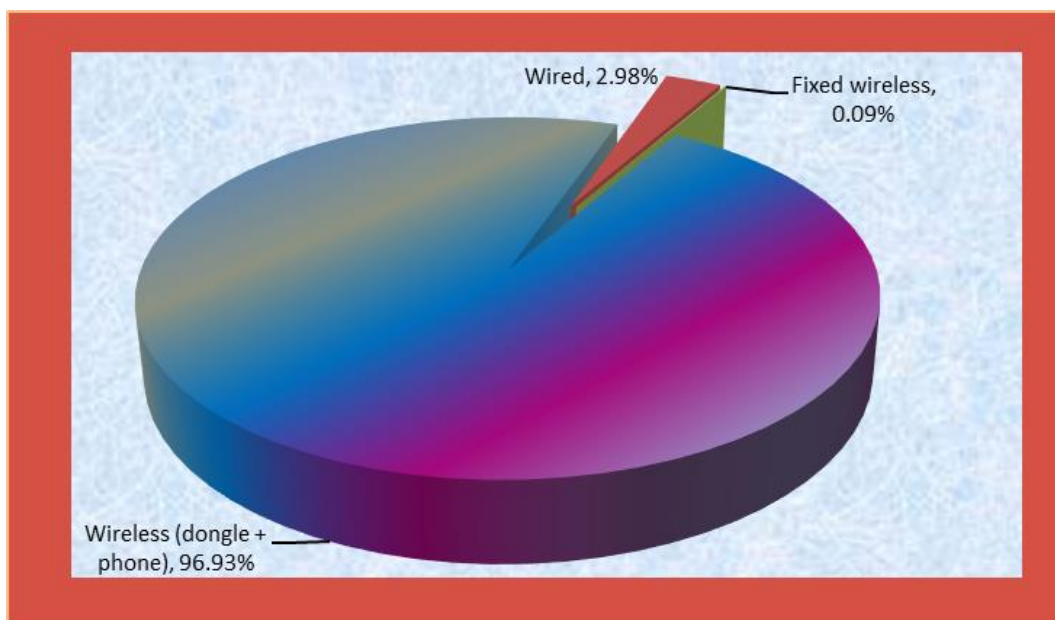


## Part-II : Broadband Service (Download Speed $\geq$ 512 Kbps)

1.55 The total number of broadband subscribers increased from 726.32 million at the end of Sep-20 to 747.41 million at the end of Dec-20. Out of which number of wired broadband subscribers are 22.29 million and wireless broadband subscribers are 725.12 million.

- 1.56 Top five broadband (wired+wireless) service providers in term of subscribers are Reliance Jio (410.84 million), Bharti Airtel (179 million), Vodafone Idea Ltd (120.77 million), BSNL (26.32 million) and Atria Convergence (1.78 million).
- 1.57 In wired broadband segment, BSNL holds 34.53% market share with 7.70 million subscribers followed by Bharti with 2.81 million subscribers in QE Dec-20.
- 1.58 In wireless broadband segment, Reliance Jio holds 56.37% market share with 408.77 million subscribers followed by Bharti Airtel Ltd (24.30%) with 176.19 million subscribers in QE Dec-20.
- 1.59 Top five service areas in respect of broadband subscriptions at Q.E. Dec-20 are Maharashtra (65.32 million), Andhra Pradesh including Telengana (59.26 million), U.P.-East (53.85 million), Tamil Nadu (51.06 million) and Madhya Pradesh (49.58 million).

**Chart 1.23 : Composition of Broadband subscription – Technology wise**

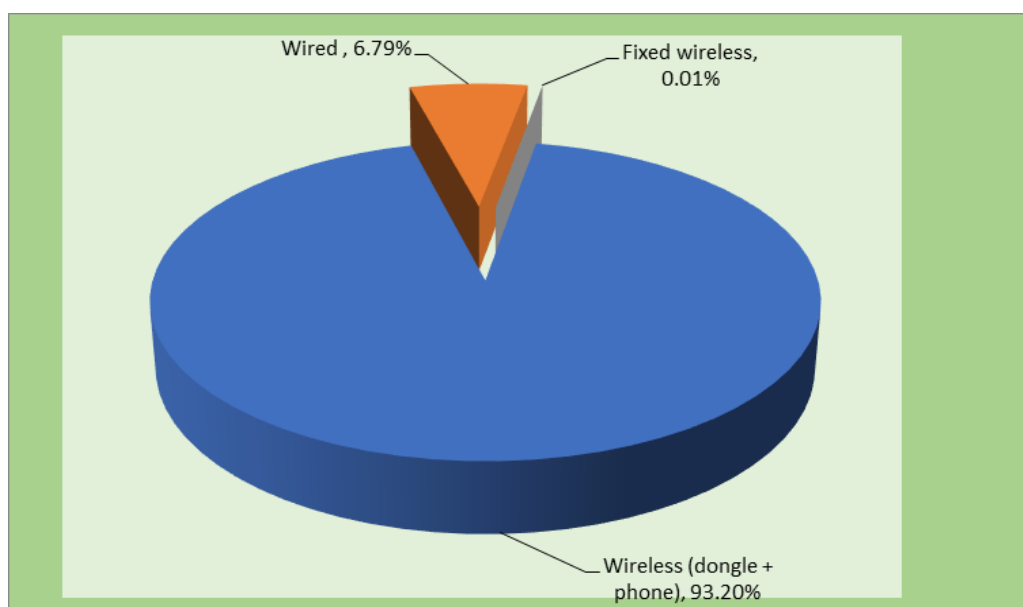


- 1.60 Mobile Device Users (dongle+phone) constitute 96.93% of total broadband subscribers at the end of Dec-20.

### Part-III : Narrowband Service (Download Speed <512 Kbps)

- 1.61 Total number of narrowband subscribers declined from 50.14 million at the end of Sep-20 to 47.77 million at the end of Dec-20 with the quarterly decline rate of 4.72%. Out of 47.77 million narrowband subscribers, Wired Narrowband subscribers are 3.24 million and Wireless Narrowband subscribers are 44.53 million.
- 1.62 The top five narrowband (wired+wireless) service providers in term of subscriber base are Bharti Airtel (24.37 million), Vodafone Idea Ltd (16.85 million), BSNL (6.39 million), MTNL (0.11 million) and You Broadband (0.02 million) at the end of Dec-20.
- 1.63 In wired narrowband segment, BSNL holds 98.50% market share with 3.20 million subscribers followed by You Broadband India Pvt Ltd with 0.02 million subscribers.
- 1.64 In wireless narrowband segment, Bharti Airtel holds 54.74% market share with 24.37 million subscribers followed by Vodafone Idea Ltd with 16.85 million subscribers.

**Chart 1.24 : Composition of Narrowband subscription – Technology wise**



**Section E : Other Value Added Services - PMRTS &  
Public Mobile Radio Trunk Services (PMRTS)**

1.65 The subscriber base of PMRTS decreased from 63,901 at the end of Sep-20 to 63,205 at the end of Dec-20 with quarterly decline rate of 1.09%.

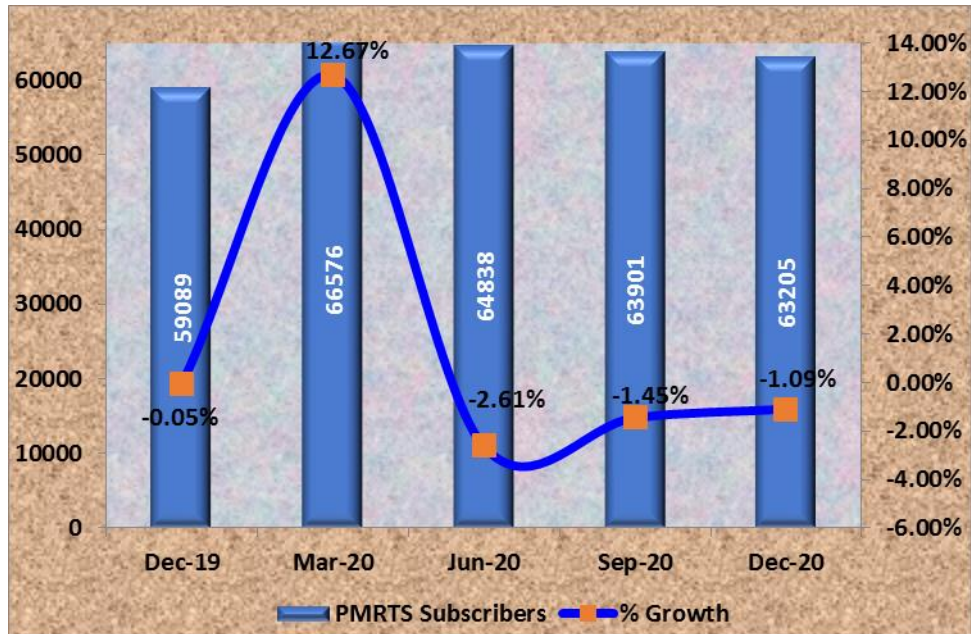
**Table 1.32 : PMRTS Subscriber base - Service Provider wise**

Sl. No	Name of the Service Provider	Subscriber Base as on 30.09.2020	Subscriber Base as on 31.12.2020	Net Addition	% Growth in subscribers in QE Dec-20
1	Arya Omnitalk Radio Trunking Services Pvt. Ltd.	53,521	52,516	-1,005	-1.88
4	Procall Ltd.	3,341	3,369	28	0.84
2	Quick Call	2,030	2,029	-1	-0.05
3	Inative Networks Pvt Ltd	1,820	1,820	0	0.00
5	Smartalk Pvt Ltd	1,426	1,486	60	4.21
6	Bhilwara Telenet Services Pvt Ltd	869	864	-5	-0.58
7	Wiwonet Solutions Pvt Ltd	478	690	212	44.35
8	Airtalk Solutions & Services Pvt Ltd	416	431	15	3.61
<b>Total</b>		<b>63,901</b>	<b>63,205</b>	<b>-696</b>	<b>-1.09</b>

1.66 Detailed table on Service Area wise subscriber base of PMRTS as on 31<sup>st</sup> December, 2020 is available at **Annexure-1.7**.



**Chart 1.25 : Number of PMRTS subscribers & Rate of Growth (%)**



**Very Small Aperture Terminal (VSAT)**

1.67 The total number of VSAT subscribers increased from 295,261 at the end of Sep-20 to 296,079 at the end of Dec-20. Net increase during the quarter has been 818 at the growth rate of 0.28%.

**Chart 1.26 : Number of VSAT Subscribers & Rate of Growth (%)**



**Table 1.33 : VSAT Service Providers currently providing service & their subscriber base**

Sr. No	Name of Service Providers	Subscriber base at the Quarter ending		Net Addition	%age Growth	Market Share (%) Dec-20
		Sep-20	Dec-20			
1	Hughes Communications Ltd.	123,154	125,371	2,217	1.80	42.34
2	Bharti Airtel Limited	76,702	75,978	-724	-0.94	25.66
3	Tatanet Services	73,749	75,743	1,994	2.70	25.58
4	HCL Comnet	10,181	8,036	-2,145	-21.07	2.71
5	BSNL	8,863	8,322	-541	-6.10	2.81
6	Infotel Satcom	2,562	2,579	17	0.66	0.87
7	Cloudcast Digital Ltd	50	50	0	0.00	0.02
<b>Total</b>		<b>295,261</b>	<b>296,079</b>	<b>818</b>	<b>0.28</b>	<b>100</b>

1.68 Hughes Communication Limited continues to be the market leader with 42.34% share in VSAT with subscriber base of 125,371 followed by Bharti Airtel Ltd with 75,978 at the end of Dec-20.

1.69 In term of net addition, Hughes Communication Limited added maximum number of VSAT subscribers (2,217 subscribers) during the QE Dec-20. Bharti Airtel Limited, HCL Comnet and BSNL have registered decline in their VSAT subscribers during the quarter.



# **Chapter 2 :**

# **Revenue and Usage**

# **Wireless Services**

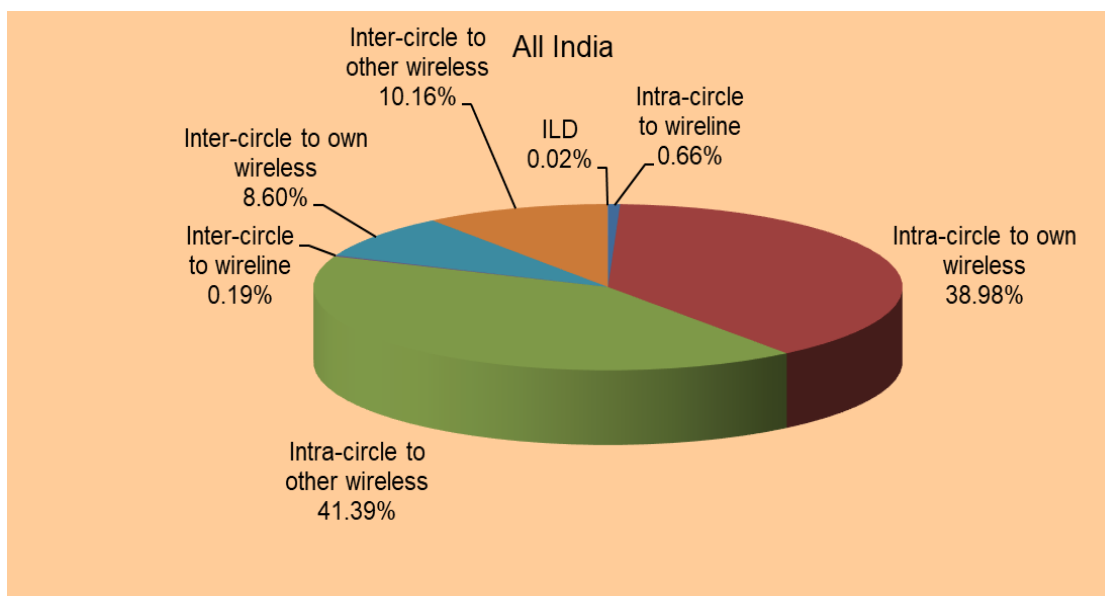
- 
- For all the parameters, Metros indicate data for Delhi, Mumbai & Kolkata. Data for Chennai service area has been included in Circle A, as part of TN.
  - ARPU arrived after adjusting interconnect usage charges and roaming settlement charges.
  - The data contained in this section covers the licensees, who have been providing service during the entire period from 1<sup>st</sup> October, 2020 to 31<sup>st</sup> December, 2020 in the various service areas.

**Table 2.1: Key Indicators – Wireless Services**

Parameter	Dec-20	Sep-20	Dec-19	QoQ %age change	YoY %age change
Share of Prepaid (%)	95.21%	95.39%	95.46%	-0.18	-0.26
Incoming MOU per subscriber per month	393.32	381.35	355.00	3.14	10.79
Outgoing MOU per subscriber per month	392.06	380.08	357.18	3.15	9.76
No. of Outgoing SMS per subscriber per month	15.85	15.71	17.86	0.93	-11.24
Average Revenue Per User (ARPU) per month (₹)	101.65	96.87	78.65	4.93	29.24

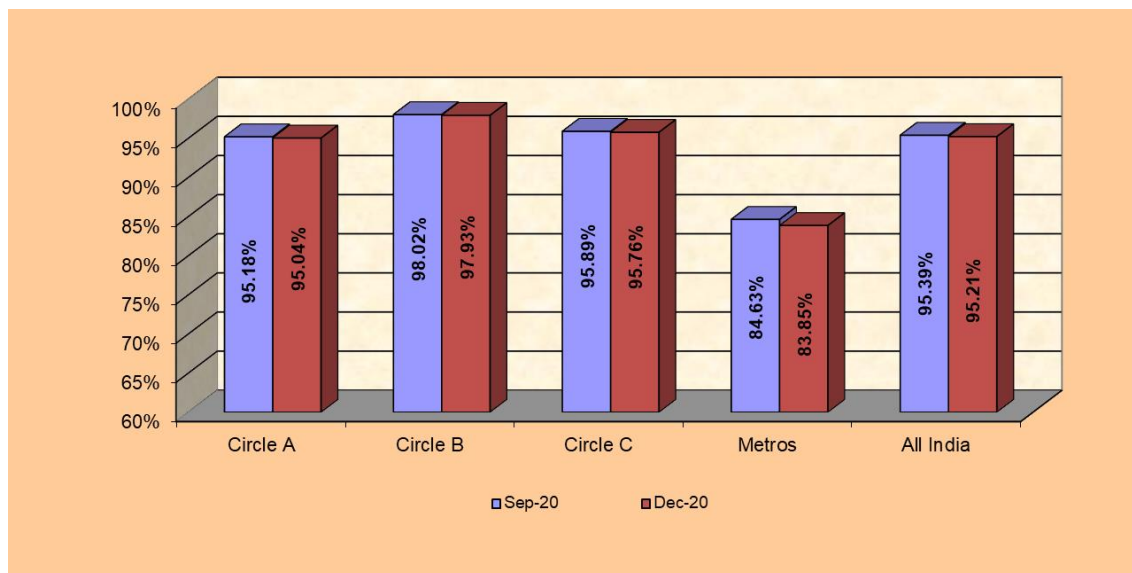
2.1 The following chart presents % break-up of outgoing minutes from Home Service Area (HSA) in the QE Dec-20.

**Chart 2.1: % Break-up of Outgoing minutes from Home Service Area (HSA)**



2.2 The following chart presents pre-paid subscribers as a % of total subscribers as on the last day of the respective quarters for various categories of circles.

**Chart 2.2: Proportion of prepaid subscribers**



*Note: Based on subscriber figures as on the last day of the quarter.*

- 2.3 The market share of pre-paid segment has decreased from 95.39% at the end of Sep-20 to 95.21% at the end of Dec-20.
- 2.4 The ARPU per month (all India blended) increased from Rs.96.87 in QE Sep-20 to Rs.101.65 in QE Dec-20 with quarterly growth rate of 4.93%. Year-on-Year basis, ARPU per month increased by 29.24% in this quarter.
- 2.5 The ARPU per month for pre-paid segment is Rs.95 and ARPU per month for postpaid segment is Rs.227 in QE Dec-20.
- 2.6 The following table presents the ARPU per month for various categories of circles and various platforms for payment viz. post-paid and pre-paid.

**Table 2.2: Monthly ARPU – Wireless Services in QE Dec-20**

Circle Category	ARPU per month (in ₹)		
	Post-paid	Pre-paid	Blended
Circle A	265	107	115
Circle B	231	93	95
Circle C	185	94	98
Metros	201	66	87
<b>All India</b>	<b>227</b>	<b>95</b>	<b>102</b>
All private SPs	234	102	109
BSNL/MTNL	122	41	43

2.7 The following table presents the composition of ARPU per month for QE Dec-20.

**Table 2.3: Composition of ARPU per month - Wireless Services**

S. No.	Item	Revenue (excl. service tax) per subscriber per month (in ₹)	Share of total revenue from subscribers
<b>1</b>	<b>Usage from Home Service Area</b>		
1.1.	Rental Revenue#	0.95	0.8%
1.2.	Revenue from calls	17.96	15.9%
1.3.	Revenue from SMS	0.33	0.3%
1.4.	Revenue from data usage	88.18	78.1%
1.5.	Revenue from other VAS	1.61	1.4%
1.6.	Other revenue	3.21	2.8%
<b>2</b>	<b>Usage outside Home Service Area</b>		
2.1.	Revenue from out-roamers	0.60	0.5%
<b>3</b>	<b>Total revenue from subscribers (1+2)</b>	<b>112.86</b>	<b>100%</b>
4	Net inter-operator settlement charges receivable *	-11.21	
<b>5</b>	<b>Net Revenue (ARPU) per month (3+4)</b>	<b>101.65</b>	

\* includes Interconnect Usages Charges and roaming settlement charges

# Starting from QE March-20 the TSPs started bifurcating rental revenue amongst revenue from calls and data usage

There is a difference in ARPU calculated by TRAI and the figures published by TSPs in their financial statements. This is because each TSP has a different methodology to calculate the ARPU. For example, one of the TSPs calculated ARPU by dividing the service revenue by the average number of subscribers during the quarter. Another TSP calculated ARPU by dividing operating revenue as given in the P&L account for the quarter by the average subscriber base for the current and previous quarters. Further, TRAI calculates Average Revenue Per User (ARPU) per month as Quarterly Revenue adjusted for interconnect usage charges and roaming settlement charges divided by average subscribers during the quarter for its own regulatory analysis. Therefore, the different methods result in a TRAI ARPU figure being less than what a TSP would declare in its quarterly financial results or presents to investors/Credit rating agencies.

2.8 From the above table, it may be seen that the net inter-operator settlement charges payable (Rs.11.21) accounted for 9.93% of the total revenue from subscribers in the Q.E. Dec - 2020.

2.9 On an all India average, the overall MOU per subscriber per month increased by 3.14% from 761 in Q.E. Sep-20 to 785 in Q.E. Dec-20.

2.10 The following table presents the total MOU (usage from, and outside, the home service area) per subscriber per month for various categories of circles and various platforms for payment viz. post-paid and pre-paid during Q.E. Dec-20.

**Table 2.4: MOU per subscriber per month - QE Dec-20**

Circle category	MOU per subscriber per month								
	Post-paid			Pre-paid			Blended		
	Outgoing MOU	Incoming MOU	Total MOU	Outgoing MOU	Incoming MOU	Total MOU	Outgoing MOU	Incoming MOU	Total MOU
Circle A	353	316	669	363	353	716	363	351	714
Circle B	342	322	663	388	398	786	387	397	784
Circle C	406	405	811	458	490	948	456	486	942
Metro	278	223	501	442	409	851	416	380	796
<b>All India</b>	<b>333</b>	<b>298</b>	<b>631</b>	<b>395</b>	<b>398</b>	<b>793</b>	<b>392</b>	<b>393</b>	<b>785</b>

*Note: MOU indicates total usage i.e. usage from and outside HSA*

2.11 The overall ratio of incoming MOUs and outgoing MOUs for the Q.E. Dec-20 is 50.1: 49.9.

2.12 Average number of Outgoing SMS per subscriber per month is 16 in QE Dec-20. The following table presents the outgoing SMS usage (usage from and outside, the home service area) per subscriber per

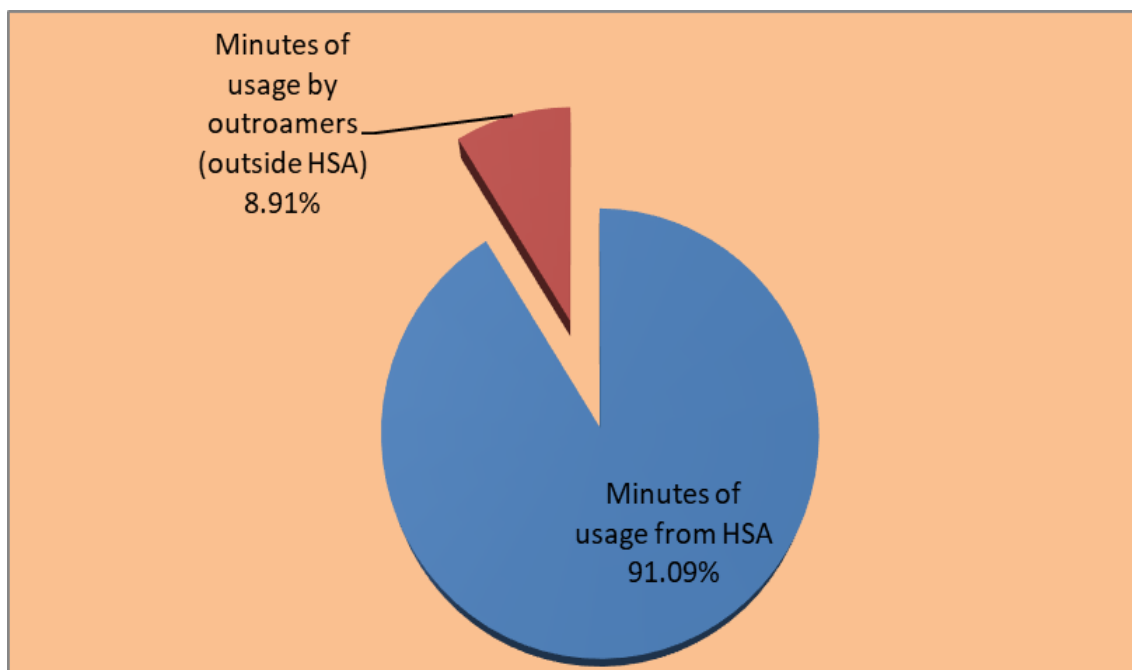
month for various categories of circles and various categories of subscribers viz. post-paid and pre-paid during Q.E. Dec- 20.

**Table 2.5: No. of Outgoing SMS per subscriber per month during QE Dec-20**

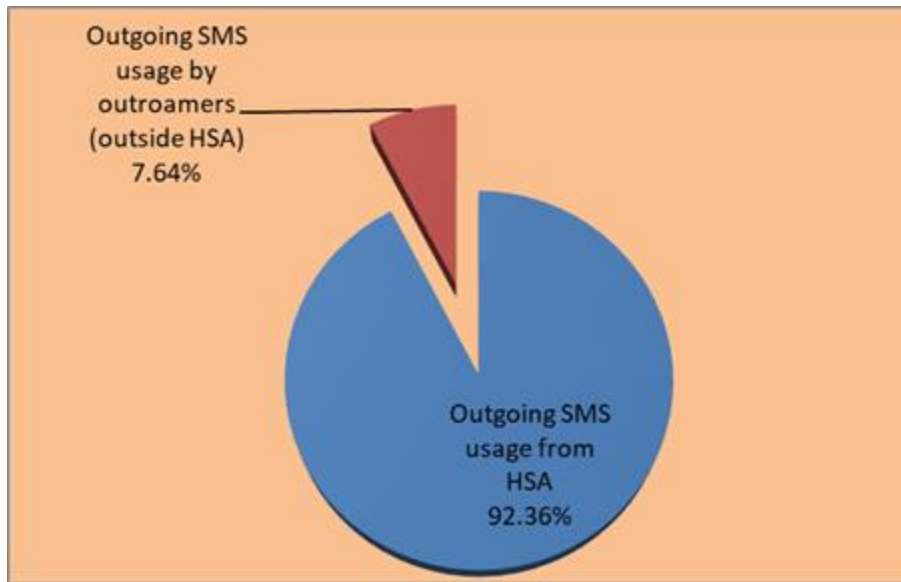
Circle category	Outgoing SMS per subscriber per month		
	Post-paid	Pre-paid	Blended
Circle A	55	16	18
Circle B	52	13	14
Circle C	19	18	18
Metro	37	12	16
<b>All India</b>	<b>44</b>	<b>14</b>	<b>16</b>

*Note: No. of Outgoing SMS indicate total usage i.e. usage from and outside HSA*

**Chart 2.3 : Minutes of Usage by Out-roamers as a % of Total Minutes of Usage during Q.E. Dec-2020**



**Chart 2.4: Outgoing SMS Usage by Out-roamers as a % of Total No. of Outgoing SMS Usage during Q.E. Dec-2020**



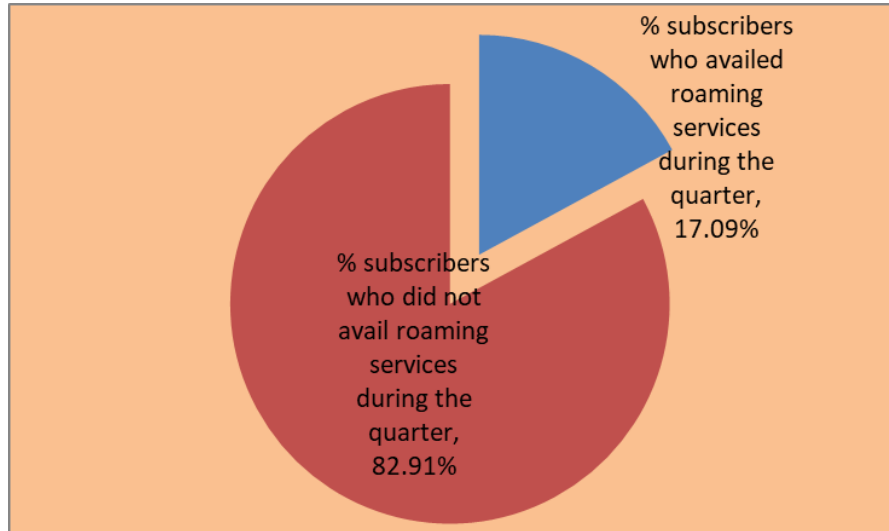
2.13 The following table presents the percentage break-up of outgoing minutes of usage from home service area between various categories of termination networks in the Q.E. Dec-20.

**Table 2.6: %Break-up of Outgoing minutes from Home Service Area (HSA)**

Category	% Intra-circle to wireline	% Intra-circle to own wireless	% Intra-circle to other wireless	% Inter-circle to wireline	% Inter-circle to own wireless	% Inter-circle to other wireless	% ILD
Circle A	0.81	40.21	45.95	0.18	5.83	7.00	0.02
Circle B	0.57	38.60	42.09	0.17	8.28	10.27	0.01
Circle C	0.36	43.08	35.58	0.18	10.15	10.63	0.01
Metros	1.07	28.85	33.69	0.35	16.45	19.55	0.04
All India	0.66	38.98	41.39	0.19	8.60	10.16	0.02

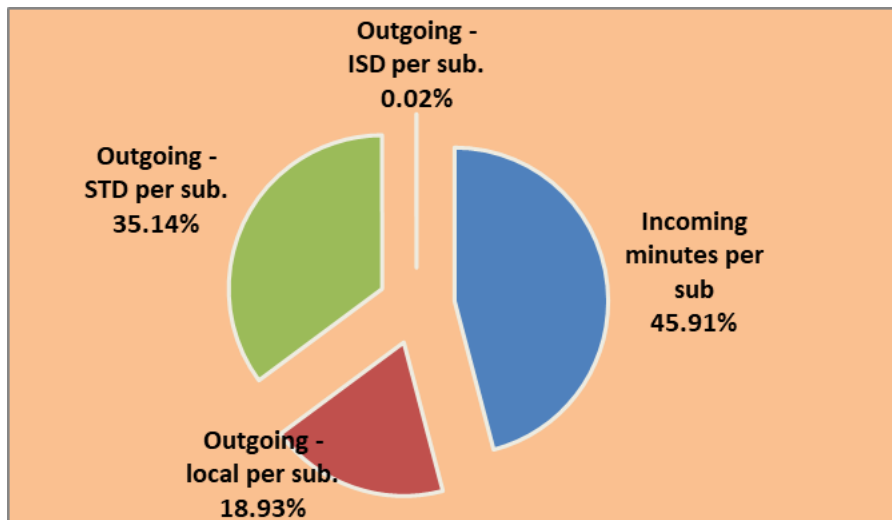
2.14 The following chart presents the percentage of subscribers who availed roaming services (out-roamers) during the QE Dec-20.

**Chart 2.5: % subscribers availed roaming services during the QE Dec-20**



2.15 The usage pattern of out-roamers i.e. usage from outside the home service area shows that incoming minutes accounts for 45.91% of the total minutes of usage by out-roamers in QE Dec-20 as against 46.13% in the Sep-20 quarter. The chart given below presents the break-up of minutes of usage of out-roamers.

**Chart 2.6: % Break-up of minutes of usage of out-roamers (usage from outside the Home Service Area)**





2.16 The tariff plans are of bundled nature and the trade-off is generally between monthly fixed charges and variable (call) charges. Therefore, average revenue per outgoing minute of usage from Home Service Area (HSA) as defined below would be a realistic indicator of average tariff levels.

8. Average Revenue per Outgoing Minute of usage from HSA

$$= \frac{\text{Revenue from Calls}}{\text{No. of outgoing minutes from HAS}}$$

**Table 2.7: Average revenue per outgoing minute from HSA in QE Dec-20**

**(In Rs. per minute)**

<b>Circle Category</b>	<b>Postpaid</b>	<b>Prepaid</b>	<b>Blended</b>
Circle A	0.08	0.05	0.05
Circle B	0.07	0.05	0.05
Circle C	0.03	0.05	0.05
Metros	0.08	0.04	0.04
<b>All India</b>	<b>0.07</b>	<b>0.05</b>	<b>0.05</b>

2.17 All India average revenue per outgoing minute has not changed from Rs.0.05 in the previous quarter to Rs.0.05 in Q.E. Dec-20.

**Table 2.8: Trends of Key Parameters - Wireless Services**

<b>Parameter</b>	<b>Dec-19</b>	<b>Mar-20</b>	<b>Jun-20</b>	<b>Sep-20</b>	<b>Dec-20</b>
<b>1. ARPU (₹ Per month)</b>	79	91	90	97	102
<b>2. Average revenue Realization per subscriber per GB wireless data (in ₹)</b>	8.45	11.23	10.55	10.95	11.01
<b>3. MOU per subscriber per month</b>	712	750	744	761	785
<b>4. Outgoing MOU per subscriber per month</b>					
4.1 Local (Intra-circle)	265	276	282	296	300
4.2 NLD (inter-circle)	92	98	90	84	92
4.3 ILD	0.11	0.10	0.09	0.07	0.06
<b>5. Average no. of Outgoing SMS per subscriber per month</b>	18	17	15	16	16
<b>6. Average revenue per outgoing minute from HSA (in ₹)</b>	0.11	0.06	0.05	0.05	0.05

2.18 Service Area wise statistics are available at **Annexure-2.1**.

# **Chapter 3 :**

# **Financial Data of**

# **Telecom Service**

# **Sector**

**Table 3.1: Gross Revenue (GR), Adjusted Gross Revenue (AGR), License Fee (LF) & Spectrum Charges**

Particulars	QE Dec-19 (₹ in Crore)	QE Sep-20 (₹ in Crore)	QE Dec-20 (₹ in Crore)	Q-O-Q % Change	Y-O-Y % Change
Gross Revenue (GR)	63,764	68,228	71,588	4.92	12.27
Adjusted Gross Revenue (AGR)	40,877	45,707	47,623	4.19	16.50
Pass Through Charges (GR-AGR)	22,887	22,521	23,966	6.41	4.71
License Fee	3,270	3,656	3,809	4.19	16.49
Spectrum Usage Charges	1,256	1,451	1,538	5.99	22.44

3.1 Gross Revenue (GR) and Adjusted Gross Revenue (AGR) quarterly increased by 4.92% and 4.19% respectively in QE Dec-20. On YoY basis GR and AGR also increased by 12.27% and 16.50% respectively in QE Dec-20.

3.2 Pass through charges increased on both quarterly and yearly basis by 6.41% and 4.71% respectively in the QE Dec-20.

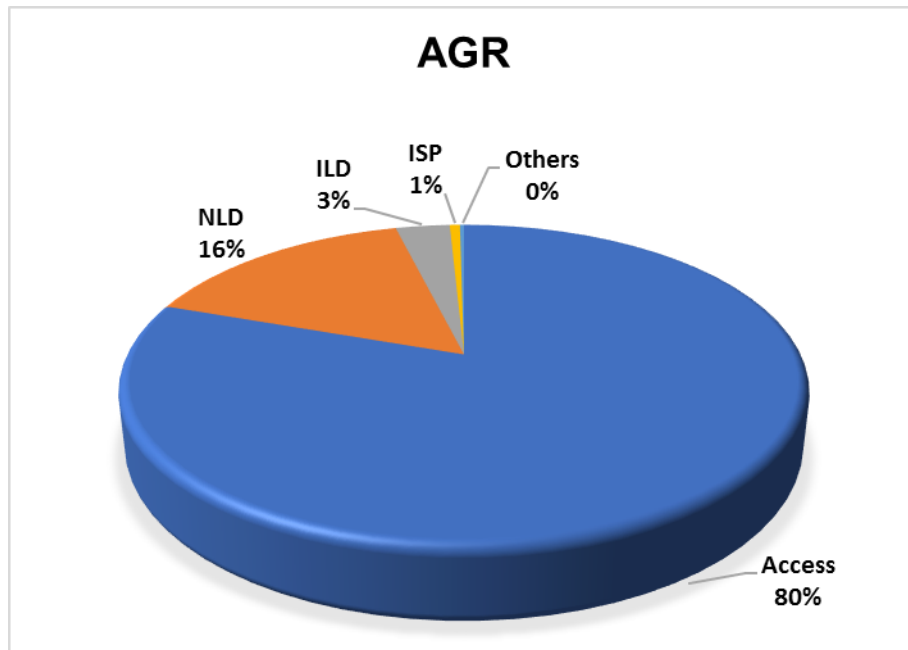
3.3 Pass-through charges as a percentage of Gross Revenue are 33.48% in QE Dec-20 as against 33% in the previous quarter.

**Table 3.2: Service-wise Gross Revenue, Adjusted Gross Revenue, License Fee and Spectrum Charges for QE Dec-20**

(in ₹ Crore)

Service	GR	AGR	LF	Spectrum Usage Charges
<b>Access Providers</b>	53,671.44	38,272.76	3,062.49	1,534.53
<b>NLD</b>	10,158.33	7,501.61	600.12	-
<b>ILD</b>	3,436.43	1,463.47	117.08	-
<b>ISP</b>	4202.01	274.20	22.03	-
<b>Others</b>	120.24	110.73	7.71	3.00
<b>Total</b>	<b>71,588.46</b>	<b>47,622.77</b>	<b>3,809.43</b>	<b>1,537.53</b>

**Chart 3.1: Composition of Adjusted Gross Revenue**



- 3.4 Access services contributed 80% of the total Adjusted Gross Revenue of telecom services. In Access services, Gross Revenue (GR), Adjusted Gross Revenue (AGR), License Fee and Spectrum Usage Charges (SUC)<sup>†††</sup> and Pass Through Charges increased by 4.98%, 5.38%, 5.39%, 6.06% and 4% respectively in QE Dec-20.
- 3.5 Monthly Average Revenue per User (ARPU) for Access Services based on AGR increased from 103.87 in QE Sep-20 to 108.78 in QE Dec-20. Trend of ARPU per month for Access Services is depicted in the following chart 3.2.

<sup>†††</sup> Spectrum Usage Charge is payable by the licensees providing mobile access services, as a percentage of their Adjusted Gross Revenue (AGR).

(Source – DoT License Agreement)

**Chart 3.2: Trend in ARPU per month for Access Services**



**Table 3.3: Access Services - Service Provider wise Adjusted Gross Revenue**

(in ₹ Crore)

Service Provider	QE Dec-20	QE Sep-20	% Change
Reliance Jio	17,181.65	15,915.14	7.96
Bharti Airtel	11,340.19	10,764.90	5.34
Vodafone Idea	6,588.46	6,435.79	2.37
BSNL	2,135.17	2,185.39	-2.30
Tata Tele.	584.10	583.08	0.17
MTNL	369.84	364.47	1.48
Reliance Com.	69.82	66.46	5.06
V-Con Mobile & Infra Pvt. Ltd.	3.78	2.82	33.96
Quadrant	-0.24	-0.29	16.31
<b>Grand Total (Access)</b>	<b>38272.76</b>	<b>36,317.75</b>	<b>5.38</b>

3.6 Public Sector Undertakings' share in the Access AGR of telecom services is 6.55% in the QE Dec-20.

**Table 3.4: Category-wise share in Adjusted Gross Revenue (AGR) of Access Services**

Category	AGR of Access Services for QE Dec-20 (in crore)	%age share of AGR
Metro	3,789.33	12.50
A	11,919.47	39.31
B	10,765.16	35.50
C	3,849.33	12.69
<b>Total</b>	<b>30323.29</b>	<b>100</b>

**Notes: -**

1. Figures are **un-audited** and as submitted by the TSPs.
2. A copy of quarterly Statement(s) of Revenue and Licence Fee and Spectrum Charges filed with the licensor(DoT) is submitted by Telecom Service Providers to TRAI in reference to TRAI's Order No.14-11/2009-FA, dated 9<sup>th</sup> August, 2010.
3. The figures have been re-grouped wherever considered necessary for analysis purpose.
4. Percentage of contribution of Six TSPs of Public Sector (BSNL, MTNL, Rail Tel, Power Grid, Oil India and Bharat Broadband) to AGR in NLD Service and two TSPs of Public Sector (BSNL/MTNL) in Access Services and BSNL in ILD Services.
5. For all the parameters metros indicate data for Delhi, Mumbai and Kolkata. Data for Chennai Service Area has been included as part of Tamil Nadu
6. From this quarter onwards ISPs is not included in 'Others'.

# **Chapter 4 : Quality of Service (QoS)**



## Section A: Quality of Service Performance of Wireless Service Providers

**Table 4.1: QoS Summary - Wireless Service**

**Summary of Performance of Service providers comparative to the previous quarter against identified parameters**

S.No.	Parameters	Benchmark	Performance in respect of UASL/CMTS Licensees for the Parameters and Benchmarks			
			For Quarter Ending Sep, 2020		For Quarter Ending Dec, 2020	
			Out Of 110 (Nos.)	Out Of 110 (%)	Out Of 88 (Nos.)	Out Of 88 (%)
<b>I.</b>	<b>Network Related Parameters</b>					
<b>1</b>	<b>Network Availability</b>					
(i)	BS Accumulated down-time (not available for service) (%age)	≤ 2%	0	0%	0	0%
(ii)	Worst affected BSs due to down-time (%age)	≤ 2%	0	0%	1	1.14%
<b>2</b>	<b>Connection Establishment (Accessibility)</b>					
(i)	Call Set-up Success Rate and Session Establishment Success Rate for Circuit Switched Voice or VoLTE as applicable(within licensee's own network)	≥ 95%	0	0%	0	0%
(ii)	SDCCH/ Paging Channel Congestion/ RRC Congestion (%age)	≤ 1%	0	0%	0	0%
(iii)	TCH, RAB and E-RAB Congestion (%age)	≤ 2%	2	1.82%	0	0%
<b>3</b>	<b>Connection Maintenance (Retain ability)</b>					
(i)	Network QoS DCR Spatial Distribution Measure [Network_ QSD(90,90)]	≤ 2%	5	4.55%	2	2.27%
(ii)	Network QoS DCR Temporal Distribution Measure [Network_ QTD(97,90)]	≤ 3%	5	4.55%	2	2.27%
<b>4</b>	<b>Connections with good voice quality, Circuit Switched Voice Quality and VoLTE quality</b>					
		≥ 95%	0	0%	0	0%

5	<b>Point of Interconnection (POI) Congestion (No. of POIs not meeting the benchmark) (Averaged over a period of quarter)</b>	≤ 0.5%	0	0%	0	0%
6	<b>Down Link (DL) Packet Drop Rate or DL-PDR</b>	≤ 2%	0	0%	0	0%
7	<b>Up Link (UL) Packet Drop Rate or UL-PDR</b>	≤ 2%	0	0%	1	1.14%
<b>II. Customer Service Quality Parameters</b>						
<b>6 Metering and Billing/</b>						
(i)	Metering and billing credibility - post paid	≤ 0.1%	0	0%	0	0%
(ii)	Metering and billing credibility - pre paid	≤ 0.1%	0	0%	0	0%
(iii)	Resolution of billing/charging/validity complaints	98% within 4 weeks	0	0%	0	0%
	Resolution of billing/charging/validity complaints	100% within 6 weeks	2	1.82%	0	0%
(iv)	Period of applying credit/waiver/ adjustment to customer's account from the date of resolution of complaints	within 1 week of resolution of complaint	2	1.82%	0	0%
<b>7 Response time to the customer for assistance</b>						
(i)	Accessibility of call centre/customer care	≥ 95%	2	1.82%	5	5.68%
(ii)	%age of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	29	26.36%	13	14.77%
<b>8 Termination / closure of service</b>						
(i)	%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	2	1.82%	0	0%
(ii)	Time taken for refund of deposits after closures	100% within 60 days	32	29.09%	6	6.82%

4.1 The performance has improved in this quarter as compared to the previous quarter in respect of the following parameters: -

- a. TCH, RAB and E-RAB Congestion (%age)
- b. Network QoS DCR Spatial Distribution Measure [Network\_QSD (90,90)]
- c. Network QoS DCR Temporal Distribution Measure [Network\_QTD (97,90)]
- d. Resolution of billing/charging/validity complaints

- e. Period of applying credit/ waiver/ adjustment to customer's account from the date of resolution of complaints
- f. %age of calls answered by the operators (voice to voice) within 90 seconds
- g. %age requests for Termination / Closure of service complied within 7 days
- h. Time taken for refund of deposits after closures

4.2 The performance has deteriorated in this quarter as compared to the previous quarter in respect of the following parameters: -

- a. Worst affected BSs due to down-time (%age)
- b. Up Link (UL) Packet Drop Rate or UL-PDR
- c. Accessibility of call centre/ customer care

**Table 4.2: Parameter wise Analysis of Non-compliance of QoS Benchmarks for Wireless Service Providers**

<b>Parameter</b>	<b>Benchmark</b>	<b>Service Provider</b>	<b>Service Area</b>	<b>Performance in QE December 2020 (in %)</b>
Worst affected BSs due to down-time (%age)	≤ 2%	BSNL	Tamil Nadu	3.50
Network QoS DCR Spatial Distribution Measure [Network_QSD(90,90)]	≤ 2%	BSNL	West Bengal	8.33
Network QoS DCR Spatial Distribution Measure [Network_QSD(90,90)]	≤ 2%	VIL	Jammu & Kashmir	2.27
Network QoS DCR Temporal Distribution Measure [Network_QTD(97,90)]	≤ 3%	BSNL	West Bengal	9.52
Network QoS DCR Temporal Distribution Measure [Network_QTD(97,90)]	≤ 3%	VIL	Jammu & Kashmir	3.57
Up Link (UL) Packet Drop Rate or UL-PDR	≤ 2%	BSNL	West Bengal	2.06
Accessibility of call centre/ customer care	≥ 95%	BSNL	Haryana	80.00
Accessibility of call centre/ customer care	≥ 95%	BSNL	Jammu & Kashmir	93.00
Accessibility of call centre/ customer care	≥ 95%	BSNL	Kerala	90.00
Accessibility of call centre/ customer care	≥ 95%	BSNL	Karnataka	90.00
Accessibility of call centre/ customer care	≥ 95%	BSNL	Rajasthan	76.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	Airtel	West Bengal	93.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	BSNL	Andhra Pradesh	64.96
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	BSNL	Haryana	90.27

<b>Parameter</b>	<b>Bench- mark</b>	<b>Service Provider</b>	<b>Service Area</b>	<b>Performance in QE December 2020 (in %)</b>
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	BSNL	Jammu & Kashmir	87.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	BSNL	Kerala	91.70
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	BSNL	Karnataka	93.90
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	BSNL	Rajasthan	88.23
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	RJIL	Bihar	81.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	RJIL	Gujarat	83.24
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	RJIL	Maharashtra	85.12
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	RJIL	Uttar Pradesh (East)	83.15
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	RJIL	Uttar Pradesh (West)	85.41
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	RJIL	West Bengal	82.34
Time taken for refund of deposits after closures	100% within 60 days	VIL	Bihar	98.79
Time taken for refund of deposits after closures	100% within 60 days	VIL	Delhi	99.88

<b>Parameter</b>	<b>Bench- mark</b>	<b>Service Provider</b>	<b>Service Area</b>	<b>Performance in QE December 2020 (in %)</b>
Time taken for refund of deposits after closures	100% within 60 days	VIL	Maharashtra	99.99
Time taken for refund of deposits after closures	100% within 60 days	VIL	Madhya Pradesh	98.74
Time taken for refund of deposits after closures	100% within 60 days	VIL	Odisha	86.91
Time taken for refund of deposits after closures	100% within 60 days	VIL	Punjab	99.99

4.3 The detailed table on Service Provider wise performance of QoS parameters for Wireless Services is available at **Annexure-4.1**.

## Section B: Quality of Service Performance of Wireline Service Providers

**Table 4.3: QoS Summary - Wireline Service**

Summary of Performance of service providers against identified parameters

S. No.	Parameters	Benchmark	No of license areas where operators not meeting the benchmarks			
			September, 2020		December, 2020	
			Out of 98 in Nos.	Out of 98 in %age	Out of 98 in Nos.	Out of 98 in %age
(i)	<b>“Fault repair”</b> Fault incidences No. of faults per 100 subs/ month)	$\leq 7$	0	0.00%	1	1.02%
(ii)	% Fault repaired by next working day (for urban areas)	$\geq 85\%$	7	7.14%	5	5.10%
	% Fault repaired within 5 days (for urban areas)	$\geq 100\%$	2	2.04%	2	2.04%
(iii)	% Fault repaired by next working day (for rural and hilly areas)	$\geq 75\%$	2	2.04%	0	0.00%
	% Fault repaired within 7 days (for rural and hilly areas)	$\geq 100\%$	0	0.00%	0	0.00%
(iv)	<b>“Mean time to Repair”</b> (MTTR)	$\leq 10\text{Hs}$	8	8.16%	6	6.12%
(v)	<b>“Point of Interconnection”</b> (POI) Congestion (No. of PoIs not meeting benchmark)	$\leq 0.5\%$	0	0.00%	0	0.00%
(vi)	<b>“Metering and Billing”</b> Metering and billing credibility - post-paid	$\leq 0.1\%$	1	1.02%	0	0.00%
	Metering and Billing credibility -pre-paid	$\leq 0.1\%$	0	0.00%	0	0.00%
(vii)	Resolution of billing/charging /Credit & validity complaints	<b>98% within 4 weeks</b>	0	0.00%	0	0.00%
	Resolution of billing/charging / Credit & validity complaints	<b>100% within 6 weeks</b>	0	0.00%	0	0.00%

<b>(viii)</b>	Period of applying credit /waiver/adjustment to customer's	<b>1 week of resolution of complaint</b>	0	0.00%	0	0.00%
<b>(ix)</b>	<b>“Response time to the customer for assistance”</b> Accessibility of call centre/ customer care	<b>≥ 95%</b>	38	38.78%	28	28.57%
	%age of calls answered by the operators (voice to voice) within 90 seconds	<b>≥ 95%</b>	23	23.47%	16	16.33%
<b>(x)</b>	<b>“Termination / closure of service”-</b> %age of request for Termination / closure of service complied within 7 days	<b>100% within 7 days</b>	18	18.37%	1	1.02%
<b>(xi)</b>	Time taken for refund of deposits after closures	<b>100% within 60 days</b>	1	1.02%	1	1.02%

**NOTE:** Most of the SPs have not reported for the parameter “Metering and billing credibility - pre paid” due to not providing pre-paid service in Basic (Wire line) service.

4.4 The performance has improved in this quarter as compared to the previous quarter in respect of the following parameters: -

- ❖ % Fault repaired by next working day (for urban areas) ≥ 85%
- ❖ % Fault repaired by next working day (for rural and hilly areas) ≥ 75%
- ❖ “Mean time to Repair” (MTTR) ≤10 Hrs
- ❖ Metering and billing credibility - post-paid, ≤ 0.1%
- ❖ “Response time to the customer for assistance” Accessibility of call centre/ customer care 95%
- ❖ “Response time to the customer for assistance” %age of calls answered by the operators (voice to voice) within 90 seconds ≥ 95%
- ❖ “Termination/closure of service”- %age of request for Termination /closure of service complied within 7 days 100%

4.5 The performance has deteriorated in this quarter as compared to the previous quarter in respect of the following parameters: -



❖ “Fault repair” Fault incidences No. of faults per 100 subs./month) ≤ 7

**Table 4.4: Parameter wise Analysis of Non-compliance of QoS Benchmarks for Wireline Service Providers**

Parameters	Benchmarks	Service Provider	Service areas	Parameters not met
<b>Faults incidences (No. of faults/ 100 Subs./ month)</b>	≤ 7	TTSL	MP	9.68
<b>% of faults repaired by next working day</b>	<b>For urban areas by next working day: ≥85%</b>	MTNL	Delhi	55.77%
			Mumbai	41.20%
		TTSL	Kerala	30.00%
			Karnataka	82.00%
			Tamil Nadu	73.00%
<b>% of faults repaired within 5 days</b>	<b>For urban areas: ≥ 100%</b>	MTNL	Delhi	78.49%
			Mumbai	60.00%
<b>Mean Time to Repair (MTTR)</b>	≤ 10 Hrs.	MTNL	Delhi	29.41
			Mumbai	103.61
		TTSL	Kerala	36.35
			Karnataka	10.50
			Mumbai	10.01
<b>Accessibility of call centre/ customer care</b>	≥95%	BSNL	HP	91.46%
			Haryana	91.79%
			J & K	91.67%
			Punjab	90.02%
			Rajasthan	90.75%
			UP E	92.56%
		VIL	UP W	92.00%
			AP	93.00%
			Assam	93.00%
			Bihar	93.00%
			Delhi	93.00%
			Gujarat	93.00%
			HP	93.00%
			Haryana	93.00%
Kerala	93.00%			
Kolkata	93.00%			
Karnataka	93.00%			
Maharashtra	93.00%			

Parameters	Benchmarks	Service Provider	Service areas	Parameters not met
<b>Accessibility of call centre/ customer care</b>	<b>≥ 95%</b>	VIL	MP	93.00%
			Mumbai	93.00%
			NE	93.00%
			Odisha	93.00%
			Punjab	93.00%
			Rajasthan	93.00%
			TN	93.00%
			UP E	93.00%
			UP W	93.00%
			WB	93.00%
<b>Percentage of calls answered by the operators (voice to voice) within 90 seconds</b>	<b>≥ 95%</b>	Bharti Airtel	AP	88.42%
			Delhi	87.75%
			Gujarat	88.55%
			Haryana	89.32%
			Kerala	83.10%
			Kolkata	88.72%
			Karnataka	88.66%
			Maharashtra	86.53%
			MP	86.97%
			Mumbai	87.66%
			Punjab	88.70%
			Rajasthan	89.64%
			TN	77.86%
			UP E	88.44%
		UP W	90.80%	
		MTNL	Mumbai	42.23%
<b>%age requests for Termination / Closure of service complied within 7 days</b>	<b>100% within 7 days</b>	MTNL	Mumbai	88.90%
<b>Time taken for refund of deposits after closures</b>	<b>100% within 60 days</b>	MTNL	Mumbai	15.50%

4.6 Detailed table containing QoS parameters for all the Wireline Service Providers is given in **Annexure-4.2**.

## Section C : Quality of Service Performance of Broadband (wireline) Service

4.7 There are 344 Internet Service Providers (ISPs) providing broadband (wireline) service at the end of December, 2020. Out of these 344 ISPs, only 66 Service Providers are having broadband subscriber base more than 10,000 and market share of these 66 SPs is 98.42% of total broadband subscriber base. This report covers performance of 57-broadband Service Providers vis-à-vis the QoS benchmarks prescribed by TRAI, for the QE December, 2020. Nine service providers has not submitted their Performance Monitoring Report (PMR) in this quarter (namely M/s. B2H Infonet Pvt Ltd., M/s Nuron Networks India Pvt. Ltd., M/s Readylink Internet Services Pvt. Ltd, M/s Super Sonic Broadband Pvt. Ltd. (four new entrants) and M/s. Ethernet Xpress India Pvt. Ltd., M/s. Intermedia Cable Communication Pvt. Ltd., M/s. IKF Technologies Ltd., M/s. Sai Prasad Internet Pvt. Ltd. and M/s. Joister Inforserve Pvt. Ltd.

**Table 4.5 : Summary of Performance of Broadband Service Providers against identified parameters**

S. No.	Parameters	Benchmark	Quarter Ending		Quarter Ending	
			Sep, 2020		Dec, 2020	
			Out of 111	Out of 111	Out of 114	Out of 114
<b>1</b>	<b>Service Provisioning</b>	100% in =<15 working days				
1.2	%age of connections provided within 15 days of registration of demand	100%	4	<b>3.60%</b>	9	<b>7.89%</b>
<b>2</b>	<b>Faults Repair</b>					
2.2	% of faults repaired by next working day (>90%)	>90%	4	<b>3.60%</b>	3	<b>2.63%</b>
2.3	% of faults repaired within 3 working day	=>99%	6	<b>5.41%</b>	3	<b>2.63%</b>
<b>3</b>	<b>Billing Performance</b>					
3.3	%age of bills disputed	<2%	0	<b>0.00%</b>	0	<b>0.00%</b>
3.4	%age of billing complaints resolved within 4 weeks	100% within 4 weeks	0	<b>0.00%</b>	1	<b>0.88%</b>

3.5	%age of cases to whom refund of deposits is made within 60 days of closures	100% within 60 days	1	<b>0.90%</b>	1	<b>0.88%</b>
<b>4</b>	<b>Response Time to the Customer for assistance</b>					
4.2	%age of calls answered by operator (Voice to voice) within 60 sec	>60%	11	<b>9.91%</b>	1	<b>0.88%</b>
4.3	%age of calls answered by operator (Voice to voice) within 90 sec	>80%	20	<b>18.02%</b>	2	<b>1.75%</b>
<b>5</b>	<b>Bandwidth utilisation/ throughput</b>					
5.2	No. of Intra network links having Bandwidth utilisation >90% during peak hours (TCBH)	0	1	<b>0.90%</b>	0	<b>0.00%</b>
5.4	No. of Upstream links for International connectivity having bandwidth utilisation >90% during peak hours (TCBH)	0	1	<b>0.90%</b>	0	<b>0.00%</b>
5.7	% International bandwidth utilization during peak hours (TCBH) (Enclose MRTG) <90%	<90%	0	<b>0.00%</b>	0	<b>0.00%</b>
5.8	Broadband Connection Speed available (download) from ISP node to user	>80%	0	<b>0.00%</b>	0	<b>0.00%</b>
<b>6</b>	<b>Service availability /uptime (for all users) in %age</b>					
6.3	Service availability /uptime (for all users) in %age	>98%	0	<b>0.00%</b>	0	<b>0.00%</b>
<b>7</b>	<b>Packet loss (for wired broadband access) in %age</b>	<1%	0	<b>0.00%</b>	0	<b>0.00%</b>
<b>8</b>	<b>Network latency (for wired broadband access)</b>					
8.1	User reference point at POP/ISP Gateway node to IGSP/NIXI	<120 ms	0	<b>0.00%</b>	0	<b>0.00%</b>
8.2	User reference point at ISP Gateway node to International nearest NAP port abroad (terrestrial)	<350 ms	0	<b>0.00%</b>	0	<b>0.00%</b>
8.3	User reference point at ISP Gateway node to International nearest NAP port abroad (satellite)	<800 ms	0	<b>0.00%</b>	0	<b>0.00%</b>

**Table 4.6: Parameter-wise Analysis of non-compliance of QoS benchmarks for Broadband Service Providers**

<b>Sl. No.</b>	<b>Parameters</b>	<b>Benchmark</b>	<b>Name of the Service Provider not meeting the Benchmark</b>
<b>1</b>	<b>Service Provisioning</b>		
1.2	%age of connections provided within 15 days of registration of demand	100%	<b>MTNL</b> - Delhi & Mum (76.76%) <b>GTPL</b> - All India (99.70%) <b>GTPL KCBPL</b> – Kol (93.00%) & WB (90.00%) <b>Microscan</b> - Mumbai (99.00%), Mah. (98.00%) <b>TTSL</b> - All India (67.00%) <b>United</b> - Mah. (97.00%) <b>You Broadband</b> - All India (99.89%)
<b>2</b>	<b>Faults Repair</b>		
2.2	% of faults repaired by next working day (>90%)	>90%	<b>MTNL</b> - Delhi & Mum (53.94%), <b>Tata (TTSL)</b> - All India(except MH) (87.00%) <b>Tata (TTML)</b> - Mah. & Mumbai (85.00%),
2.3	% of faults repaired within 3 working day	=>99%	<b>MTNL</b> - Delhi & Mumbai (73.53%), <b>Tata (TTSL)</b> - All India(except MH) (96.00%), <b>TATA(TTML)</b> - Mah. & Mumbai. (95.00%)
<b>3</b>	<b>Billing Performance</b>		
3.4	%age of billing complaints resolved within 4 weeks	100% within 4 weeks	<b>Multicraft Digital</b> – Pan India (1.00%)
3.5	%age of cases to whom refund of deposits is made within 60 days of closures	100%	<b>MTNL</b> - Delhi & Mum (56.91%)
<b>4</b>	<b>Response Time to the Customer for assistance</b>		
4.2	%age of calls answered by operator (Voice to voice) within 60 sec	>60%	<b>Atria</b> - All India (40.00%),
4.3	%age of calls answered by operator (Voice to voice) within 90 sec	>80%	<b>MTNL</b> - Delhi & Mumbai (70.95%) <b>Atria</b> - All India (43.00%)

4.8 Detailed table containing QoS parameters for all the Broadband Service Providers is given in **Annexure-4.3**.

# **Chapter 5 : Performance of Cable TV, DTH and Radio Broadcasting Services**

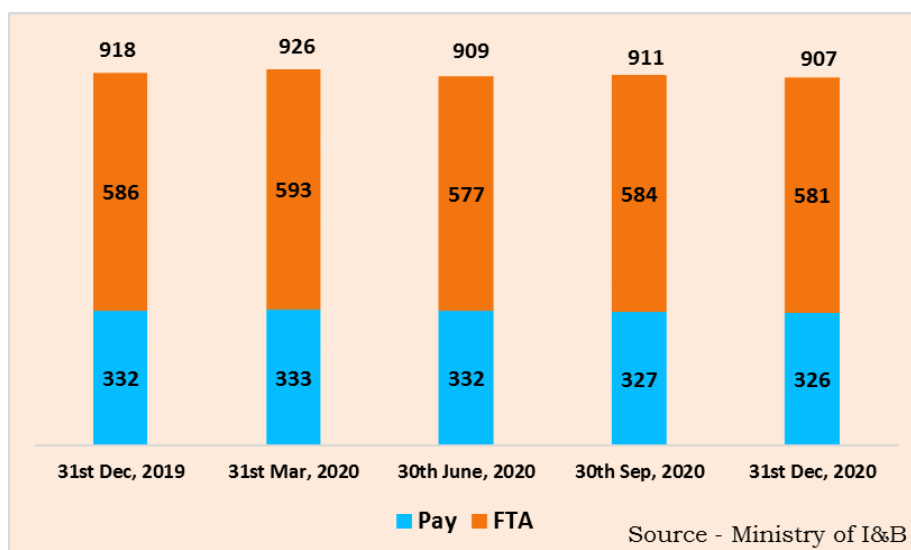
**Table 5.1: Key Parameters - Broadcasting & Cable TV Services**

S.No	Parameter	Sep-20	Dec-20
1	Number of Private satellite TV channels permitted by the Ministry of Information and Broadcasting (MIB) for uplinking only/downlinking only/both uplinking and downlinking	911	907
2	Number of Pay TV Channels as reported by broadcasters	327	326
3	Number of FM Radio Stations (excluding All India Radio)	367	367
4	Number of pay DTH Operators	4	4
5	Number of Operational Community Radio Stations	310	315
6.	Number of total active Subscribers with pay DTH operators (in million)	70.70	70.99

**A. Satellite TV Channels**

5.1 A total of 907 private satellite TV channels have been permitted by the Ministry of Information and Broadcasting (MIB) for uplinking only/downlinking only/both uplinking and downlinking, as on 31<sup>st</sup> December, 2020. The quarter-wise figures of the total number of TV channels is depicted in below chart: -

**Chart 5.1: Quarterly growth in number of Satellite TV channels (FTA & Pay) registered with Ministry of I&B**

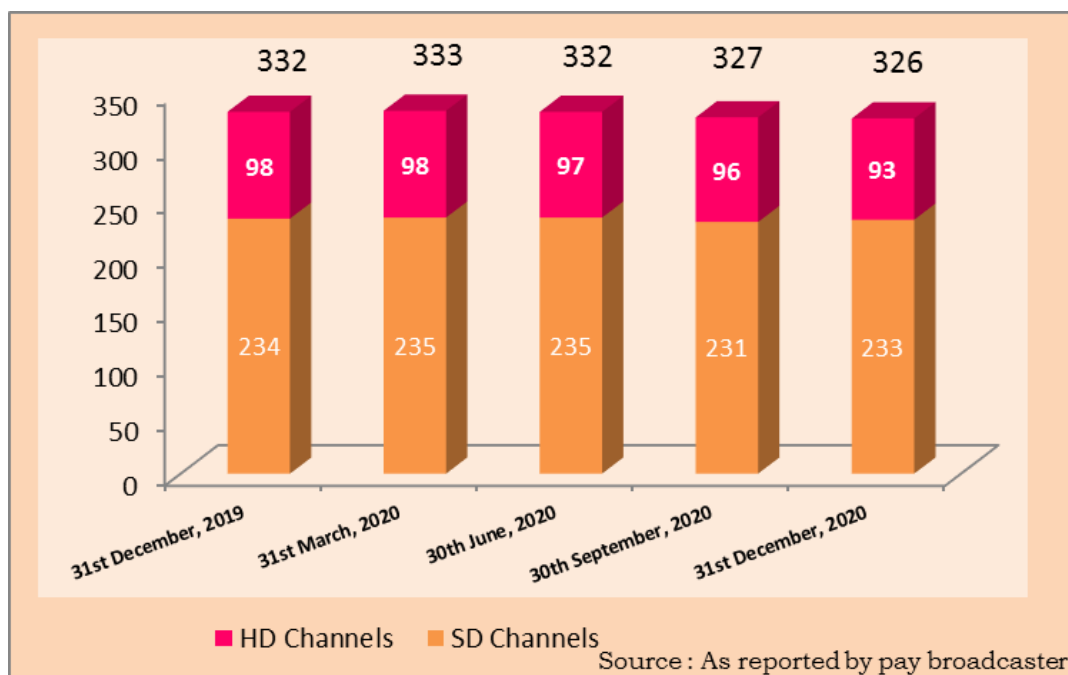


## **Pay TV Channels**

- 5.2 Telecom Regulatory Authority of India (TRAI), in March, 2017, notified the new regulatory framework for Broadcasting and Cable services. The framework comprises of Tariff Order 2017, Interconnection Regulations 2017 and Quality of Service & Consumer Protection Regulations 2017. The framework was duly notified vide press release no.71/2018 dated 3<sup>rd</sup> July 2018 with revised timelines for implementation. All the timelines prescribed in the above-mentioned framework commenced from 3<sup>rd</sup> July 2018. The new regulatory framework has come into effect on 29<sup>th</sup> December 2018.
- 5.3 As per the Telecommunication (Broadcasting and Cable) Services (Eighth) (Addressable Systems) Tariff Order, 2017 dated 3<sup>rd</sup> March 2017 as amended, every broadcaster has to offer all its channels on a-la-carte basis to all distributors of television channels and declare maximum retail price, per month, payable by a subscriber for each of its pay channel offered on a-la-carte basis. Further, it is also permissible for a broadcaster to offer its pay channels in the form of bouquet and declare the maximum retail price, per month, of such bouquet payable by a subscriber.
- 5.4 As per the reporting done by broadcasters in pursuance of the Tariff Order dated 3<sup>rd</sup> March 2017, as amended, there are **326** pay TV channels, as on 31<sup>st</sup> December 2020, which includes **233** SD pay TV channels and **93** HD Pay TV channels. Apart from these pay channels reported to TRAI, all other channels permitted by MIB may be considered as Free to Air (FTA) channels. A list of pay TV channels offered by broadcasters for subscribers as reported to TRAI is attached as **Annexure-5.1**.



**Chart 5.2 : Quarterly growth in number of satellite Pay TV channels in India**



## B. Cable TV Sector

- 5.5 The country has 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.
- 5.6 As on 31<sup>st</sup> December 2020, there are 1704 MSOs registered with MIB. Further, as per the data reported by MSOs/HITS operators, there are 12 MSOs & 1 HITS operator who have subscriber base greater than one million. A list of Major MSOs/HITS Operators is attached as **Annexure 5.2**. Details of the total active subscriber base of these 12 MSOs and 1 HITS operator are given in following table 5.2.

**Table 5.2: Subscriber base of major MSOs/HITS operators at the end of December, 2020 (More than one million subscribers)**

Sl. No.	Name of the operator	Total Active Subscriber Base (includes subscribers who have been inactive or temporarily suspended for not more than last 90 days)
1.	Siti Networks	8,575,483
2.	GTPL Hathway	7,696,965
3.	Hathway Digital	5,471,637
4.	Den Networks	4,943,116
5.	Thamizhaga Cable TV Communication Pvt Ltd (TCCL)	3,472,967
6.	Kerala Communicators Cable Ltd (KCCL)	3,023,346
7.	Tamil Nadu Arasu Cable TV	3,010,307
8.	Fastway Transmissions Pvt Ltd	2,237,148
9.	NXT Digital Ltd (HITS)	2,118,820
10.	KAL Cables	2,007,770
11.	VK Digital	1,712,025
12.	NXT Digital Ltd (Cable TV)	1,238,164
13.	Asianet Digital Network	1,226,940

### **C. Direct-to-Home (DTH) Sector**

5.7 Since its introduction in the year 2003, Indian DTH service has displayed a phenomenal growth. During the quarter ending 31<sup>st</sup> December, 2020, there were 4 pay DTH service providers in India. A list of DTH Operators is attached as **Annexure 5.3**.

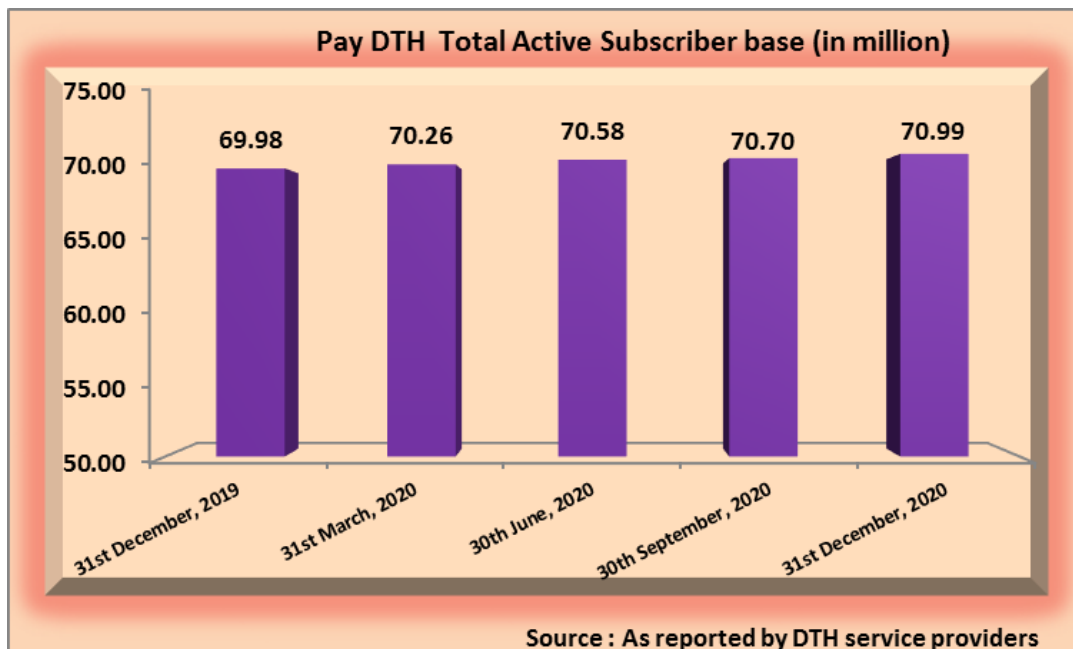
5.8 Pay DTH has attained Total active subscriber base of around 70.99 million. This is in addition to the subscribers of the DD Free Dish (free DTH services of Doordarshan). The total active subscriber base has increased from 70.70 million in September 2020 to 70.99 million in December 2020.

5.9 It is important to note that previously (upto March 2019) the subscription figure of total active subscribers included inactive and temporarily suspended subscribers for not more than last 120 days.

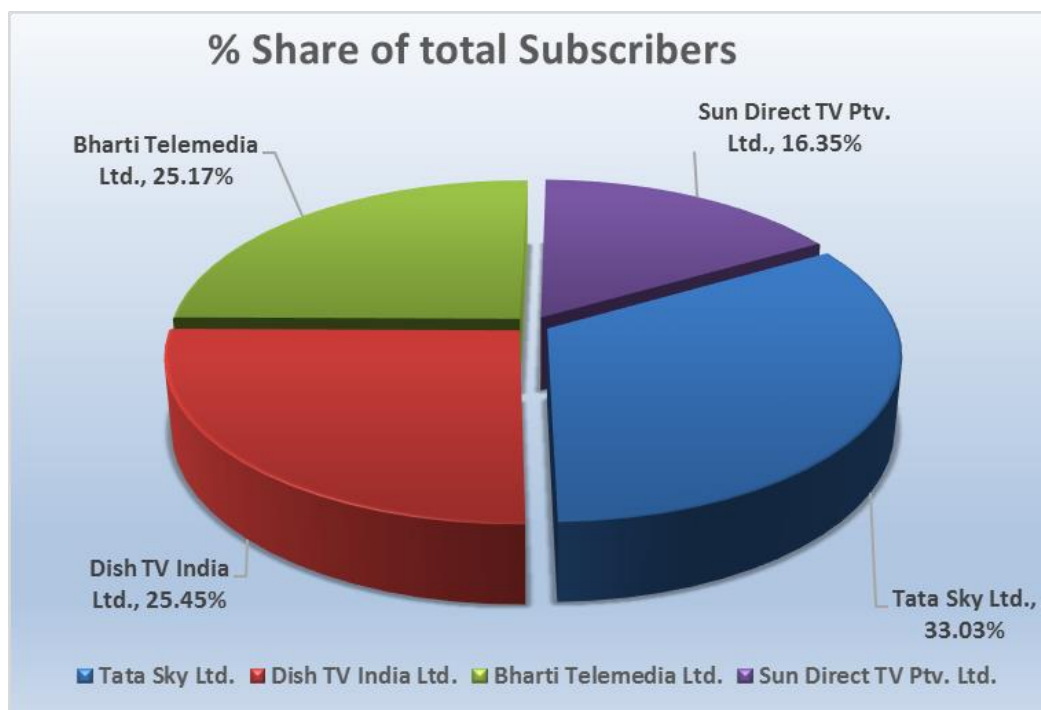
However as per new regulatory framework of Broadcasting and Cable TV Services, the total active subscribers are counted including only those subscribers which are inactive/ temporarily suspended for not more than last 90 days. This point has been duly clarified by the Authority in the Press Release no. 86/ 2019 dated 8<sup>th</sup> October, 2019 ([https://main.traai.gov.in/sites/default/files/PR\\_No.86of2019.pdf](https://main.traai.gov.in/sites/default/files/PR_No.86of2019.pdf))

5.10 Quarterly growth in the DTH sector in terms of the total active subscriber base and market share of DTH operators in terms of percentage of total active subscribers during the quarter ending 31<sup>st</sup> December 2020 is depicted in the following charts: -

**Chart 5.3 : Quarterly growth in total Active subscribers (in million) of pay DTH Sector**



**Chart 5.4 : Market share of DTH Operators**

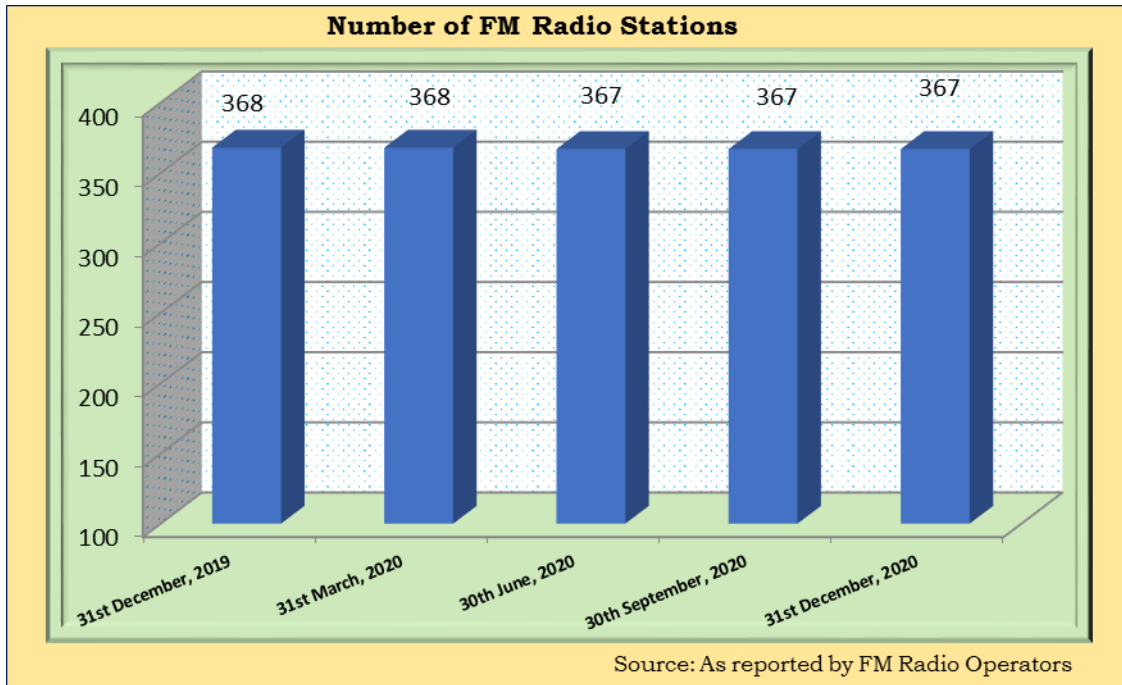


Source : As reported by DTH service providers

#### **D. FM Radio Services**

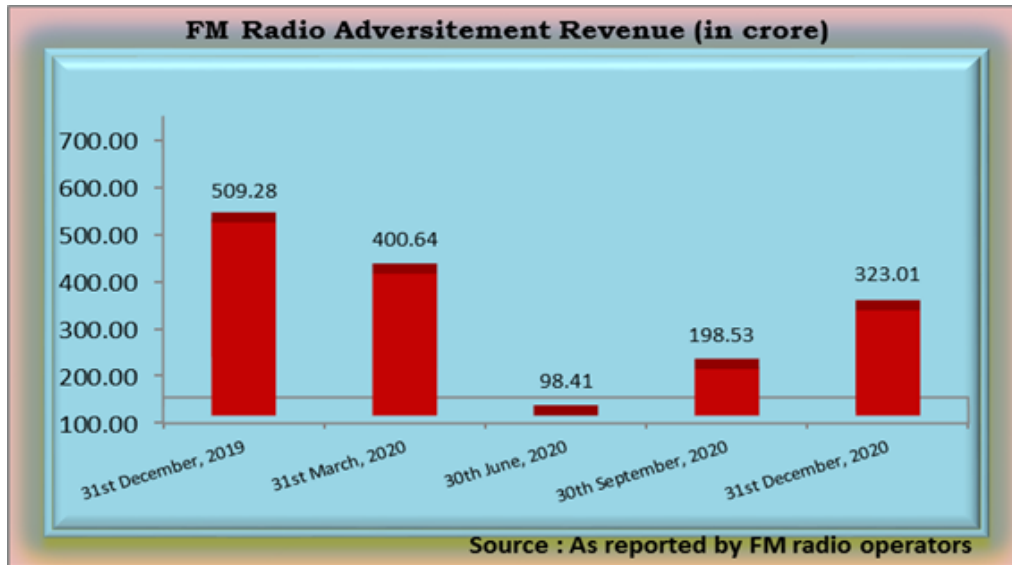
5.12 Apart from the radio stations operated by All India Radio – the public broadcaster, as on 31<sup>st</sup> December 2020, there are 367 operational private FM Radio stations in 105 cities with operational 31 Private FM Radio broadcasters as compared to 367 private FM Radio Stations in 105 cities with operational 31 FM Radio broadcasters in the previous quarter. A list of 105 existing cities with operational private FM radio channels in India, as on 31<sup>st</sup> December, 2020 is placed at **Annexure 5.4**. The following chart 5.5 depicts the quarterly growth in private FM Radio stations.

**Chart 5.5 : Quarterly growth in private FM Radio stations**



5.13 The reported advertisement revenue during the quarter ending 31<sup>st</sup> December 2020 in respect of 366 private FM Radio stations is Rs.323.01 crore as against Rs.198.53 crore in respect of 366 private FM Radio stations for the previous quarter i.e 30<sup>th</sup> September 2020. One FM Radio Broadcaster, M/s Gwalior Farms Private Limited, operating in the city of Guwahati, has not submitted the advertisement revenue.

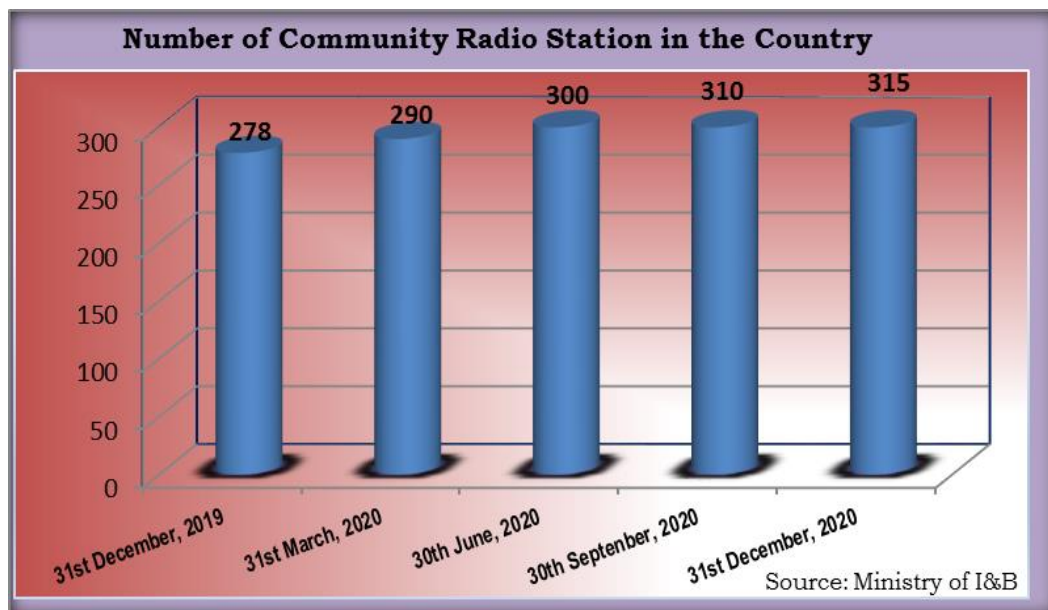
**Chart 5.6: Quarterly growth in FM Radio Advertisement Revenue**



**F. Community Radio**

5.14 As on 31<sup>st</sup> December, 2020, there are 315 Community Radio stations are operational. The quarterly growth in the number of operational community radio stations during last one year is depicted in the following chart 5.7.

**Chart 5.7 : Quarterly Growth in number of Operational Community Radio Stations**



# **Annexures**

### Annexure 1.1: Wireless Subscriber Base

Service Area	Vodafone Idea		Bharti Airtel (including Tata Teleservices)		Reliance Com.		BSNL		MTNL		Reliance Jio		Total		Net Additions
	Sep-20	Dec-20	Sep-20	Dec-20	Sep-20	Dec-20	Sep-20	Dec-20	Sep-20	Dec-20	Sep-20	Dec-20	Sep-20	Dec-20	
Andhra Pradesh	16630879	16142823	29367090	30433618	1694	1177	9781494	9670536			31184600	31369643	86,965,757	87,617,797	652040
Assam	3581363	3354187	8485892	8881995			2888111	2959676			8684391	8851010	23,639,757	24,046,868	407111
Bihar	12862375	12378262	34560614	35117840	351	190	5875219	5946966			30983400	31448264	84,281,959	84,891,522	609563
Delhi	16101122	15602750	15477754	15847702	1190	513			2174003	2169449	18740188	18974028	52,494,257	52,594,442	100185
Gujarat	25474201	25021411	10372247	11444492	614	271	6109492	5891420			24830736	25426122	66,787,290	67,783,716	996426
Haryana	8088541	8052103	4767758	5079438	130	89	5073981	5094145			9429315	8907509	27,359,725	27,133,284	-226441
Himachal Pradesh	744572	711847	3280745	3327293	104	97	2988503	3010300			3894963	4004237	10,908,887	11,053,774	144887
Jammu & Kashmir	540719	524869	5558818	5548416	0	0	1254948	1264351			4374426	4464159	11,728,911	11,801,795	72884
Karnataka	10266022	9583667	28750088	29491199	2269	1938	7256391	7257790			20785830	20894958	67,060,600	67,229,552	168952
Kerala	17362961	17317452	6014889	6487239	698	489	10951796	10960864			9723173	9911644	44,053,517	44,677,688	624171
Madhya Pradesh	23083055	21372271	14051370	14711874	791	518	6303315	6271291			32346106	33150116	75,784,637	75,506,070	-278567
Maharashtra	34017639	32852288	16390350	17904801	859	463	7083722	6933418			34256776	35578402	91,749,346	93,269,372	1520026
Mumbai	11239051	9330964	9486228	9856523	1651	952			1163395	1148184	14314165	14652911	36,204,490	34,989,534	-1214956
North East	1535017	1467590	5189422	5312862	0	0	1367606	1366913			3902705	4067072	11,994,750	12,214,437	219687
Orissa	2697878	2536251	10842112	10858137	386	219	6357676	6414057			13409091	13705976	33,307,143	33,514,640	207497
Punjab	8677625	8711158	10298938	10666819	402	353	5856662	5855940			13991923	12490810	38,825,550	37,725,080	-1100470
Rajasthan	12646298	12229571	21261002	21562650	416	332	6356489	6364204			24895132	25004662	65,159,337	65,161,419	2082
Tamil Nadu	19228919	19066507	25191670	26051251	2512	1248	11013485	11016854			24110030	24328225	79,546,616	80,464,085	917469
UP(E)	24752673	23421596	31790706	33434345	737	431	11675292	11644758			29555077	30092918	97,774,485	98,594,048	819563
UP(W)	21041049	20332967	14718017	15801717	340	270	6018620	5883811			20180022	20410003	61,958,048	62,428,768	470720
Kolkata	7185220	6957077	5945343	5904209	33	28	2327265	2448590			10653841	10857344	26,111,702	26,167,248	55546
West Bengal	17738564	17287656	14810655	14983747	1,157	976	2450590	2453707			19883750	20183313	54,884,716	54,909,399	24683
<b>Total</b>	<b>295,495,743</b>	<b>284,255,267</b>	<b>326,611,708</b>	<b>338,708,167</b>	<b>16,334</b>	<b>10,554</b>	<b>118,990,657</b>	<b>118,709,591</b>	<b>3,337,398</b>	<b>3,317,633</b>	<b>404,129,640</b>	<b>408,773,326</b>	<b>1,148,581,480</b>	<b>1,153,774,538</b>	<b>5193058</b>



## Annexure 1.2: Wireline Subscriber Base

Sl. No	Service Area	Bharti Airtel		Reliance Com.		Quadrant		Tata Tele.		MTNL		BSNL		Vodafone Idea		Reliance Jio		Total		Net Additions
		Sep-20	Dec-20	Sep-20	Dec-20	Sep-20	Dec-20	Sep-20	Dec-20	Sep-20	Dec-20	Sep-20	Dec-20	Sep-20	Dec-20	Sep-20	Dec-20	Sep-20	Dec-20	
1	Andhra Pradesh	228534	246692	24265	21834			162180	153579			671604	606606	62290	62310	204571	286558	1,353,444	1,377,579	24,135
2	Assam											88179	84922	3480	3450	25245	37495	116,904	125,867	8,963
3	Bihar			1064	19			7619	7421			136451	132134	1830	1830	44948	71741	191,912	213,145	21,233
4	Delhi	1453257	1494955	54847	36827			145610	142655	1361213	1337088			76820	76847	172397	219994	3,264,144	3,308,366	44,222
5	Gujarat	114715	116751	7003	3734			83005	81225			543509	512515	32907	33437	180740	214473	961,879	962,135	256
6	Haryana	28306	28229	895	13			36795	36637			151169	136906	360	330	73457	105429	290,982	307,544	16,562
7	Himachal Pradesh			684	3			1839	1747			85059	79352	30	30	4745	8143	92,357	89,275	-3,082
8	Jammu & Kashmir	9585		0	0			0	0			102635	92451	0	0	43115	65858	155,335	158,309	2,974
9	Karnataka	783151	803607	89354	27087			263744	260894			816343	780432	90212	103002	140128	203107	2,182,932	2,178,129	-4,803
10	Kerala	60921	64547	8062	5438			19620	19128			1279325	1145302	6150	6120	35834	58634	1,409,912	1,299,169	-110,743
11	Madhya Pradesh	249866	260190	3511	5			11785	11692			288195	273161	3675	3585	102763	144815	659,795	693,448	33,653
12	Maharashtra	125867	141296	23558	11732			241556	231376			834521	769408	30373	29353	65164	82652	1,321,039	1,265,817	-55,222
13	Mumbai	374374	383653	109083	75997			517936	494995	1669653	1623003	0	0	93581	95971	305874	346561	3,070,501	3,020,180	-50,321
14	North East											76059	73283	270	270	17154	26189	93,483	99,742	6,259
15	Orissa			1519	6			9283	8115			162307	155552	6240	6210	23060	36440	202,409	206,323	3,914
16	Punjab	138258	142858	6169	2228	185615	202915	12379	12870			268507	242734	3210	3240	69937	84121	684,075	690,966	6,891
17	Rajasthan	65473	71438	8826	4715			11496	11590			299894	266161	16430	16490	74466	96716	476,585	467,110	-9,475
18	Tamil Nadu	535940	554373	37998	24465			120865	120947			1044710	948714	39165	39955	182440	234581	1,961,118	1,923,035	-38,083
19	U.P.(E)	71477	74102	1792	25			7727	7540			185049	173983	19960	20020	80426	111337	366,431	387,007	20,576
20	U.P.(W)	36750	43370	1640	8			4534	4480			171597	156018	5430	5220	113179	159845	333,130	368,941	35,811
21	Kolkata	138089	140369	31930	7330			47898	46980			357271	338083	13130	13740	93064	119138	681,382	665,640	-15,742
22	West Bengal			1418	13			2439	2322			177982	201006	120	120	25228	40974	207,187	244,435	37,248
	<b>Total</b>	<b>4,414,563</b>	<b>4,566,430</b>	<b>413,618</b>	<b>221,479</b>	<b>185,615</b>	<b>202,915</b>	<b>1,708,310</b>	<b>1,656,193</b>	<b>3,030,866</b>	<b>2,960,091</b>	<b>7,740,366</b>	<b>7,168,723</b>	<b>505,663</b>	<b>521,530</b>	<b>2,077,935</b>	<b>2,754,801</b>	<b>20,076,936</b>	<b>20,052,162</b>	<b>-24,774</b>

### Annexure 1.3: Service Area and Service Provider-wise details of PCOs

Name of Telecom Service Area	Service Provider	Number of PCOs as on 30.09.2020	Number of PCOs as on 31.12.2020	Net PCO increase/ decrease as on 31.12.2020	Percentage Growth/ Decline as on 31.12.2020
Andhra Pradesh (Excluding Telangana)	Bharat Sanchar Nigam Limited	4,068	3,616	-452	-11.11%
	Bharti Airtel	0	0	0	0
Telangana	Bharat Sanchar Nigam Limited	4,306	3,993	-313	-7.27%
	Bharti Airtel	181	181	0	0
Assam	Bharat Sanchar Nigam Limited	940	624	-316	-33.62%
Bihar (Excluding Jharkhand)	Bharat Sanchar Nigam Limited	619	591	-28	-4.52%
Jharkhand	Bharat Sanchar Nigam Limited	2,416	2,410	-6	-0.25%
Delhi	Bharti Airtel	330	330	0	0
	MTNL	39,211	38,936	-275	-0.70%
Gujarat	Bharat Sanchar Nigam Limited	4,777	4,680	-97	-2.03%
	Bharti Airtel	14	16	2	14.29%
Haryana	Bharat Sanchar Nigam Limited	560	415	-145	-25.89%
	Bharti Airtel	135	134	1	-0.74%
Himachal Pradesh	Bharat Sanchar Nigam Limited	641	618	-23	-3.59%
Jammu & Kashmir	Bharat Sanchar Nigam Limited	439	372	-67	-15.26%
Karnataka	Bharat Sanchar Nigam Limited	10,209	8,752	-1,457	-14.27%
	Bharti Airtel	2,789	2,713	-76	-2.72%
Kerala	Bharat Sanchar Nigam Limited	11,004	10,326	-678	-6.16%
	Bharti Airtel	384	382	-2	-0.52%
Kolkata	Bharat Sanchar Nigam Limited	1,983	1,884	-99	-4.99%
	Bharti Airtel	36	26	-10	-27.78%
Madhya Pradesh (Excluding Chhattisgarh)	Bharat Sanchar Nigam Limited	9,032	5,476	-3,556	-39.37%
	Bharti Airtel	1,176	0	-1,176	-100.00%
Chhattisgarh	Bharat Sanchar Nigam Limited	222	182	-40	-18.02%
Maharashtra (Excluding Mumbai & Goa)	Bharat Sanchar Nigam Limited	7,626	6,664	-962	-12.61%
	Bharti Airtel	0	0	0	0.00%
Mumbai	Bharti Airtel	50	50	0	0.00%
	MTNL	16,523	14,777	-1,746	-10.57%
Goa	Bharat Sanchar Nigam Limited	161	246	85	52.80%
Arunachal Pradesh	Bharat Sanchar Nigam Limited	9	9	0	0.00%

**Annexure 1.3 (contd.)**

<b>Name of Telecom Service Area</b>	<b>Service Provider</b>	<b>Number of PCOs as on 30.09.2020</b>	<b>Number of PCOs as on 31.12.2020</b>	<b>Net PCO increase/decrease as on 31.12.2020</b>	<b>Percentage Growth/Decline as on 31.12.2020</b>
Manipur	Bharat Sanchar Nigam Limited	772	772	0	0.00%
Meghalaya	Bharat Sanchar Nigam Limited	255	94	-161	-63.14%
Mizoram	Bharat Sanchar Nigam Limited	107	105	-2	-1.87%
Nagaland	Bharat Sanchar Nigam Limited	0	0	0	0.00%
Tripura	Bharat Sanchar Nigam Limited	475	472	-3	-0.63%
Odisha	Bharat Sanchar Nigam Limited	1,151	1,044	-107	-9.30%
Punjab	Bharat Sanchar Nigam Limited	1,285	1,182	-103	-8.02%
	Bharti Airtel	4	4	0	0.00%
	Quadrant	561	522	-39	-6.95%
Rajasthan	Bharat Sanchar Nigam Limited	1,161	991	-170	-14.64%
	Bharti Airtel	209	209	0	0.00%
Tamil Nadu (Excluding Chennai)	Bharat Sanchar Nigam Limited	13,488	10,813	-2,675	-19.83%
	Bharti Airtel	3,127	0	-3,127	-100%
Chennai	Bharat Sanchar Nigam Limited	6,841	6,841	0	0.00%
Uttar Pradesh East	Bharat Sanchar Nigam Limited	3,618	3,602	-16	-0.44%
	Bharti Airtel	66	0	-66	-100%
Uttar Pradesh West (Excluding Uttarakhand)	Bharat Sanchar Nigam Limited	1,160	1,157	-3	-0.26%
	Bharti Airtel	0	13	13	100%
Uttarakhand	Bharat Sanchar Nigam Limited	368	368	0	0.00%
West Bengal (Excluding Andaman & Nicobar and Sikkim)	Bharat Sanchar Nigam Limited	693	391	-302	-43.58%
Andaman & Nicobar	Bharat Sanchar Nigam Limited	0	32	32	100%
Sikkim	Bharat Sanchar Nigam Limited	0	0	0	0.00%
<b>Total</b>		<b>1,55,182</b>	<b>137,015</b>	<b>-18,167</b>	<b>-11.71%</b>
<b>Total (In Lakhs)</b>		<b>1.55</b>	<b>1.37</b>	<b>-0.18</b>	<b>-11.71%</b>

**Annexure 1.4: Service Area and Service Provider wise details of Village Public Telephones (VPTs)**

<b>S.No</b>	<b>Name of Telecom Service Area</b>	<b>Service Provider</b>	<b>Number of VPTs as on 30.09.2020</b>	<b>Number of VPTs as on 31.12.2020</b>	<b>Net VPTs increase/ decrease as on 31.12.2020</b>
1	Andhra Pradesh (Excluding Telangana)	Bharat Sanchar Nigam Limited	2,052	2,052	0
2	Telangana	Bharat Sanchar Nigam Limited	844	844	0
3	Assam	Bharat Sanchar Nigam Limited	105	105	0
4	Bihar (Excluding Jharkhand)	Bharat Sanchar Nigam Limited	5,893	5,893	0
5	Jharkhand	Bharat Sanchar Nigam Limited	221	221	0
6	Gujarat	Bharat Sanchar Nigam Limited	5,278	5,278	0
7	Haryana	Bharat Sanchar Nigam Limited	462	462	0
8	Himachal Pradesh	Bharat Sanchar Nigam Limited	1,875	1,875	0
9	Jammu & Kashmir	Bharat Sanchar Nigam Limited	810	810	0
10	Karnataka	Bharat Sanchar Nigam Limited	3,656	3,656	0
11	Kerala	Bharat Sanchar Nigam Limited	331	331	0
12	Kolkata	Bharat Sanchar Nigam Limited	130	130	0
13	Madhya Pradesh (Excluding Chhatisgarh)	Bharat Sanchar Nigam Limited	9,907	9,907	0
14	Chhatisgarh	Bharat Sanchar Nigam Limited	193	193	0
15	Maharashtra (Excluding Mumbai & Goa)	Bharat Sanchar Nigam Limited	7,615	7,615	0
16	Goa	Bharat Sanchar Nigam Limited	231	231	0
17	Arunachal Pradesh	Bharat Sanchar Nigam Limited	623	623	0
18	Manipur	Bharat Sanchar Nigam Limited	93	93	0
19	Meghalaya	Bharat Sanchar Nigam Limited	207	207	0

**Annexure 1.4 (contd.)**

<b>S.No</b>	<b>Name of Telecom Service Area</b>	<b>Service Provider</b>	<b>Number of VPTs as on 30.09.2020</b>	<b>Number of VPTs as on 31.12.2020</b>	<b>Net VPTs increase/ decrease as on 31.12.2020</b>
20	Mizoram	Bharat Sanchar Nigam Limited	12	12	0
21	Nagaland	Bharat Sanchar Nigam Limited	25	25	0
22	Tripura	Bharat Sanchar Nigam Limited	222	222	0
23	Orissa	Bharat Sanchar Nigam Limited	1,554	1,554	0
24	Punjab	Bharat Sanchar Nigam Limited	4,493	4,493	0
25	Rajasthan	Bharat Sanchar Nigam Limited	0	0	0
26	Tamil Nadu (Excluding Chennai)	Bharat Sanchar Nigam Limited	5,478	5,478	0
27	Uttar Pradesh East	Bharat Sanchar Nigam Limited	568	568	0
28	Uttar Pradesh West (Excluding Uttarakhand)	Bharat Sanchar Nigam Limited	1,637	1,637	0
29	Uttarakhand	Bharat Sanchar Nigam Limited	2,121	2,121	0
30	West Bengal (Excluding Andaman & Nicobar and Sikkim)	Bharat Sanchar Nigam Limited	11,557	11,557	0
31	Andaman & Nicobar	Bharat Sanchar Nigam Limited	93	93	0
32	Sikkim	Bharat Sanchar Nigam Limited	320	320	0
	<b>Total</b>		<b>68,606</b>	<b>68,606</b>	<b>0.00</b>
	<b>Total (In Lakh)</b>		<b>0.69</b>	<b>0.69</b>	<b>0.00</b>

**Annexure 1.5 : Internet Service Provider(ISP) wise Internet Subscriber base  
as on 31.12.2020**

<b>S.No.</b>	<b>Name of the Service Provider:</b>	<b>Narrowband</b>	<b>Broadband</b>	<b>Total</b>
1	Reliance Jio Infocomm Ltd	0	410842557	410842557
2	Bharti Airtel Ltd.	24373890	178996995	203370885
3	Vodafone Idea Limited	16849130	120773829	137622959
4	Bharat Sanchar Nigam Ltd.	6390494	26315584	32706078
5	Atria Convergence Technologies Pvt. Ltd.	0	1779305	1779305
6	Hathway Cable & Datacom Pvt. Ltd.	0	1051635	1051635
7	You Broadband India Pvt. Ltd.	14570	819817	834387
8	Mahanagar Telephone Nigam Ltd.	105616	706445	812061
9	GTPL Broadband Pvt. Ltd.	0	527147	527147
10	ONEOTT iNTERTAINMENT LTD	0	515662	515662
11	Excitel Broadband Private Limited	0	500047	500047
12	Alliance Broadband Services Pvt. Ltd.	0	393488	393488
13	Tikona Infinet Pvt Ltd	0	308309	308309
14	RailTel Corporation of India Ltd.	0	296055	296055
15	Netplus Broadband Services Pvt. Ltd	0	290189	290189
16	Asianet Satellite Communications Ltd.	0	281086	281086
17	D-Vois Broadband Private Limited	0	247624	247624
18	INTECH ONLINE PVT LTD	0	243484	243484
19	Quadrant Televentures Ltd.	86	209728	209814
20	Joister Infoserve Pvt. Ltd.	0	180774	180774
21	Tata Sky Broadband Private Limited	0	142906	142906
22	Indinet Service Pvt Ltd	0	129329	129329
23	DEN Broadband Limited	0	113475	113475
24	Wish Net Pvt. Ltd.	0	86434	86434
25	Five Network Solution (India) Ltd.	0	81192	81192
26	ANI network Pvt Ltd	0	66210	66210
27	AIRNET CABLE AND DATA COM PVT LTD	0	61550	61550
28	Fusionnet Web Services Pvt. Ltd.	0	56393	56393
29	SITI Broadband Services Pvt. Ltd.	0	47910	47910
30	Nextra Teleservices Pvt. Ltd.	0	46267	46267
31	GTPL KCBPL Broadband Private Limited	0	45545	45545
32	Honesty Net Solutions (I) Pvt Ltd	42	42251	42293
33	Ishan Netsol Pvt Ltd	0	41782	41782
34	K Net Solutions Pvt. Ltd.	0	40110	40110
35	Digital Satellite Connect Pvt. Ltd.	0	39908	39908
36	Limras Eronet Broadband Service Pvt Ltd	5760	33496	39256
37	Wan and Lan Internet Pvt. Ltd.	0	34493	34493
38	Tata Teleservices(Maharashtra) Ltd.	166	32077	32243

<b>S.No.</b>	<b>Name of the Service Provider:</b>	<b>Narrowband</b>	<b>Broadband</b>	<b>Total</b>
39	CSC e-Governance Services India Ltd.	0	32046	32046
40	Vasai Cable Pvt. Ltd.	0	29806	29806
41	Shyam Spectra Private Limited	0	29118	29118
42	DNA Infotel Pvt Ltd	0	27744	27744
43	Airlink Communications Pvt. Ltd	0	24876	24876
44	ESTO BROADBAND Pvt. Ltd.	0	24479	24479
45	Sikka Broadband(P) Ltd.	0	23526	23526
46	MICROSCAN COMPUTERS PVT LTD	6797	16541	23338
47	Ortel Communication Ltd.	0	22099	22099
48	Digital Network associates Pvt. Ltd	0	20991	20991
49	City Online Services Ltd	0	20347	20347
50	World Phone Internet Services Pvt Ltd	0	20325	20325
51	Tata Teleservices Limited	2	20214	20216
52	Rajesh Digital & Data Com Pvt. Ltd.	16	19570	19586
53	Ethernet Xpress India Pvt. Ltd	0	17668	17668
54	Tachyon Communications Pvt. Ltd.	0	17621	17621
55	B2H Infonet Pvt Ltd	0	17126	17126
56	Quest Consultancy Pvt. Ltd.	0	16101	16101
57	IKF Technologies Ltd	0	15852	15852
58	Shree Omkar Infocom Pvt. Ltd.	0	15737	15737
59	Sai Prasad Internet Services Pvt. Ltd.	0	15682	15682
60	RI Networks Pvt Ltd	0	15401	15401
61	Yashash Cable Network Pvt Ltd	0	15376	15376
62	Tata Communications Limited	136	14779	14915
63	United Telecoms Ltd.	0	14639	14639
64	SUPER SONIC BROADBAND PVT LTD	0	14506	14506
65	Meghbela Cable & Broadband Services (P) Ltd	0	12981	12981
66	Readylink Internet Services Pvt Ltd	0	12439	12439
67	Multicraft Digital Technologies Private Limited	0	11122	11122
68	Intermedia Cable Communication Pvt Ltd	0	11077	11077
69	Nuron Networks India Private Limited	0	10615	10615
70	Spiderlink Networks Pvt. Ltd.	0	10126	10126
71	Pioneerelabs	351	9643	9994
72	North East Dataa Network Pvt Ltd.	0	9928	9928
73	Radinet Info Solutions Pvt Ltd	0	9319	9319
74	Limerick Technologies Pvt Ltd	0	9261	9261
75	DL GTPL BROADBAND PVT LTD	0	9215	9215
76	Net 9 Online Hathway Private Limited	0	8969	8969
77	Veloxr Telecom Pvt. Ltd. (Shree Balaji Infoway Pvt Ltd.)	0	8535	8535

<b>S.No.</b>	<b>Name of the Service Provider:</b>	<b>Narrowband</b>	<b>Broadband</b>	<b>Total</b>
78	Jetway Broadband India Pvt.Ltd.	0	8294	8294
79	Apna Telelink Ltd.	0	8189	8189
80	Cityzone Infonet Pvt. Ltd	0	8043	8043
81	Kappa Internet Services Pvt Ltd.	0	7610	7610
82	SSCN PVT LTD	0	7486	7486
83	FOXTEL TELECOMMUNICATIONS PVT LTD	7325	0	7325
84	Angel Air Network Solutions Private Limited	0	7307	7307
85	Reliance Communications Limited	192	7062	7254
86	Swiftmail Communications Ltd.	424	6354	6778
87	Siliguri Internet & Cable TV Pvt. Ltd.	0	6597	6597
88	Broadband Pacenet (I) Pvt. Ltd.	0	5243	5243
89	Deepnetwork Pvt. Ltd.	0	5119	5119
90	Multinet (Udaipur) Pvt. Ltd.	0	4894	4894
91	Shine Communications Pvt. Ltd.	0	4837	4837
92	WSNS Pvt. Ltd.	0	4770	4770
93	IAXN Telecom Pvt. Ltd.	0	4766	4766
94	SONALI INTERNET SERVICES PVT LTD	0	4585	4585
95	Geocity Network Solutions Pvt. Ltd.	0	4511	4511
96	Swiftnet Broadband Pvt Ltd	0	4410	4410
97	Pink Broadband Services Pvt. Ltd.	2175	2175	4350
98	Juweriyah Networks Pvt Ltd	0	4219	4219
99	Bittel Telecom Pvt.Ltd	0	4216	4216
100	Mukand Infotel Pvt. Ltd.	4207	0	4207
101	LM Energy and Software Pvt. Ltd.	0	4149	4149
102	S.S.Netcom Pvt Ltd	0	4111	4111
103	Blazenet Ltd.	0	4017	4017
104	GBPS Networks Pvt. Ltd.	0	3914	3914
105	Five Net Service Provider Pvt. Ltd.	0	3848	3848
106	CANDOR INFOSOLUTION PVT LTD	3736	0	3736
107	CHANNEL III INTERNET PVT LTD	0	3694	3694
108	GETWAY BROADBAND PVT LTD	0	3659	3659
109	WOW SOLUTIONS & SYSTEM PVT LTD	0	3300	3300
110	Fiberzone Communications Pvt. Ltd.	0	3281	3281
111	Rainbow Internet teleservices Pvt Ltd	16	3184	3200
112	Dsouza Infotainment Pvt. Ltd.	0	3139	3139
113	INET FIBER INDIA PVT LTD	0	2959	2959
114	Airgenie Communications Pvt. Ltd.	0	2877	2877
115	VRD Web Services Private Limited	0	2797	2797
116	Spacenet Internet Services Pvt Ltd	0	2781	2781
117	City Online AP Pvt. Ltd.	0	2742	2742
118	NETVISION AWADH NETWORKS PVT LTD	0	2709	2709



<b>S.No.</b>	<b>Name of the Service Provider:</b>	<b>Narrowband</b>	<b>Broadband</b>	<b>Total</b>
119	Transmedia Technologies (AP) Pvt Ltd	0	2699	2699
120	TGN NETWORKS PVT LTD	0	2679	2679
121	Classic Internet and Cable Services Pvt Ltd	2661	0	2661
122	Vision Smartlink Networking Pvt. Ltd.	0	2503	2503
123	Blu Ultraband Internet Services Private Limited	0	2469	2469
124	Chandra Net Pvt. Limited	0	2435	2435
125	Jetspot Networks Pvt. Ltd.	0	2357	2357
126	NISS INTERNET SERVICES PVT. LTD.	0	2346	2346
127	Symbois Creations Pvt. Ltd.	0	2327	2327
128	Deenet Services Pvt Ltd	0	2275	2275
129	Southern Online Bio Technologies Ltd.	0	2204	2204
130	Sifi Online Pvt. Ltd.	0	2202	2202
131	OM-ASHANet Pvt. Ltd.	0	2030	2030
132	Correl IT Services Pvt. Ltd.	257	1749	2006
133	Smart Net India Pvt Ltd	0	1975	1975
134	SMARTLINK SOLUTIONS PVT. LTD.	0	1965	1965
135	Speed Online.net Pvt. Ltd.	0	1865	1865
136	Antarjal IT Communication Pvt. Ltd.	0	1856	1856
137	STN Infotech Pvt. Ltd	0	1843	1843
138	Capture Network Systems Pvt. Ltd.	288	1517	1805
139	GALAXYNET CONNECTIONS PVT LTD	0	1800	1800
140	delDSL Internet Pvt Ltd	0	1781	1781
141	Exnet Broadband Pvt. Ltd.	0	1780	1780
142	DNS SKYLINK PVT. LTD.	0	1704	1704
143	Assistive networks & technologie Pvt Ltd	0	1701	1701
144	Elyzium Technologies Pvt. Ltd.	0	1612	1612
145	Ultrahnet Infotech Solution Private Limited	0	1600	1600
146	Click4Net Internet Services Private Limited	0	1594	1594
147	Nettlinx Ltd.	0	1591	1591
148	F/X Wireless Technology Services Pvt. Ltd.	0	1560	1560
149	Sphier Infotech Pvt. Ltd.	0	1515	1515
150	Wnet Telecom Private Limited	0	1512	1512
151	Venessa Internet Pvt. Ltd.	0	1457	1457
152	SCUD COMMUNICATION PVT LTD	0	1410	1410
153	Netfirre Communications Pvt. Ltd.	0	1408	1408
154	Bakcom Networks India Pvt Ltd	0	1398	1398
155	GIGACAST NETWORK PVT LTD	0	1370	1370
156	Wi-Link Network Pvt. Ltd	614	737	1351
157	Karunay Internet Private Limited	0	1340	1340
158	MAKS COMMUNICATIONS PVT.LTD.	0	1248	1248
159	SS Fiber Net Optical Communication Pvt. Ltd.	0	1246	1246

<b>S.No.</b>	<b>Name of the Service Provider:</b>	<b>Narrowband</b>	<b>Broadband</b>	<b>Total</b>
160	Aeroway Networks Pvt Ltd.	0	1232	1232
161	CJ Online Pvt. Ltd.	0	1222	1222
162	United Stars Network Private Limited	0	1221	1221
163	DA Smartzone Pvt Ltd	0	1213	1213
164	Zoram Business Enterprise Private Limited	0	1200	1200
165	Amar Broadband Private Limited	0	1125	1125
166	ACN Fiber Pvt. Ltd.	0	1100	1100
167	Touch Net India Pvt. Ltd.	0	1060	1060
168	Aerocast Networks Pvt Ltd.	0	1036	1036
169	Net Access Internet India Private Limited	0	1018	1018
170	Rida Communication Pvt. Ltd.	0	1011	1011
171	NGC Broadband Pvt. Ltd.	0	997	997
172	JBN Online Private Limited.	0	982	982
173	Southnet Broadband Pvt. Ltd.	0	978	978
174	AHM Digital Network Pvt Ltd	0	970	970
175	HOSTAXIS NETWORKS PVT LTD	0	948	948
176	E I DOT Com Pvt. Ltd.	0	938	938
177	Grace Teleinfra Pvt Ltd	0	927	927
178	Touchnet Broadband Services Pvt Ltd	0	918	918
179	Telosy Telecom Pvt. Ltd.	0	912	912
180	Sanchit Infocom Pvt Ltd	0	909	909
181	Uzaina Business India Pvt Ltd	0	900	900
182	Speedmaxx Digital Networks Pvt Ltd	0	897	897
183	Japra Tele Link Pvt. Ltd.	0	893	893
184	NetMagic Solutions(P) Ltd.	0	892	892
185	KGS NETWORKS PRIVATE LIMITED	0	889	889
186	FASTNET COMMUNICATION PVT LTD	175	701	876
187	Ficus Telecom Pvt. Ltd.	0	873	873
188	ADRI INFOCOM PVT. LTD.	0	866	866
189	SKY ONLINE TECHNOSYSTEM PVT LTD	0	863	863
190	Rajesh Patel Net Services Pvt. Ltd.	12	849	861
191	SEFARO NETWORKS PRIVATE LTD	0	860	860
192	DREAMLINK TECHNOLOGIES PVT LTD	0	848	848
193	Datawave IT solutions Pvt. Ltd.	0	842	842
194	Ftx Broadband Pvt. Ltd.	0	780	780
195	Darer Internet Services Pvt. Ltd.	0	771	771
196	Ani Broadband Service Pvt. Ltd.	0	763	763
197	Bandwidth Infinity Pvt Ltd	0	744	744
198	REVOLUTION BROADBAND PVT LTD	0	720	720
199	Spirenet Digital Communications Pvt. Ltd.	0	720	720
200	JB Jain Broadband Solutions Private Limited.	0	719	719

<b>S.No.</b>	<b>Name of the Service Provider:</b>	<b>Narrowband</b>	<b>Broadband</b>	<b>Total</b>
201	CLOUDNET COMMUNICATIONS PVT LTD	0	714	714
202	Nandini Broadband Pvt Ltd	0	697	697
203	Acegen Broadband Pvt. Ltd	0	673	673
204	HPS DIGITAL BROADBAND PVT LTD	0	672	672
205	Unitel Media Pvt Ltd	0	670	670
206	Craze IT Solutions Pvt Ltd	0	667	667
207	Packenet Solutions Pvt. Ltd.	0	667	667
208	CNS INFOTEL SERVICES PVT LTD	0	661	661
209	DATAMAX TECHNOLOGY PVT LTD	74	563	637
210	Primenet Global Ltd.	0	632	632
211	iAIRONET COMMUNICATION PVT LTD	0	631	631
212	Bass Networks Pvt Ltd	0	613	613
213	BASS JOKERNET PRIVATE LIMITED	0	608	608
214	Light Air Transmission Pvt. Ltd.	298	298	596
215	WEBRIDERS INTERNET PVT LTD	0	594	594
216	Reticule Infotech Pvt. Ltd.	0	590	590
217	SVD DIGITAL NETWORKS PVT LTD	0	590	590
218	Alphanet Broadband Pvt Ltd	0	571	571
219	Daksh Broadband Services Pvt Ltd	0	562	562
220	Gazillio Technologies Pvt. Ltd.	0	557	557
221	Alegra Communication Pvt Ltd	0	552	552
222	Digital2Virtual ISP Pvt. Ltd.	0	549	549
223	Panav Network and Communications Private Limited	0	548	548
224	Power Grid Corporation of India Ltd.	0	548	548
225	VIVA Communications Pvt Ltd	0	542	542
226	Shree Manoranjan Broadband Pvt. Ltd.	0	531	531
227	Amityhua Electronics Pvt. Ltd.	0	528	528
228	Hughes Communications India Ltd.	55	462	517
229	Data Ingenious Global Ltd	4	505	509
230	Sarva Air World Network Pvt Ltd	11	494	505
231	Varesha Air World Networks Pvt Ltd	11	494	505
232	Lotus Broadband Pvt Ltd	0	496	496
233	Varsha Datacom Services Pvt Ltd	0	479	479
234	Rocketwire Internet Solutions Pvt. Ltd.	0	478	478
235	Tamana Winet Pvt. Ltd.	0	466	466
236	Imperium Digital Network Pvt. Ltd.	0	461	461
237	Quick Link Broadband and Services Pvt. Ltd	0	460	460
238	STN Communication & Advertising Pvt Ltd.	1	446	447
239	Elecon Infotmation Technology Ltd	0	445	445
240	ANUSHREE DIGITAL NETWORK PVT LTD	0	439	439

<b>S.No.</b>	<b>Name of the Service Provider:</b>	<b>Narrowband</b>	<b>Broadband</b>	<b>Total</b>
241	Sysnet Broadband Services Pvt. Ltd.	0	429	429
242	Allied IT Infrastructures & Services Pvt. Ltd.	0	421	421
243	Moradabad Internet Services Pvt Ltd	0	420	420
244	Gleam Worldwide Services Pvt. Ltd.	0	408	408
245	KSK Broadband Pvt Ltd	0	402	402
246	Citylink Broadband Services Pvt. Ltd.	0	395	395
247	Sify Technologies Ltd.	205	186	391
248	Fastx Broadband Private Limited	0	389	389
249	Vardaan Netservices Pvt. Ltd.	0	386	386
250	Gorakhpur Net Services Pvt. Ltd.	0	385	385
251	Pulse Telesystems Pvt. Ltd.	0	379	379
252	Bhiwani Communications Pvt. Ltd.	0	375	375
253	WINDSOR INTERNET PVT LTD	0	374	374
254	Spider Broadband and Cable Pvt Ltd	0	364	364
255	HELM CONSULTANTS PVT LTD	363	0	363
256	Briskcom Infoway Pvt. Ltd.	0	348	348
257	Skylink Fibernet Pvt. Ltd.	0	335	335
258	Oistel Telecom Pvt. Ltd.	166	166	332
259	Sai Akshay Internet Services Pvt Ltd.	0	332	332
260	CATLA IT&ENGG. CO. PVT LTD.	0	327	327
261	Twincity Communication Private Limited	0	325	325
262	Antariksh Broadband & Wireless Solutions Pvt Ltd	323	0	323
263	VISPUTES INTERNET PRIVATE LIMITED	0	300	300
264	WAVETREE NETWORKS PVT LTD	0	299	299
265	Sheen Telecom Consultants Pvt Ltd	0	292	292
266	SmartLink Broadband Services	0	291	291
267	Dhanam Internet Services India Pvt. Ltd.	0	289	289
268	ALWAR ONLINE PVT LTD	0	283	283
269	Goodwill Smartlink Pvt. Ltd.	0	277	277
270	AUSPICE INFRATAL PVT LTD	0	275	275
271	A-Net Communication India Pvt.Ltd.	146	123	269
272	Sense Connect IT Pvt. Ltd.	0	267	267
273	Singh Internet Services Pvt. Ltd.	0	260	260
274	Kataria Net Solutions Pvt. Ltd.	0	255	255
275	Cityline Networks Pvt Ltd	0	251	251
276	Verizon Communications India Pvt. Ltd.	0	247	247
277	Faiconet Internet Pvt Ltd	0	245	245
278	Development Logics Solutions Pvt Ltd	0	241	241
279	Oasis Cable Pvt Ltd.	235	0	235
280	Khetan Cable Network (P) Ltd	0	228	228

<b>S.No.</b>	<b>Name of the Service Provider:</b>	<b>Narrowband</b>	<b>Broadband</b>	<b>Total</b>
281	Shineplus Networks Pvt Ltd	0	225	225
282	SNT Broadband Pvt. Ltd.	0	225	225
283	VMO BROADBAND PVT LTD	225	0	225
284	Suncity Broadband Pvt Ltd.	0	224	224
285	ACEBROWSE PVT LTD	0	219	219
286	Smart Wi5 Pvt. Ltd.	0	218	218
287	CIT SOLUTIONS PVT. LTD.	0	217	217
288	NEXTGEN COMPUSOFT PVT LTD	0	215	215
289	Achiever Communication and Services Pvt. Ltd.	0	210	210
290	CERALINK COMMUNICATION PVT LTD	0	210	210
291	Microsense Pvt. Ltd.	0	209	209
292	Proline Datatech Servivces Pvt Ltd	0	208	208
293	Saibaba Broadband Pvt. Ltd.	0	206	206
294	Way2Air Net Solution Pvt Ltd	0	206	206
295	Barani Data Solutions Private Limited	202	0	202
296	Ishani Broadband Pvt Ltd	0	200	200
297	Netrexo Communications Pvt. Ltd.	0	191	191
298	Wi5 Internet Services P Limited	0	190	190
299	HIPOINT CONNECT PRIVATE LIMITED	0	183	183
300	PMG NETWORKD PVT LTD	0	175	175
301	White Stallion Networks Pvt. Ltd.	0	169	169
302	Optisky Fibernet Pvt. Ltd.	0	168	168
303	Satpar Infotech Pvt Ltd	0	166	166
304	Nanjil Internet Services Pvt. Ltd.	0	158	158
305	Zoram Infonet Pvt Ltd	0	145	145
306	KKM Broadband Internet Pvt Ltd	0	143	143
307	NR DATA SERVICE PVT LTD	0	142	142
308	Shreepad Communication Pvt. Ltd.	0	140	140
309	Global India Tele Infra Pvt. Ltd.	36	100	136
310	AT&T Global Network Services India Private Limited	0	134	134
311	Micronova Network Solutions Ltd	1	130	131
312	Shree Siddhivinayak Cable and Internet Service Provider Pvt. Ltd.	128	0	128
313	MLC INTERNET PVT LTD	0	126	126
314	Mediatech Communication Pvt. Ltd.	0	125	125
315	Vanshika Broadband Pvt. Ltd.	2	121	123
316	Veer Point Pvt. Ltd.	0	122	122
317	M-TEL Networks (P) Ltd	0	121	121
318	Shri Vinayagaa Internet Pvt Ltd	0	120	120
319	V NET NETWORKS PVT. LTD	0	118	118

<b>S.No.</b>	<b>Name of the Service Provider:</b>	<b>Narrowband</b>	<b>Broadband</b>	<b>Total</b>
320	Highnet Broadband & Technologies Pvt. Ltd.	66	45	111
321	Telstra Telecommunications Pvt. Ltd.	0	109	109
322	AIRMAX INTERNET PVT LTD	107	0	107
323	Hipath Netcom Services Pvt. Ltd.	0	107	107
324	Malang Solutions Pvt. Ltd.	0	107	107
325	Pronoc Technologies Pvt. Ltd.	0	107	107
326	DRONAGIRI INFOTECH PVT LTD	0	104	104
327	ROYAL WIRELESS SERVICES PVT LTD	0	102	102
328	Sri Ram Broadband Services Pvt. Ltd.	0	102	102
329	Invensys Networks Pvt.Ltd.	0	101	101
330	SATH TECHNOLOGIES PVT LTD	0	99	99
331	Marutham Networks Pvt. Ltd.	0	98	98
332	Omkar Net Services Pvt. Ltd.	0	96	96
333	Cheetah Networks Pvt. Ltd.	0	94	94
334	Shri Ram Braoadband Services Pvt Ltd	0	92	92
335	Infinity wireless services pvt. Ltd.	0	89	89
336	Airtechzone Services India Pvt Ltd	85	0	85
337	Wireline Solution(India) Pvt. Ltd.	0	85	85
338	ARP INFONET PVT. LTD.	0	84	84
339	Dream Plus Multi Services Pvt. Ltd.	0	82	82
340	Clicknet Communication Pvt Ltd	80	0	80
341	S A INTERNET SOLUTION PVT LTD	0	80	80
342	Netwire Internet Solutions Pvt. Ltd.	0	74	74
343	ERNET India	44	29	73
344	Mtel Networks Pvt. Ltd.	0	73	73
345	AirFiber IT Solutions Pvt. Ltd	0	72	72
346	TRIPLE LINK PVT LTD	0	68	68
347	BSL Technologies Pvt. Ltd.	0	66	66
348	Delix Net Solutions Pvt Ltd	0	58	58
349	GigHz IT Solutions Pvt Ltd	0	56	56
350	Infiber Broadnet Pvt. Ltd.	0	56	56
351	City Broadband Pvt. Ltd.	0	52	52
352	Divine Broadband Services Pvt Ltd	0	52	52
353	Durga Broadband Pvt. Ltd.	0	52	52
354	Airmesh Communications Limited	0	46	46
355	QBC Infotech Pvt. Ltd.	0	44	44
356	Sanavi Infotech (OPC) Pvt. Ltd.	0	43	43
357	Edge Telecommunications Pvt. Ltd.	0	40	40
358	Orange Business Services India Network Pvt. Ltd.	0	37	37
359	Prompt infracom Pvt Ltd	0	35	35

<b>S.No.</b>	<b>Name of the Service Provider:</b>	<b>Narrowband</b>	<b>Broadband</b>	<b>Total</b>
360	Gigalo Communication Pvt. Ltd.	34	0	34
361	Navariya Satellite Services Pvt.Ltd.	33	0	33
362	Mesh Infranet Pvt Ltd	0	32	32
363	Praveen Telecom Pvt. Ltd.	0	32	32
364	Dreamnet Pvt.Ltd.	0	30	30
365	Sun Broadband and Data Services PVT. LTD.	0	30	30
366	Spacetrade Internet Pvt Ltd	0	29	29
367	Promptnet Broadband Pvt. Ltd.	0	28	28
368	WE INTERNET LIMITED	0	27	27
369	JAI MATA DI TELECTRONIX PVT LTD	0	25	25
370	GURU NETCOMM PVT LTD	0	23	23
371	Pacific Internet India Pvt. Ltd.	0	23	23
372	Vidarbha Wi-Fi & Network Services Pvt. Ltd.	23	0	23
373	SKYNETZONE WIFI SERVICES PVT LTD	0	21	21
374	FASTHOOK NETWORKS PVT LTD	0	18	18
375	Microtel Internet Network Pvt. Ltd.	0	15	15
376	Adya Tech One Services Pvt Ltd	0	13	13
377	Hienet Internet Services Pvt Ltd	0	13	13
378	Airlink Broadband Pvt Ltd	0	12	12
379	Texas Connect Private Limited	0	11	11
380	Angrow Netcomm Pvt. Ltd.	10	0	10
381	UBERCORE DATA LABS PVT LTD	0	9	9
382	Rajdhani Telecom Pvt. Ltd.	2	6	8
383	A TO Z INFOLINK PVT.LTD.	0	7	7
384	Clear Beam Communication Pvt Ltd	7	0	7
385	Essel Shyam Communications Limited	0	7	7
386	Financial Technologies Communications Ltd.	0	7	7
387	Kartik Network Pvt. Ltd.	0	7	7
388	Uttradoon Networks Pvt. Ltd.	2	4	6
389	Mastek Infosystems OPC Pvt. Ltd.	0	5	5
390	Tatanet Services Ltd	5	0	5
391	Aristo Telenet Pvt Ltd	0	3	3
392	Cloudcast Digital Ltd	0	3	3
393	Critel Technologies Pvt. Ltd.	0	3	3
394	Instanet Technologies Private Limited	0	3	3
395	Sabse Internet Services Provider Pvt Ltd	0	2	2
396	Sahiba Silk Mills Pvt. Ltd.	1	0	1
	<b>Total</b>	<b>47772123</b>	<b>747408388</b>	<b>795180511</b>

**Annexure 1.6: List of Service Providers which reported IP Telephony  
Minutes for Q.E. Dec-20**

<b>S. No.</b>	<b>Name of Service Providers reported IP Telephony Minutes as on 31<sup>st</sup> December 2020</b>
1	Alliance Broadband Services Pvt. Ltd.
2	Asianet Satellite Communications Ltd.
3	Blazenet Ltd.
4	City Online Services Ltd.
5	Citycom Networks Pvt. Ltd.
6	delDSL Internet Pvt Ltd
7	Novanet Ltd.
8	Pulse Telesystems Pvt. Ltd.
9	Sify Technologies Ltd.
10	Tata Communications Limited
11	Trikon Electronics Pvt. Ltd.
12	VIVA Communications Pvt. Ltd.
13	World Phone Internet Services Pvt. Ltd.
14	You Broadband & Cable India Pvt. Ltd.
15	Warmconnect Internet Services Pvt. Ltd.



### Annexure 1.7: Service Area wise PMRTS subscriber Base

S.No.	DOT Licensed Service	Area Served	Service Provider	Subscriber Base	
				30.09.2020	31.12.2020
1	Andhra Pradesh	Hyderabad	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	2,579	2,657
			QuickCall	990	1,010
		Visakhapatnam	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	4,008	4,014
			<b>Total</b>	<b>7,577</b>	<b>7,681</b>
2	Delhi	Delhi	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	7,729	7,715
			Procall Ltd.	2,971	2,988
		<b>Total</b>	<b>10,700</b>	<b>10,703</b>	
3	Gujarat	Ahmedabad	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,133	1,089
		Amrela	Inative Networks Pvt. Ltd.	-	-
		Bharuch	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,519	1,491
			Inative Networks Pvt. Ltd.	-	-
		Dahej	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,088	1,112
		Jamnagar	Inative Networks Pvt. Ltd.	360	360
		Kutch	Inative Networks Pvt. Ltd.	205	205
		Surat	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,620	1,652
			Inative Networks Pvt. Ltd.	895	895
		Vadodara	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,682	1,712
			Inative Networks Pvt. Ltd.	360	360
<b>Total</b>	<b>8,862</b>	<b>8,876</b>			
4	Karnataka	Bangalore	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	7,919	7,195
			QuickCall	544	532
		<b>Total</b>	<b>8,463</b>	<b>7,727</b>	
5	Kerala	Ernakulam	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,031	1,034
		Kerala	Wiwonet Solutions Pvt. Ltd	478	690
		<b>Total</b>	<b>1,509</b>	<b>1,724</b>	
6	Kolkata	Kolkata	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	<b>1,759</b>	<b>1,743</b>
7	Madhya Pradesh	Indore	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	<b>1,495</b>	<b>1,646</b>
8	Maharashtra	Pune	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	2,022	2,025
			Smartalk Pvt Ltd.	648	670
		<b>Total</b>	<b>2,670</b>	<b>2,695</b>	
9	Mumbai	Mumbai	Airtalk Solutions & Services Pvt. Ltd.	416	431
			Arya Omnitalk Radio Trunking Services Pvt.Ltd.	9,030	8,886
			Bhilwara Telenet Services Pvt.Ltd.	869	864
			Smartalk Pvt Ltd.	778	816
			<b>Total</b>	<b>11,093</b>	<b>10,997</b>
10	Rajasthan	Jaipur	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	870	890
			Procall Ltd.	370	381
		<b>Total</b>	<b>1,240</b>	<b>1,271</b>	
11	Tamil Nadu	Chennai	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	8,037	7,655
			QuickCall	496	487
		<b>Total</b>	<b>8,533</b>	<b>8,142</b>	
<b>Grand Total</b>				<b>63,901</b>	<b>63,205</b>

**Annexure 2.1: Wireless Revenue Service - Service Area wise Statistics for  
QE December, 2020**

**Key parameters for service areas of category-A**

Service Area	% of pre-paid in total subscribers	ARPU (₹ per month)	Total usage (from & outside HSA) per subscriber per month			
			Outgoing SMS	Outgoing MOU	Incoming MOU	Total MOU
AP	95.68	120	17	372	368	740
Gujarat	95.50	105	19	343	305	648
Karnataka	93.68	111	20	384	376	760
MH	95.81	115	17	346	337	684
TN (incl. Chennai)	94.16	122	16	369	368	737

**Key parameters for service areas of category-B**

Service Area	% of pre-paid in total Subscribers	ARPU (₹ per month)	Total usage (from & outside HSA) per subscriber per month			
			Outgoing SMS	Outgoing MOU	Incoming MOU	Total MOU
Haryana	97.22	81	9	355	347	702
Kerala	97.48	120	9	300	305	606
MP	98.27	99	17	378	380	758
Punjab	96.23	111	10	351	342	692
Rajasthan	97.78	97	17	376	376	751
UP(E)	98.02	80	12	440	475	916
UP(W)	97.94	88	12	398	404	802
WB	99.33	100	17	417	434	851

**Key parameters for service areas of category-C**

Service Area	% of pre-paid in total subscribers	ARPU (₹ per month)	Total usage (from & outside HSA) per subscriber per month			
			Outgoing SMS	Outgoing MOU	Incoming MOU	Total MOU
Assam	98.03	110	30	411	434	845
Bihar	99.03	91	12	492	541	1033
HP	98.69	98	10	334	334	667
J&K	53.49	105	25	548	522	1070
NE	98.63	120	34	380	386	766
Odisha	98.71	97	17	433	457	890

**Key parameters for service areas of category-Metro**

Service Area	% of pre-paid in total subscribers	ARPU (₹ per month)	Total usage (from & outside HSA) per subscriber per month			
			Outgoing SMS	Outgoing MOU	Incoming MOU	Total MOU
Kolkata	94.66	78	13	363	359	722
Delhi	81.95	84	19	451	405	856
Mumbai	78.64	98	15	404	358	763

## Annexure 4.1: Performance of QoS Parameters for Cellular Mobile Service

Name of Service Area	Name of Service Provider	Network Related Parameters										Customer Service Quality Parameters																															
		Network Availability		Connection Establishment (Accessibility)			Connection Maintenance (Retainability)			POI		Metering and billing						Response time to the customer for assistance		Termination / Closure of service																							
		BS Accumulated downtime (not available for services) (%)	Worst of affected BS due to downtime (%)	Call Set-up Success Rate and Session Establishment Success Rate for Circuit Switched Voice or VoLTE as applicable (within licensee's own network)	SDOCH/ Paging Channel Congestion/ RRC Congestion (%)	TD, RAB and E-RAB Congestion (%)	Network QoS QoS Spatial Distribution Measure (Network_QoS(90,90))	Network QoS QoS Temporal Distribution Measure (Network_QoS(97,90))	Connections with good voice quality, Circuit Switched Voice Quality and VoLTE quality	Point of Interconnection (POI) Congestion (No. of congestions) (Averaged over a period of quarter)	Down Link (DL) Packet Drop Rate or DL-PDR	Up Link (UL) Packet Drop Rate or UL-PDR	Metering and billing credibility - post paid	Metering and billing credibility - pre paid	Resolution of billing/charging complaints	Resolution of billing/charging complaints	Resolution of billing/charging complaints	Resolution of billing/charging complaints	Resolution of billing/charging complaints	Resolution of billing/charging complaints	Resolution of billing/charging complaints	Resolution of billing/charging complaints	Resolution of billing/charging complaints	Resolution of billing/charging complaints	Resolution of billing/charging complaints	Resolution of billing/charging complaints	Resolution of billing/charging complaints	Resolution of billing/charging complaints	Resolution of billing/charging complaints	Resolution of billing/charging complaints													
		≤ 2%	≤ 2%	≥ 95%	≤ 1%	≤ 2%	≤ 2%	≤ 3%	≥ 95%	≤ 0.5%	≤ 2%	≤ 2%	≤ 0.1%	≤ 0.1%	98% within 4 weeks	100% within 6 weeks	within 1 week of resolution of complaint	≥ 95%	≥ 95%	100% within 7 days	100% within 60 days																						
The achievement of benchmark against each parameter is to be averaged over a period of one quarter for 2G, 3G and 4G VoLTE Services (combined) as per the measurement methodology explained in Explanatory Memorandum to regulations																																											
Andhra Pradesh	Airtel	0.21	1.38	99.21	0.11	0.19	1.07	1.41	96.83	0	0.19	0.18	0.00	0.00	100.00	100.00	100.00	100.00	96.00	100.00	100.00	Assam	Airtel	0.26	0.96	98.30	0.48	0.58	1.96	2.63	96.74	0	0.23	0.23	0.00	0.00	100.00	100.00	100.00	100.00	99.00	100.00	100.00
	BSNL	1.26	1.93	98.53	0.78	0.99	1.66	1.82	98.70	0	0.66	0.86	0.00	0.00	100.00	100.00	100.00	100.00	96.00	100.00	100.00																						
	RJIL	0.07	0.13	99.73	0.00	0.00	0.27	0.39	99.96	0	0.00	0.09	0.00	0.00	100.00	100.00	100.00	100.00	97.09	98.73	100.00		100.00																				
Bihar	Airtel	0.14	0.26	98.00	0.37	1.28	1.71	1.81	97.82	0	0.10	0.35	0.00	0.00	100.00	100.00	100.00	100.00	99.00	100.00	100.00																						
	BSNL	1.85	1.81	95.86	0.31	0.39	1.82	2.22	98.30	0	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	99.00	97.21	100.00	100.00																					
	RJIL	0.21	0.89	99.39	0.00	0.00	0.47	0.58	99.94	0	0.00	0.11	0.00	0.00	100.00	100.00	100.00	100.00	98.48	81.00	100.00	100.00																					
Delhi	Airtel	0.09	0.00	99.26	0.17	0.21	1.63	2.08	95.55	0	0.90	0.20	0.00	0.00	100.00	100.00	100.00	100.00	100.00	99.00	100.00	100.00																					
	BSNL	1.85	1.81	95.86	0.31	0.39	1.82	2.22	98.30	0	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	99.00	97.21	100.00	100.00																					
	RJIL	0.21	0.89	99.39	0.00	0.00	0.47	0.58	99.94	0	0.00	0.11	0.00	0.00	100.00	100.00	100.00	100.00	98.48	81.00	100.00	100.00																					
Gujarat	Airtel	0.09	0.00	99.26	0.17	0.21	1.63	2.08	95.55	0	0.90	0.20	0.00	0.00	100.00	100.00	100.00	100.00	100.00	99.00	100.00	100.00																					
	BSNL	1.85	1.81	95.86	0.31	0.39	1.82	2.22	98.30	0	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	99.00	97.21	100.00	100.00																					
	RJIL	0.21	0.89	99.39	0.00	0.00	0.47	0.58	99.94	0	0.00	0.11	0.00	0.00	100.00	100.00	100.00	100.00	98.48	81.00	100.00	100.00																					
Haryana	Airtel	0.09	0.00	99.26	0.17	0.21	1.63	2.08	95.55	0	0.90	0.20	0.00	0.00	100.00	100.00	100.00	100.00	100.00	99.00	100.00	100.00																					
	BSNL	1.85	1.81	95.86	0.31	0.39	1.82	2.22	98.30	0	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	99.00	97.21	100.00	100.00																					
	RJIL	0.21	0.89	99.39	0.00	0.00	0.47	0.58	99.94	0	0.00	0.11	0.00	0.00	100.00	100.00	100.00	100.00	98.48	81.00	100.00	100.00																					
Himachal Pradesh	Airtel	0.09	0.00	99.26	0.17	0.21	1.63	2.08	95.55	0	0.90	0.20	0.00	0.00	100.00	100.00	100.00	100.00	100.00	99.00	100.00	100.00																					
	BSNL	1.85	1.81	95.86	0.31	0.39	1.82	2.22	98.30	0	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	99.00	97.21	100.00	100.00																					
	RJIL	0.21	0.89	99.39	0.00	0.00	0.47	0.58	99.94	0	0.00	0.11	0.00	0.00	100.00	100.00	100.00	100.00	98.48	81.00	100.00	100.00																					
Jammu & Kashmir	Airtel	0.09	0.00	99.26	0.17	0.21	1.63	2.08	95.55	0	0.90	0.20	0.00	0.00	100.00	100.00	100.00	100.00	100.00	99.00	100.00	100.00																					
	BSNL	1.85	1.81	95.86	0.31	0.39	1.82	2.22	98.30	0	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	99.00	97.21	100.00	100.00																					
	RJIL	0.21	0.89	99.39	0.00	0.00	0.47	0.58	99.94	0	0.00	0.11	0.00	0.00	100.00	100.00	100.00	100.00	98.48	81.00	100.00	100.00																					
Karnataka	Airtel	0.09	0.00	99.26	0.17	0.21	1.63	2.08	95.55	0	0.90	0.20	0.00	0.00	100.00	100.00	100.00	100.00	100.00	99.00	100.00	100.00																					
	BSNL	1.85	1.81	95.86	0.31	0.39	1.82	2.22	98.30	0	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	99.00	97.21	100.00	100.00																					
	RJIL	0.21	0.89	99.39	0.00	0.00	0.47	0.58	99.94	0	0.00	0.11	0.00	0.00	100.00	100.00	100.00	100.00	98.48	81.00	100.00	100.00																					
Kerala	Airtel	0.09	0.00	99.26	0.17	0.21	1.63	2.08	95.55	0	0.90	0.20	0.00	0.00	100.00	100.00	100.00	100.00	100.00	99.00	100.00	100.00																					
	BSNL	1.85	1.81	95.86	0.31	0.39	1.82	2.22	98.30	0	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	99.00	97.21	100.00	100.00																					
	RJIL	0.21	0.89	99.39	0.00	0.00	0.47	0.58	99.94	0	0.00	0.11	0.00	0.00	100.00	100.00	100.00	100.00	98.48	81.00	100.00	100.00																					
Kolkata	Airtel	0.09	0.00	99.26	0.17	0.21	1.63	2.08	95.55	0	0.90	0.20	0.00	0.00	100.00	100.00	100.00	100.00	100.00	99.00	100.00	100.00																					
	BSNL	1.85	1.81	95.86	0.31	0.39	1.82	2.22	98.30	0	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	99.00	97.21	100.00	100.00																					
	RJIL	0.21	0.89	99.39	0.00	0.00	0.47	0.58	99.94	0	0.00	0.11	0.00	0.00	100.00	100.00	100.00	100.00	98.48	81.00	100.00	100.00																					
Madhya Pradesh	Airtel	0.09	0.00	99.26	0.17	0.21	1.63	2.08	95.55	0	0.90	0.20	0.00	0.00	100.00	100.00	100.00	100.00	100.00	99.00	100.00	100.00																					
	BSNL	1.85	1.81	95.86	0.31	0.39	1.82	2.22	98.30	0	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	99.00	97.21	100.00	100.00																					
	RJIL	0.21	0.89	99.39	0.00	0.00	0.47	0.58	99.94	0	0.00	0.11	0.00	0.00	100.00	100.00	100.00	100.00	98.48	81.00	100.00	100.00																					
Maharashtra	Airtel	0.09	0.00	99.26	0.17	0.21	1.63	2.08	95.55	0	0.90	0.20	0.00	0.00	100.00	100.00	100.00	100.00	100.00	99.00	100.00	100.00																					
	BSNL	1.85	1.81	95.86	0.31	0.39	1.82	2.22	98.30	0	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	99.00	97.21	100.00	100.00																					
	RJIL	0.21	0.89	99.39	0.00	0.00	0.47	0.58	99.94	0	0.00	0.11	0.00	0.00	100.00	100.00	100.00	100.00	98.48	81.00	100.00	100.00																					
Mumbai	Airtel	0.09	0.00	99.26	0.17	0.21	1.63	2.08	95.55	0	0.90	0.20	0.00	0.00	100.00	100.00	100.00	100.00	100.00	99.00	100.00	100.00																					
	BSNL	1.85	1.81	95.86	0.31	0.39	1.82	2.22	98.30	0	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	99.00	97.21	100.00	100.00																					
	RJIL	0.21	0.89	99.39	0.00	0.00	0.47	0.58	99.94	0	0.00	0.11	0.00	0.00	100.00	100.00	100.00	100.00	98.48	81.00	100.00	100.00																					
North East	Airtel	0.09	0.00	99.26	0.17	0.21	1.63	2.08	95.55	0	0.90	0.20	0.00	0.00	100.00	100.00	100.00	100.00	100.00	99.00	100.00	100.00																					
	BSNL	1.85	1.81	95.86	0.31	0.39	1.82	2.22	98.30	0	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	99.00	97.21	100.00	100.00																					
	RJIL	0.21	0.89	99.39	0.00	0.00	0.47	0.58	99.94	0	0.00	0.11	0.00	0.00	100.00	100.00	100.00	100.00	98.48	81.00	100.00	100.00																					
Odisha	Airtel	0.09	0.00	99.26	0.17	0.21	1.63	2.08	95.55	0	0.90	0.20	0.00	0.00	100.00	100.00	100.00	100.00	100.00	99.00	100.00	100.00																					
	BSNL	1.85	1.81	95.86	0.31	0.39	1.82	2.22	98.30	0	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	99.00	97.21	100.00	100.00																					
	RJIL	0.21	0.89	99.39	0.00	0.00	0.47	0.58	99.94	0	0.00	0.11	0.00	0.00	100.00	100.00	100.00	100.00	98.48	81.00	100.00	100.00																					
Punjab	Airtel	0.09	0.00	99.26	0.17	0.21	1.63	2.08	95.55	0	0.90	0.20	0.00	0.00	100.00	100.00	100.00	100.00	100.00	99.00	100.00	100.00																					
	BSNL	1.85	1.81	95.86	0.31	0.39	1.82	2.22	98.30	0	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	99.00	97.21	100.00	100.00																					
	RJIL	0.21	0.89	99.39	0.00	0.00	0.47	0.58	99.94	0	0.00	0.11	0.00	0.00	100.00	100.00	100.00	100.00	98.48	81.00	100.00	100.00																					
		0.05	0.16	99.82	0.04	0.03	0.92	1.43	99.49	0	0.12	0.32	0.04	0.02	100.00	100.00	100.00	100.00	99.90	100.00	100.00	100.00																					

## Annexure 4.1 (Contd.)

Rajasthan	Airtel	0.33	0.77	98.87	0.15	0.18	1.47	1.90	96.04	0	0.73	0.43	0.00	0.00	100.00	100.00	100.00	100.00	99.00	100.00	100.00
	BSNL	1.09	1.54	98.28	0.70	1.72	1.88	2.21	97.18	0	0.00	0.00	0.02	0.01	98.63	100.00	100.00	76.00	88.23	100.00	100.00
	RJIL	0.07	0.23	99.63	0.00	0.00	0.31	0.40	99.96	0	0.00	0.08	0.00	0.00	100.00	100.00	100.00	98.47	96.09	100.00	100.00
	VIL	0.22	1.65	99.37	0.19	0.39	1.92	2.63	99.00	0	0.20	0.31	0.07	0.05	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Tamil Nadu	Airtel	0.17	1.37	99.81	0.18	0.20	1.40	1.90	97.14	0	0.16	0.15	0.00	0.00	100.00	100.00	100.00	100.00	95.00	100.00	100.00
	BSNL	0.80	3.50	99.06	0.23	0.63	1.93	2.92	97.89	0	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	95.75	100.00	100.00
	RJIL	0.03	0.04	99.72	0.00	0.00	0.19	0.29	99.96	0	0.00	0.08	0.00	0.00	100.00	100.00	100.00	97.86	98.95	100.00	100.00
Uttar Pradesh (East)	Airtel	0.30	1.01	97.70	0.20	0.66	1.33	1.79	96.51	0	0.21	0.28	0.00	0.00	100.00	100.00	100.00	100.00	99.00	100.00	100.00
	BSNL	1.31	1.58	98.51	0.98	0.79	1.72	2.07	98.67	0	0.00	0.01	0.09	0.08	100.00	100.00	100.00	97.00	96.02	100.00	100.00
	RJIL	0.35	1.59	99.16	0.00	0.00	0.41	0.55	99.94	0	0.00	0.12	0.00	0.00	100.00	100.00	100.00	98.59	83.15	100.00	100.00
	VIL	0.27	0.89	98.83	0.60	0.97	1.96	2.94	98.62	0	0.09	0.22	0.02	0.02	100.00	100.00	100.00	99.54	100.17	100.00	100.00
Uttar Pradesh (West)	Airtel	0.60	0.87	99.83	0.18	0.17	1.79	2.19	95.51	0	0.17	0.26	0.00	0.00	100.00	100.00	100.00	100.00	99.00	100.00	100.00
	BSNL	1.80	1.90	96.90	0.76	1.19	1.78	1.95	95.80	0	0.00	0.00	0.01	0.00	100.00	100.00	100.00	96.00	96.33	100.00	100.00
	RJIL	0.14	0.70	99.45	0.00	0.00	0.38	0.50	99.96	0	0.00	0.09	0.00	0.00	100.00	100.00	100.00	98.80	85.41	100.00	100.00
West Bengal	Airtel	0.12	0.17	97.02	0.89	1.19	1.83	2.94	96.61	0	0.22	0.35	0.00	0.00	100.00	100.00	100.00	100.00	93.00	100.00	100.00
	BSNL	0.53	1.73	97.80	0.96	1.19	8.33	9.52	97.44	0	0.31	2.06	0.00	0.01	99.00	100.00	100.00	95.00	96.66	100.00	100.00
	RJIL	0.11	0.42	99.60	0.00	0.00	0.56	0.70	99.94	0	0.00	0.12	0.00	0.00	100.00	100.00	100.00	98.40	82.34	100.00	100.00
	VIL	0.13	0.80	99.80	0.10	0.17	1.56	2.00	97.45	0	0.08	0.16	0.07	0.01	100.00	100.00	100.00	99.62	100.25	100.00	100.00

Note:

NA= Not applicable

M/s MTNL has not reported for the parameters "Down Link Packet Drop Rate and Up Link Packet Drop Rate" as these parameters are for LTE based networks and it is not offering 4G services.

M/s Vodafone Idea Ltd. (VIL) has submitted common PMR for VIL - Brand Idea and VIL - Brand Vodafone from Q4 December 2020 hence total number of LSAs reduced from 110 to 88 as mentioned in Table 2.

### Annexure 4.2 : Performance of QoS Parameters for Basic (Wire-line) Service

Sl. No.	Name of Service Area	Name of Service Provider	Faults incidences (No. of faults/ 100 Subs./ month)	Fault Repair				Rent Rebate	Mean Time to Repair (MTTR)	POI Point of Interconnection (POI) Congestion (No. of POIs not meeting the benchmark)	Metering and Billing					Response time to the customer for Assistance		Termination / Closure of service	
				% of faults repaired by next working day	% of faults repaired within 5 days	% of faults repaired by next working day	% of faults repaired within 7 days				Metering and Billing credibility - post paid	Metering and billing credibility - pre paid	Resolution of billing/ charging/ validity complaints	Period of applying credit/ waiver/ adjustment to customer's account from the date of resolution of	Accessibility of call centre/ customer care	Percentage of calls answered by the operators (voice to voice) within 90 seconds	%age requests for Termination / Closure of service complied within 7 days	Time taken for refund of deposits after closures	
				≤7	For urban areas by next working day: ≥ 100%	For urban areas: ≥ 100%	For rural and hilly areas: ≥ 75%				For rural and hilly areas: ≥ 100%	≤ 10 Hrs	≤0.5%	≤0.1%	≤0.1%	98% within 4 weeks	100% within 6 weeks	1 week of resolution of complaint	≥95%
1	Andhra Pradesh	Bharti Airtel	0.77	86.13%	100.00%	NA	NA	131	3.85	0.00%	0.01%	NA	100.00%	100.00%	100.00%	100.00%	88.42%	100.00%	100.00%
2		BSNL	5	98.00%	100.00%	96.00%	100.00%	15	6	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	97.92%	97.94%	100.00%	100.00%
3		RJIL	0	100.00%	100.00%	100.00%	100.00%	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	95.00%	99.00%	100.00%	100.00%
4		TTSL	5.62	87.00%	100.00%	100.00%	NA	164	8.86	0.37%	0.00%	NA	100.00%	100.00%	100.00%	95.73%	96.76%	100.00%	100.00%
5		VIL	0.14	100.00%	100.00%	NA	NA	NA	3.1	NA	NA	NA	NA	NA	NA	93.00%	100.00%	100.00%	NA
6	Assam	BSNL	3	92.00%	100.00%	80.00%	100.00%	456	4	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	98.98%	97.33%	100.00%	100.00%
7		RJIL	0	100.00%	100.00%	100.00%	100.00%	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	100.00%	97.00%	100.00%	100.00%
8		VIL	1.51	100.00%	100.00%	NA	NA	NA	7.22	NA	NA	NA	NA	NA	NA	93.00%	100.00%	100.00%	NA
9	Bihar	BSNL	3	93.00%	100.00%	99.00%	100.00%	1184	5	0.00%	0.05%	0.00%	98.00%	100.00%	100.00%	98.69%	98.94%	100.00%	100.00%
10		RJIL	0	100.00%	100.00%	100.00%	100.00%	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	97.00%	98.00%	100.00%	100.00%
11		TTSL	1.45	99.00%	100.00%	100.00%	NA	2	1.74	0.00%	NA	NA	NA	NA	NA	99.43%	100.00%	100.00%	100.00%
12		VIL	1.58	100.00%	100.00%	NA	NA	NA	4.13	NA	NA	NA	NA	NA	NA	93.00%	100.00%	100.00%	NA
13	Delhi	Bharti Airtel	0.96	92.61%	100.00%	NA	NA	270	4.46	0.00%	0.00%	NA	100.00%	100.00%	100.00%	100.00%	87.75%	100.00%	100.00%
14		MTNL	2.75	55.77%	78.49%	NA	NA	5198	29.41	0.00%	0.01%	0.00%	100.00%	100.00%	100.00%	99.83%	99.94%	100.00%	100.00%
15		RJIL	0	100.00%	100.00%	100.00%	100.00%	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	96.00%	95.00%	100.00%	100.00%
16		TTSL	1.60	97.00%	100.00%	100.00%	NA	7	3.38	0.26%	0.00	NA	100.00%	100.00%	100.00%	95.29%	97.13%	100.00%	100.00%
17		VIL	0.39	100.00%	100.00%	NA	NA	NA	2.25	NA	NA	NA	NA	NA	NA	93.00%	100.00%	100.00%	NA
18	Gujarat	Bharti Airtel	0.29	92.12%	100.00%	NA	NA	57	6.13	0.00%	0.02%	NA	100.00%	100.00%	100.00%	100.00%	88.55%	100.00%	100.00%
19		BSNL	5	95.00%	100.00%	94.00%	100.00%	77	4	0.00%	0.01%	0.00%	100.00%	100.00%	100.00%	96.96%	99.95%	100.00%	100.00%
20		RJIL	0	100.00%	100.00%	100.00%	100.00%	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	96.00%	96.00%	100.00%	100.00%
21		TTSL	2.51	93.00%	100.00%	100.00%	NA	35	4.89	0.43%	0.00%	NA	100.00%	100.00%	100.00%	95.36%	98.44%	100.00%	100.00%
22		VIL	0.35	100.00%	100.00%	NA	NA	NA	2.32	NA	NA	NA	NA	NA	NA	93.00%	100.00%	100.00%	NA

## Annexure 4.2 (Contd.)

23	Himachal Pradesh	BSNL	5	86.00%	100.00%	90.00%	100.00%	190	7	0.00%	0.02%	0.00%	98.00%	100.00%	100.00%	91.46%	100.00%	100.00%	100.00%	
24		RJIL	0	100.00%	100.00%	100.00%	100.00%	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	100.00%	97.00%	100.00%	100.00%	
25		VIL	0.00	100.00%	100.00%	NA	NA	NA	0.00	NA	NA	NA	NA	NA	NA	NA	93.00%	100.00%	NA	NA
26	Haryana	Bharti Airtel	1.23	93.19%	100.00%	NA	NA	19	3.94	0.00%	0.01%	NA	100.00%	100.00%	100.00%	100.00%	89.32%	100.00%	100.00%	
27		BSNL	5	91.00%	100.00%	90.00%	100.00%	421	6	0.00%	0.09%	0.00%	100.00%	100.00%	100.00%	91.79%	100.00%	100.00%	100.00%	
28		RJIL	0	100.00%	100.00%	100.00%	100.00%	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	100.00%	100.00%	100.00%	100.00%	
29		TTSL	0.56	100.00%	100.00%	100.00%	NA	NA	1	7.54	0.00%	NA	NA	NA	NA	NA	98.21%	100.00%	100.00%	100.00%
30	VIL	5.66	100.00%	100.00%	NA	NA	NA	NA	0.47	NA	NA	NA	NA	NA	NA	93.00%	100.00%	NA	NA	
31	Jammu & Kashmir	BSNL	4	98.00%	100.00%	95.00%	100.00%	344	7	0.00%	0.01%	0.00%	98.00%	100.00%	100.00%	91.67%	100.00%	100.00%	100.00%	
32		RJIL	0	100.00%	100.00%	100.00%	100.00%	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	97.00%	96.00%	100.00%	100.00%	
33	Kerala	Bharti Airtel	2.03	94.93%	100.00%	NA	NA	53	6.90	0.00%	0.01%	NA	100.00%	100.00%	100.00%	100.00%	83.10%	100.00%	100.00%	
34		BSNL	4	94.00%	100.00%	90.00%	100.00%	921	7	0.00%	0.07%	0.00%	100.00%	100.00%	100.00%	98.27%	98.44%	100.00%	100.00%	
35		RJIL	0	100.00%	100.00%	100.00%	100.00%	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	96.00%	97.00%	100.00%	100.00%	
36		TTSL	0.14	30.00%	100.00%	100.00%	NA	NA	13	36.35	0.00%	NA	NA	NA	NA	NA	98.04%	100.00%	100.00%	100.00%
37		VIL	0.52	100.00%	100.00%	NA	NA	NA	7.33	NA	NA	NA	NA	NA	NA	NA	93.00%	100.00%	100.00%	NA
38	Kolkata	Bharti Airtel	1.03	91.55%	100.00%	NA	NA	249	8.81	0.00%	0.00%	NA	100.00%	100.00%	100.00%	100.00%	88.72%	100.00%	100.00%	
39		BSNL	6	90.00%	100.00%	NA	NA	2274	9	0.00%	0.00%	0.00%	98.00%	100.00%	100.00%	98.94%	99.67%	100.00%	100.00%	
40		RJIL	0	100.00%	100.00%	100.00%	100.00%	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	96.00%	95.00%	100.00%	100.00%	
41		VIL	0.53	100.00%	100.00%	NA	NA	NA	3.11	NA	NA	NA	NA	NA	NA	NA	93.00%	100.00%	100.00%	NA
42	Karnataka	Bharti Airtel	0.89	88.04%	100.00%	NA	NA	887	6.07	0.00%	0.00%	NA	100.00%	100.00%	100.00%	100.00%	88.66%	100.00%	100.00%	
43		BSNL	4	90.00%	100.00%	98.00%	100.00%	3665	7	0.00%	0.09%	0.00%	98.00%	100.00%	100.00%	98.50%	98.18%	100.00%	100.00%	
44		RJIL	0	100.00%	100.00%	100.00%	100.00%	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	96.00%	96.00%	100.00%	100.00%	
45		TTSL	0.46	82.00%	100.00%	100.00%	NA	NA	63	10.50	0.33%	0.00%	NA	100.00%	100.00%	100.00%	95.31%	98.45%	100.00%	100.00%
46		VIL	0.18	100.00%	100.00%	NA	NA	NA	4.24	NA	NA	NA	NA	NA	NA	NA	93.00%	100.00%	100.00%	NA
47	Maharashtra	Bharti Airtel	0.15	88.02%	100.00%	NA	NA	141	8.19	0.00%	0.00%	NA	100.00%	100.00%	100.00%	100.00%	86.53%	100.00%	100.00%	
48		BSNL	6	91.00%	100.00%	81.00%	100.00%	25895	8	0.00%	0.01%	0.00%	100.00%	100.00%	100.00%	96.60%	99.97%	100.00%	100.00%	
49		RJIL	0	100.00%	100.00%	100.00%	100.00%	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	95.00%	98.00%	100.00%	100.00%	
50		TTSL	4.03	91.00%	100.00%	100.00%	NA	NA	154	7.06	0.11%	0.00%	NA	100.00%	100.00%	100.00%	95.88%	97.15%	100.00%	100.00%
51		VIL	0.67	100.00%	100.00%	NA	NA	NA	7.24	NA	NA	NA	NA	NA	NA	NA	93.00%	100.00%	100.00%	NA
52	Madhya Pradesh	Bharti Airtel	2.05	88.95%	100.00%	NA	NA	388	2.97	0.00%	0.01%	NA	100.00%	100.00%	100.00%	100.00%	86.97%	100.00%	100.00%	
53		BSNL	6	90.00%	100.00%	86.00%	100.00%	779	5	0.00%	0.09%	0.00%	100.00%	100.00%	100.00%	95.22%	99.99%	100.00%	100.00%	
54		RJIL	0	100.00%	100.00%	100.00%	100.00%	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	95.00%	97.00%	100.00%	100.00%	
55		TTSL	9.68	100.00%	100.00%	100.00%	NA	NA	1	1.61	0.10%	NA	NA	NA	NA	NA	95.93%	99.21%	100.00%	100.00%
56	VIL	0.56	100.00%	100.00%	NA	NA	NA	2.24	NA	NA	NA	NA	NA	NA	NA	93.00%	100.00%	100.00%	NA	
57	Mumbai	Bharti Airtel	0.28	88.75%	100.00%	NA	NA	406	7.59	0.00%	0.00%	NA	100.00%	100.00%	100.00%	100.00%	87.66%	100.00%	100.00%	
58		MTNL	3.90	41.20%	60.00%	NA	NA	247,857	103.61	0.03%	0.10%	NA	99.45%	100.00%	100.00%	99.31%	42.23%	88.90%	15.50%	
59		RJIL	0	100.00%	100.00%	100.00%	100.00%	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	96.00%	97.00%	100.00%	100.00%	
60		TTSL	4.03	86.00%	100.00%	100.00%	NA	NA	837	10.01	0.37%	0.00%	NA	100.00%	100.00%	100.00%	95.01%	96.70%	100.00%	100.00%
61		VIL	0.27	100.00%	100.00%	NA	NA	NA	1.38	NA	NA	NA	NA	NA	NA	NA	93.00%	100.00%	100.00%	NA

## Annexure 4.2 (Contd.)

62	North East	RJIL	0	100.00%	100.00%	100.00%	100.00%	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	100.00%	100.00%	100.00%	100.00%	
63		VIL	0.00	100.00%	100.00%	NA	NA	NA	0.00	NA	NA	NA	NA	NA	NA	NA	NA	93.00%	100.00%	NA	NA
64		BSNL	4	95.00%	100.00%	100.00%	91.00%	100.00%	180	6	0.00%	0.01%	0.00%	99.00%	100.00%	100.00%	100.00%	99.68%	98.91%	100.00%	100.00%
65	Odisha	BSNL	6	94.00%	100.00%	89.00%	100.00%	415	6	0.00%	0.09%	0.00%	99.00%	100.00%	100.00%	100.00%	98.79%	98.67%	100.00%	100.00%	
66		RJIL	0	100.00%	100.00%	100.00%	100.00%	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	100.00%	97.00%	100.00%	100.00%		
67		TTSL	3.80	100.00%	100.00%	100.00%	NA	2	1.78	0.00%	NA	NA	NA	NA	NA	NA	100.00%	100.00%	100.00%	100.00%	
68	VIL	0.36	100.00%	100.00%	NA	NA	NA	3.25	NA	NA	NA	NA	NA	NA	NA	NA	93.00%	100.00%	NA	NA	
69	Punjab	Bharti Airtel	1.21	91.11%	100.00%	NA	NA	138	4.62	0.00%	0.00%	NA	100.00%	100.00%	100.00%	100.00%	100.00%	88.70%	100.00%	100.00%	
70		BSNL	6	92.00%	100.00%	85.00%	100.00%	276	6	0.00%	0.04%	0.00%	98.00%	100.00%	100.00%	100.00%	90.02%	100.00%	100.00%	100.00%	
71		Quadrant	5.17	90.00%	100.00%	100.00%	100.00%	0	8.70	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	97.50%	97.20%	100.00%	100.00%	
72		RJIL	0	100.00%	100.00%	100.00%	100.00%	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	NA	NA	96.00%	95.00%	100.00%	100.00%
73		TTSL	0.33	100.00%	100.00%	100.00%	NA	2	2.83	0.00%	NA	NA	NA	NA	NA	NA	NA	98.60%	100.00%	100.00%	100.00%
74	VIL	0.46	100.00%	100.00%	NA	NA	NA	1.53	NA	NA	NA	NA	NA	NA	NA	NA	93.00%	100.00%	100.00%	NA	
75	Rajasthan	Bharti Airtel	0.97	85.52%	100.00%	NA	NA	24	5.30	0.00%	0.01%	NA	100.00%	100.00%	100.00%	100.00%	100.00%	89.64%	100.00%	100.00%	
76		BSNL	6	95.00%	100.00%	95.00%	100.00%	1148	6	0.00%	0.09%	0.00%	100.00%	100.00%	100.00%	100.00%	90.75%	100.00%	100.00%	100.00%	
77		RJIL	0	100.00%	100.00%	100.00%	100.00%	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	NA	97.00%	98.00%	100.00%	100.00%	
78		TTSL	5.03	100.00%	100.00%	100.00%	NA	1	2.69	0.00%	NA	NA	NA	NA	NA	NA	NA	100.00%	100.00%	100.00%	100.00%
79	VIL	0.22	100.00%	100.00%	NA	NA	NA	7.23	NA	NA	NA	NA	NA	NA	NA	NA	93.00%	100.00%	100.00%	NA	
80	Tamil Nadu	Bharti Airtel	2.15	88.62%	100.00%	NA	NA	3742	9.88	0.00%	0.01%	NA	100.00%	100.00%	100.00%	100.00%	100.00%	77.86%	100.00%	100.00%	
81		BSNL	5	90.00%	100.00%	84.00%	100.00%	2014	7	0.00%	0.07%	0.00%	100.00%	100.00%	100.00%	100.00%	98.58%	98.50%	100.00%	100.00%	
82		RJIL	0	100.00%	100.00%	100.00%	100.00%	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	NA	96.00%	96.00%	100.00%	100.00%	
83		TTSL	0.47	73.00%	100.00%	100.00%	NA	28	12.41	0.19%	NA	NA	NA	NA	NA	NA	NA	95.25%	98.00%	100.00%	100.00%
84		VIL	0.46	100.00%	100.00%	NA	NA	NA	7.31	NA	NA	NA	NA	NA	NA	NA	NA	93.00%	100.00%	100.00%	NA
85	UPE	Bharti Airtel	0.99	90.99%	100.00%	NA	NA	44	4.28	0.00%	0.00%	NA	100.00%	100.00%	100.00%	100.00%	100.00%	88.44%	100.00%	100.00%	
86		BSNL	5	88.00%	100.00%	90.00%	100.00%	731	4	0.00%	0.01%	0.00%	100.00%	100.00%	100.00%	100.00%	92.56%	100.00%	100.00%	100.00%	
87		RJIL	0	100.00%	100.00%	100.00%	100.00%	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	NA	NA	96.00%	96.00%	100.00%	100.00%
88		TTSL	3.35	99.00%	100.00%	100.00%	NA	1	1.76	0.00%	NA	NA	NA	NA	NA	NA	NA	100.00%	100.00%	100.00%	100.00%
89	VIL	0.27	100.00%	100.00%	NA	NA	NA	5.34	NA	NA	NA	NA	NA	NA	NA	NA	93.00%	100.00%	100.00%	NA	
90	UPW	Bharti Airtel	0.91	91.46%	100.00%	NA	NA	23	4.49	0.00%	0.01%	NA	100.00%	100.00%	100.00%	100.00%	100.00%	90.80%	100.00%	100.00%	
91		BSNL	7	93.00%	100.00%	96.00%	100.00%	492	6	0.00%	0.09%	0.00%	99.00%	100.00%	100.00%	100.00%	92.00%	100.00%	100.00%	100.00%	
92		RJIL	0	100.00%	100.00%	100.00%	100.00%	0.00	0.00	0.00	0.00	0.00	NA	NA	NA	NA	96.00%	99.00%	100.00%	100.00%	
93		TTSL	6.83	100.00%	100.00%	100.00%	NA	0	1.38	0.00%	NA	NA	NA	NA	NA	NA	NA	100.00%	100.00%	100.00%	100.00%
94	VIL	1.99	100.00%	100.00%	NA	NA	NA	2.46	NA	NA	NA	NA	NA	NA	NA	NA	93.00%	100.00%	100.00%	NA	
95	West Bengal	BSNL	3	85.00%	100.00%	91.00%	100.00%	521	6	0.00%	0.07%	0.00%	100.00%	100.00%	100.00%	100.00%	99.02%	99.67%	100.00%	100.00%	
96		RJIL	0	100.00%	100.00%	100.00%	100.00%	0.00	0.00	0.00	0.00	0.00%	NA	NA	NA	NA	97.00%	95.00%	100.00%	100.00%	
97		TTSL	1.32	100.00%	100.00%	100.00%	NA	1	2.25	0.00%	NA	NA	NA	NA	NA	NA	NA	95.74%	100.00%	100.00%	100.00%
98	VIL	0.28	100.00%	100.00%	NA	NA	NA	0.0	NA	NA	NA	NA	NA	NA	NA	NA	93.00%	100.00%	NA	NA	
Note: NA means Not applicable, and NR means Not reported																					

### Annexure 4.3: Quality of Service Performance of Broadband (wireline) Service Providers

Performance Monitoring Report on Quality of Service of Service Providers providing broadband (wireline) service for Quarter Ending December 2020																				
Sl. No.	Service Provider	Service area	Service Provisioning	Faults Repair		Billing Performance				Response Time to the Customer for		Bandwidth utilisation/throughput				Service availability	Packet Loss	Network latency (for wired broadband access)		
			%age of connections provided within 15 days of registration of demand	% of faults repaired by next working day (>90%)	% of faults repaired within 3 working day	Rent Rebate	%age of bills disputed	%age of billing complaints resolved within 4 weeks	%age of cases to whom refund of deposits is made within 60 days of closures	%age of calls answered by operator (Voice to voice) within 60 sec	%age of calls answered by operator (Voice to voice) within 90 sec	No. of Intra network links having Bandwidth utilisation >90% during peak hours (TCBH)	No. of Upstream links for International connectivity having bandwidth utilisation >90% during peak hours (TCBH)	% International bandwidth utilization during peak hours (TCBH) (Exclude MRTG) <90%	Broadband Connection Speed available (download) from ISP node to user	Uptime (for all users) in %age	Packet loss (for wired broadband access) in %age	User reference point at POP/ISP Gateway node to International gateway (IGSP/NIXI)	User reference point at ISP Gateway node to International nearest NAP port (terrestrial)	User reference point at ISP Gateway node to International nearest NAP port abroad (satellite)
			100%	>90%	=>99%	in nos.	<2%	100% within 4 weeks	100% within 60 days	>60%	>80%	0	0	<90%	>80%	>98%	<1%	<120 ms	<350 ms	<800 ms
1	Bharat Sanchar Nigam Ltd.(BSNL)	All India (except Delhi & Mum.)	100.00%	94.02%	99.71%	3400	0.07%	100.00%	100.00%	96.68%	97.47%	NA	0	60.40%	93.34%	99.66%	0.40%	46	149	NA
2	Mahanagar Telephone Nigam	Delhi & Mumbai	76.76%	53.94%	73.53%	40481	0.00%	100.00%	56.91%	63.08%	70.95%	Nil	0	77.63%	89.98%	99.75%	0.51%	43	303	NA
3	Airlink Communications Pvt. Ltd.	All India	100.00%	91.31%	99.08%	0	NA	100.00%	NA	99.52%	100.00%	0	0	83.57%	97.53%	99.78%	0.47%	120	350	NA
4	Airnet Cable and Datacom Pvt.Ltd.	Maharashtra	100.00%	94.90%	99.34%	0	0.00%	0.00%	0.00%	100.00%	100.00%	0	0	100.00%	100.00%	100.00%	0.45%	5	255	NA
		Mumbai	100.00%	95.00%	100.00%	0	0.00%	0.00%	0.00%	100.00%	100.00%	0	0	13.54%	100.00%	100.00%	0.47%	5	255	NA
5	Alliance Broadband Services Pvt.	All India	100.00%	91.53%	100.00%	Nil	0.00%	100.00%	Nil	85.33%	100.00%	0	0	75.06%	95.65%	99.41%	0.00%	67	208	200
6	ANI Network Pvt. Ltd.	Delhi	100.00%	92.00%	100.00%	0	0.00%	0.00%	0.00%	99.00%	100.00%	0	0	88.00%	100.00%	99.90%	0.40%	20	288	NA
7	Asianet Satellite Communications	All India	100.00%	90.53%	99.66%	Nil	1.74%	100.00%	100.00%	60.83%	80.72%	Nil	0	69.52%	90.00%	99.40%	1.00%	50	270	NA
8	Atria Convergence Technologies	All India	100.00%	92.60%	99.00%	35998	1.17%	100.00%	Nil	40.00%	43.00%	0	0	45.00%	90.00%	99.95%	1.00%	39	208	Nil
9	Bharti Airtel Ltd.	Andhra Pradesh	100.00%	90.26%	100.00%	622	0.06%	100.00%	100.00%	82.82%	86.93%	0%	0%	49.00%	100.00%	99.91%	0.00%	35	13	NA
		Bihar	100.00%	90.07%	99.12%	1	0.01%	100.00%	100.00%	89.77%	92.76%	0%	NA	NA	100.00%	99.99%	0.00%	34	NA	NA
		Delhi	100.00%	95.17%	99.64%	544	0.04%	100.00%	100.00%	82.25%	87.01%	0%	0%	47.00%	100.00%	99.97%	0.00%	39	70	NA
		Gujarat	100.00%	95.46%	99.18%	129	0.07%	100.00%	100.00%	85.68%	89.46%	0%	NA	NA	100.00%	99.97%	0.00%	21	NA	NA
		Haryana	100.00%	93.11%	99.39%	141	0.03%	100.00%	100.00%	84.29%	88.43%	0%	NA	NA	100.00%	99.74%	0.00%	62	NA	NA
		Karnataka	100.00%	91.47%	100.00%	2035	0.04%	100.00%	100.00%	83.30%	87.72%	0%	0%	41.00%	100.00%	99.92%	0.00%	31	40	NA
		Kerala	100.00%	93.97%	99.90%	130	0.03%	100.00%	100.00%	77.85%	82.08%	0%	NA	NA	100.00%	99.98%	0.00%	21	NA	NA
		Kolkata	100.00%	92.93%	100.00%	708	0.05%	100.00%	100.00%	84.60%	88.32%	0%	0%	28.00%	100.00%	99.96%	0.00%	58	69	NA
		Jammu & Kashmir	100.00%	91.19%	99.24%	743	0.00%	100.00%	100.00%	87.63%	91.14%	0%	NA	NA	100.00%	99.13%	0.00%	29	NA	NA
		Himachal Pradesh	100.00%	96.77%	100.00%	0	0.00%	100.00%	100.00%	91.53%	94.01%	0%	NA	NA	100.00%	98.43%	0.00%	37	NA	NA
		Madhya Pradesh	100.00%	91.10%	99.11%	436	0.05%	100.00%	100.00%	81.98%	86.50%	0%	0%	40.00%	100.00%	99.92%	0.00%	46	61	NA
		Maharashtra	100.00%	93.25%	99.27%	773	0.06%	100.00%	100.00%	82.43%	86.95%	0%	0%	45.00%	100.00%	99.89%	0.00%	31	52	NA
		Mumbai	100.00%	93.37%	99.42%	1097	0.08%	100.00%	100.00%	83.37%	87.62%	0%	0%	39.00%	100.00%	99.65%	0.00%	40	57	NA
		Punjab	100.00%	91.09%	99.13%	343	0.02%	100.00%	100.00%	87.29%	90.82%	0%	0%	45.00%	100.00%	99.94%	0.00%	59	84	NA
		Rajasthan	100.00%	90.22%	99.93%	30	0.03%	100.00%	100.00%	84.62%	88.80%	0%	0%	0.00%	100.00%	99.93%	0.00%	40	72	NA
		Tamilnadu	100.00%	90.11%	99.95%	7343	0.08%	100.00%	100.00%	76.63%	81.20%	0%	0%	47.00%	100.00%	99.83%	0.00%	5	35	NA
Uttar Pradesh(East)	100.00%	90.17%	99.24%	227	0.02%	100.00%	100.00%	84.63%	88.57%	0%	0%	45.00%	100.00%	99.86%	0.00%	49	68	NA		
Uttar Pradesh(West)	100.00%	91.02%	99.12%	146	0.03%	100.00%	100.00%	87.94%	90.83%	0%	NA	NA	100.00%	99.79%	0.00%	25	NA	NA		
10	City Online Services Ltd.	Andhra Pradesh	100.00%	98.00%	99.00%	NA	0.00%	100.00%	100.00%	95.00%	97.60%	0%	0%	64.00%	98.00%	98.00%	0.50%	25	280	NA
		Karnataka	100.00%	98.00%	99.00%	NA	0.00%	100.00%	100.00%	95.00%	97.60%	0%	0%	60.00%	98.00%	98.00%	0.50%	25	280	NA
11	DEN Broadband Private Limited	All India	100.00%	97.10%	99.65%	0	Nil	Nil	Nil	84.00%	87.00%	0	0	78.89%	92.00%	99.05%	0.62%	83	270	NA
	Digital Network Associates Pvt. Ltd	Maharashtra & Goa	100.00%	90.54%	99.64%	None	0.00%	100.00%	Nil	64.05%	84.04%	Nil	0	80.00%	80.00%	99.73%	1.00%	4	255	600
		Mumbai	100.00%	97.50%	100.00%	None	0.00%	100.00%	Nil	94.40%	100.00%	Nil	0	80.00%	80.00%	99.73%	1.00%	4	255	600
13	Digital Satellite Connect Pvt. Ltd.	Maharashtra	100.00%	90.31%	99.23%	None	0.00%	100.00%	Nil	61.60%	82.82%	Nil	0	80.00%	80.00%	99.87%	1.00%	4	255	600
		Mumbai	100.00%	90.14%	99.15%	None	0.00%	100.00%	Nil	61.47%	83.74%	Nil	0	80.00%	80.00%	99.87%	1.00%	4	255	600
14	DNA Infotel Pvt. Ltd.	Maharashtra	100.00%	91.67%	99.43%	None	0.00%	100.00%	Nil	65.17%	87.27%	Nil	0	80.00%	80.00%	99.73%	1.00%	4	255	600
15	D-Vois Communications Pvt.Ltd.	All India	100.00%	94.75%	99.84%	0	0.00%	Nil	Nil	91.00%	92.43%	0	Nil	Nil	90.00%	100.00%	0.10%	24	28	59
16	ESTO Broadband Pvt.Ltd.	All India	100.00%	98.17%	100.00%	0	0.00%	0.00%	0.00%	88.33%	90.00%	0	0	66.10%	90.00%	98.95%	0.00%	40	100	720



### Annexure 4.3 (Contd.)

17	Excitel Broadband Pvt.Ltd.	Andhra Pradesh	100.00%	91.00%	99.00%	Nil	NA	NA	NA	75.10%	90.00%	0	Nil	79.00%	98.50%	98.48%	0.00%	12	199	NIL
		Delhi	100.00%	90.20%	99.10%	Nil	NA	NA	NA	60.00%	80.00%	0	Nil	79.00%	98.50%	98.48%	0.00%	4	199	NIL
		Karnataka	100.00%	90.10%	99.10%	Nil	NA	NA	NA	60.00%	80.00%	0	Nil	76.90%	98.50%	98.48%	0.00%	12	199	NIL
		Rajasthan	100.00%	90.00%	99.00%	Nil	NA	NA	NA	60.00%	80.00%	0	Nil	79.00%	98.50%	98.48%	0.00%	4	199	NIL
		Uttar Pradesh(East)	100.00%	90.00%	99.00%	Nil	NA	NA	NA	60.00%	80.00%	0	Nil	79.50%	98.50%	98.48%	0.00%	4	199	NIL
18	Five Networks Solution (India) Ltd.	All India	100.00%	99.50%	100.00%	NA	0.00%	100.00%	100.00%	NA	NA	NA	0	NA	90.00%	99.00%	1.00%	NA	NA	NA
19	Fusionnet Web Services Pvt. Ltd.	All India	100.00%	93.10%	99.30%	0	0.00%	100.00%	100.00%	84.70%	87.40%	0	0	82.00%	100.00%	100.00%	1.00%	120	350	NA
20	GTPL Broadband Pvt.Ltd.	All India	99.70%	91.27%	99.44%	415	0.03%	100.00%	100.00%	84.95%	91.94%	NA	0	64.26%	92.58%	98.99%	0.00%	11	300	NA
21	GTPL KCBPL Broadband Pvt.Ltd.	Kolkata	93.00%	100.00%	100.00%	NA	0.00%	NA	NA	84.33%	86.00%	Nil	Nil	79.00%	83.33%	99.20%	0.00%	10	250	310
		West Bengal	90.00%	99.83%	100.00%	NA	0.00%	NA	NA	84.33%	86.00%	Nil	Nil	79.00%	83.33%	99.20%	0.00%	10	250	310
22	Hathway Cable & Datacom Ltd.	All India	100.00%	93.27%	99.58%	8404	0.83%	100.00%	100.00%	84.77%	87.02%	0	0	79.05%	90.00%	99.76%	0.24%	75	264	NA
23	Honesty Net Solutions (I) Pvt. Ltd.	Mumbai	100.00%	93.00%	100.00%	0	Nil	100.00%	0.00%	68.00%	100.00%	0	NA	NA	95.00%	100.00%	1.00%	NA	66	NA
24	Indinet Service Pvt Ltd	All India	100.00%	91.67%	100.00%	0	0.00%	100.00%	100.00%	65.00%	81.00%	0	0	82.00%	90.00%	99.50%	1.00%	46	254	NA
25	Intech Online Pvt.Ltd.	Maharashtra	100.00%	90.37%	99.33%	45	1.18%	100.00%	0.00%	90.97%	90.97%	0	0	78.99%	84.66%	99.77%	1.00%	15	89.33	452
		Mumbai	100.00%	90.49%	99.28%	57	0.83%	100.00%	0.00%	90.90%	90.90%	0	0	47.21%	86.66%	99.77%	1.00%	1	76	453
26	Ishan Netsol Pvt Ltd	Gujarat	100.00%	93.14%	100.00%	0	0.00%	100.00%	100.00%	67.74%	86.91%	0	0	62.75%	99.74%	1.00%	100	250	NA	
27	K NET Solutions Private Limited	Chennai	100.00%	91.70%	99.30%	247	NA	100.00%	100.00%	79.26%	81.59%	0	0	NA	100.00%	99.89%	0.00%	5	224	NA
		Tamilnadu	100.00%	94.01%	99.30%	18	NA	100.00%	100.00%	79.26%	81.59%	0	0	NA	100.00%	99.95%	0.00%	16	231	NA
28	Limras Eronet Broadband Service	All India	100.00%	99.00%	100.00%	0	1.00%	100.00%	0.00%	90.00%	100.00%	0	0	0.00%	96.00%	99.40%	1.00%	32	260	0
29	Meghbela Cable & Broadband	All India	100.00%	95.00%	100.00%	0	0.00%	100.00%	100.00%	95.00%	100.00%	Nil	Nil	74.00%	95.00%	99.90%	0.00%	60	150	0
30	Microscan Infocommtech Pvt. Ltd. (Formerly - Microscan Computers Pvt Ltd)	Mumbai	99.00%	95.00%	100.00%	0	0.00%	0.00%	0.00%	100.00%	100.00%	0	0	25.55%	100.00%	100.00%	0.50%	5	255	NA
		Maharashtra	98.00%	99.00%	100.00%	0	0.00%	0.00%	0.00%	100.00%	100.00%	0	0	4.78%	100.00%	100.00%	0.29%	5	255	NA
31	Multicraft Digital Technologies	PAN India	100.00%	98.33%	100.00%	NA	NA	1.00%	NA	99.00%	99.00%	NA	NA	86.00%	90.33%	99.00%	NA	41	NA	NA
32	Netplus Broadband Services Pvt. Ltd.	Delhi	100.00%	100.00%	100.00%	0	0.28%	100.00%	100.00%	82.00%	89.00%	0	0	72.48%	96.43%	100.00%	0.10%	97	190	NA
		Haryana	100.00%	92.41%	100.00%	0	1.10%	100.00%	100.00%	82.00%	89.00%	0	0	77.00%	96.63%	100.00%	0.10%	93	191	NA
		Himachal Pradesh	100.00%	95.43%	100.00%	0	0.60%	100.00%	100.00%	82.00%	89.00%	0	0	79.00%	96.27%	100.00%	0.10%	89	192	NA
		Jammu & Kashmir	100.00%	96.22%	100.00%	0	1.52%	100.00%	100.00%	82.00%	89.00%	0	0	77.84%	95.97%	100.00%	0.10%	100	197	NA
		Punjab	100.00%	91.80%	100.00%	0	0.62%	100.00%	100.00%	82.00%	89.00%	0	0	78.00%	96.53%	100.00%	0.10%	82	155	NA
		Rajasthan	100.00%	100.00%	100.00%	0	0.68%	100.00%	100.00%	82.00%	89.00%	0	0	77.00%	96.50%	100.00%	0.10%	94	193	NA
		Uttar Pradesh(West)	100.00%	100.00%	100.00%	0	0.44%	100.00%	100.00%	82.00%	89.00%	0	0	70.17%	96.47%	100.00%	0.10%	94	193	NA
33	Nextra Teleservices Pvt. Ltd.	Delhi	100.00%	91.93%	99.27%	982	1.00%	100.00%	100.00%	69.00%	88.00%	0	0	85.00%	100.00%	100.00%	1.00%	120	350	NA
34	Ortel Communications Ltd.	All India	100.00%	95.00%	99.43%	0	NA	NA	NA	100.00%	100.00%	0	0	69.38%	92.66%	98.81%	0.00%	89	191	NA
35	ONEOTT Entertainment Limited	All India	100.00%	97.00%	99.00%	33	1.34%	100.00%	100.00%	100.00%	100.00%	0	0	82.67%	100.00%	99.97%	0.50%	65	220	NA
36	Quadrant Televentures Ltd.	Punjab	100.00%	95.00%	99.30%	0	0.01%	100.00%	100.00%	94.61%	97.21%	0	0	65.54%	100.00%	99.98%	0.00%	80	280	0
37	Quest Consancy Pvt Ltd.	Gujarat	100.00%	95.00%	100.00%	Nil	Nil	100.00%	Nil	89.00%	99.00%	0	Nil	82.00%	99.00%	99.00%	0.30%	13	267	NA
38	RailTel Corporation of India Ltd.	All India (Pan India)	100.00%	98.60%	100.00%	Nil	0.00%	Nil	Nil	77.33%	83.33%	0	0	55.96%	100.00%	99.95%	1.00%	120	350	NA
39	Rajesh Digital Datacom Pvt.Ltd.	Mumbai	100.00%	97.00%	100.00%	0	0.00%	100.00%	100.00%	98.00%	97.00%	0	0	88.00%	83.00%	99.00%	0.00%	46	250	500
40	Reliance Jio Infocomm Ltd.	Andhra Pradesh	100.00%	91.04%	99.98%	0	0.00%	100.00%	100.00%	92.10%	93.55%	0%	NA	NA	100.00%	99.96%	0.00%	13.78%	NA	NA
		Assam	100.00%	91.01%	99.85%	0	0.00%	100.00%	100.00%	90.73%	92.23%	NA	NA	NA	100.00%	99.99%	NA	NA	NA	NA
		Bihar	100.00%	91.06%	99.94%	0	0.00%	100.00%	100.00%	90.25%	91.77%	NA	NA	NA	100.00%	99.98%	NA	NA	NA	NA
		Delhi	100.00%	90.80%	99.97%	0	0.00%	100.00%	100.00%	90.52%	92.14%	0%	0%	45.00%	100.00%	99.99%	0.02%	16.57%	NA	NA
		Gujarat	100.00%	91.01%	99.97%	0	0.00%	100.00%	100.00%	90.21%	91.95%	0%	NA	NA	100.00%	99.98%	0.00%	24.21%	NA	NA
		Haryana	100.00%	90.11%	99.92%	0	0.00%	100.00%	100.00%	89.99%	91.67%	NA	NA	NA	100.00%	100.00%	NA	NA	NA	NA
		Himachal Pradesh	100.00%	90.99%	99.83%	0	0.00%	100.00%	100.00%	91.20%	92.49%	NA	NA	NA	100.00%	100.00%	NA	NA	NA	NA
		Jammu & Kashmir	100.00%	99.95%	99.95%	0	0.00%	100.00%	100.00%	96.47%	97.32%	NA	NA	NA	100.00%	99.99%	NA	NA	NA	NA
		Karnataka	100.00%	90.99%	99.96%	0	0.00%	100.00%	100.00%	89.68%	91.26%	0%	0%	7.00%	100.00%	99.98%	0.02%	13.29%	NA	NA
		Kerala	100.00%	91.03%	99.94%	0	0.00%	100.00%	100.00%	90.79%	92.47%	NA	NA	NA	100.00%	100.00%	NA	NA	NA	NA
		Kolkata	100.00%	90.92%	99.97%	0	0.00%	100.00%	100.00%	90.81%	92.45%	NA	NA	NA	100.00%	100.00%	0.00%	32.75%	NA	NA
		Madhya Pradesh	100.00%	91.05%	99.98%	0	0.00%	100.00%	100.00%	95.99%	96.88%	NA	NA	NA	100.00%	99.99%	NA	NA	NA	NA
		Maharashtra	100.00%	90.95%	99.94%	0	0.00%	100.00%	100.00%	96.01%	96.86%	0%	NA	NA	100.00%	99.93%	0.00%	16.28%	NA	NA
		Mumbai	100.00%	91.26%	99.94%	0	0.00%	100.00%	100.00%	90.83%	92.40%	0%	0%	38.00%	100.00%	99.94%	0.02%	7.42%	104	NA
		North East	100.00%	91.03%	99.94%	0	0.00%	100.00%	100.00%	89.72%	91.40%	NA	NA	NA	100.00%	99.95%	NA	NA	NA	NA
		Orissa	100.00%	90.97%	99.89%	0	0.00%	100.00%	100.00%	96.00%	96.82%	NA	NA	NA	100.00%	100.00%	NA	NA	NA	NA
		Punjab	100.00%	90.88%	99.96%	0	0.00%	100.00%	100.00%	90.77%	92.40%	NA	NA	NA	100.00%	100.00%	NA	NA	NA	NA
		Rajasthan	100.00%	93.92%	99.97%	0	0.00%	100.00%	100.00%	91.25%	92.73%	NA	NA	NA	100.00%	100.00%	NA	NA	NA	NA
		Tamilnadu	100.00%	91.00%	99.97%	0	0.00%	100.00%	100.00%	91.69%	93.02%	0%	0%	53.00%	100.00%	99.97%	0.04%	5.02%	33	NA
		Uttar Pradesh(East)	100.00%	90.99%	99.98%	0	0.00%	100.00%	100.00%	95.50%	96.56%	0%	NA	NA	100.00%	99.99%	0.01%	34.26%	NA	NA
		Uttar Pradesh(West)	100.00%	91.03%	99.96%	0	0.00%	100.00%	100.00%	89.49%	90.99%	NA	NA	NA	100.00%	99.99%	NA	NA	NA	NA
West Bengal	100.00%	91.04%	99.96%	0	0.00%	100.00%	100.00%	96.19%	97.22%	NA	NA	NA	100.00%	100.00%	NA	NA	NA	NA		

## Annexure 4.3 (Contd.)

41	RI Networks Pvt Ltd	All India	100.00%	90.30%	99.00%	720	NA	NA	100.00%	89.35%	95.62%	0%	0%	90.00%	100.00%	100.00%	1.00%	120	350	NA
42	Shree Omkar Infocom Pvt. Ltd.	Mumbai	100.00%	98.00%	100.00%	23	0.00%	100.00%	100.00%	92.00%	95.00%	0	0	46.00%	DNF	99.90%	1.00%	2	125	600
43	Shyam Spectra Pvt. Ltd.	All India	100.00%	90.29%	99.28%	493	0.95%	100.00%	100.00%	87.20%	90.40%	0	0	18.00%	93.70%	99.96%	0.00%	10	153	NA
44	Sikka Broadband(P) Ltd.	Uttar Pradesh(East)	100.00%	91.00%	99.26%	0	0.00%	0.00%	0.00%	88.00%	98.70%	0%	0%	80.00%	86.60%	99.50%	1.00%	10	290	400
45	Siti Broadband Services Pvt. Ltd.	All India (Pan India)	100.00%	93.39%	99.09%	93	Nil	Nil	100.00%	96.00%	98.00%	0	0	80.98%	98.00%	99.57%	0.00%	3	140	NA
46	Tachyon Communications Pvt. Ltd.	UP-East (Lucknow)	100.00%	95.00%	99.00%	0	0.00%	100.00%	100.00%	83.00%	93.00%	0	0	75.00%	99.00%	100.00%	0.00%	35	70	NA
47	Tata Communications Ltd. (Ceased broadband services, hence NIL report)	All India	NA	NA	NA	0	NA	NA	0.00	NA	NA	Nil	Nil	0.00%	NA	NA	0.00%	15	253	0
48	Tata Sky Broadband Pvt. Ltd.	All India	100.00%	97.43%	99.00%	NA	NA	NA	NA	87.70%	90.50%	0	0	45.00%	57420.00%	99.80%	0.00%	1	NA	NA
49	Tata Teleservices Limited (TTSL)	All India (except MH)	67.00%	87.00%	96.00%	0	0.02%	100.00%	100.00%	95.02%	96.67%	0	0	0.60%	94.97%	99.70%	0.00%	64	59	Nil
50	Tata Teleservices(Mah.) Ltd. (TTML)	Mah. & Mumbai	100.00%	85.00%	95.00%	0	0.05%	100.00%	100.00%	94.46%	96.06%	0	0	66.00%	90.00%	99.70%	0.00%	70	237	Nil
51	United Telecoms Ltd.	Maharashtra	97.00%	92.33%	99.00%	32	0.01%	100.00%	100.00%	71.00%	92.00%	0	0	58.73%	100.00%	100.00%	0.00%	23	130	NA
52	Vasai Cable Pvt. Ltd.	Maharashtra	100.00%	95.45%	100.00%	None	0.07%	100.00%	Nil	74.93%	86.67%	Nil	0	63.00%	90.00%	100.00%	1.00%	4	255	NA
53	Wan and Lan Internet Pvt. Ltd.	Mumbai	100.00%	100.00%	100.00%	0	0.00%	100.00%	0.00%	90.00%	90.00%	0	0	90.00%	90.00%	99.90%	0.00%	20	40	80
54	Wish Net Pvt. Ltd.	Kolkata	100.00%	99.42%	100.00%	0	0.00%	100.00%	NA	97.08%	95.03%	0	0	51.85%	100.00%	99.94%	1.00%	20	NA	NA
55	World Phone Internet Services Pvt Ltd	West Bengal	100.00%	99.42%	100.00%	0	0.00%	100.00%	NA	87.10%	98.03%	0	0	51.85%	100.00%	99.94%	1.00%	20	NA	NA
56	Yashash Cable Network Pvt Ltd	All India	100.00%	91.33%	100.00%	0	0.00%	0.00%	0.00%	99.00%	100.00%	0	NA	NA	85.00%	99.83%	1.00%	25	NA	NA
57	Yashash Cable Network Pvt Ltd	Karnataka	100.00%	91.71%	99.04%	12	0.00%	0.00%	0.00%	82.43%	95.14%	0	0	78.46%	80.00%	99.78%	1.00%	30	301	0
57	You Broadband India Pvt. Ltd.	All India	99.89%	99.11%	99.50%	203	0.00%	0.00%	0.00%	89.58%	92.93%	0	0	69.28%	86.90%	99.09%	0.00%	9	272	0
			DNF= Data not as per Format				NR= Data not reported by the Service Provider						NA = Not Applicable			C/DNF= Complied the parameter but Data is not in the required format				

Note: Ms Tata Communications Ltd. has ceased broadband services, hence, NIL report submitted.

**Annexure 5.1: List of pay channels, offered by broadcasters to subscribers as reported to TRAI (New Regulatory Framework) - as on 31<sup>st</sup> December 2020)**

<b>S. No</b>	<b>Name of the broadcaster</b>	<b>Sl. No</b>	<b>Name of the channel</b>	<b>Genre as per new Regulatory framework</b>	<b>Language</b>	<b>Declared as SD or HD</b>
1	AETN 18 Media Pvt Limited	1	The History Channel	Infotainment	Hindi	SD
		2	History TV 18 HD	Infotainment	Hindi	HD
2	Asianet Star Communications Private Limited	3	Vijay TV	GEC	Tamil	SD
		4	Vijay Super	GEC	Tamil	SD
		5	Vijay HD	GEC	Tamil	HD
		6	Vijay Music	Music	Tamil	SD
		7	Asianet	GEC	Malayalam	SD
		8	Asianet Plus	GEC	Malayalam	SD
		9	Asianet Movies	Movies	Malayalam	SD
		10	Suvarna Plus	Movies	Kannada	SD
		11	Star Suvarna HD	GEC	Kannada	HD
		12	Asianet HD	GEC	Malayalam	HD
		13	Star Suvarna	GEC	Kannada	SD
3	Bangla Entertainment Private Limited	14	AATH	GEC	Bangla	SD
		15	SONY Marathi	GEC	Marathi	SD
4	BBC Global News India Private Limited	16	BBC World News	News	English	SD
		17	Cbeebies	Kids	English	SD
5	Bennett, Coleman & Company Limited	18	Zoom	GEC	Hindi	SD
		19	Romedy Now	Movies	English	SD
		20	MN +	Movies	English	HD
		21	Mirror Now	News	English/Hindi	SD
		22	ET NOW	News	English/Hindi	SD
		23	Times Now	News	English/Hindi	SD
		24	Romedy Now HD	Movies	English	HD
		25	Movies Now HD	Movies	English	HD
		26	MNX HD	Movies	English	HD
		27	MNX	Movies	English	SD

<b>S. No</b>	<b>Name of the broadcaster</b>	<b>Sl. No</b>	<b>Name of the channel</b>	<b>Genre as per new Regulatory framework</b>	<b>Language</b>	<b>Declared as SD or HD</b>
		28	Times Now World	News	English	HD
6	Celebrities Management Pvt Limited	29	Travel XP HD	Infotainment	English	HD
		30	Travel XP Tamil	Infotainment	Tamil	SD
7	CSL Info Media Private Limited	31	JAN TV PLUS	News	Hindi	SD
8	Direct New Private Limited	32	News X	News	English	SD
9	Discovery Communications India	33	Animal Planet	Infotainment	English/Hindi	SD
		34	Discovery Channel	Infotainment	English/Hindi	SD
		35	DTAMIL	Infotainment	Tamil	SD
		36	Discovery Kids Channel	Kids	English	SD
		37	Discovery Science	Infotainment	English/Hindi	SD
		38	Discovery Turbo	Infotainment	English/Hindi	SD
		39	Investigation Discovery	GEC	Hindi	SD
		40	Discovery HD	Infotainment	English	HD
		41	Animal Planet HD World	Infotainment	English/Hindi	HD
		42	TLC HD	Infotainment	English/Hindi	HD
		43	Investigation Discovery HD	GEC	Hindi	HD
		44	TLC	Infotainment	English/Hindi	SD
		45	EUROSPORT HD (Earlier name "Dsport HD")	Sports	English	HD
		46	EUROSPORT (Earlier name "Dsport")	Sports	English	SD
10	Disney Broadcasting (India) Limited	47	Disney Junior	Kids	English	SD
		48	UTV Movies	Movies	Hindi	SD
		49	Marvel HQ	Kids	English/Hindi	SD
		50	Disney International HD	GEC	English	HD
		51	Hungama TV	Kids	English/Hindi	SD
		52	The Disney Channel	Kids	English/Hindi	SD

<b>S. No</b>	<b>Name of the broadcaster</b>	<b>Sl. No</b>	<b>Name of the channel</b>	<b>Genre as per new Regulatory framework</b>	<b>Language</b>	<b>Declared as SD or HD</b>
		53	UTV HD	Movies	Hindi	HD
		54	UTV Bindass	GEC	Hindi	SD
		55	UTV Action	Movies	Hindi	SD
11	Eenadu Televisoin Private Limited	56	ETV	GEC	Telugu	SD
		57	ETV Andhra Pradesh	News	Telugu	SD
		58	ETV - Telangana	News	Telugu	SD
		59	ETV Cinema	Movies	Telugu	SD
		60	ETV Life	GEC	Telugu	SD
		61	ETV Plus	GEC	Telugu	SD
		62	ETV Abhiruchi	GEC	Telugu	SD
		63	ETV HD	GEC	Telugu	HD
		64	ETV Plus HD	GEC	Telugu	HD
		65	ETV Cinema HD	Movies	Telugu	HD
12	IN 10 Media Private Limited	66	EPIC TV	Infotainment	English/Hindi	SD
		67	Filamchi	Movies	Bohjpuri	SD
		68	Gubbare	Kids	Hindi	SD
13	Fame Media Private Limited	69	4tv News	News	Urdu/Hindi	SD
14	Greycells18 Media Limited	70	Topper TV	Miscellaneous	English	SD
15	IBN Lokmat News Private Ltd	71	News 18 Lokmat	News	Hindi	SD
16	Living Entertainment Enterprises Private Ltd	72	ZEE ZEST HD	Infotainment	Hindi	HD
		73	Living Travelz	Infotainment	Hindi	SD
17	Lifestyle and Media Broadcasting Limited	74	Good Times	Miscellaneous	English	SD
18	Lex Sportel Vision Private Limited	75	1SPORTS	Sports	English	SD
19	Mavis Satcom Limited	76	J Movies	Movies	Tamil	SD
		77	Jaya Max	Music	Tamil	SD
		78	Jaya Plus	News	Tamil	SD
		79	Jaya TV HD	GEC	Tamil	HD
20	MSM World Wide Factual Media Private Limited	80	SONY BBC EARTH	Infotainment	English/Hindi	SD
		81	SONY BBC EARTH HD	Infotainment	English/Hindi	HD

<b>S. No</b>	<b>Name of the broadcaster</b>	<b>Sl. No</b>	<b>Name of the channel</b>	<b>Genre as per new Regulatory framework</b>	<b>Language</b>	<b>Declared as SD or HD</b>
21	Media World Wide Limited	82	Travel XP	Infotainment	English	SD
22	New Delhi Television Limited	83	NDTV 24*7	News	English	SD
		84	NDTV India	News	Hindi	SD
		85	NDTV Profit	News	English	SD
23	NGC Network (India) Pvt Limited	86	Fox Life	Infotainment	English/ Hindi	SD
		87	National Geographic Channel (NGC)	Infotainment	English/ Hindi	SD
		88	Fox Life HD	Infotainment	English/ Hindi	HD
		89	Nat Geo Wild	Infotainment	English/ Hindi	SD
		90	National Geographic HD	Infotainment	English/ Hindi	HD
		91	Nat Geo Wild HD	Infotainment	English/ Hindi	HD
		92	Baby TV HD	Kids	English/ Hindi	HD
24	NOIDA Software Technology Park Limited	93	NHK World Premium (HD Distribution)	Infotainment	Japanese	HD
25	Odisha Television Limited	94	Prarthana	Devotional	Odia	SD
		95	Tarang	GEC	Odia	SD
		96	Tarang Music	Music	Odia	SD
		97	Alankar	Movies	Odia	SD
26	Parshavnath Media Private Limited	98	Dangal Kannada	GEC	Kannada	SD
27	Raj Television Network Limited	99	Raj Digital Plus	Movies	Tamil	SD
		100	Raj Musix	Music	Tamil	SD
		101	Raj News	News	Tamil	SD
		102	Raj TV	GEC	Tamil	SD
28	Silverstar Communications Limited	103	Mega 24	GEC	Tamil	SD
		104	Mega Musiq	Music	Tamil	SD
		105	Mega TV	GEC	Tamil	SD
29	Sony Pictures Networks India Private Limited	106	Sony YAY!	Kids	English	SD
		107	SET MAX	Movies	Hindi	SD
		108	SAB	GEC	Hindi	SD
		109	SONY ENTERTAINME	GEC	Hindi	SD

<b>S. No</b>	<b>Name of the broadcaster</b>	<b>Sl. No</b>	<b>Name of the channel</b>	<b>Genre as per new Regulatory framework</b>	<b>Language</b>	<b>Declared as SD or HD</b>
	Sony Pictures Networks India Private Limited		NT CHANNEL (SET)			
		110	PIX	Movies	English	SD
		111	SIX	Sports	English/Hindi	SD
		112	MAX 2	Movies	Hindi	SD
		113	PAL	GEC	Hindi	SD
		114	SET HD	GEC	Hindi	HD
		115	SIX HD	Sports	English/Hindi	HD
		116	PIX HD	Movies	English	HD
		117	MAX HD	Movies	Hindi	HD
		118	Ten 2 HD	Sports	English/Hindi	HD
		119	Ten 3 HD	Sports	English/Hindi	HD
		120	Ten 2	Sports	English/Hindi	SD
		121	Ten 1	Sports	English	SD
		122	Ten 3	Sports	English/Hindi	SD
		123	Ten 1 HD	Sports	English	HD
		124	SONY Wah	Movies	Hindi	SD
		125	SAB HD	GEC	Hindi	HD
30	Star India Private Limited	126	Star Sports 3	Sports	English/Hindi	SD
		127	Star Sports 1 Tamil	Sports	Tamil	SD
		128	Star Sports Select 2	Sports	English/Hindi	SD
		129	Star Bharat	GEC	Hindi	SD
		130	Star Gold 2 (Movies OK)	Movies	Hindi	SD
		131	Star Sports 1 Hindi	Sports	Hindi	SD
		132	Star Gold	Movies	Hindi	SD
		133	Star Jalsha	GEC	Bangla	SD
		134	Star Movies	Movies	English	SD
		135	Star Gold Select	Movies	Hindi	SD
		136	Star Plus	GEC	Hindi	SD
		137	Star Pravah	GEC	Marathi	SD

<b>S. No</b>	<b>Name of the broadcaster</b>	<b>Sl. No</b>	<b>Name of the channel</b>	<b>Genre as per new Regulatory framework</b>	<b>Language</b>	<b>Declared as SD or HD</b>
	Star India Private Limited	139	Star Sports 2	Sports	English/Hindi	SD
		140	Star World	GEC	English	SD
		141	Jalsha Movies	Movies	Bangla	SD
		142	Star Sports HD 2	Sports	English/Hindi	HD
		143	Star Sports HD 1	Sports	English/Hindi	HD
		144	Star Bharat HD	GEC	Hindi	HD
		145	Star Gold HD	Movies	Hindi	HD
		146	Star Movies HD	Movies	English	HD
		147	Star Plus HD	GEC	Hindi	HD
		148	Star Sports 1 HD Hindi	Sports	Hindi	HD
		149	Star Sports Select 1	Sports	English/Hindi	SD
		150	Star Movies Select HD	Movies	English	HD
		151	Star World HD	GEC	English	HD
		152	Star Sports First	Sports	English/Hindi	SD
		153	MAA Gold	Movies	Telugu	SD
		154	MAA Movies	Movies	Telugu	SD
		155	MAA Music	Music	Telugu	SD
		156	MAA TV	GEC	Telugu	SD
		157	Star Pravah HD	GEC	Marathi	HD
		158	Star Jalsha HD	GEC	Bangla	HD
		159	Jalsha Movies HD	Movies	Bangla	HD
		160	Star Sports Select HD 1	Sports	English/Hindi	HD
		161	Star Sports Select HD 2	Sports	English/Hindi	HD
		162	MAA HD	GEC	Telugu	HD
		163	Star Gold Select HD	Movies	Hindi	HD
		164	MAA Movies HD	Movies	Telugu	HD
		165	Star World Prmiere HD	GEC	English	HD
	166	Star Sport 1 Telugu	Sports	Telugu	SD	
	167	Star Sport 1	Sports	Kannada	SD	



<b>S. No</b>	<b>Name of the broadcaster</b>	<b>Sl. No</b>	<b>Name of the channel</b>	<b>Genre as per new Regulatory framework</b>	<b>Language</b>	<b>Declared as SD or HD</b>
			Kannada			
		168	Star Sports 1 Bangla	Sports	Bangla	SD
		169	Star Utsav	GEC	Hindi	SD
		170	Star Sports 1 Marathi	Sports	Marathi	SD
		171	Star Utsav Movies	Movies	Hindi	SD
		172	Adithya TV	GEC	Tamil	SD
		173	Chintu TV	Kids	Kannada	SD
		174	Chutti TV	Kids	Tamil	SD
		175	Gemini Comedy	GEC	Telugu	SD
		176	Gemini Life	GEC	Telugu	SD
		177	Gemini Movies	GEC	Telugu	SD
		178	Gemini Music	Music	Telugu	SD
		179	Gemini TV	GEC	Telugu	SD
		180	KTV	GEC	Tamil	SD
		181	Surya Movies	GEC	Malayalam	SD
		182	Kushi TV	Kids	Telugu	SD
		183	SUN Life	GEC	Tamil	SD
31	SUN TV Network Limited	184	Sun Music	Music	Tamil	SD
		185	Sun News	News	Tamil	SD
		186	Surya Music	Music	Malayalam	SD
		187	SUN TV	GEC	Tamil	SD
		188	Surya Comedy	GEC	Malayalam	SD
		189	Surya TV	GEC	Malayalam	SD
		190	Udaya Comedy	GEC	Kannada	SD
		191	Udaya Movies	GEC	Kannada	SD
		192	Udaya Music	Music	Kannada	SD
		193	Udaya TV	GEC	Kannada	SD
		194	Kochu TV	Kids	Malayalam	SD
		195	Sun TV HD	GEC	Tamil	HD
		196	KTV HD	GEC	Tamil	HD
		197	Sun Music HD	Music	Tamil	HD

<b>S. No</b>	<b>Name of the broadcaster</b>	<b>Sl. No</b>	<b>Name of the channel</b>	<b>Genre as per new Regulatory framework</b>	<b>Language</b>	<b>Declared as SD or HD</b>
		198	Gemini TV HD	GEC	Telugu	HD
		199	Gemini Music HD	Music	Telugu	HD
		200	Gemini Movies HD	GEC	Telugu	HD
		201	Surya TV HD	GEC	Malayalam	HD
		202	Udaya TV HD	GEC	Kannada	HD
32	Suryansh Broadcasting Private Limited	203	Flowers	GEC	Malayalam	SD
33	Turner International India Pvt Ltd	204	Cartoon Network	Kids	Hindi	SD
		205	CNN International	News	English	SD
		206	POGO	Kids	Hindi	SD
		207	Cartoon Network HD+	Kids	Hindi	HD
34	TV 18 Broadcast Limited	208	CNN News 18	News	English	SD
		209	CNBC Bazaar	News	Gujarati	SD
		210	CNBC TV 18 Prime HD	News	English	HD
		211	CNBC Awaaz	News	Hindi	SD
		212	News 18 Tamil Nadu	News	Tamil	SD
		213	News 18 Kerala	News	Malayalam	SD
		214	News 18 Assam / North East	News	Assamese	SD
		215	News 18 India	News	Hindi	SD
		216	CNBC TV 18	News	English	SD
		217	News 18 Bihar Jharkhand	News	Hindi	SD
		218	News 18 Madhya Pradesh / Chattisgarh	News	Hindi	SD
		219	News 18 Rajasthan	News	Hindi	SD
		220	News 18 Uttar Pradesh/ Uttaranchal	News	Hindi	SD
		221	News 18 Urdu	News	Urdu	SD
		222	News 18 Kannada	News	Kannada	SD
		223	News 18 Bangla	News	Bangla	SD
		224	News 18 Punjab	News	Punjabi	SD

S. No	Name of the broadcaster	Sl. No	Name of the channel	Genre as per new Regulatory framework	Language	Declared as SD or HD
			/ Haryana / Himanchal Pradesh			
		225	News 18 Gujarati	News	Gujarati	SD
		226	News 18 Odia	News	Odia	SD
35	TV Today Network Limited	227	Aaj Tak	News	Hindi	SD
		228	India Today	News	English	SD
		229	AAJ Tak HD	News	Hindi	HD
		230	Aaj Tak Tez	News	Hindi	SD
36	Viacom 18 Media Private Limited	231	Colors	GEC	Hindi	SD
		232	Comedy Central (HD )	GEC	English	HD
		233	MTV	Music	Hindi	SD
		234	NICK	Kids	Hindi	SD
		235	NICK JR	Kids	English	SD
		236	SONIC	Kids	Hindi	SD
		237	VH 1 (HD Distribution)	Music	English	HD
		238	Colors Infinity HD	GEC	English	HD
		239	Colors Infinity	GEC	English	SD
		240	Colors HD	GEC	Hindi	HD
		241	NICKS HD+	Kids	Hindi	HD
		242	Colors Cineplex	Movies	Hindi	SD
		243	MTV Beats	Music	Hindi	SD
		244	Colors Kannada HD	GEC	Kannada	HD
		245	Colors Marathi HD	GEC	Marathi	HD
		246	Colors Bangla HD	GEC	Bangla	HD
		247	Colors Super	GEC	Kannada	SD
		248	Colors Bangla	GEC	Bangla	SD
		249	Colors Gujarati	GEC	Gujarati	SD
		250	Colors Kannada	GEC	Kannada	SD
		251	Colors Marathi	GEC	Marathi	SD
		252	Colors Oriya	GEC	Oriya	SD

<b>S. No</b>	<b>Name of the broadcaster</b>	<b>Sl. No</b>	<b>Name of the channel</b>	<b>Genre as per new Regulatory framework</b>	<b>Language</b>	<b>Declared as SD or HD</b>
		253	MTV Beats HD	Music	Hindi	HD
		254	Colors Tamil	GEC	Tamil	SD
		255	Colors Cineplex HD	Movies	Hindi	HD
		256	VH 1	Music	English	SD
		257	Colors Tamil HD	GEC	Tamil	HD
		258	MTV HD+	Music	Hindi	HD
		259	Colors Rishtey	GEC	Hindi	SD
		260	Colors Kannada Cinema	Movies	Kannada	SD
		261	Colors Gujarati Cinema	Movies	Gujarati	SD
		262	Comedy Central	GEC	English	SD
		263	Rishtey Cineplex	Movies	Hindi	SD
		264	Colors Bangla Cinema	Movies	Bangla	SD
37	Zee Akaash News Private Limited	265	Zee 24 Ghanta	News	Bangla	SD
		266	Zee Bollywood	Movies	Hindi	SD
		267	Zee Action	Movies	Hindi	SD
		268	Zee Bangla Cinema	Movies	Bangla	SD
		269	Zee Café HD	GEC	English	HD
		270	Zee Café	GEC	English	SD
		271	Zee Cinema	Movies	Hindi	SD
		272	Zee Talkies	Movies	Marathi	SD
		273	Zee TV	GEC	Hindi	SD
		274	Zing	Music	Hindi	SD
		275	& Picture	Movies	Hindi	SD
		276	Zee Bangla	GEC	Bangla	SD
		277	Zee Marathi	GEC	Marathi	SD
		278	Zee Zest	Infotainment	English/ Hindi	SD
		279	Zee TV HD	GEC	Hindi	HD
		280	Zee Cinema HD	Movies	Hindi	HD
		281	& TV	GEC	Hindi	SD
		282	& TV HD	GEC	Hindi	HD

<b>S. No</b>	<b>Name of the broadcaster</b>	<b>Sl. No</b>	<b>Name of the channel</b>	<b>Genre as per new Regulatory framework</b>	<b>Language</b>	<b>Declared as SD or HD</b>
	Zee Entertainment Enterprises Limited	283	Zee Kannada	GEC	Kannada	SD
		284	Zee Telugu	GEC	Telugu	SD
		285	& Pictures HD	Movies	English/Hindi	HD
		286	Zee Cinemalu	Movies	Telugu	SD
		287	Zee Yuva	GEC	Marathi	SD
		288	Zee Marathi HD	GEC	Marathi	HD
		289	& Prive HD	Movies	English	HD
		290	Zee Bangla HD	GEC	Bangla	HD
		291	Zee Tamil HD	GEC	Tamil	HD
		292	Zee Cinemalu HD	Movies	Telugu	HD
		293	Zee Telugu HD	GEC	Telugu	HD
		294	Zee Tamil	GEC	Tamil	SD
		295	Zee Kannada HD	GEC	Kannada	HD
		296	Zee Anmol Cinema	Movies	Hindi	SD
		297	& Flix HD	Movies	English	HD
		298	& Flix	Movies	English	SD
		299	Zee Keralam HD	GEC	Malayalam	HD
		300	Zee Keralam	GEC	Malayalam	SD
		301	Zee Vajwa	Music	Hindi	SD
		302	Zee Anmol	GEC	Hindi	SD
		303	Big Magic	GEC	Hindi	SD
		304	Big Ganga	GEC	Bhojpuri	SD
		305	Zee Classic	Movies	Hindi	SD
		306	&Xplore HD	Movies	Hindi	HD
		307	ZEE Sarthak	GEC	Odia	SD
		308	Zee Talkies HD	Movies	Marathi	HD
		309	Zee Punjabi	GEC	Punjabi	SD
		310	Zee Thirai	Movies	Tamil	SD
		311	Zee Picchar	Movies	Kannada	SD
		312	Zee Biskope	Movies	Bhojpuri	SD

<b>S. No</b>	<b>Name of the broadcaster</b>	<b>Sl. No</b>	<b>Name of the channel</b>	<b>Genre as per new Regulatory framework</b>	<b>Language</b>	<b>Declared as SD or HD</b>
39	Zee Media Corporation Limited	313	Zee 24 Taas	News	Marathi	SD
		314	Zee Odisha	News	Odia	SD
		315	Zee Business	News	Hindi	SD
		316	Zee Punjab Haryana Himachal	News	Hindi	SD
		317	Zee Madhya Pradesh Chattisgarh	News	Hindi	SD
		318	Zee Salaam	News	Urdu	SD
		319	Zee 24 Kalak	News	Hindi	SD
		320	WION	News	Hindi	SD
		321	Zee Uttar Pradesh Uttrakhand	News	Hindi	SD
		322	Zee Hindustan	News	Hindi	SD
		323	Zee Bihar Jharkhand	News	Hindi	SD
		324	Zee News	News	Hindi	SD
		325	Zee Rajasthan News	News	Hindi	SD
		40	Zoom Entertainment Network Limited	326	Movies Now	Movies

**List of Major MSOs / HITS Operators**

- 1. M/s. Siti Networks Limited.,**  
1<sup>st</sup> Floor, FC-09, Gate No.03,  
Sector-16-A Film City,  
Noida-201301,  
Tel: 0120-4526700  
Website : [www.sitinetworkslimited](http://www.sitinetworkslimited)  
Toll Free No. 1800 1234 001
- 2. M/s Den Networks Limited.**  
236, Ground Floor, Okhla Industrial Estate,  
Phase-III, New Delhi-110020  
Website: [www.den-networks.com](http://www.den-networks.com)  
Toll Free No. 1800 419 2020
- 3. M/s Hathway Digital Private Limited.**  
805/606, 8<sup>th</sup> Floor, Windsor  
Off CST Road, Kalina, Santacruz (East),  
Mumbai-400098 (Maharashtra)  
PH: 022-26001306,  
Fax No: 022-26001307  
Website : [www.hathway.com](http://www.hathway.com)  
Toll Free No. 1800 4197 900
- 4. M/s GTPL Hathway.**  
202, 2<sup>nd</sup> Floor,  
Sahajanad Shopping Center  
Opp. Swaminarayan Mandir  
Shahibaug, Ahemdabad-38004  
Ph: 079-30280340 / 41, 079-25626476 / 77  
Website : [www.gtpl.net](http://www.gtpl.net)  
Toll Free No. 1800-419-0419
- 5. M/s NXT Digital Limited.**  
IN Centre, 49/50 MIDC  
12<sup>th</sup> Road, Andheri  
MUMBAI-400093 (Maharashtra)  
Ph: 022-28208585  
Website : [www.nxtdigital.co.in](http://www.nxtdigital.co.in)  
Toll Free No. 18602120400 18002100400

- 6. M/s NXT Digital Limited (HITS)**  
IN Centre, 49/50 MIDC  
12<sup>th</sup> Road, Andheri  
MUMBAI-400093 (Maharashtra)  
Ph: 022-28208585  
Website : [www.nxtdigital.co.in](http://www.nxtdigital.co.in)  
Toll Free No. 18602120400 18002100400
- 7. M/s Fastway Transmission Pvt. Ltd..**  
SCO-16-17, Top Floor  
Sector-34-A, Chandigarh  
Ph: 0161-4044444  
Website : [www.fastway.in](http://www.fastway.in)  
Toll Free No. 18001026602
- 8. M/s Tamil Nadu ARASU Cable TV Corporation Ltd.**  
11/22, Mangadusamy Street, Nungambakkam,  
Chennai-600034  
Ph: 044-2843 2911  
Fax : 044-2843 2913  
Website : [www.tactv.in](http://www.tactv.in)  
Toll Free No. 1800 425 2911
- 9. M/s Kerala Communicators Cable Ltd.**  
CC -22/491, Girnar, Kadavanthara,  
Cochin-682020 (Kerala)  
Ph: 0484-2316441  
Website : [www.kccl.tv](http://www.kccl.tv)  
Toll Free No. 18004195755
- 10. M/s Thamizhaga Cable TV Communication Pvt. Ltd.**  
Old No. 150, New No. 48, Sami Naicken Street,  
Chinthadripet, Chennai-600002 (T.N.)  
Ph: 044-49272222  
Website : [www.tccl.co.in](http://www.tccl.co.in)  
Toll Free No. 1800-102-9845
- 11. M/s Asianet Digital Network Pvt. Network**  
2A, 2<sup>nd</sup> Floor, Leela Infopark  
Technopark, Kazahakuttom,  
Thiruvananthapuram-695581 (Kerala)  
Ph: 0471-2700995  
Fax : 0471-2527878  
Website : [www.asianetdigital.co.in](http://www.asianetdigital.co.in)  
Toll Free No. 1800 425 4725



- 12. M/s Kal Cable Private Ltd.**  
No. 229, Kutchery Road, Mylapore,  
Chennai-600004 (T.N.)  
Ph: 044-49616161  
Fax : 044-49616171  
Website : [www.scv.in](http://www.scv.in)  
Toll Free No. 1800-102-0728
- 13. M/s V.K. Digital Network Pvt. Ltd.**  
3-A-29, Willow Crest,  
6<sup>th</sup> Main Road, R.A. Puram,  
Chennai-600029 (T.N.)  
Ph: 044-4242 8282  
Website : [www.vkdigital.co.in](http://www.vkdigital.co.in)  
Toll Free No. 18004199908

**List of Pay DTH Operators**

- 1. M/s. Tata Sky Ltd.,**  
Tata Communications Complex,  
Mandi Road, PO Chattarpur,  
New Delhi – 110 074  
Tel: 011-6616 3000  
Fax-022-6616 3030  
Website : [www.tatasky.com](http://www.tatasky.com)  
Toll Free No. 18002086633
- 2. M/s Dish TV India Ltd.**  
FC-19, Sector-16A, Film City,  
Noida-201301  
Tel: 91-120-2467005 / 2467000  
Fax: 91-120-4357082  
Toll Free No. 18002583474 (Dish), 1800212212 (d2h)  
Website : [www.dishtv.in](http://www.dishtv.in)
- 3. SUN Direct TV(P) Ltd.**  
Murasoli Maran Towers, 73, MRC Nagar,  
Main Road, MRC Nagar, Chennai – 28  
PH: 044-44676767, Fax No 044-40679191  
Website : [www.sundirect.in](http://www.sundirect.in)  
Toll Free No. 18001037575
- 4. Bharti Telemedia Ltd.**  
Airtel Centre, Plot No 16,  
Udyog Vihar Phase IV,  
Gurgaon – 122 015  
Ph: 0124-4222222  
Fax : 0124-4248063  
Website : [www.airtel.in](http://www.airtel.in)  
Toll Free No. 18001036065

**Annexure 5.4: List of 105 existing cities with operational FM Radio Channels in India as on 31<sup>st</sup> December, 2020**

<b>S.No</b>	<b>City</b>	<b>Category</b>	<b>Stations</b>
1	Agartala	D	2
2	Agra	B	4
3	Ahmedabad	A	7
4	Ahmednagar	C	3
5	Aizwal	D	3
6	Ajmer	C	4
7	Akola	C	4
8	Alappuzha	C	2
9	Aligarh	C	3
10	Allahabad	B	4
11	Amravati	C	1
12	Amritsar	B	4
13	Asansol	B	3
14	Aurangabad	C	4
15	Bareilly	C	4
16	Bengaluru	A	8
17	Bharuch	D	1
18	Bhavangar	C	1
19	Bhopal	B	4
20	Bhubaneshwar	C	4
21	Bikaner	C	4
22	Bilaspur	C	3
23	Chandigarh	C	4
24	Chennai	A+	7
25	Cochin	B	4
26	Coimbatore	B	4
27	Dehradun	C	1
28	Delhi	A+	9
29	Dhule	C	3
30	Dhubri	others	1

<b>S.No</b>	<b>City</b>	<b>Category</b>	<b>Stations</b>
31	Durg-Bhillaina	D	1
32	Erode	C	2
33	Gangtok	D	2
34	Gorakhpur	C	4
35	Gulbarga	C	1
36	Guwahati	C	4
37	Gwalior	C	4
38	Haflong	D	1
39	Hissar	D	4
40	Hubli - Dharwad	C	2
41	Hyderabad	A	8
42	Indore	B	4
43	Itanagar	D	2
44	Jabalpur	B	4
45	Jaipur	A	6
46	Jalandhar	C	4
47	Jalgaon	C	4
48	Jammu	C	3
49	Jamnagar	C	1
50	Jamshedpur	B	4
51	Jhansi	C	4
52	Jodhpur	C	4
53	Junagarh	D	1
54	Kannur	C	3
55	Kanpur	A	6
56	Karnal	D	3
57	Kolhapur	C	4
58	Kolkata	A+	7
59	Kota	C	4
60	Kozhikode	C	4
61	Lucknow	A	6
62	Madurai	B	4
63	Mangalore	C	3

<b>S.No</b>	<b>City</b>	<b>Category</b>	<b>Stations</b>
64	Mehsana	D	1
65	Mumbai	A+	9
66	Muzaffarpur	C	4
67	Mysore	C	3
68	Nagpur	A	6
69	Nanded	C	3
70	Nasik	C	4
71	Nellore	C	1
72	Palampur	D	1
73	Panaji	D	2
74	Patiala	C	4
75	Patna	B	4
76	Puducherry	C	4
77	Pune	A	6
78	Raigarh	D	1
79	Raipur	C	3
80	Rajahmundry	C	2
81	Rajkot	B	4
82	Ranchi	C	4
83	Rourkela	C	3
84	Salem	C	2
85	Sangli	C	5
86	Shillong	D	3
87	Shimla	D	3
88	Sholapur	C	4
89	Siliguri	C	3
90	Srinagar	C	4
91	Surat	A	6
92	Thiruvananthapuram	C	4
93	Thrissur	C	3
94	Tiruchy	C	3
95	Tirunelveli	C	3
96	Tirupati	C	2

<b>S.No</b>	<b>City</b>	<b>Category</b>	<b>Stations</b>
97	Tuticorin	C	2
98	Udaipur	C	4
99	Ujjain	C	1
100	Vadodra	B	4
101	Varanasi	B	5
102	Vellore	C	2
103	Vijayawada	B	2
104	Vishakapatnam	B	3
105	Warrangal	C	2
			<b>367</b>

*Source: As reported by Private FM Radio Service Providers to TRAI*

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