



## **Telecom Regulatory Authority of India**

### **The Indian Telecom Services Performance Indicators** July – September, 2020

New Delhi, India

21<sup>st</sup> January, 2021

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## Snapshot

(Data as on Q.E. 30 <sup>th</sup> September, 2020)	
Telecom Subscribers (Wireless+Wireline)	
Total Subscribers	1,168.66 Million
% change over the previous quarter	0.70%
Urban Subscribers	644.26 Million
Rural Subscribers	524.39 Million
Market share of Private Operators	88.61%
Market share of PSU Operators	11.39%
Tele-density	86.22%
Urban Tele-density	138.25%
Rural Tele-density	58.96%
Wireless Subscribers	
Total Wireless Subscribers	1,148.58 Million
% change over the previous quarter	0.69%
Urban Subscribers	626.16 Million
Rural Subscribers	522.42 Million
Market share of Private Operators	89.35%
Market share of PSU Operators	10.65%
Tele-density	84.74%
Urban Tele-density	134.37%
Rural Tele-density	58.74%
Total Wireless Data Usage during the quarter	25,227 PB
Number of Public Mobile Radio Trunk Services (PMRTS)	63,901
Number of Very Small Aperture Terminals (VSAT)	2,95,261
Wireline Subscribers	
Total Wireline Subscribers	20.08 Million
% change over the previous quarter	1.34%
Urban Subscribers	18.10 Million
Rural Subscribers	1.98 Million
Market share of PSU Operators	53.65%
Market share of Private Operators	46.35%
Tele-density	1.48%
Rural Tele-density	0.22%
Urban Tele-density	3.88%
No. of Village Public Telephones (VPT)	68,606
No. of Public Call Office (PCO)	1,55,182

<b>Telecom Financial Data</b>	
Gross Revenue (GR) during the quarter	₹68,228 Crore
% change in GR over the previous quarter	2.05%
Adjusted Gross Revenue (AGR) during the quarter	₹45,707 Crore
% change in AGR over the previous quarter	3.58%
Share of Public sector undertakings in Access AGR	7.02%
Monthly Average Revenue Per User (ARPU) for Access Services	₹103.87
<b>Internet/Broadband Subscribers</b>	
Total Internet Subscribers	776.45 Million
% change over previous quarter	3.66%
Narrowband subscribers	50.14 Million
Broadband subscribers	726.32 Million
Wired Internet Subscribers	24.36 Million
Wireless Internet Subscribers	752.09 Million
Urban Internet Subscribers	474.11 Million
Rural Internet Subscribers	302.35 Million
Total Internet Subscribers per 100 population	57.29
Urban Internet Subscribers per 100 population	101.74
Rural Internet Subscribers per 100 population	33.99
<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	911
Number of Pay TV Channels as reported by broadcasters	327
Number of private FM Radio Stations (excluding All India Radio)	367
Number of total active subscribers with pay DTH operators	70.70 Million
Number of Operational Community Radio Stations	310
Number of pay DTH Operators	4
<b>Revenue &amp; Usage Parameters</b>	
Monthly ARPU of Wireless Service	₹96.87
Minutes of Usage (MOU) per subscriber per month - Wireless Service	761 Minutes
Total Outgoing Minutes of Usage for Internet Telephony	182.58 Million
<b>Wireless Data Usage</b>	
Average Wireless Data Usage per wireless data subscriber per month	11.96 GB
Average revenue realization per subscriber per GB wireless data during the quarter	₹10.95

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

## Executive Summary

1. The number of telephone subscribers in India increased from 1,160.52 million at the end of Jun-20 to 1,168.66 million at the end of Sep-20, registering a growth rate of 0.70% over the previous quarter. This reflects Year-On-Year (Y-O-Y) decline rate of 2.22% over the same quarter of the last year. The overall Tele-density in India also increased from 85.85% as in QE Jun-20 to 86.22% as in QE Sep-20.

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

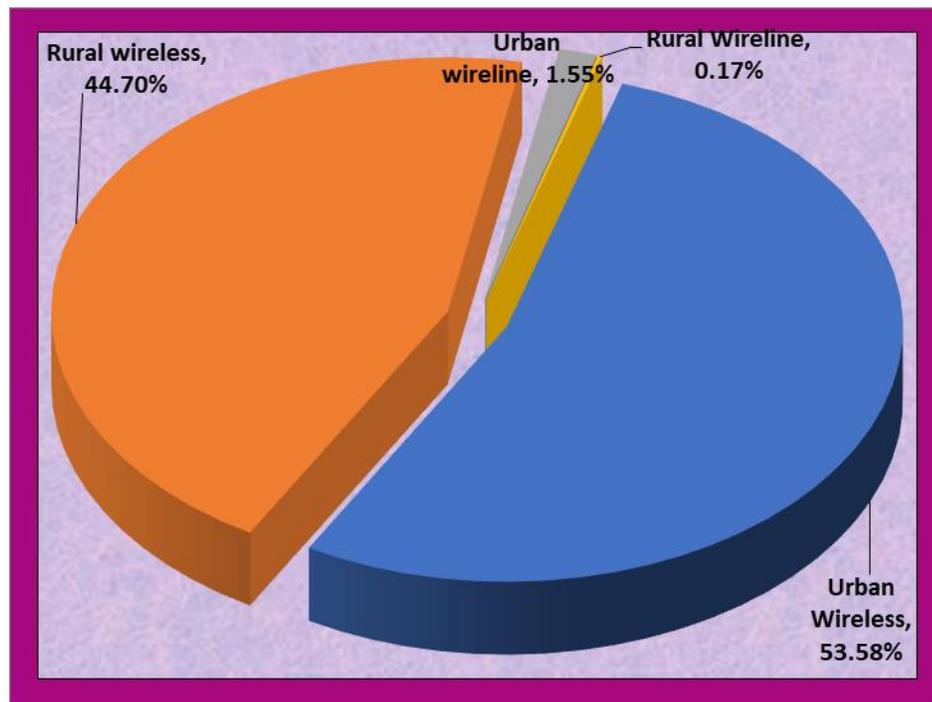


2. Telephone subscribers in Urban areas increased from 636.83 million at the end of Jun-20 to 644.26 million at the end of Sep-20 and Urban Tele-density also increased from 137.35% to 138.25% during the same period.
3. Rural telephone subscribers increased from 523.69 million at the end of Jun-20 to 524.39 million at the end of Sep-20 however,

Rural Tele-density remained same i.e. 58.96%, as it was during last quarter June, 2020.

4. Out of the total subscription, the share of Rural subscription decreased from 45.13% at the end of Jun-20 to 44.87% at the end of Sep-20.

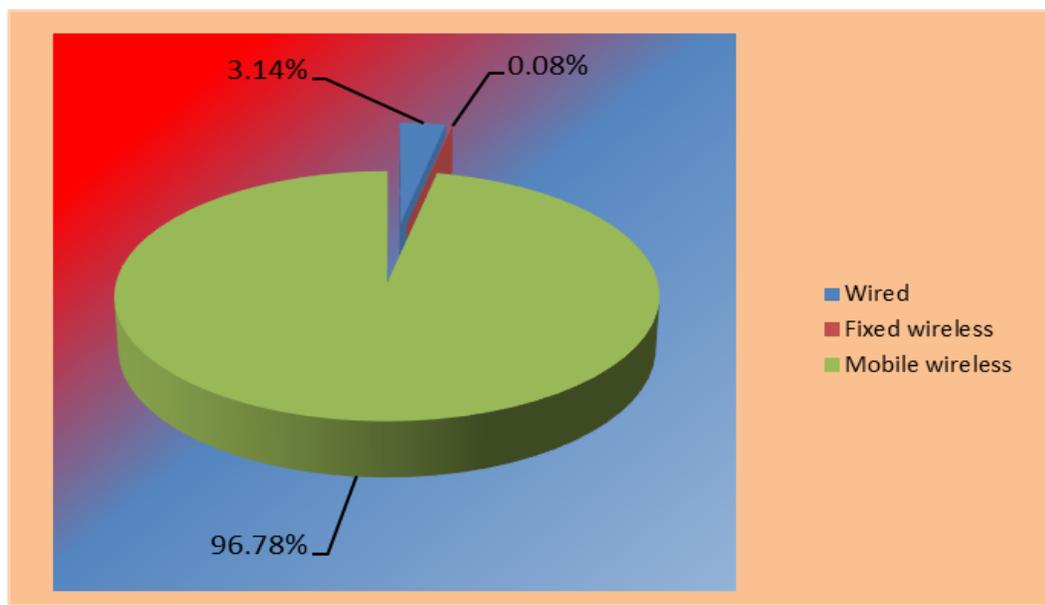
### **Composition of Telephone Subscribers**



5. With a net increase of 7.88 million subscribers during the quarter, the total wireless subscriber base increased from 1,140.71 million at the end of Jun-20 to 1,148.58 million at the end of Sep-20, registering a growth rate of 0.69% over the previous quarter. However, wireless subscriptions declined on Y-O-Y basis at the rate of 2.14% during the year.

6. Wireless Tele-density increased from 84.38% at the end of Jun-20 to 84.74% at the end of Sep-20 with quarterly growth rate of 0.43%.
7. Wireline subscribers increased from 19.81 million at the end of Jun-20 to 20.08 million at the end of Sep-20 with a quarterly growth rate of 1.34% however, on Y-O-Y basis, wireline subscriptions declined by 6.58% at the end of QE Sep-20.
8. Wireline Tele-density increased from 1.47% at the end of Jun-20 to 1.48% at the end of Sep-20.
9. Total number of Internet<sup>1</sup> subscribers increased from 749.07 million at the end of Jun-20 to 776.45 million at the end of Sep-20, registering a quarterly growth rate of 3.66%. Out of 776.45 million internet subscribers, number of Wired Internet subscribers are 24.36 million and number of Wireless Internet subscribers are 752.09 million.

**Composition of internet subscription**



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

10. The Internet subscriber base is comprised of Broadband<sup>2</sup> Internet subscriber base of 726.32 million and Narrowband<sup>3</sup> Internet subscriber base of 50.14 million.
11. The broadband Internet subscriber base increased by 4.02% from 698.23 million at the end of Jun-20 to 726.32 million at the end of Sep-20. However, the narrowband Internet subscriber base declined by 1.38% from 50.84 million at the end of Jun-20 to 50.14 million at the end of Sep-20.
12. Monthly Average Revenue per User (ARPU)<sup>4</sup> for wireless service increased by 7.49%, from ₹90.12 in QE Jun-20 to ₹96.87 in QE Sep-20. On Y-O-Y basis, monthly ARPU for wireless service increased by 30.24% in this quarter.
13. Prepaid ARPU per month increased from ₹84 for QE Jun-20 to ₹90 in QE Sep-20 and Postpaid ARPU per month also increased from ₹224 in QE Jun-20 to ₹234 in QE Sep-20.
14. On all India average, the overall Minutes of Usage (MOU)<sup>5</sup> per subscriber per month for wireless service increased by 2.37% from 744 in QE Jun-20 to 761 in QE Sep-20.
15. Prepaid MOU per subscriber per month increased from 748 in QE Jun-20 to 765 in QE Sep-20. Postpaid MOU per subscriber per month also increased from 648 in QE Jun-20 to 680 in QE Sep-20.

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

<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.

16. Gross Revenue<sup>6</sup> (GR) and Adjusted Gross Revenue<sup>7</sup> (AGR) of Telecom Service Sector for the Q.E. Sep-20 has been ₹68,228 Crore and ₹45,707 Crore respectively. GR and AGR increased by 2.05% and 3.58% respectively in Q.E. Sep-20 as compared to previous quarter.
17. The Y-O-Y growth in GR and AGR in Q.E. Sep-20 over the same quarter in last year has been 13.73% and 22.41% respectively.
18. Pass-through<sup>8</sup> charges decreased from ₹22,730 Crore in QE Jun-20 to ₹22,521 Crore in QE Sep-20 with quarterly decline rate of 0.92%. The Y-O-Y growth rate of -0.58% has been recorded in pass-through charges for QE Sep-20.
19. The License Fee<sup>9</sup> increased from ₹3,526 Crore for the QE Jun-20 to ₹3,656 Crore for the QE Sep-20. The quarterly and the Y-O-Y growth rates of license fee are 3.70% and 22.34% respectively in this quarter.

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<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.

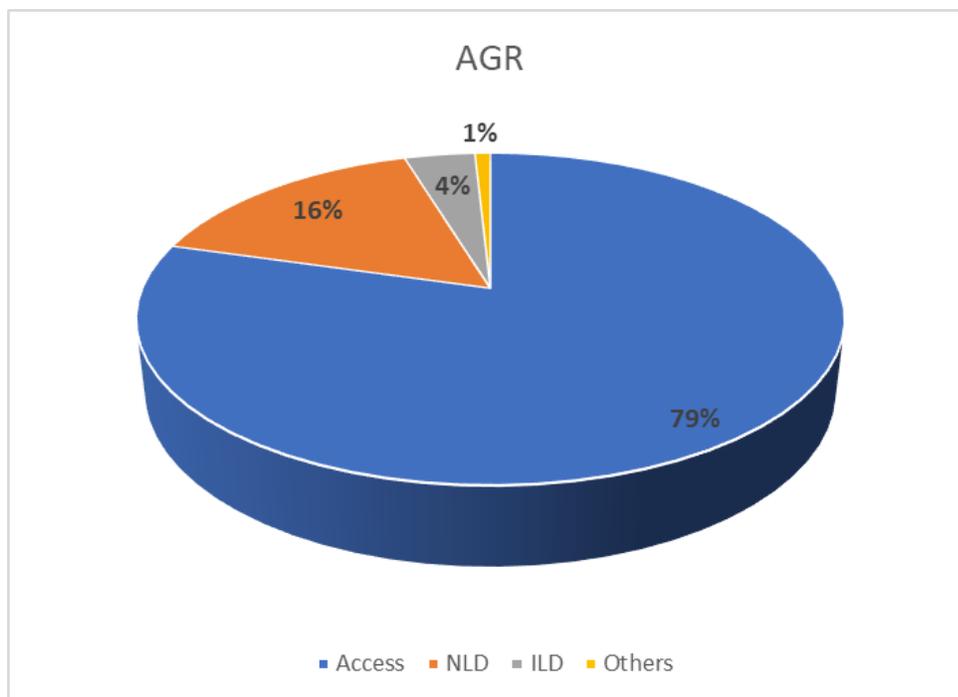
<sup>7</sup> Adjusted Gross Revenue: The following shall be excluded from the Gross Revenue to arrive at the AGR:

- 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 79% 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>10</sup> increased by 3.30%, 5.80%, 5.81% and 5.98% respectively in QE Sep-20. However, Pass Through Charges decreased quarterly by 2.35% during the same period.
21. Monthly Average Revenue per User (ARPU) for Access Services based on AGR, increased from ₹98.01 in QE Jun-20 to ₹103.87 in QE Sep-20.

<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)

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: -

<b>Parameters showing improvement in QoS</b>	<b>Parameters showing deterioration in QoS</b>
<ul style="list-style-type: none"> <li>❖ % Fault repaired by next working day (for urban areas)</li> <li>❖ “Mean time to Repair” (MTTR)</li> <li>❖ Metering and billing credibility - post-paid,</li> <li>❖ %age of calls answered by the operators (voice to voice) within 90 seconds</li> <li>❖ Time taken for refund of deposits after closures</li> </ul>	<ul style="list-style-type: none"> <li>❖ Accessibility of call centre/ customer care</li> <li>❖ %age of request for Termination/closure of service complied within 7 days</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: -

<b>Parameters showing improvement in QoS</b>	<b>Parameters showing deterioration in QoS</b>
<ul style="list-style-type: none"> <li>• Network QoS DCR Temporal Distribution Measure [Network_ QTD (97,90)]</li> <li>• Resolution of billing/charging/validity complaints 98% within 4 weeks</li> <li>• Accessibility of call centre/ customer care</li> <li>• %age of calls answered by the operators (voice to voice) within 90 sec</li> <li>• Time taken for refund of deposits after closures</li> </ul>	<ul style="list-style-type: none"> <li>• Resolution of billing/charging/ validity complaints 100% within 6 weeks</li> <li>• Period of applying credit/ waiver/ adjustment to customer’s account from the date of resolution of complaints</li> <li>• %age requests for Termination / Closure of service complied within 7 days</li> </ul>

24. A total number of 911 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 30<sup>th</sup> Sep, 2020.
25. As per the reporting done by broadcasters in pursuance of the Tariff Order (Broadcasting & Cable), dated 3<sup>rd</sup> March 2017, as amended, there are 327 pay channels as on 30<sup>th</sup> September 2020, which include 231 SD (standard definition) pay TV channels and 96 HD (high definition) Pay TV channels.
26. Since its introduction in the year 2003, DTH (direct-to-home) service has displayed a phenomenal growth. During QE 30<sup>th</sup> September 2020, there were 4 pay DTH service providers in the country.
27. Pay DTH has attained total active subscriber base of around 70.70 million in QE 30<sup>th</sup> September 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 30<sup>th</sup> September 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.
29. The reported advertisement revenue during the quarter ending 30<sup>th</sup> September 2020 in respect of 366 private FM Radio stations is ₹198.53 crore as against ₹98.41 crore in respect of 366 private FM Radio stations for the previous quarter.
30. As per data received from MIB, as on 30<sup>th</sup> September 2020, 310 Community Radio Stations are operational in the country.

## Trends at a Glance

<b>A. Access Service (Wireline + Wireless)</b>									
	QE Sep 2019	QE Dec 2019	QE Mar 2020	QE Jun 2020	QE Sep 2020	%age change over Sept-2019	%age change over Dec-2019	%age change over Mar-2020	%age change over Jun-2020
						(12 months)	(9 months)	(6 months)	(3 months)
<b>1) Subscriber Base (in million)</b>									
Wireline	21.49	21.00	20.22	19.81	20.08	-6.58%	-4.42%	-0.70%	1.34%
Wireless	1173.75	1151.44	1157.75	1140.71	1148.58	-2.14%	-0.25%	-0.79%	0.69%
<b>Total</b>	<b>1195.24</b>	<b>1172.44</b>	<b>1177.97</b>	<b>1160.52</b>	<b>1168.66</b>	<b>-2.22%</b>	<b>-0.32%</b>	<b>-0.79%</b>	<b>0.70%</b>
Rural	517.29	509.99	521.51	523.69	524.39	1.37%	2.82%	0.55%	0.14%
Urban	677.95	662.45	656.46	636.83	644.26	-4.97%	-2.74%	-1.86%	1.17%
<b>2) Tele-density</b>									
Wireline	1.63	1.59	1.50	1.47	1.48	-9.00%	-6.84%	-1.22%	1.08%
Wireless	88.90	86.98	85.87	84.38	84.74	-4.68%	-2.58%	-1.32%	0.43%
<b>Total</b>	<b>90.52</b>	<b>88.57</b>	<b>87.37</b>	<b>85.85</b>	<b>86.22</b>	<b>-4.75%</b>	<b>-2.65%</b>	<b>-1.31%</b>	<b>0.44%</b>
Rural	57.59	56.67	58.79	58.96	58.96	2.38%	4.04%	0.28%	0.00%
Urban	160.63	156.26	142.31	137.35	138.25	-13.93%	-11.52%	-2.85%	0.66%
<b>3) Service Provider wise Subscribers Base (in Million) (wireless+wireline)</b>									
Bharti Airtel	329.88	331.61	332.21	320.94	331.03	0.35%	-0.18%	-0.35%	3.14%
Vodafone Idea	372.86	333.01	319.62	305.56	296.00	-20.61%	-11.11%	-7.39%	-3.13%
Reliance Jio	356.08	371.07	388.61	398.70	406.21	14.08%	9.47%	4.53%	1.88%
BSNL	127.19	127.70	128.60	126.48	126.73	-0.36%	-0.76%	-1.45%	0.20%
MTNL	6.57	6.50	6.45	6.44	6.37	-3.12%	-2.02%	-1.33%	-1.12%
Tata Tele.	1.82	1.79	1.77	1.73	1.71	-5.99%	-4.47%	-3.49%	-0.99%
Reliance Com.	0.63	0.57	0.52	0.48	0.43	-31.68%	-24.78%	-17.85%	-10.20%
Quadrant	0.21	0.20	0.18	0.18	0.19	-11.24%	-6.20%	1.84%	4.84%
<b>Total</b>	<b>1195.24</b>	<b>1172.44</b>	<b>1177.97</b>	<b>1160.52</b>	<b>1168.66</b>	<b>-2.22%</b>	<b>-0.32%</b>	<b>-0.79%</b>	<b>0.70%</b>

<b>B. Internet Services</b>									
	QE Sep 2019	QE Dec 2019	QE Mar 2020	QE Jun 2020	QE Sep 2020	%age change over Sept-2019 (12 months)	%age change over Dec-2019 (9 months)	%age change over Mar-2020 (6 months)	%age change over Jun-2020 (3 months)
<b>1) Subscriber's Base (in million)</b>									
<b>A. Wired Internet Subscribers</b>	22.26	22.39	22.42	23.06	24.36	9.45%	8.82%	8.67%	5.64%
<b>B. Wireless Internet Subscribers</b>	665.37	696.36	720.78	726.01	752.09	13.03%	8.00%	4.35%	3.59%
i. Mobile Wireless (Mobile & Dongle)	664.79	695.74	720.17	725.38	751.45	13.04%	8.01%	4.34%	3.59%
ii. Fixed Wireless (Wi-Fi, Wi-Max, Point-to-Point Radio & VSAT)	0.58	0.62	0.61	0.63	0.64	10.35%	3.87%	4.82%	1.09%
<b>Total Internet Subscribers</b>	<b>687.62</b>	<b>718.74</b>	<b>743.19</b>	<b>749.07</b>	<b>776.45</b>	<b>12.92%</b>	<b>8.03%</b>	<b>4.48%</b>	<b>3.66%</b>
<b>2) No. of Internet Subs per 100 Population</b>	52.08	54.29	55.12	55.41	57.29	10.00%	5.51%	3.93%	3.38%
<b>C. Usage and Revenue for Wireless Services</b>									
Traffic (MOU) (minutes of uses/subscriber/month)	691	712	750	744	761	10.27%	6.94%	1.53%	2.37%
ARPU (Rs./sub/month)	74	79	91	90	97	30.24%	22.62%	5.88%	7.50%
<b>D. Telecom Financial Data</b>									
	QE Sep 2019	QE Dec 2019	QE Mar 2020	QE Jun 2020	QE Sep 2020	%age change over Sep-2019 (12 months)	%age change over Dec-2019 (9 months)	%age change over Mar-2020 (6 months)	%age change over Jun-2020 (3 months)
<b>1. Telecom Sector</b>									
i) Gross Revenue (₹ in Crores)	59992	63764	67534	66858	68228	13.73%	7.00%	1.03%	2.05%
ii) Adjusted Gross Revenue (₹ in Crores)	37338	40877	44940	44128	45707	22.41%	11.81%	1.71%	3.58%
<b>2. Access Services</b>									
Adjusted Gross Revenue (₹ in Crores)	27921	30323	34496	34328	36318	30.07%	19.77%	5.28%	5.80%
ARPU per month (AGR/ Average subscribers/3)	78.17	85.07	97.64	98.01	103.87	32.89%	22.10%	6.38%	5.98%

## **Introduction**

This Report presents the Key Parameters and growth trends for the Telecom Services in India for the quarter ending 30<sup>th</sup> September, 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 :**

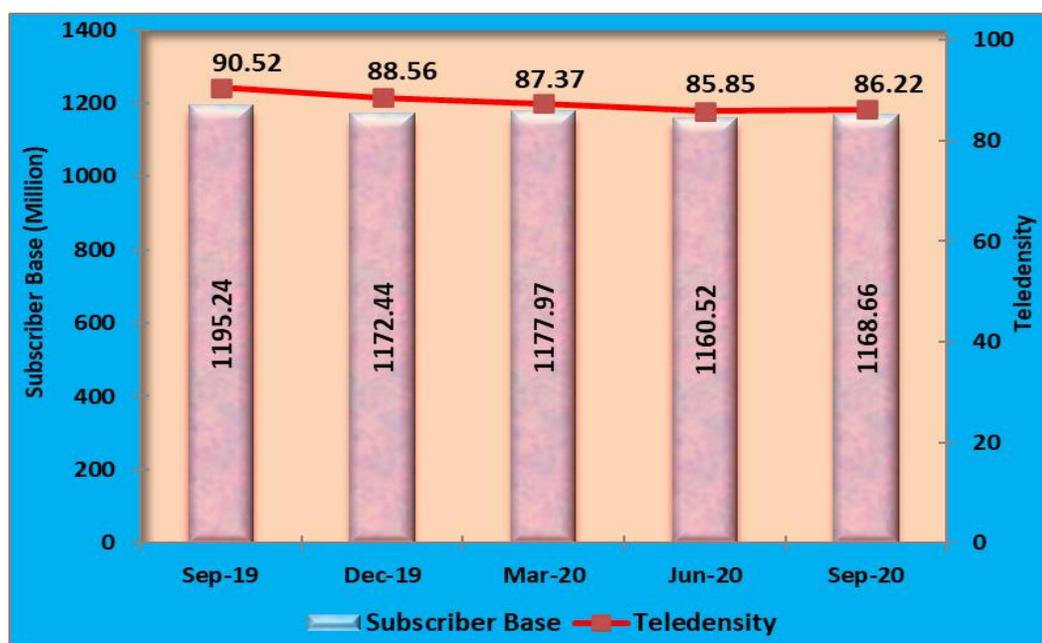
# **Subscription Data**

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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 1,160.52 million at the end of Jun-20 to 1,168.66 million at the end of Sep-20, registering a growth rate of 0.70% over the previous quarter. This reflects year-on-year (Y-O-Y) decline rate of 2.22% over the same quarter of last year. The overall Tele-density in India also increased from 85.85% as on 30<sup>th</sup> June, 2020 to 86.22% as on 30<sup>th</sup> September, 2020 with quarterly growth rate of 0.44%.

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

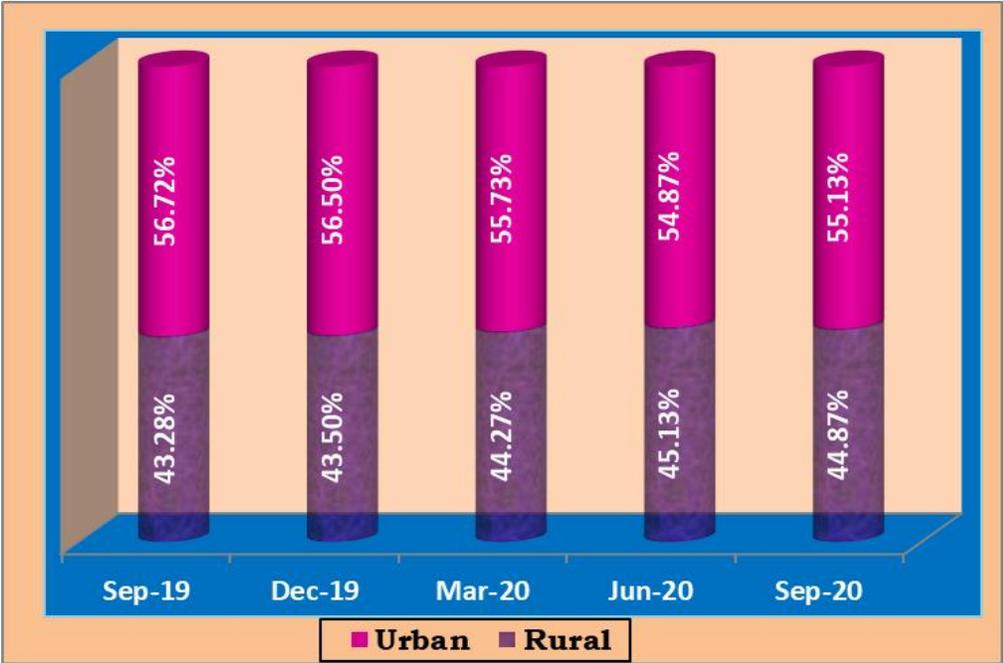


**Table 1.1: Subscriber Base & Tele-density - Rural & Urban**

Quarter ending	Subscriber Base (million)		Tele-density (%)	
	Rural	Urban	Rural	Urban
Sep-19	517.29	677.95	57.59	160.63
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	524.30	644.26	58.96	138.25

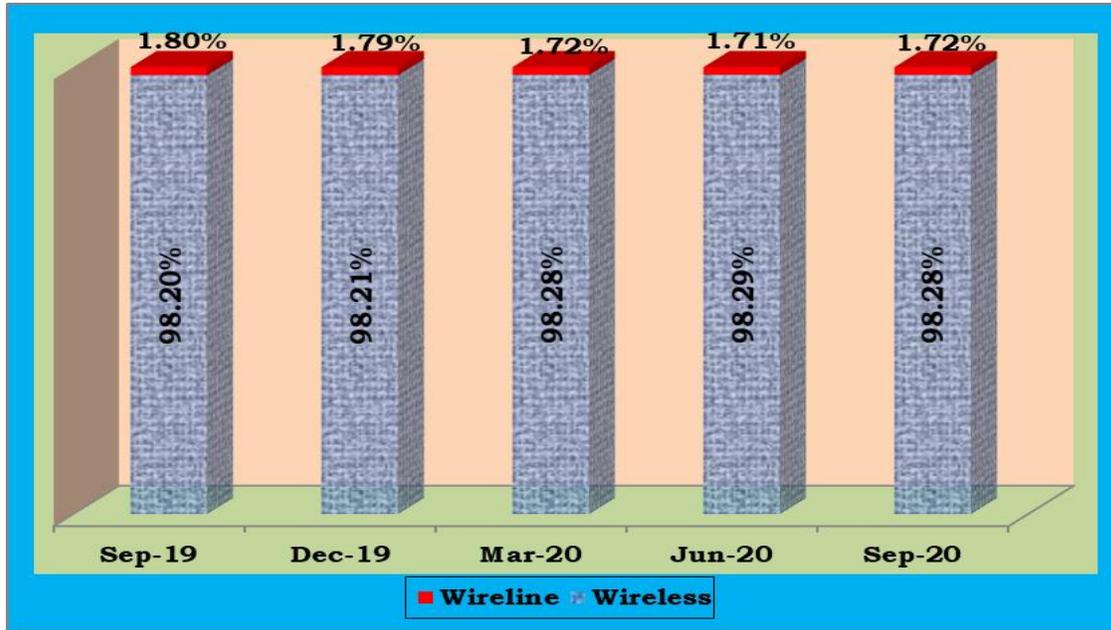
- 1.2 Telephone subscription in Urban areas increased from 636.83 million at the end of Jun-20 to 644.26 million at the end of Sep-20 and Urban Tele-density also increased from 137.35% to 138.25% at the end of the quarter.
- 1.3 Rural telephone subscription increased from 523.69 million at the end of Jun-20 to 524.30 million at the end of Sep-20 however, Rural Tele-density remained same i.e. 58.96%, as it was during last quarter.
- 1.4 The Y-O-Y growth rates of Urban and Rural telephone subscriptions from Sep-19 to Sep-20 are -4.97% and 1.37% respectively. The Y-O-Y growth rates of Urban and Rural Tele-density from Sep-19 to Sep-20 are -13.93% and 2.38% respectively.

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



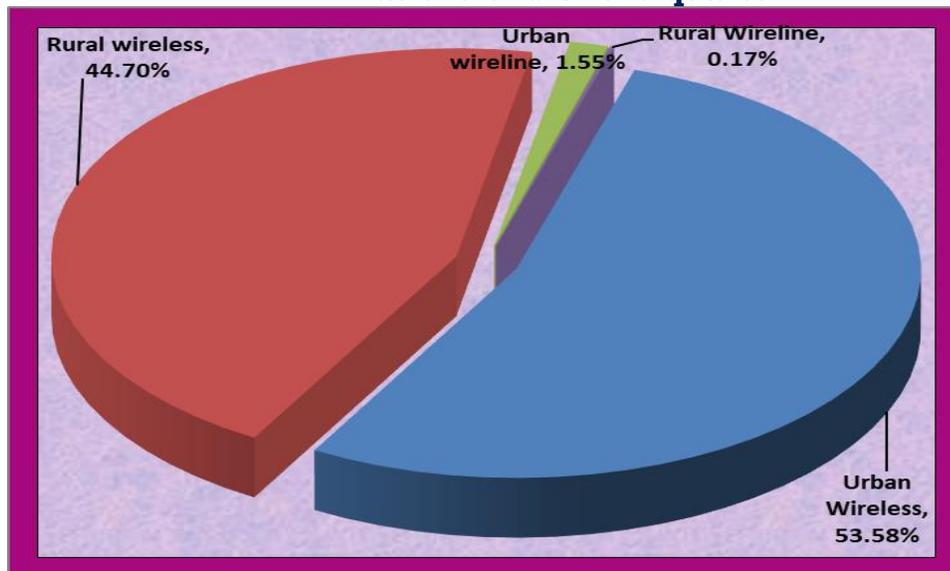
1.5 Share of subscriptions of rural areas in the total telephone subscriptions decreased from 45.13% at the end of Jun-20 to 44.87% at the end of Jun-20.

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



1.6 Share of wireline subscription in total telephone subscription increased from 1.71% at the end of Jun-20 to 1.72% at the end of Sep-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)			
	Jun-20	Sep-20	Net Additions	Rate of Growth
Andhra Pradesh	87.66	88.32	0.65	0.75%
Assam	23.60	23.76	0.16	0.66%
Bihar	83.85	84.47	0.63	0.75%
Delhi	55.22	55.76	0.54	0.97%
Gujarat	67.20	67.75	0.55	0.82%
Haryana	27.55	27.65	0.11	0.38%
Himachal Pradesh	10.83	11.00	0.17	1.57%
Jammu & Kashmir	11.93	11.88	-0.05	-0.39%
Karnataka	68.81	69.24	0.44	0.64%
Kerala	45.09	45.46	0.38	0.84%
Madhya Pradesh	75.19	76.44	1.26	1.67%
Maharashtra	92.59	93.07	0.48	0.52%
Mumbai	39.53	39.27	-0.26	-0.65%
North East	11.97	12.09	0.11	0.96%
Orissa	33.18	33.51	0.33	1.01%
Punjab	39.20	39.51	0.31	0.79%
Rajasthan	64.84	65.64	0.79	1.22%
T.N. (incl. Chennai)	80.59	81.51	0.92	1.14%
U.P.(E)	98.27	98.14	-0.13	-0.13%
U.P.(W)	62.40	62.29	-0.11	-0.18%
Kolkata	26.01	26.79	0.78	3.00%
West Bengal	55.01	55.09	0.08	0.15%
<b>All India</b>	<b>1,160.52</b>	<b>1,168.66</b>	<b>8.14</b>	<b>0.70%</b>

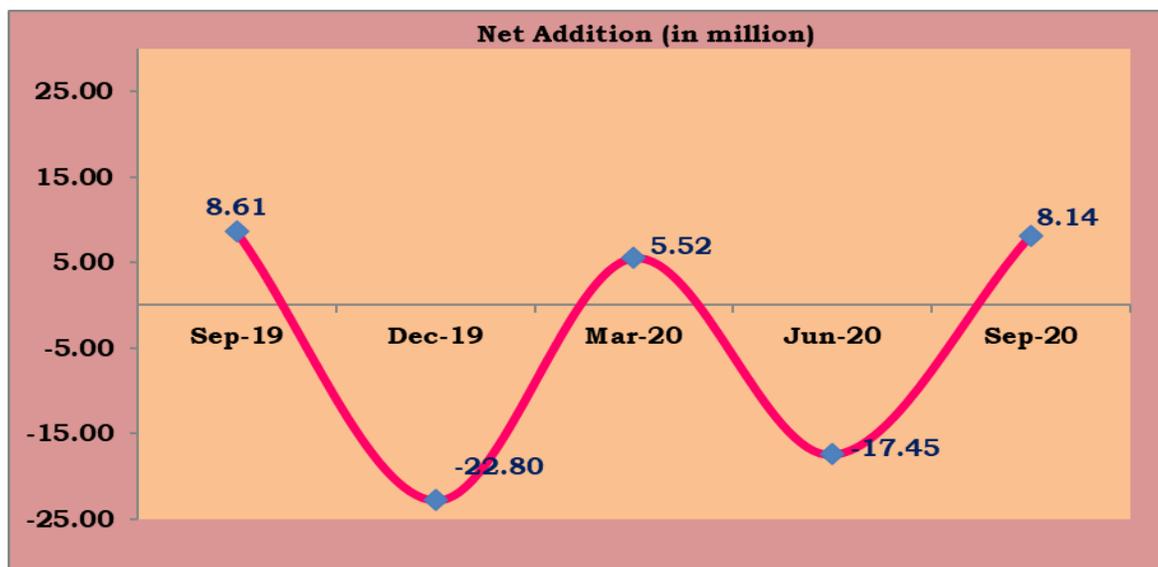
1.7 All service areas showed growth in their subscriber base except Jammu & Kashmir, Mumbai, UP(E) and UP(W) during the quarter ending Sep-20. Kolkata service area showed maximum growth of 3% and Mumbai service area showed maximum decline rate of 0.65% during the quarter.

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

Service Area	Number of Subscribers (in million)			
	Total	Rural	Urban	% of Rural Subscribers
Andhra Pradesh	88.32	43.57	44.75	49.33
Assam	23.76	14.99	8.77	63.09
Bihar	84.47	56.03	28.44	66.33
Delhi	55.76	2.34	53.42	4.19
Gujarat	67.75	27.09	40.66	39.99
Haryana	27.65	12.16	15.49	43.98
Himachal Pradesh	11.00	7.44	3.56	67.66
Jammu & Kashmir	11.88	5.63	6.26	47.36
Karnataka	69.24	26.92	42.32	38.88
Kerala	45.46	21.20	24.27	46.62
Madhya Pradesh	76.44	34.80	41.64	45.53
Maharashtra	93.07	42.83	50.24	46.02
Mumbai	39.27	1.66	37.61	4.23
North East	12.09	6.41	5.68	53.01
Orissa	33.51	22.21	11.30	66.27
Punjab	39.51	13.39	26.12	33.90
Rajasthan	65.64	35.63	30.01	54.28
T.N. (incl. Chennai)	81.51	23.80	57.71	29.20
U.P.(E)	98.14	60.80	37.34	61.95
U.P.(W)	62.29	29.35	32.94	47.12
Kolkata	26.79	1.88	24.91	7.01
West Bengal	55.09	34.26	20.83	62.19
<b>All India</b>	<b>1,168.66</b>	<b>524.39</b>	<b>644.26</b>	<b>44.87</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 (67.66%) 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 8.14 million during QE Sep-20 as compared to the net decline of 17.45 million subscribers during QE Jun-20.

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

Service Area/ States	As on 30 <sup>th</sup> June, 2020			As on 30 <sup>th</sup> September, 2020		
	Rural Tele-density (%)	Urban Tele-density (%)	Total Tele-density (%)	Rural Tele-density (%)	Urban Tele-density (%)	Total Tele-density (%)
Andhra Pradesh	80.57	122.77	97.24	79.96	124.99	97.82
Assam	47.13	183.00	67.83	50.70	164.65	68.10
Bihar	41.22	114.20	52.40	41.21	115.44	52.60
Delhi	-	-	271.78	-	-	273.14
Gujarat	73.31	120.12	95.71	73.93	120.25	96.16
Haryana	72.04	126.95	94.29	69.93	129.92	94.33
Himachal Pradesh	111.27	461.06	147.10	112.47	470.54	149.18
J&K	59.77	152.74	87.52	58.82	153.11	86.99

Service Area/ States	As on 30 <sup>th</sup> June, 2020			As on 30 <sup>th</sup> September, 2020		
	Rural Tele-density (%)	Urban Tele-density (%)	Total Tele-density (%)	Rural Tele-density (%)	Urban Tele-density (%)	Total Tele-density (%)
Karnataka	71.10	146.16	103.47	71.20	146.86	103.93
Kerala	195.46	97.41	127.23	200.04	97.51	128.13
Madhya Pradesh	42.34	128.56	66.54	42.70	130.65	67.43
Maharashtra (incl. Mumbai)*	69.77	144.05	105.51	68.41	145.26	105.44
North East	57.76	118.69	77.93	62.32	110.92	78.48
Orissa	61.69	137.11	75.55	61.93	139.52	76.23
Punjab	75.77	189.83	124.94	74.99	192.31	125.66
Rajasthan	60.50	144.31	82.49	61.27	144.86	83.23
Tamil Nadu (incl. Chennai)	64.98	138.25	103.70	65.02	140.05	104.75
Uttar Pradesh (incl. UPE & UPW)*	49.72	120.73	66.88	49.35	120.49	66.56
West Bengal (incl. Kolkata)*	57.24	126.51	82.01	56.96	128.90	82.76
<b>All India</b>	<b>58.96</b>	<b>137.35</b>	<b>85.85</b>	<b>58.96</b>	<b>138.25</b>	<b>86.22</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 200.04 followed by Himachal Pradesh service area of 112.47. Bihar service area has the lowest Rural Tele-density of 41.21 followed by Madhya Pradesh service area with rural tele-density of 42.70 in QE Sep-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	46.12	25.72	20.39
2	Arunachal Pradesh	1.36	0.86	0.50
3	Assam	23.76	14.99	8.77
4	Bihar	62.34	43.86	18.48
5	Chhattisgarh	20.64	10.16	10.48
6	Goa	2.71	0.91	1.80
7	Gujarat	67.00	26.85	40.15
8	Haryana	33.44	12.22	21.23
9	Himachal Pradesh	11.00	7.44	3.56
10	Jharkhand	22.13	12.17	9.96
11	Karnataka	69.24	26.92	42.32
12	Kerala	45.38	21.16	24.22
13	Madhya Pradesh	55.81	24.65	31.16
14	Maharashtra Incl. Mumbai	129.64	43.59	86.05
15	Manipur	2.30	1.05	1.25
16	Meghalaya	2.30	1.37	0.93
17	Mizoram	1.37	0.64	0.73
18	Nagaland	1.62	0.94	0.68
19	Odisha	33.51	22.21	11.30
20	Punjab	37.70	13.35	24.35
21	Rajasthan	65.64	35.63	30.01
22	Sikkim	0.66	0.37	0.29
23	Tamil Nadu (incl. Chennai)	80.35	23.47	56.88
24	Telangana	42.20	17.84	24.36
25	Tripura	3.13	1.54	1.59
26	Uttar Pradesh (UPE + UPW)	155.23	83.63	71.59
27	Uttarakhand	13.00	6.53	6.47
28	West Bengal Incl. Kolkata	80.84	35.59	45.24
<b>Union Territories</b>				
1	Andaman & Nicobar Islands	0.39	0.18	0.21
2	Chandigarh	1.80	0.04	1.76
3	Dadra and Nagar Haveli and Daman and Diu	0.75	0.24	0.51
4	Delhi	42.18	2.27	39.91
5	Jammu & Kashmir	11.88	5.63	6.26
6	Ladakh			
7	Lakshdweep	0.08	0.04	0.047
8	Puduchery	1.16	0.33	0.83
<b>Total</b>		<b>1168.66</b>	<b>524.39</b>	<b>644.26</b>

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

Sl.No.	State/UT	Total Tele-density (%)		
		Total	Rural	Urban
1	Andhra Pradesh	87.56	127.31	242.60
2	Arunachal Pradesh	89.36	75.42	130.97
3	Assam	68.10	50.70	164.65
4	Bihar	50.96	40.78	124.99
5	Chhattisgarh	70.36	47.02	135.62
6	Goa	174.28	217.33	158.51
7	Gujarat	96.54	73.74	121.71
8	Haryana	114.08	70.24	178.01
9	Himachal Pradesh	149.18	112.47	470.54
10	Jharkhand	57.87	42.86	101.12
11	Karnataka	103.93	71.20	146.86
12	Kerala	128.14	199.73	97.58
13	Madhya Pradesh	66.40	41.15	129.07
14	Maharashtra Incl. Mumbai	104.58	67.45	145.00
15	Manipur	72.93	48.69	124.97
16	Meghalaya	70.37	52.78	138.42
17	Mizoram	113.18	115.88	110.92
18	Nagaland	74.06	74.78	73.08
19	Odisha	76.23	61.93	139.52
20	Punjab	124.67	74.77	196.62
21	Rajasthan	83.23	61.27	144.86
22	Sikkim	98.37	98.23	98.56
23	Tamil Nadu (incl. Chennai)	105.37	64.95	141.79
24	Telangana	112.18	88.06	140.34
25	Tripura	77.27	59.96	107.35
26	Uttar Pradesh (UPE +UPW)	67.59	47.71	131.64
27	Uttarakhand	114.62	88.26	164.07
28	West Bengal Incl. Kolkata	82.59	56.63	129.19
<b>Union Territories</b>				
1	Andaman & Nicobar Islands	96.59	78.18	121.26
2	Chandigarh	149.71	-	-
3	Dadra and Nagar Haveli and Daman and Diu	71.05	103.83	61.86
4	Delhi	206.64	-	-
5	Jammu & Kashmir	88.92	60.10	156.43
6	Ladakh			
7	Lakshdweep	124.89	-	-
8	Puduchery	74.36	70.40	76.06
<b>Total</b>		<b>86.22</b>	<b>58.96</b>	<b>138.25</b>

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

Service Provider	Subscriber base (millions)			Rate of Growth (%)	Market Share in QE Jun-20 (%)	Market Share in QE Sep-20 (%)
	Jun-20	Sep-20	Net Additions			
Bharti Airtel	320.94	331.03	10.08	3.14	27.66	28.33
Reliance Jio	398.70	406.21	7.50	1.88	34.36	34.76
Quadrant	0.18	0.19	0.009	4.84	0.02	0.02
BSNL	126.48	126.73	0.25	0.20	10.90	10.84
Tata Teleservices	1.73	1.71	-0.02	-0.99	0.15	0.15
MTNL	6.44	6.37	-0.07	-1.12	0.55	0.54
Vodafone Idea Ltd	305.56	296.00	-9.56	-3.13	26.33	25.33
Reliance Com.	0.48	0.43	-0.05	-10.20	0.04	0.04
<b>Total</b>	<b>1,160.52</b>	<b>1,168.66</b>	<b>8.14</b>	<b>0.70</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 34.76% in the access segment in terms of number of subscribers with 406.21 million subscribers at the end of Sep-20 followed by M/s Bharti Airtel Ltd with 331.03 million subscribers.

1.12 In term of net addition, Bharti Airtel Ltd. became the biggest gainer with net addition of 10.08 million telephone subscribers during the QE Sep-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	296.00	160.37	54.18	30.58
Bharti Airtel	331.03	153.84	46.47	29.34
Reliance Jio	406.21	170.08	41.87	32.43
BSNL	126.73	39.98	31.54	7.62
Quadrant	0.19	0.03	17.33	0.01
Tata Teleservices	1.71	0.04	2.51	0.01
MTNL	6.37	0.05	0.71	0.01
Reliance Com.	0.43	0.001	0.15	0.0001
<b>Total</b>	<b>1,168.66</b>	<b>524.39</b>	<b>44.87</b>	<b>100</b>

1.13 M/s Vodafone Idea Ltd is the telecom service provider with highest proportion of rural telephone subscribers of 54.18% followed by Bharti Airtel of 46.47% to their total telephone subscribers at the end of Sep-20.

## Section B : Wireless Service

**Table 1.9: List of Wireless Access Service Providers currently providing service [As on 30<sup>th</sup> September, 2020]**

Sl.No.	Service Provider	Licensed Service Areas
1	Reliance Jio Infocom Ltd	All India
2	Bharti Airtel 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 30<sup>th</sup> September, 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 1,140.71 million at the end of Jun-20 to 1,148.58 million at the end of Sep-20, thereby showing a quarterly growth rate of 0.69%. During the quarter, net addition of 7.88 million wireless subscribers has been recorded.

1.15 The total wireless subscriber base recorded a Y-O-Y decline rate of 2.14% in QE Sep-20 over the same quarter in the previous year.

1.16 Wireless Teledensity in the country increased from 84.38% at the end of Jun-20 to 84.74% at the end of Sep-20.

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



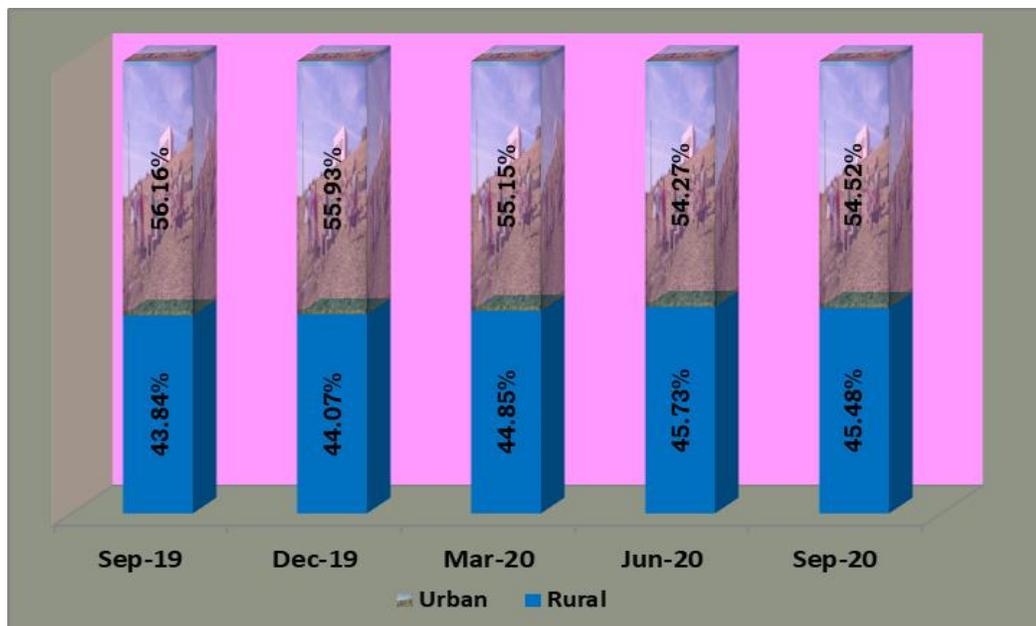
**Table 1.10: Wireless Subscriber Base & Tele-density - Rural & Urban**

Quarter ending	Subscriber Base (million)		Tele-density (%)	
	Rural	Urban	Rural	Urban
Sep-19	514.56	659.18	57.28	156.18
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

1.17 Number of Rural Wireless subscribers increased from 521.60 million at the end of Jun-20 to 522.42 million at the end of Sep-20 and number of urban wireless subscribers also increased from 619.11 million to 626.16 million during the quarter. Quarterly growth rates of Rural and Urban wireless subscriptions are 0.16% and 1.14% respectively during QE Sep-20.

1.18 The share of rural wireless subscription decreased from 45.73% to 45.48% 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 Jun-20 (%)	Market Share Sep-20 (%)
	Sep-20	Jun-20	Net Additions			
Reliance Jio	404.13	397.25	6.88	1.73	34.82	35.19
Bharti Airtel	326.61	316.67	9.94	3.14	27.76	28.44
Vodafone Idea Ltd	295.50	305.10	-9.61	-3.15	26.75	25.73
BSNL	118.99	118.31	0.68	0.58	10.37	10.36
MTNL	3.34	3.35	-0.02	-0.52	0.29	0.29
Reliance Com.	0.02	0.02	0.00	-6.06	0.002	0.001
<b>Total</b>	<b>1148.58</b>	<b>1140.71</b>	<b>7.88</b>	<b>0.69</b>	<b>100</b>	<b>100</b>

1.19 M/s RJIL Limited is the market leader with a wireless subscriber base of 404.13 million which translates into market share of 35.19% 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 326.61 million and market share of 28.44%. M/s Bharti Airtel Ltd. has reported the net additions of 9.94 Million.

- 1.20 In terms of net additions during QE Sep-20, except M/s Bharti Airtel Limited, M/s RJIL Limited and BSNL 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)			
	Sep-20	Jun-20	Net Additions	Rate of change (%)
Andhra Pradesh	86.97	86.35	0.61	0.71
Assam	23.64	23.49	0.15	0.65
Bihar	84.28	83.67	0.61	0.73
Delhi	52.49	52.03	0.46	0.88
Gujarat	66.79	66.24	0.55	0.83
Haryana	27.36	27.26	0.10	0.38
Himachal Pradesh	10.91	10.74	0.17	1.60
Jammu & Kashmir	11.73	11.79	-0.06	-0.51
Karnataka	67.06	66.68	0.38	0.57
Kerala	44.05	43.59	0.46	1.06
Madhya Pradesh	75.78	74.56	1.22	1.64
Maharashtra	91.75	91.28	0.47	0.51
Mumbai	36.20	36.47	-0.26	-0.73
North East	11.99	11.88	0.12	0.99
Orissa	33.31	32.97	0.33	1.01
Punjab	38.83	38.52	0.30	0.78
Rajasthan	65.16	64.37	0.79	1.22
T.N. (incl. Chennai)	79.55	78.63	0.92	1.17
U.P.(E)	97.77	97.94	-0.16	-0.17
U.P.(W)	61.96	62.08	-0.12	-0.19
Kolkata	26.11	25.36	0.75	2.97
West Bengal	54.88	54.81	0.08	0.14
<b>All India</b>	<b>1,148.58</b>	<b>1,140.71</b>	<b>7.88</b>	<b>0.69</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	86.97	43.44	43.53	49.95
Assam	23.64	14.97	8.67	63.33
Bihar	84.28	56.01	28.27	66.45
Delhi	52.49	2.34	50.16	4.45
Gujarat	66.79	27.02	39.77	40.46
Haryana	27.36	12.12	15.24	44.31
Himachal Pradesh	10.91	7.39	3.51	67.78
Jammu & Kashmir	11.73	5.62	6.11	47.90
Karnataka	67.06	26.83	40.23	40.01
Kerala	44.05	20.41	23.65	46.32
Madhya Pradesh	75.78	34.78	41.00	45.90
Maharashtra	91.75	42.66	49.09	46.49
Mumbai	36.20	1.66	34.54	4.59
North East	11.99	6.40	5.60	53.32
Orissa	33.31	22.17	11.13	66.57
Punjab	38.83	13.28	25.55	34.20
Rajasthan	65.16	35.59	29.57	54.62
T.N. (incl. Chennai)	79.55	23.57	55.98	29.62
U.P.(E)	97.77	60.77	37.01	62.15
U.P.(W)	61.96	29.33	32.63	47.34
Kolkata	26.11	1.88	24.23	7.19
West Bengal	54.88	34.20	20.69	62.31
<b>All India</b>	<b>1,148.58</b>	<b>522.42</b>	<b>626.16</b>	<b>45.48</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> June, 2020			As on 30 <sup>th</sup> September, 2020		
	Rural Tele-density (%)	Urban Tele-density (%)	Total Tele-density (%)	Rural Tele-density (%)	Urban Tele-density (%)	Total Tele-density (%)
A.P.	80.32	119.47	95.78	79.73	121.57	96.32
Assam	47.07	181.18	67.51	50.65	162.74	67.76
Bihar	41.21	113.55	52.29	41.20	114.75	52.48
Delhi	-	-	256.09	-	-	257.15
Gujarat	73.09	117.50	94.34	73.73	117.62	94.79
Haryana	71.79	124.88	93.30	69.71	127.79	93.33
H.P.	110.49	455.43	145.83	111.72	464.85	147.93
J&K	59.65	149.55	86.49	58.71	149.57	85.86
Karnataka	70.87	139.04	100.28	70.96	139.61	100.65
Kerala	187.51	94.81	123.01	192.59	95.03	124.16
M.P.	42.31	126.67	65.99	42.68	128.65	66.85
Maharashtra (incl. Mumbai)*	69.50	137.08	102.02	68.14	138.29	101.94
North East	57.63	117.05	77.30	62.21	109.33	77.87
Orissa	61.58	135.06	75.09	61.84	137.45	75.77
Punjab	75.08	185.73	122.78	74.35	188.11	123.49
Rajasthan	60.44	142.20	81.89	61.21	142.72	82.63
Tamil Nadu (incl. Chennai)	64.31	134.07	101.17	64.37	135.87	102.23
Uttar Pradesh (incl. UPE&UPW)*	49.69	119.69	66.60	49.32	119.39	66.27
West Bengal (incl. Kolkata)*	57.13	124.29	81.15	56.85	126.58	81.86
<b>All India</b>	<b>58.72</b>	<b>133.53</b>	<b>84.38</b>	<b>58.74</b>	<b>134.37</b>	<b>84.74</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	45.38	25.62	19.76
2	Arunachal Pradesh	1.34	0.86	0.49
3	Assam	23.64	14.97	8.67
4	Bihar	62.25	43.84	18.40
5	Chhattisgarh	20.50	10.15	10.35
6	Goa	2.63	0.88	1.75
7	Gujarat	66.04	26.78	39.26
8	Haryana	33.13	12.18	20.95
9	Himachal Pradesh	10.91	7.39	3.51
10	Jharkhand	22.04	12.16	9.87
11	Karnataka	67.06	26.83	40.23
12	Kerala	43.97	20.37	23.60
13	Madhya Pradesh	55.28	24.63	30.65
14	Maharashtra	125.33	43.44	81.89
15	Manipur	2.28	1.04	1.24
16	Meghalaya	2.29	1.37	0.91
17	Mizoram	1.36	0.64	0.72
18	Nagaland	1.61	0.94	0.67
19	Odisha	33.31	22.17	11.13
20	Punjab	37.18	13.24	23.94
21	Rajasthan	65.16	35.59	29.57
22	Sikkim	0.66	0.37	0.29
23	Tamil Nadu	78.43	23.24	55.19
24	Telangana	41.58	17.82	23.76
25	Tripura	3.11	1.54	1.57
26	Uttar Pradesh	154.60	83.58	71.01
27	Uttarakhand	12.92	6.52	6.39
28	West Bengal	79.97	35.53	44.44
<b>Union Territories</b>				
1	Andaman & Nicobar Islands	0.37	0.17	0.20
2	Chandigarh	1.63	0.04	1.59
3	Dadra and Nagar Haveli and Daman and Diu	0.74	0.24	0.51
4	Delhi	38.95	2.27	36.68
5	Jammu & Kashmir	11.25	5.43	5.82
6	Ladakh	0.48	0.19	0.29
7	Lakshdweep	0.08	0.04	0.04
8	Puduchery	1.11	0.32	0.79
<b>Total</b>		<b>1148.58</b>	<b>522.42</b>	<b>626.16</b>

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

Sl.No.	State/UT	Wireless Tele-density (%)		
		Total	Rural	Urban
1	Andhra Pradesh	86.17	74.87	107.14
2	Arunachal Pradesh	87.98	75.02	126.69
3	Assam	67.76	50.65	162.74
4	Bihar	50.88	40.76	124.45
5	Chhattisgarh	69.90	46.98	133.96
6	Goa	169.02	211.50	153.46
7	Gujarat	95.16	73.55	119.02
8	Haryana	113.02	70.02	175.74
9	Himachal Pradesh	147.93	111.72	464.85
10	Jharkhand	57.61	42.84	100.19
11	Karnataka	100.65	70.96	139.61
12	Kerala	124.17	192.28	95.10
13	Madhya Pradesh	65.78	41.12	126.95
14	Maharashtra	101.10	67.22	138.00
15	Manipur	72.47	48.56	123.80
16	Meghalaya	69.79	52.71	135.85
17	Mizoram	112.25	115.75	109.32
18	Nagaland	73.74	74.75	72.36
19	Odisha	75.77	61.84	137.45
20	Punjab	122.95	74.13	193.34
21	Rajasthan	82.63	61.21	142.72
22	Sikkim	97.62	98.17	96.93
23	Tamil Nadu	102.85	64.31	137.58
24	Telangana	110.53	87.93	136.91
25	Tripura	76.76	59.90	106.08
26	Uttar Pradesh	67.31	47.68	130.58
27	Uttarakhand	113.86	88.14	162.12
28	West Bengal	81.71	56.53	126.89
<b>Union Territories</b>				
1	Andaman & Nicobar Islands	92.37	75.26	115.29
2	Chandigarh	136.02	-	-
3	Dadra and Nagar Haveli and Daman and Diu	70.59	103.01	61.50
4	Delhi	190.83	-	-
5	Jammu & Kashmir	84.18	57.94	145.64
6	Ladakh	164.63	94.03	330.31
7	Lakshdweep	118.57	-	-
8	Puduchery	71.60	69.11	72.68
<b>All India Tele-density</b>		<b>84.74</b>	<b>58.74</b>	<b>134.37</b>

**Table 1.17 : Rural Wireless Subscriber base and Market Share as on 30.09.2020**

<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	404.13	170.07	42.08	32.55
Bharti Airtel*	326.61	153.84	47.10	29.45
Vodafone Idea Ltd	295.50	160.37	54.27	30.70
BSNL	118.99	38.08	32	7.29
MTNL	3.34	0.05	1.36	0.01
Reliance Com.	0.02	0.00	0.00	0.00
<b>Total</b>	<b>1,148.58</b>	<b>522.42</b>	<b>45.48</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 September, 2020.

### Wireless Data Usage

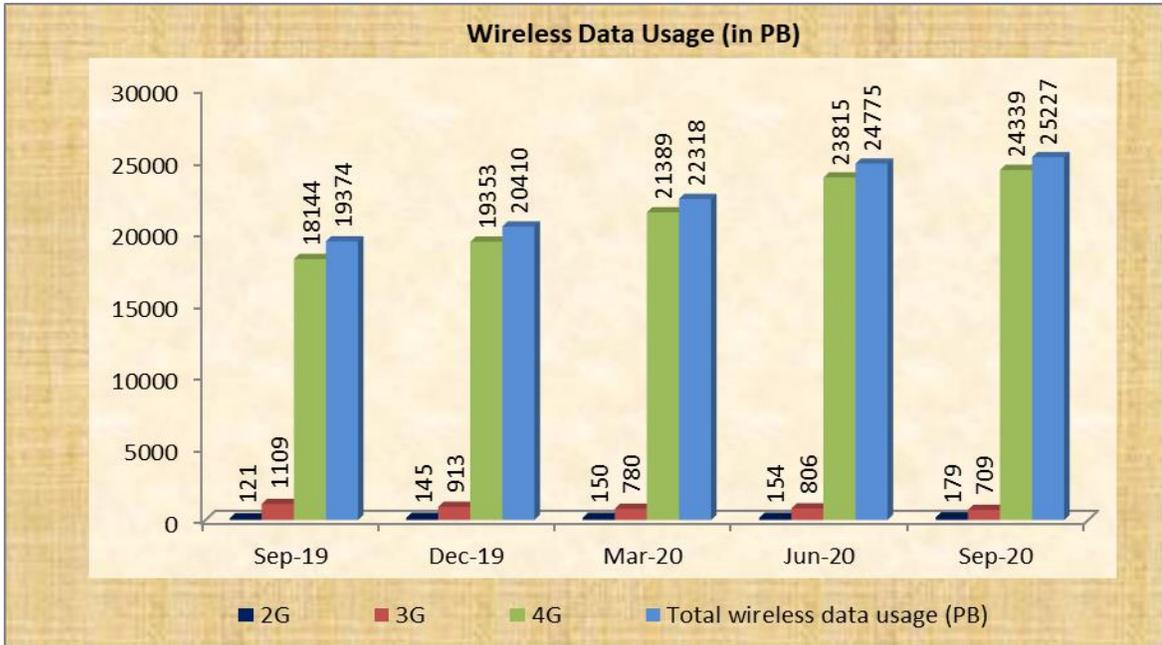
1.22 Volume of total wireless data usage increased from 24,775 PB during Q.E. Jun-20 to 25,227 PB during Q.E. Sep-20 with quarterly growth rate of 1.82%. Out of total data wireless usage, 2G data usage was 179 PB, 3G data usage was 709 PB and 4G data usage was 24,339 PB during the quarter.

1.23 Total number of wireless data subscribers increased from 725 million at the end of Jun-20 to 751 million at the end of Sep-20.

1.24 The contribution of 2G, 3G and 4G data usage in total volume of wireless data usage are about 0.71%, 2.81% and 96.48% respectively during the QE Sep-20.

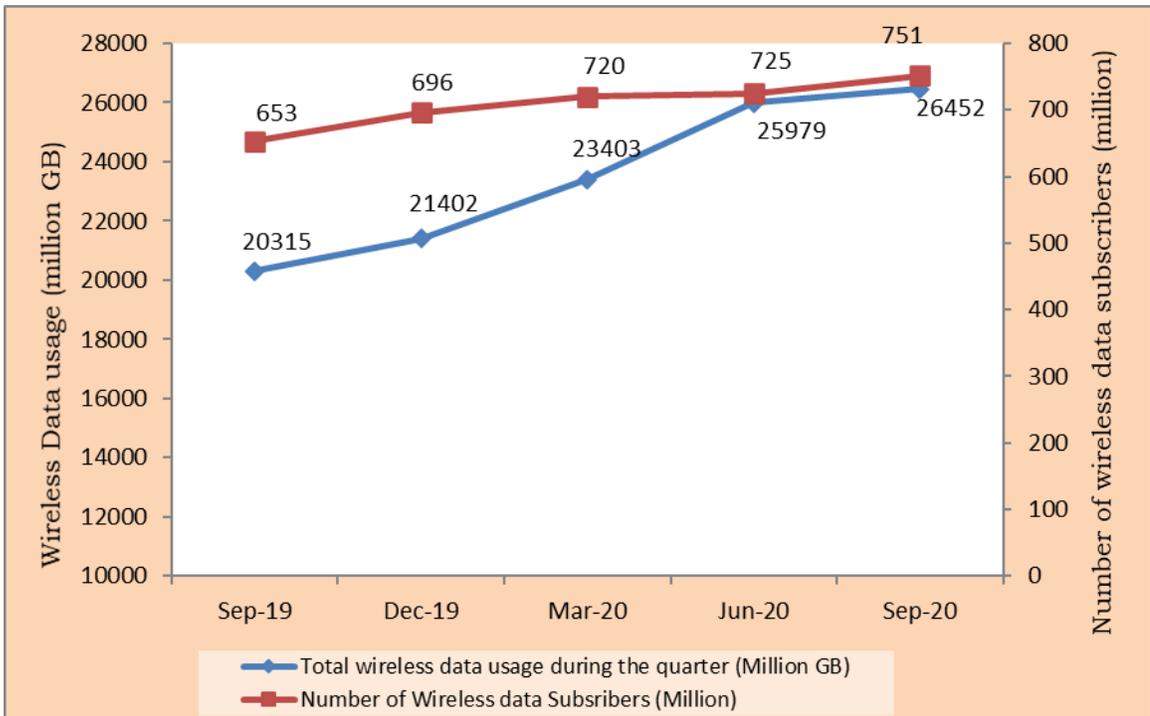
1.25 Technology-wise trend of growth in volume of wireless data usage is depicted in the following chart.

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



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

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



## Section C : Wireline Service

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

[As on 30<sup>th</sup> September, 2020]

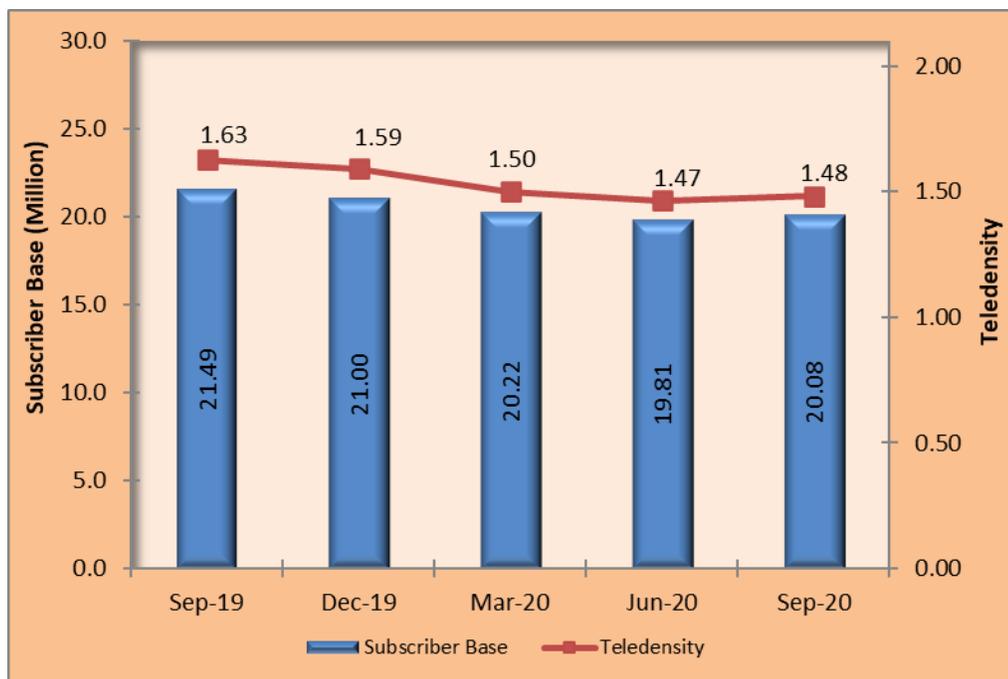
Sl. No.	Name of the Service Provider	Area of Operation
1	Bharti Airtel Ltd	Andhra Pradesh (excluding Telangana) Delhi, Gujarat, Haryana, Jammu & Kashmir, Karnataka, Kerala, Kolkata, Madhya Pradesh (excluding Chhattisgarh), Chhattisgarh, Maharashtra (excluding Mumbai), Mumbai, Punjab, Rajasthan, Tamilnadu (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, Tamilnadu (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, Tamilnadu (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, Tamilnadu (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, Tamilnadu (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 increased from 19.81 million at the end of Jun-20 to 20.08 million at the end of Sep-20 with quarterly growth rate of 1.34%. Overall Wireline Teledensity also increased from 1.47% at the end of Jun-20 to 1.48% at the end of Sep-20.

1.28 Urban wireline subscriber base increased by 2.14%, from 17.72 million at the end of Jun-20 to 18.10 million at the end of Sep-20. Rural wireline subscription declined by 5.38%, from 2.09 million to 1.98 million during the same period.

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



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

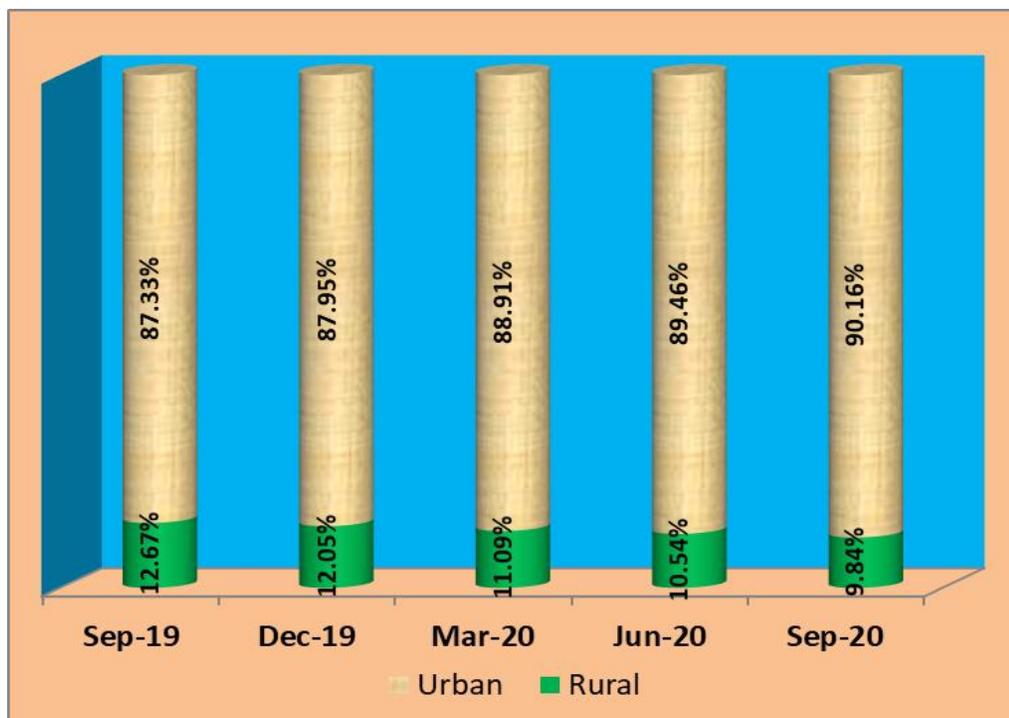
Quarter ending	Subscriber Base (million)		Tele-density (%)	
	Rural	Urban	Rural	Urban
Sep-19	2.72	18.77	0.30	4.45
Dec-19	2.53	18.47	0.28	4.36
Mar-20	2.24	17.97	0.25	3.90
Jun-20	2.09	17.72	0.24	3.82
Sep-20	1.98	18.10	0.22	3.88

**Table 1.20 : Service Provider wise Wireline Subscriber base (Rural - Urban) – As on 30.09.2020**

Service Provider	Subscriber Base (million)			Percentage of Rural subscribers	Share of Rural subscription
	Rural	Urban	Total		
BSNL	1.89	5.85	7.74	24.45%	95.81%
Bharti	0.00	4.41	4.41	--	0.00%
MTNL	0.00	3.03	3.03	--	0.00%
Tata Tele.	0.04	1.67	1.71	2.51%	2.17%
Reliance Com.	0.001	0.41	0.41	0.16%	0.03%
Quadrant	0.03	0.15	0.19	17.33%	1.63%
Vodafone Idea	0.00	0.51	0.51	--	0.00%
Reliance Jio	0.007	2.07	2.08	0.34%	0.36%
<b>Total</b>	<b>1.98</b>	<b>18.10</b>	<b>20.08</b>	<b>9.84%</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 10.54% in QE Jun-20 to 9.84% in QE Sep-20.

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

Service Provider	Subscriber Base (million)			Rate of change (%)	Market share-Jun-20(%)	Market share-Sep-20(%)
	Jun-20	Sep-20	Net Addition			
BSNL	8.18	7.74	-0.43	-5.32	41.27	38.55
Bharti	4.27	4.41	0.14	3.33	21.57	21.99
MTNL	3.09	3.03	-0.06	-1.79	15.58	15.10
Tata Tele.	1.73	1.71	-0.02	-0.99	8.71	8.51
Reliance Com	0.46	0.41	-0.05	-10.36	2.33	2.06
Quadrant	0.18	0.19	0.01	4.84	0.89	0.92
Vodafone	0.46	0.51	0.05	10.44	2.31	2.52
Reliance Jio	1.46	2.08	0.62	42.78	7.35	10.35
<b>Total</b>	<b>19.81</b>	<b>20.08</b>	<b>0.27</b>	<b>1.34</b>	<b>100</b>	<b>100</b>

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

Service Area	Jun-20	Sep-20	Net Additions	Rate of Change (%)
Andhra Pradesh	1.31	1.35	0.04	3.23
Assam	0.11	0.12	0.00	3.93
Bihar	0.18	0.19	0.01	7.99
Delhi	3.19	3.26	0.08	2.38
Gujarat	0.96	0.96	0.00	0.38
Haryana	0.29	0.29	0.00	0.66
Himachal Pradesh	0.09	0.09	0.00	-1.38
Jammu & Kashmir	0.14	0.16	0.01	10.14
Karnataka	2.13	2.18	0.06	2.72
Kerala	1.50	1.41	-0.09	-5.79
Madhya Pradesh	0.62	0.66	0.04	6.24
Maharashtra	1.31	1.32	0.01	0.96
Mumbai	3.06	3.07	0.01	0.27
North East	0.10	0.09	0.00	-3.19
Orissa	0.20	0.20	0.00	-0.53
Punjab	0.68	0.68	0.01	0.96
Rajasthan	0.47	0.48	0.01	1.07
T.N. (incl. Chennai)	1.96	1.96	0.00	0.03
U.P.(E)	0.33	0.37	0.03	10.15
U.P.(W)	0.33	0.33	0.01	1.60
Kolkata	0.66	0.68	0.03	3.88
West Bengal	0.20	0.21	0.01	3.84
<b>All India</b>	<b>19.81</b>	<b>20.08</b>	<b>0.27</b>	<b>1.34</b>

1.31 UP(E) service area showed maximum growth of 10.15% and Kerala service area showed maximum decline of 5.79% in their wireline subscriber base during the quarter ending Sep-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	1.35	0.13	1.22	9.52
Assam	0.12	0.02	0.10	13.29
Bihar	0.19	0.02	0.17	10.74
Delhi	3.26	0.00	3.26	0.01
Gujarat	0.96	0.07	0.89	7.50
Haryana	0.29	0.04	0.25	13.06
Himachal Pradesh	0.09	0.05	0.04	53.41
Jammu & Kashmir	0.16	0.01	0.14	6.84
Karnataka	2.18	0.09	2.09	4.29
Kerala	1.41	0.79	0.62	56.06
Madhya Pradesh	0.66	0.02	0.64	3.17
Maharashtra	1.32	0.18	1.14	13.40
Mumbai	3.07	0.00	3.07	0.00
North East	0.09	0.01	0.08	12.85
Orissa	0.20	0.03	0.17	17.14
Punjab	0.68	0.11	0.57	16.66
Rajasthan	0.48	0.03	0.44	7.03
T.N. (incl. Chennai)	1.96	0.24	1.72	12.06
U.P.(E)	0.37	0.03	0.33	9.47
U.P.(W)	0.33	0.02	0.31	7.33
Kolkata	0.68	0.001	0.68	0.12
West Bengal	0.21	0.07	0.14	32.49
<b>All India</b>	<b>20.08</b>	<b>1.98</b>	<b>18.10</b>	<b>9.84</b>

1.32 Kerala service area has the maximum share 56.06% of rural wireline subscriber in its total wireline subscriber base at the end of Sep-20.

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

Service Area	As on 30 <sup>th</sup> June, 2020			As on 30 <sup>th</sup> Sep, 2020		
	Rural Tele-density (%)	Urban Tele-density (%)	Total Tele-density (%)	Rural Tele-density (%)	Urban Tele-density (%)	Total Tele-density (%)
Andhra Pradesh	0.25	3.30	1.45	0.24	3.42	1.50
Assam	0.05	1.82	0.32	0.05	1.90	0.34
Bihar	0.01	0.64	0.11	0.02	0.70	0.12
Delhi	-	-	15.69	-	-	15.99
Gujarat	0.21	2.62	1.36	0.20	2.63	1.37
Haryana	0.26	2.07	0.99	0.22	2.12	0.99
Himachal Pradesh	0.77	5.63	1.27	0.75	5.69	1.25
Jammu & Kashmir	0.12	3.19	1.03	0.11	3.54	1.14
Karnataka	0.22	7.11	3.20	0.25	7.25	3.28
Kerala	7.95	2.60	4.22	7.46	2.49	3.97
Madhya Pradesh	0.03	1.89	0.55	0.03	2.00	0.58
Maharashtra (incl. Mumbai)*	0.27	6.96	3.49	0.27	6.97	3.50
North East	0.13	1.64	0.63	0.12	1.59	0.61
Orissa	0.11	2.04	0.46	0.10	2.07	0.46
Punjab	0.69	4.10	2.16	0.64	4.20	2.18
Rajasthan	0.06	2.11	0.60	0.06	2.14	0.60
Tamil Nadu (incl. Chennai)	0.67	4.17	2.52	0.65	4.19	2.52
Uttar Pradesh (incl. UPE & UPW)*	0.03	1.04	0.27	0.03	1.10	0.29
West Bengal (incl. Kolkata)*	0.11	2.22	0.87	0.11	2.31	0.90
<b>All India</b>	<b>0.24</b>	<b>3.82</b>	<b>1.47</b>	<b>0.22</b>	<b>3.88</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).
2. 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	0.73	0.10	0.63
2	Arunachal Pradesh	0.02	0.00	0.02
3	Assam	0.12	0.02	0.10
4	Bihar	0.09	0.01	0.08
5	Chhattisgarh	0.14	0.01	0.13
6	Goa	0.08	0.02	0.06
7	Gujarat	0.96	0.07	0.89
8	Haryana	0.31	0.04	0.27
9	Himachal Pradesh	0.09	0.05	0.04
10	Jharkhand	0.10	0.01	0.09
11	Karnataka	2.18	0.09	2.09
12	Kerala	1.41	0.79	0.62
13	Madhya Pradesh	0.52	0.01	0.51
14	Maharashtra Incl. Mumbai	4.31	0.15	4.16
15	Manipur	0.01	0.00	0.01
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	0.20	0.03	0.17
20	Punjab	0.52	0.11	0.41
21	Rajasthan	0.48	0.03	0.44
22	Sikkim	0.01	0.00	0.00
23	Tamil Nadu (incl. Chennai)	1.92	0.23	1.69
24	Telangana	0.62	0.03	0.59
25	Tripura	0.02	0.00	0.02
26	Uttar Pradesh (UPE+UPW)	0.63	0.05	0.58
27	Uttarakhand	0.09	0.01	0.08
28	West Bengal Incl. Kolkata	0.87	0.06	0.81
<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	3.23	0.00	3.23
5	Jammu & Kashmir	0.16	0.01	0.14
6	Ladakh			
7	Lakshdweep	0.004	0.002	0.003
8	Puduchery	0.04	0.01	0.04
<b>Total</b>		<b>20.08</b>	<b>1.98</b>	<b>18.10</b>

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

Sl.No.	State/UT	Wireline Tele-density		
		Total (%)	Rural (%)	Urban (%)
1	Andhra Pradesh	2.57	0.38	6.64
2	Arunachal Pradesh	1.37	0.40	4.28
3	Assam	0.34	0.05	1.90
4	Bihar	0.08	0.01	0.54
5	Chhattisgarh	0.46	0.04	1.66
6	Goa	5.26	5.84	5.05
7	Gujarat	1.38	0.19	2.69
8	Haryana	1.06	0.22	2.28
9	Himachal Pradesh	1.25	0.75	5.69
10	Jharkhand	0.25	0.02	0.93
11	Karnataka	3.28	0.25	7.25
12	Kerala	3.97	7.44	2.49
13	Madhya Pradesh	0.62	0.02	2.12
14	Maharashtra Incl. Mumbai	3.48	0.24	7.01
15	Manipur	0.46	0.13	1.17
16	Meghalaya	0.58	0.07	2.57
17	Mizoram	0.93	0.13	1.60
18	Nagaland	0.33	0.03	0.72
19	Odisha	0.46	0.10	2.07
20	Punjab	1.72	0.63	3.28
21	Rajasthan	0.60	0.06	2.14
22	Sikkim	0.75	0.06	1.63
23	Tamil Nadu (incl. Chennai)	2.52	0.64	4.21
24	Telengana	1.65	0.13	3.43
25	Tripura	0.51	0.07	1.27
26	Uttar Pradesh (UPE + UPW)	0.27	0.03	1.07
27	Uttarakhand	0.76	0.12	1.95
28	West Bengal incl. Kolkata	0.89	0.10	2.30
<b>Union Territories</b>				
1	Andaman & Nicobar Islands	4.22	2.91	5.97
2	Chandigarh	13.69	29.28	13.64
3	Dadra and Nagar Haveli and Daman and Diu	0.46	0.82	0.36
4	Delhi	15.82	0.17	15.93
5	Jammu & Kashmir	0.58	0.06	1.81
6	Ladakh			
7	Lakshdweep	6.33	72.12	3.90
8	Puduchery	2.75	1.29	3.39
<b>Total</b>		<b>1.48</b>	<b>0.22</b>	<b>3.88</b>

## Public Call Offices (PCO)

1.33 Total number of PCOs in the country decrease from 1,61,937 at the end of Jun-20 to 1,55,182 at the end of Sep-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 4.17 and on Y-O-Y basis decline rate of 25.12% at the QE Sep-20.

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

Service Provider	Sep-20	Jun-20	Rate of change (%)	Market share (%)
				(Sep-20)
BSNL	90,386	96,521	-6.36	58.25
MTNL	55,734	56,399	-1.18	35.92
Bharti	8,501	8,347	1.84	5.48
Quadrant	561	670	-16.27	0.36
<b>Total</b>	<b>155,182</b>	<b>161,937</b>	<b>-4.17</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. Sep-20, there are 68,606 villages having Village Public Telephones (VPTs).
- 1.36 Number of VPTs increased from 68,406 at the end of Jun-20 to 68,606 at the end of Sep-20 with quarterly growth rate of 0.29%. It shows yearly declining rate of 3.15% in QE Sep-20 over same quarter in previous year.
- 1.37 As per the information received in TRAI, at the end of Sep-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 Sep-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 388 operators as compared to 358 operators in last quarter, total number of internet subscribers increased from 749.07 million at the end of Jun-20 to 776.45 million at the end of Sep-20 with quarterly growth rate of 3.66%. Out of total 776.45 million internet subscribers, 726.32 million were broadband subscribers and 50.14 million were narrowband subscribers.

1.40 Wired Internet subscribers increased from 23.06 million at the end of Jun-20 to 24.36 million at the end of Sep-20 with quarterly growth rate of 5.64%. Wireless Internet subscribers increased from 726.01 million at the end of Jun-20 to 752.09 million at the end of Sep-20 with quarterly growth rate of 3.59%.

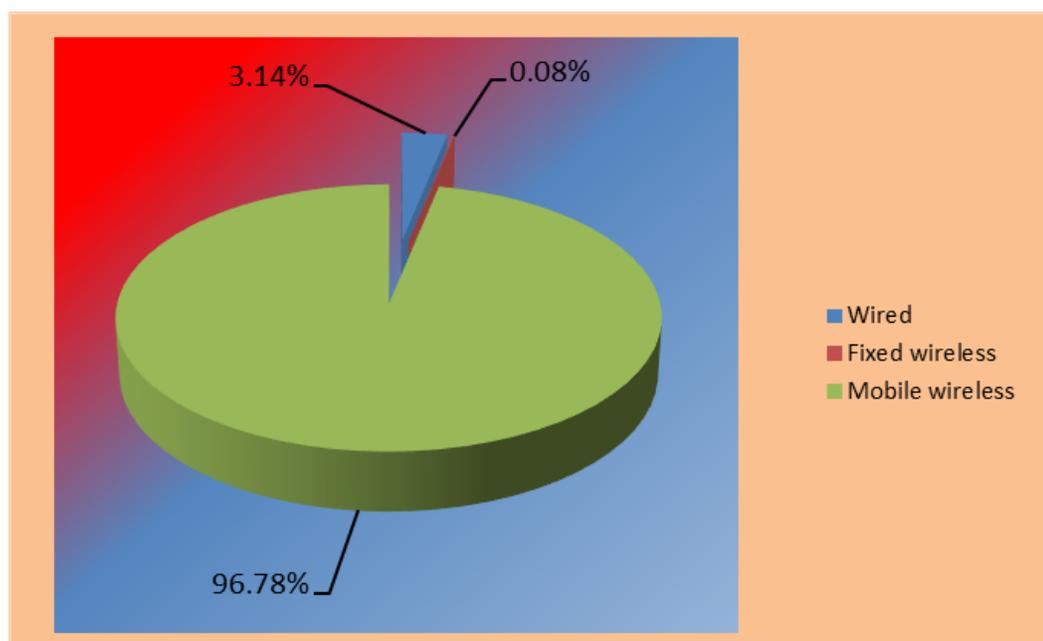
1.41 The number of Broadband subscribers increased from 698.23 million at the end of Jun-20 to 726.32 million at the end of Sep-20 with quarterly growth rate of 4.02%. However, the number of Narrowband subscribers declined from 50.84 million at the end of Jun-20 to 50.14 million at the end of Sep-20 with quarterly decline rate of 1.38%.

**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			
	Jun-20	Sep-20	Jun-20	Sep-20	Jun-20	Sep-20	Jun-20	Sep-20	Jun-20	Sep-20
Broadband	19.82	21.12	0.63	0.64	677.79	704.57	678.41	705.20	698.23	726.32
Narrowband	3.24	3.24	0.008	0.006	47.59	46.89	47.60	46.89	50.84	50.14
<b>Total</b>	<b>23.06</b>	<b>24.36</b>	<b>0.63</b>	<b>0.64</b>	<b>725.38</b>	<b>751.45</b>	<b>726.01</b>	<b>752.10</b>	<b>749.07</b>	<b>776.45</b>

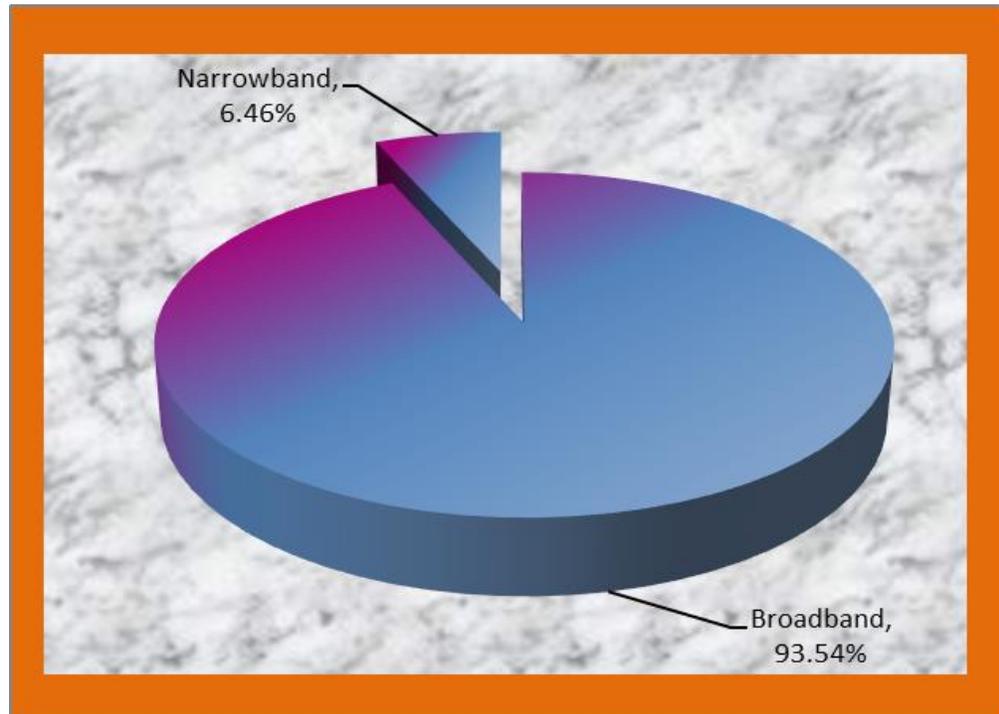
1.42 The following charts present the composition of Internet Subscribers by mode of access and composition of Broadband & Narrowband subscription as on 30<sup>th</sup> Sep, 2020.

**Chart 1.14: Composition of Internet subscription**



1.43 Out of total internet subscribers, 96.78% subscribers are using Mobile devices for access of internet service. Wired internet subscribers are only 3.14% in total internet subscribers at the end of Sep-20.

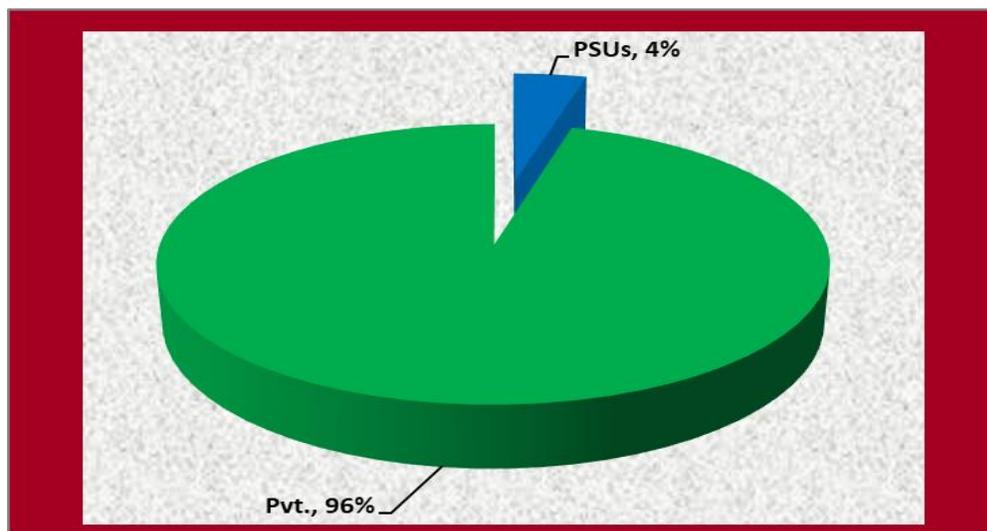
**Chart 1.15 : Composition of Broadband & Narrowband subscription**



1.44 Out of total internet subscribers, 93.54% subscribers are using broadband for access of internet.

1.45 Share of private internet service providers in total internet subscriber base, increased from 95.93% at QE Jun-20 to 96% at QE Sep-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 (Sep 2020)		Total (June 2020)	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Andhra Pradesh	1.789	1.680	24.896	32.752	26.685	34.431	26.047	33.103
Assam	0.616	0.324	8.283	5.866	8.899	6.190	8.567	5.896
Bihar	3.127	1.128	29.698	17.730	32.825	18.858	31.679	17.910
Delhi	0.106	2.580	0.655	38.502	0.761	41.082	0.783	39.830
Gujarat	0.825	1.057	13.848	31.684	14.673	32.741	13.957	31.533
Haryana	0.415	0.498	6.663	10.287	7.078	10.785	6.914	10.419
Himachal Pradesh	0.168	0.141	3.922	2.171	4.090	2.312	3.903	2.180
Jammu & Kashmir	0.298	0.158	3.154	4.197	3.452	4.355	3.358	4.170
Karnataka	1.432	1.493	15.740	29.438	17.172	30.931	16.642	29.471
Kerala	0.680	0.903	10.822	16.060	11.502	16.963	11.188	16.263
Kolkata	0.086	1.163	1.356	15.613	1.443	16.776	1.474	16.052
Madhya Pradesh	1.838	1.637	19.005	28.840	20.843	30.476	20.360	29.628

Maharashtra	1.908	2.059	24.954	37.799	26.862	39.859	25.855	38.247
Mumbai	0.101	1.829	1.848	26.680	1.949	28.509	1.724	27.746
North East	0.272	0.204	4.038	3.955	4.310	4.160	4.110	3.931
Orissa	1.001	0.333	12.093	6.914	13.095	7.247	12.754	6.947
Punjab	0.517	0.794	8.139	18.513	8.655	19.308	8.561	17.897
Rajasthan	1.650	1.360	18.842	21.503	20.492	22.863	20.261	22.023
Tamil Nadu	1.937	1.651	12.694	36.784	14.631	38.434	13.797	37.245
UP (East)	3.475	1.516	27.048	24.841	30.523	26.357	29.779	25.445
UP (West)	1.268	1.249	13.627	22.893	14.895	24.142	14.436	23.394
West Bengal	1.920	0.951	15.595	16.374	17.515	17.326	16.942	16.648
<b>Grand Total</b>	<b>25.430</b>	<b>24.708</b>	<b>276.919</b>	<b>449.398</b>	<b>302.349</b>	<b>474.106</b>	<b>293.092</b>	<b>455.979</b>
	<b>50.138</b>		<b>726.317</b>		<b>776.455</b>		<b>749.071</b>	

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

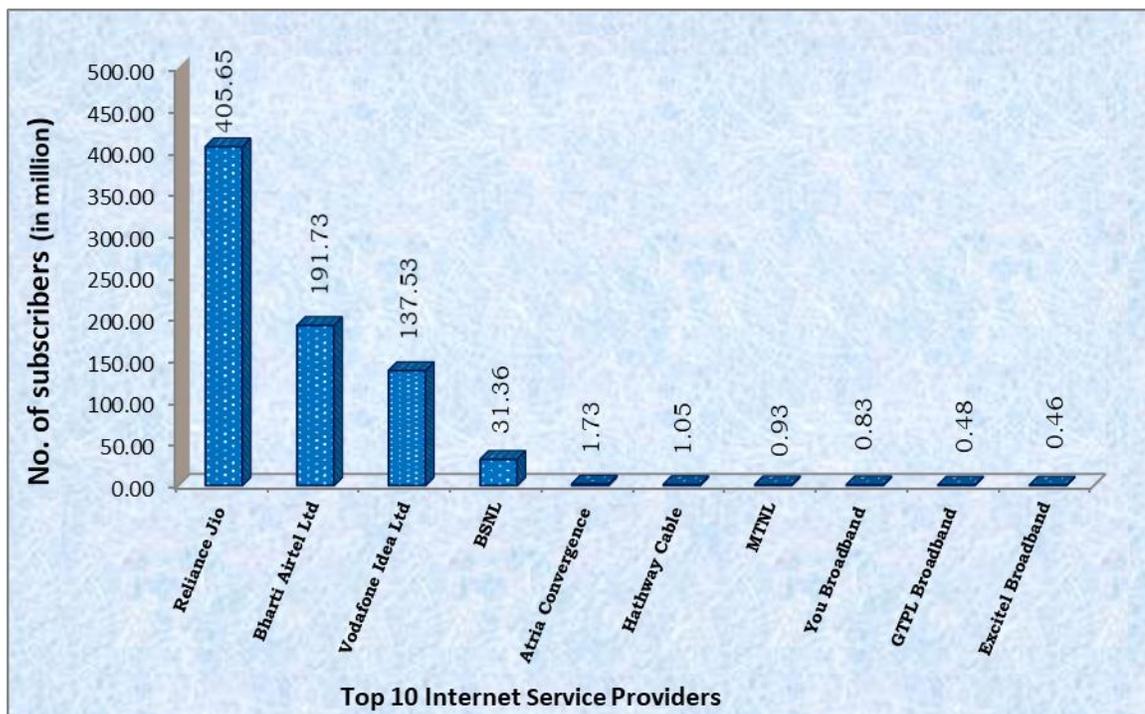
<b>S.No</b>	<b>ISP</b>	<b>No. of Subscribers (In million)</b>	<b>Share (%)</b>
1	Reliance Jio Infocomm Ltd	405.65	52.24
2	Bharti Airtel Ltd.	191.73	24.69
3	Vodafone Idea Limited	137.53	17.71
4	Bharat Sanchar Nigam Ltd.	31.36	4.04
5	Atria Convergence Technologies Pvt. Ltd.	1.73	0.22
6	Hathway Cable & Datacom Pvt. Ltd.	1.05	0.13
7	Mahanagar Telephone Nigam Ltd.	0.93	0.12
8	You Broadband India Pvt. Ltd.	0.83	0.11
9	GTPL Broadband Pvt. Ltd.	0.48	0.06
10	Excitel Broadband Private Limited	0.46	0.06
<b>Total of Top 10 ISPs</b>		<b>771.75</b>	<b>99.39</b>
<b>Others</b>		<b>4.71</b>	<b>0.61</b>
<b>Grand Total</b>		<b>776.45</b>	<b>100</b>

1.47 Reliance Jio holds the top position with 52.24% of market share of internet subscribers followed by Bharti Airtel Ltd with 24.69% at the QE Sep-20. M/s Vodafone Idea Ltd held the third position in respect of internet subscriber base with market share of 17.71%.

1.48 Out of total 388 internet service providers, top 10 Service Providers together hold 99.39% of total internet subscriber base at the QE Sep-20. Detailed table of number of internet subscriber base (broadband and narrowband) of all the service providers is available at **Annexure-1.5**.

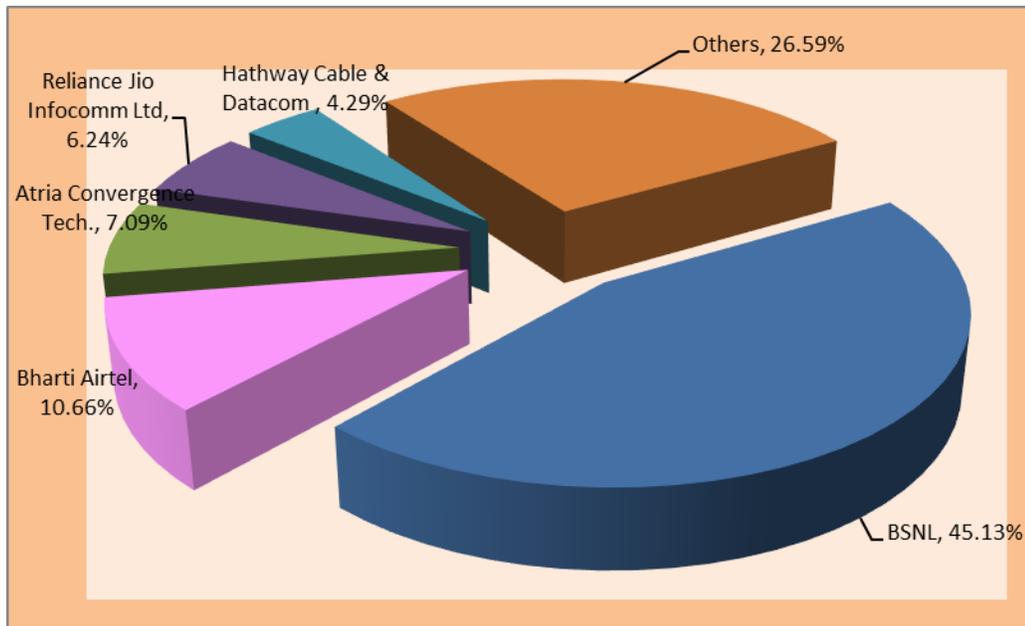
1.49 The following chart depicts the internet subscriber base of top ten Internet Service Providers (ISPs) in the QE Sep-20.

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



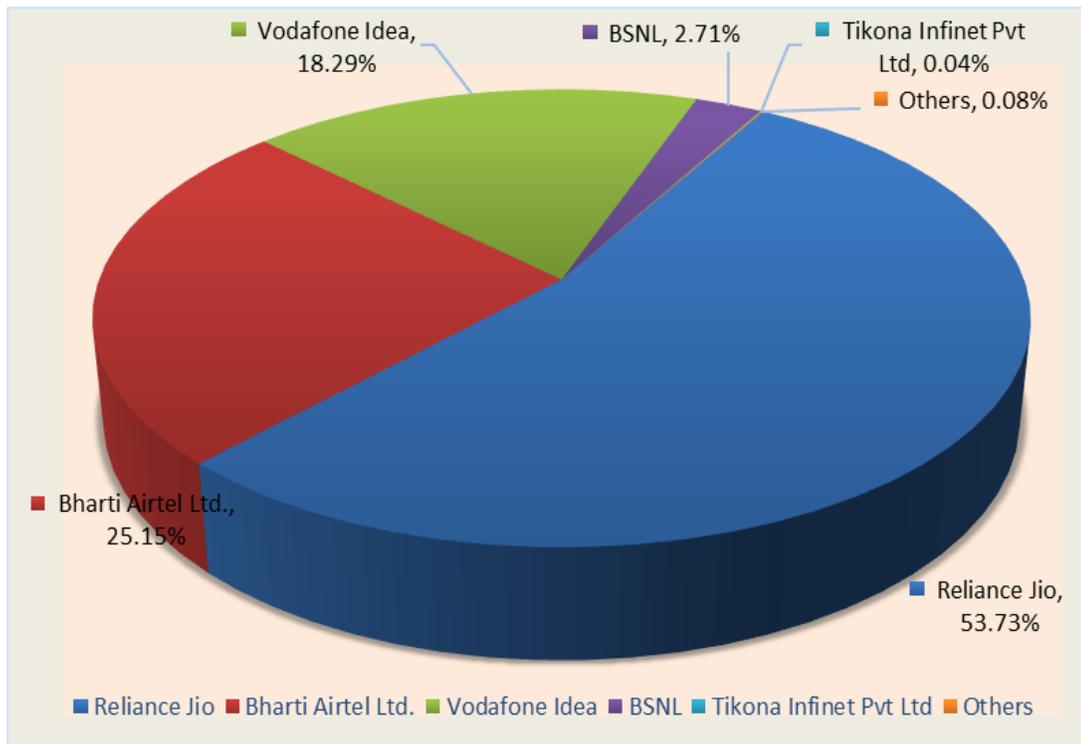
1.50 Out of total 23.36 million wired internet subscribers, BSNL holds 45.13% market share with 10.99 million subscribers, followed by Bharti with 2.60 million subscribers.

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

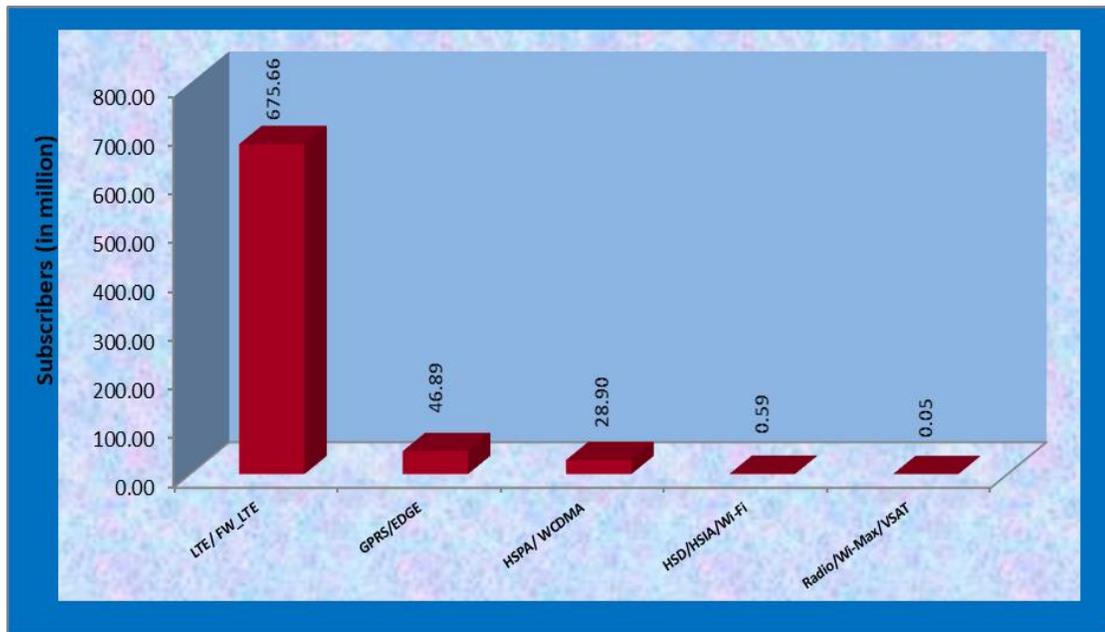


1.51 In wireless internet segment, Reliance Jio holds 53.73% market share with 404.13 million subscribers followed by Bharti Airtel Ltd with 25.15% of wireless internet subscribers at the QE Sep-20.

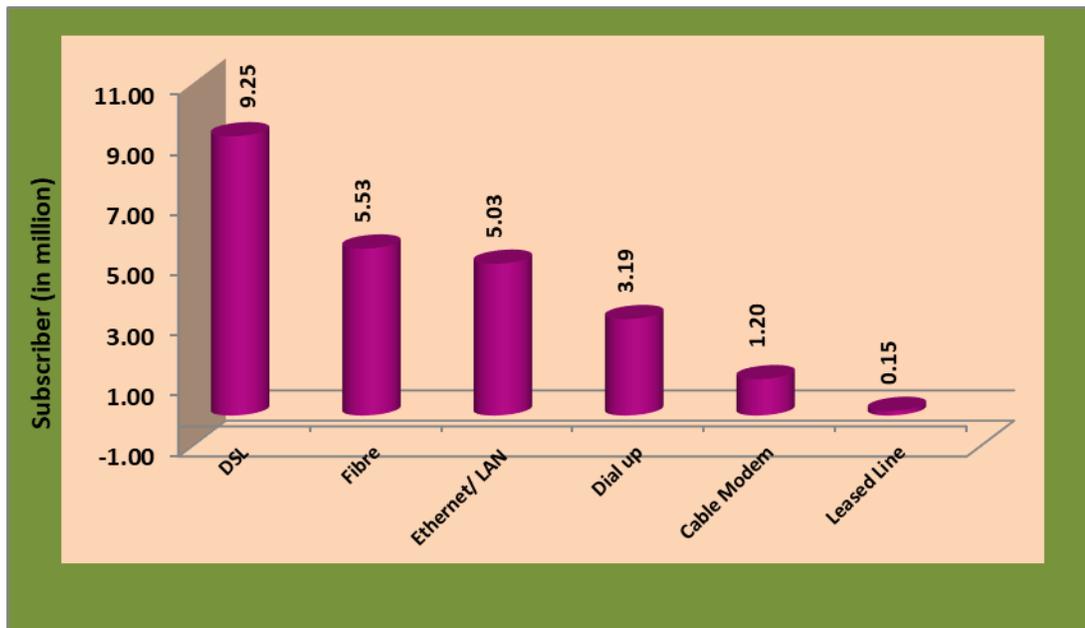
**Chart 1.19 : Composition of Wireless Internet subscription**



**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 (66.72 million), Andhra Pradesh including Telengana (61.12 million), U.P.(East) (56.88 million) Tamil Nadu including Chennai (53.07 million) and Bihar including Jharkhand (51.68 million).

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

Service Area	Internet Subscribers (in million)			No. of Internet subscribers per 100 population		
	Rural	Urban	Total	Rural	Urban	Total
Andhra Pradesh	26.69	34.43	61.12	48.98	96.17	67.69
Assam	8.90	6.19	15.09	30.11	116.22	43.25
Bihar	32.82	18.86	51.68	24.14	76.53	32.18
Delhi	0.76	41.08	41.84	533.43	202.67	204.98
Gujarat	14.67	32.74	47.41	40.04	96.84	67.30
Haryana	7.08	10.79	17.86	40.70	90.45	60.94
Himachal Pradesh	4.09	2.31	6.40	61.79	305.75	86.80
Jammu & Kashmir	3.45	4.35	7.81	36.07	106.59	57.15
Karnataka	17.17	30.93	48.10	45.42	107.33	72.20
Kerala	11.50	16.96	28.46	108.55	68.16	80.23
Madhya Pradesh	20.84	30.48	51.32	25.57	95.62	45.27
Maharashtra	26.86	39.86	66.72	44.30	113.04	77.42
Mumbai	1.95	28.51	30.46			
North East	4.31	4.16	8.47	41.92	81.22	54.99
Orissa	13.09	7.25	20.34	36.52	89.47	46.28
Punjab	8.66	19.31	27.96	48.46	142.17	88.94
Rajasthan	20.49	22.86	43.36	35.24	110.36	54.98
Tamil Nadu	14.63	38.43	53.07	39.97	93.28	68.20
UP (East)	30.52	26.36	56.88	24.86	86.58	39.80
UP (West)	14.89	24.14	39.04			
Kolkata	1.44	16.78	18.22	29.88	96.09	53.63
West Bengal	17.52	17.33	34.84			
<b>Total</b>	<b>302.35</b>	<b>474.11</b>	<b>776.45</b>	<b>33.99</b>	<b>101.74</b>	<b>57.29</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.

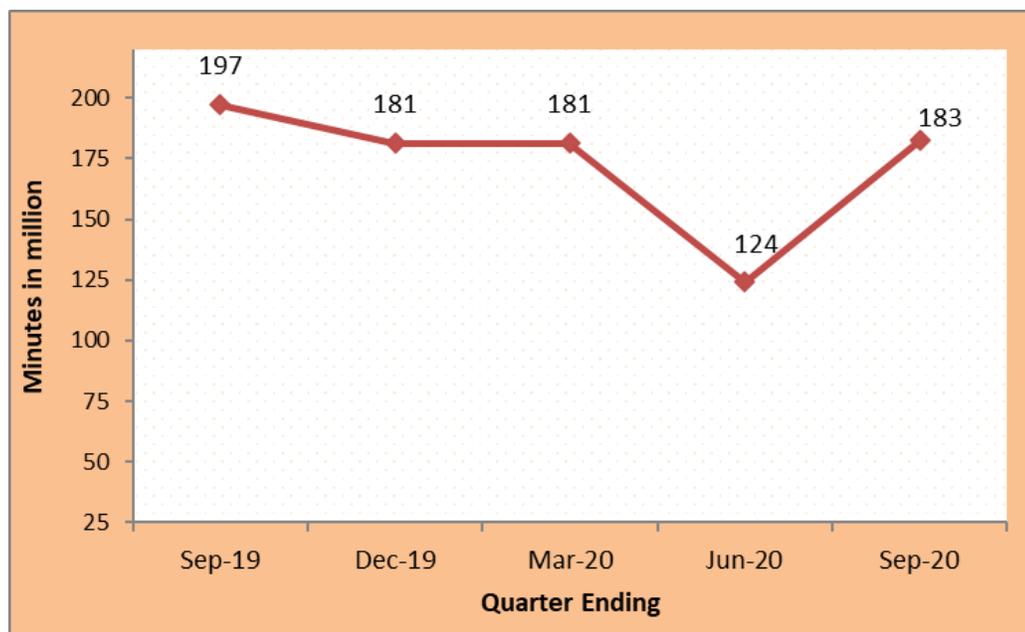
## ISP Connectivity

1.53 The International Internet bandwidth owned by various service providers is reported to be 19,291 Gbps during the quarter ending Sep-20 as compare to 18,242 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 increased from 124.07 million minutes at the end of Jun-20 to 182.58 million minutes at the end of Sep-20. List of Internet Telephony Service providers is available at **Annexure-1.6**.

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

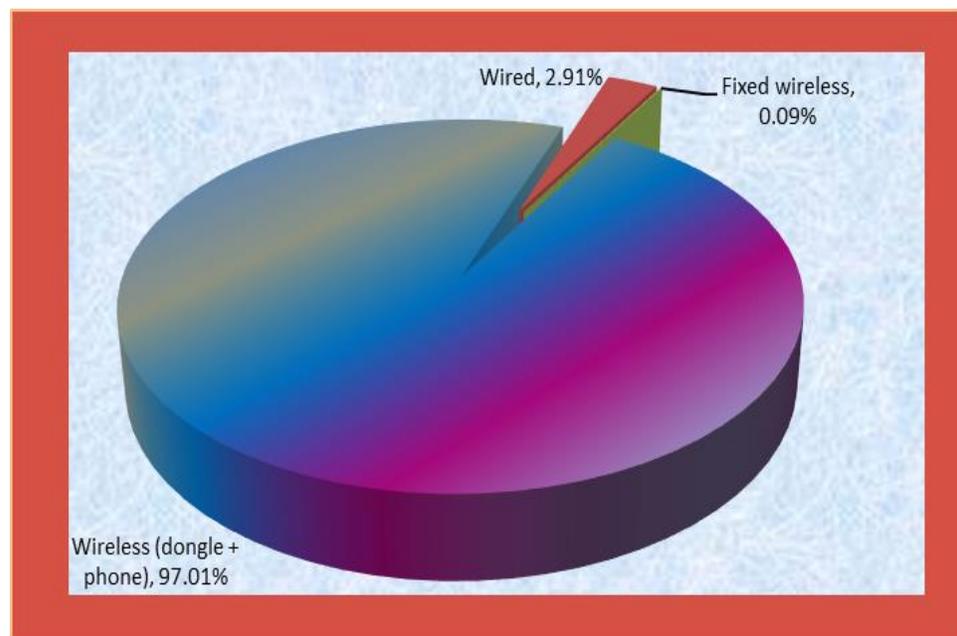


## Part-II : Broadband Service (Download Speed $\geq$ 512 Kbps)

1.55 The total number of broadband subscribers increased from 698.23 million at the end of Jun-20 to 726.32 million at the end of Sep-20. Out of which number of wired broadband subscribers are 21.12 million and wireless broadband subscribers are 705.20 million.

- 1.56 Top five broadband (wired+wireless) service providers in term of subscribers are Reliance Jio (405.65 million), Bharti Airtel (166 million), Vodafone Idea Ltd (119.85 million), BSNL (24.83 million) and Atria Convergence (1.73 million).
- 1.57 In wired broadband segment, BSNL holds 36.94% market share with 7.80 million subscribers followed by Bharti with 2.60 million subscribers in QE Sep-20.
- 1.58 In wireless broadband segment, Reliance Jio holds 57.13% market share with 404.13 million subscribers followed by Bharti Airtel Ltd (23.17%) with 163.41million subscribers in QE Sep-20.
- 1.59 Top five service areas in respect of broadband subscriptions at Q.E. Sep-20 are Maharashtra (62.75 million), Andhra Pradesh including Telengana (57.65 million), U.P.-East (51.89 million), Tamil Nadu including Chennai (49.48 million) and Madhya Pradesh (47.84 million).

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

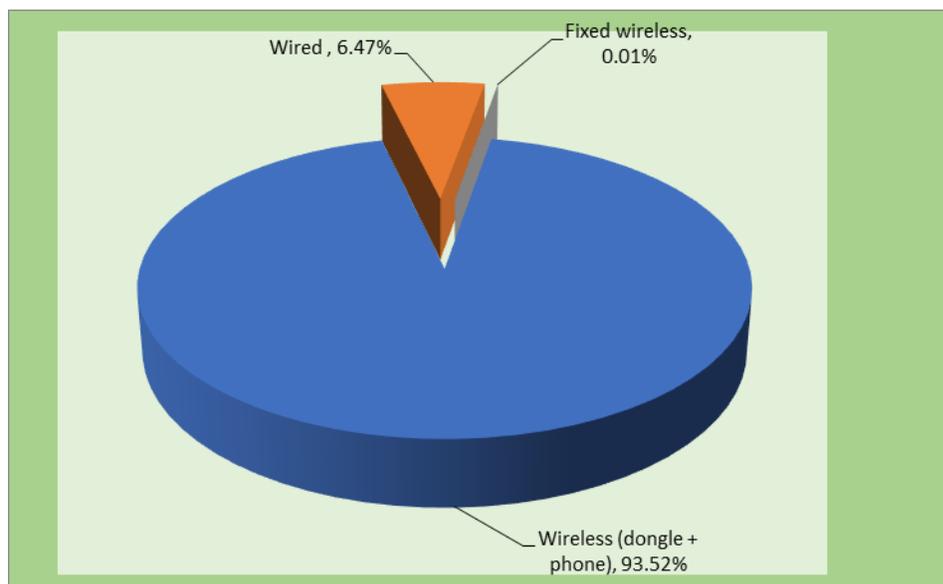


- 1.60 Mobile Device Users (dongle+phone) constitute 97.01% of total broadband subscribers at the end of Sep-20.

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

- 1.61 Total number of narrowband subscribers declined from 50.84 million at the end of Jun-20 to 50.14 million at the end of Sep-20 with the quarterly decline rate of 1.38%. Out of 50.14 million narrowband subscribers, Wired Narrowband subscribers are 3.24 million and Wireless Narrowband subscribers are 46.89 million.
- 1.62 The top five narrowband (wired+wireless) service providers in term of subscriber base are Bharti Airtel (25.73 million), Vodafone Idea Ltd (17.68 million), BSNL (6.53 million), MTNL (0.14 million) and You Broadband (0.02 million) at the end of Sep-20.
- 1.63 In wired narrowband segment, BSNL holds 98.48% 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 54.87% market share with 25.73 million subscribers followed by Vodafone Idea Ltd with 17.68 million subscribers.

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



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

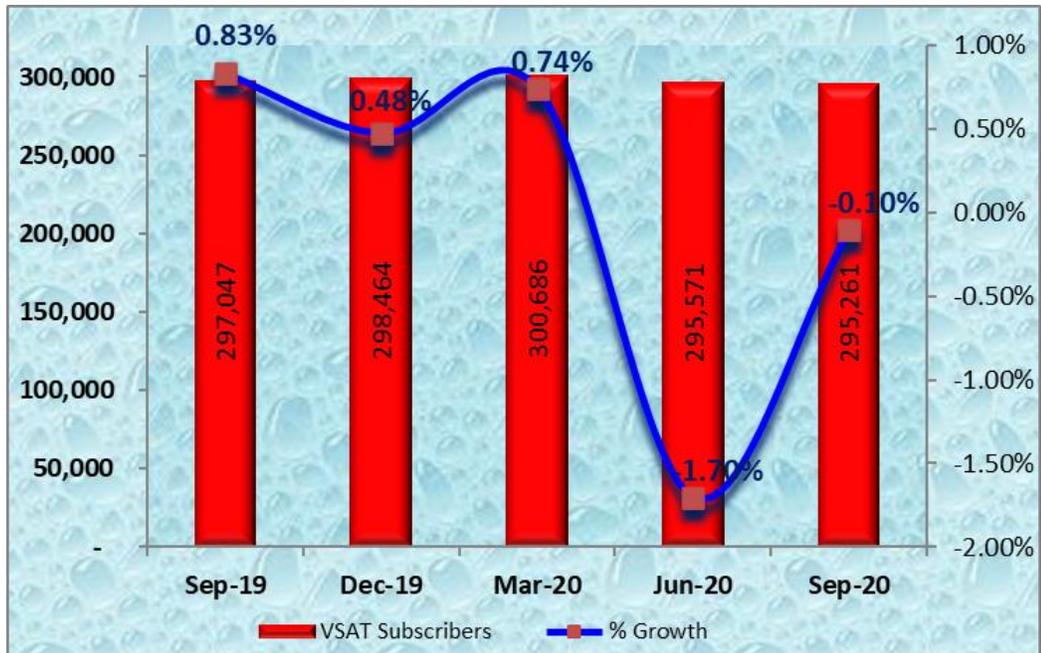
1.65 The subscriber base of PMRTS decreased from 64,833 at the end of Jun-20 to 63,901 at the end of Sep-20 with quarterly decline rate of 1.45%.

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

Sl. No	Name of the Service Provider	Subscriber Base as on 30.06.2020	Subscriber Base as on 30.09.2020	Net Addition	% Growth in subscribers in QE Sep-20
1	Arya Omnitalk Radio Trunking Services Pvt. Ltd.	54,515	53,521	-994	-1.82
4	Procall Ltd.	3,297	3,341	44	1.33
2	Quick Call	2,087	2,030	-57	-2.73
3	Inative Networks Pvt Ltd	1,820	1,820	0	0.00
5	Smartalk Pvt Ltd	1,360	1,426	66	4.85
6	Bhilwara Telenet Services Pvt Ltd	883	869	-14	-1.59
7	Wiwonet Solutions Pvt Ltd	460	478	18	3.91
8	Airtalk Solutions & Services Pvt Ltd	416	416	0	0.00
<b>Total</b>		<b>64,838</b>	<b>63,901</b>	<b>-937</b>	<b>-1.45</b>

1.66 Detailed table on Service Area wise subscriber base of PMRTS as on 30<sup>th</sup> Sep, 2020 is available at **Annexure-1.7**.

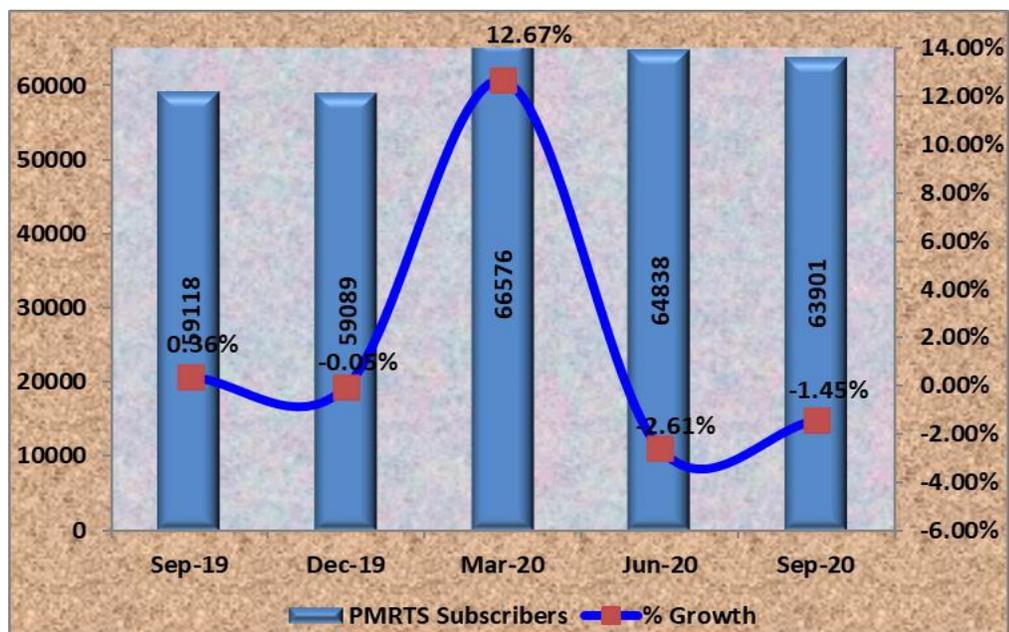
**Chart 1.25 : Number of PMRTS subscribers & Rate of Growth (%)**



**Very Small Aperture Terminal (VSAT)**

1.67 The total number of VSAT subscribers decreased from 295,571 at the end of Jun-20 to 295,261 at the end of Sep-20. Net decrease during the quarter has been 310 at the declining rate of 0.10%.

**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 (%) Sep-20
		Jun-20	Sep-20			
1	Hughes Communications Ltd.	122,087	123,154	1067	0.87	41.71
2	Bharti Airtel Limited	78,898	76,702	-2,196	-2.78	25.98
3	Tatanet Services	71,134	73,749	2,615	3.68	24.98
4	HCL Comnet	10,888	10,181	-707	-6.49	3.45
5	BSNL	9,939	8,863	-1,076	-10.83	3.00
6	Infotel Satcom	2,575	2,562	-13	-0.50	0.87
7	Cloudcast Digital Ltd (eartwhile Planetcast Media Services Ltd)	50	50	0	0.00	0.02
<b>Total</b>		<b>295,571</b>	<b>295,261</b>	<b>-310</b>	<b>-0.10</b>	<b>100</b>

1.68 Hughes Communication Limited continues to be the market leader with 41.71% share in VSAT with subscriber base of 123,154 followed by Bharti Airtel Ltd with 76,702 at the end of Sep-20.

1.69 In term of net addition, M/s Tatanet Services added maximum number of VSAT subscribers (2615 subscribers) during the QE Sep-20. Bharti Airtel Limited, HCL Comnet, BSNL and Infotel Satcom have registered decline in their VSAT subscribers during the quarter.

# **Chapter 2 :**

# **Revenue and Usage**

# **Wireless Services**

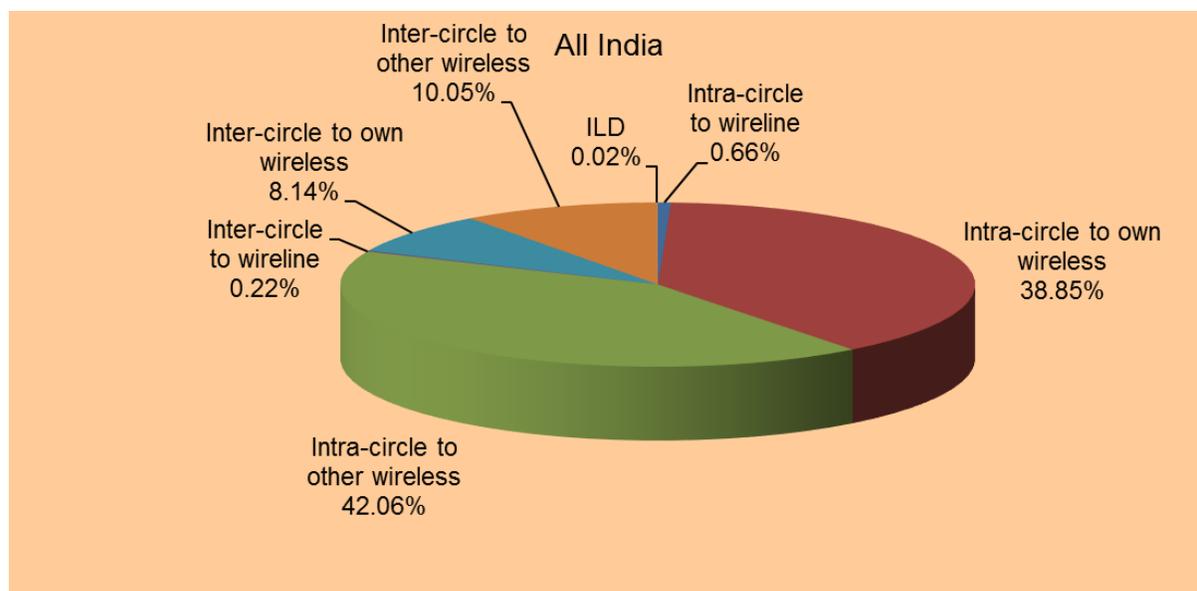
- 
- For all the parameters, Metros indicate data for Delhi, Mumbai & Kolkata. Data for Chennai service area has been included in Circle A, as part of TN.
  - ARPU arrived after adjusting interconnect usage charges and roaming settlement charges.
  - The data contained in this section covers the licensees, who have been providing service during the entire period from 1<sup>st</sup> July, 2020 to 30<sup>th</sup> September, 2020 in the various service areas.

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

Parameter	Sep-20	Jun-20	Sep-19	QoQ %age change	YoY %age change
Share of Prepaid (%)	95.39%	95.48%	95.74%	-0.10	-0.37
Incoming MOU per subscriber per month	381.35	372.62	344.85	2.34	10.58
Outgoing MOU per subscriber per month	380.08	371.16	345.67	2.40	9.95
No. of Outgoing SMS per subscriber per month	15.71	15.30	17.67	2.65	-11.12
Average Revenue Per User (ARPU) per month (₹)	96.87	90.12	74.38	7.49	30.24

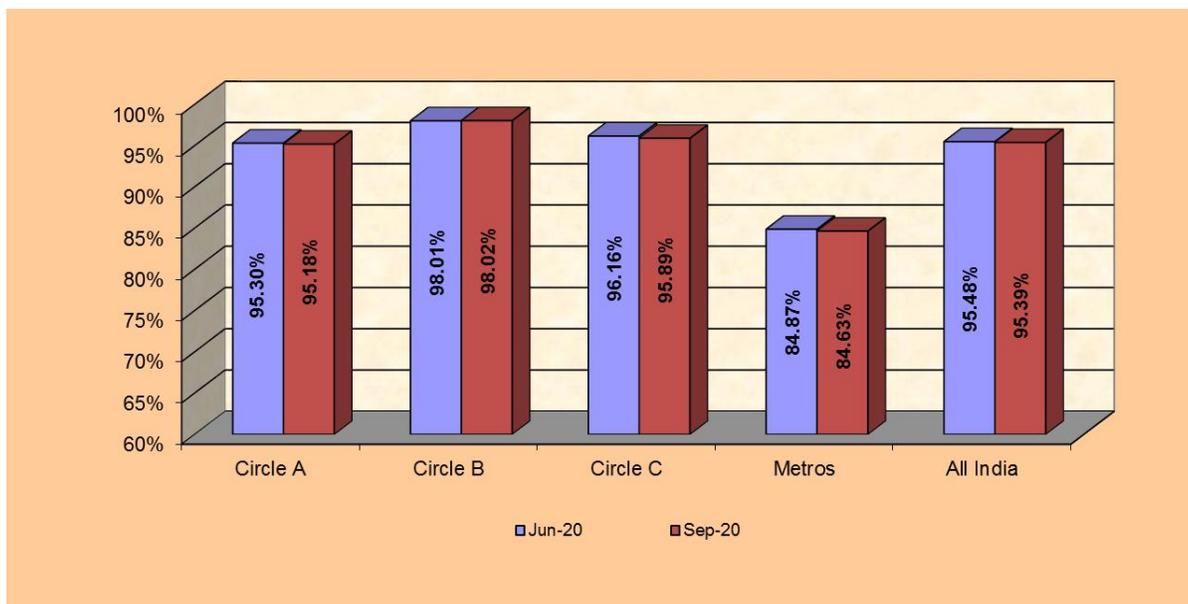
2.1 The following chart presents % break-up of outgoing minutes from Home Service Area (HSA) in the QE Sep-20.

**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 95.48% at the end of June-20 to 95.39% at the end of Sep-20.
- 2.4 The ARPU per month (all India blended) increased from Rs.90.12 in QE Jun-20 to Rs.96.87 in QE Sep-20 with quarterly growth rate of 7.49%. Year-on-Year basis, ARPU per month increased by 30.24% in this quarter.
- 2.5 The ARPU per month for pre-paid segment is Rs.90 and ARPU per month for postpaid segment is Rs.234 in QE Sep-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 Sep-20**

Circle Category	ARPU per month (in ₹)		
	Post-paid	Pre-paid	Blended
Circle A	270	101	109
Circle B	248	89	92
Circle C	206	91	95
Metros	199	53	75
<b>All India</b>	<b>234</b>	<b>90</b>	<b>97</b>
All private SPs	235	97	104
BSNL/MTNL	208	36	41

2.7 The following table presents the composition of ARPU per month for QE Sep-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#	1.05	1.0%
1.2.	Revenue from calls	17.66	16.3%
1.3.	Revenue from SMS	0.38	0.3%
1.4.	Revenue from data usage	84.31	77.7%
1.5.	Revenue from other VAS	1.37	1.3%
1.6.	Other revenue	3.18	2.9%
<b>2</b>	<b>Usage outside Home Service Area</b>		
2.1.	Revenue from out-roamers	0.56	0.5%
<b>3</b>	<b>Total revenue from subscribers (1+2)</b>	<b>108.52</b>	<b>100%</b>
4	Net inter-operator settlement charges receivable *	-11.65	
<b>5</b>	<b>Net Revenue (ARPU) per month (3+4)</b>	<b>96.87</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.11.65) accounts for 10.73% of the total revenue from subscribers in the Q.E. Sep-2020.
- 2.9 On an all India average, the overall MOU per subscriber per month increased by 2.37% from 744 in Q.E. Jun-20 to 761 in Q.E. Sep-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. Sep-20.

**Table 2.4: MOU per subscriber per month - QE Sep-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	389	348	738	355	349	704	357	349	706
Circle B	364	338	702	372	381	753	372	380	752
Circle C	407	406	814	429	455	884	428	453	881
Metro	303	248	551	441	411	852	420	386	806
<b>All India</b>	<b>359</b>	<b>321</b>	<b>680</b>	<b>381</b>	<b>384</b>	<b>765</b>	<b>380</b>	<b>381</b>	<b>761</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. Sep-20 is 50.1: 49.9.
- 2.12 Average number of Outgoing SMS per subscriber per month is 16 in QE Sep-20. The following table presents the outgoing SMS usage (usage from and outside, the home service area) per subscriber per

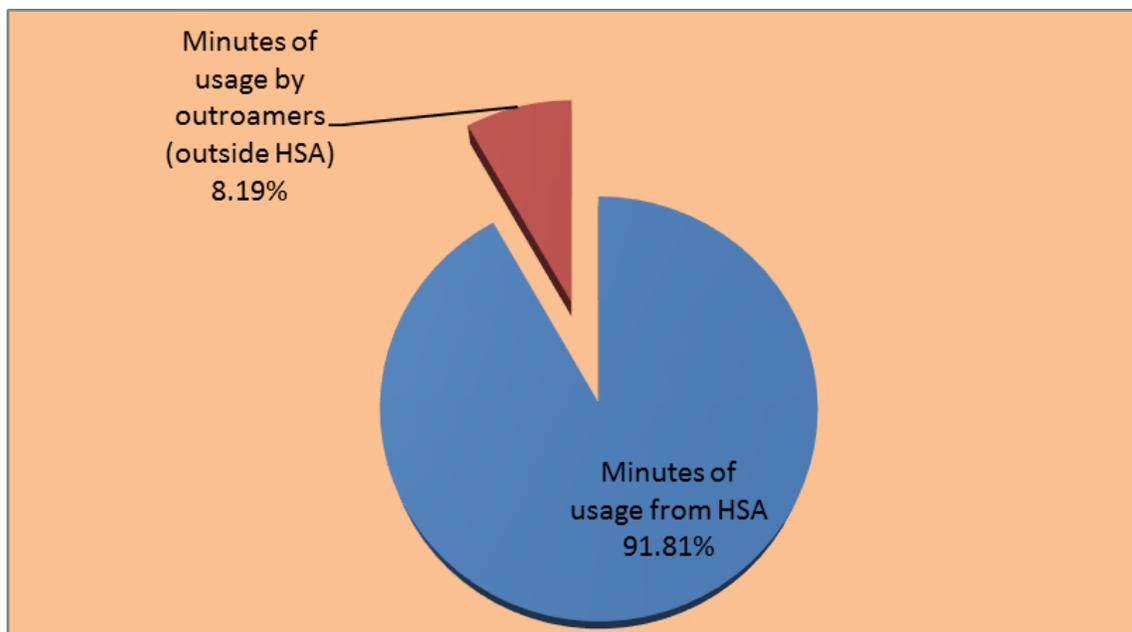
month for various categories of circles and various categories of subscribers viz. post-paid and pre-paid during Q.E. Sep- 20.

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

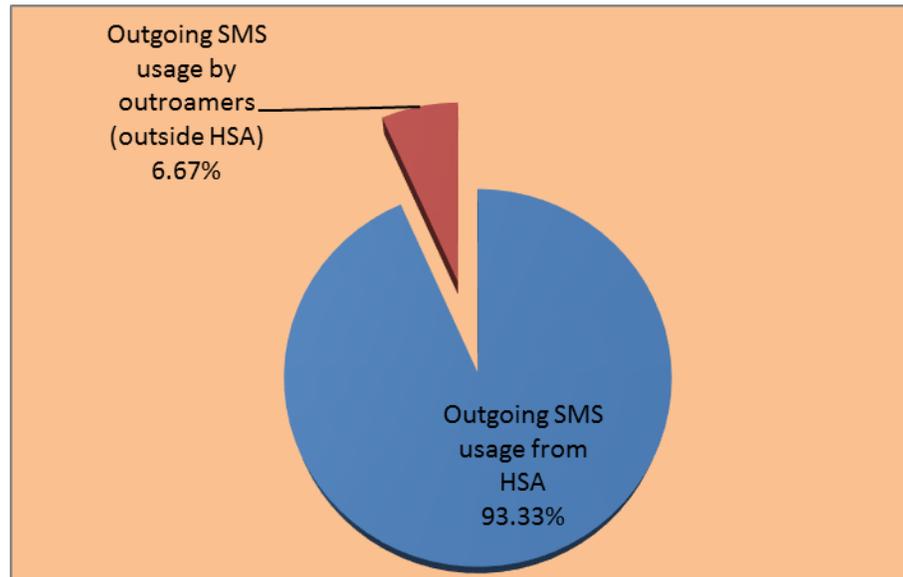
Circle category	Outgoing SMS per subscriber per month		
	Post-paid	Pre-paid	Blended
Circle A	41	17	18
Circle B	45	13	14
Circle C	19	18	18
Metro	19	13	14
<b>All India</b>	<b>31</b>	<b>15</b>	<b>16</b>

*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. Sep-2020**



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



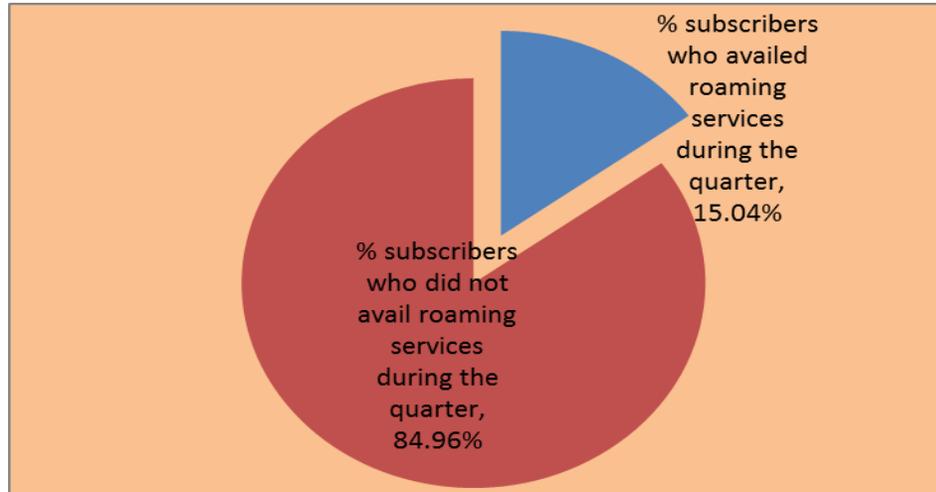
2.13 The following table presents the percentage break-up of outgoing minutes of usage from home service area between various categories of termination networks in the Q.E. Sep-20.

**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
<b>Circle A</b>	0.84	39.85	46.61	0.26	5.52	6.88	0.03
<b>Circle B</b>	0.55	38.53	42.69	0.17	7.87	10.19	0.01
<b>Circle C</b>	0.33	43.09	36.36	0.19	9.70	10.34	0.01
<b>Metros</b>	1.14	29.28	34.54	0.34	15.16	19.49	0.05
<b>All India</b>	<b>0.66</b>	<b>38.85</b>	<b>42.06</b>	<b>0.22</b>	<b>8.14</b>	<b>10.05</b>	<b>0.02</b>

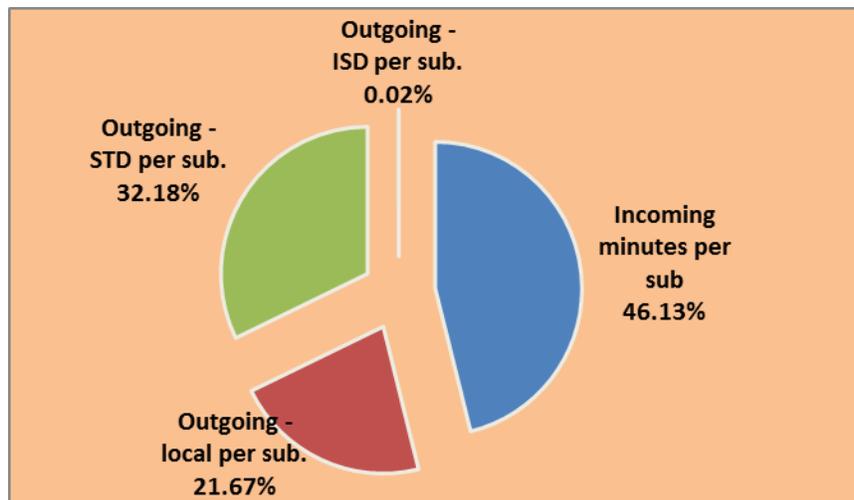
2.14 The following chart presents the percentage of subscribers who availed roaming services (out-roamers) during the QE Sep-20.

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



2.15 The usage pattern of out-roamers i.e. usage from outside the home service area shows that incoming minutes accounts for 46.13% of the total minutes of usage by out-roamers in QE Sep-20 as against 45.21% in the June-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

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

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

**(In Rs. per minute)**

<b>Circle Category</b>	<b>Postpaid</b>	<b>Prepaid</b>	<b>Blended</b>
Circle A	0.14	0.05	0.06
Circle B	0.14	0.05	0.05
Circle C	0.11	0.05	0.05
Metros	0.13	0.04	0.05
<b>All India</b>	<b>0.14</b>	<b>0.05</b>	<b>0.05</b>

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

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

<b>Parameter</b>	<b>Sep-19</b>	<b>Dec-19</b>	<b>Mar-20</b>	<b>Jun-20</b>	<b>Sep-20</b>
<b>1. ARPU (₹ Per month)</b>	74	79	91	90	97
<b>2. Average revenue Realization per subscriber per GB wireless data (in ₹)</b>	6.99	8.45	11.23	10.55	10.95
<b>3. MOU per subscriber per month</b>	691	712	750	744	761
<b>4. Outgoing MOU per subscriber per month</b>					
4.1 Local (Intra-circle)	254	265	276	282	296
4.2 NLD (inter-circle)	92	92	98	90	84
4.3 ILD	0.16	0.11	0.10	0.09	0.07
<b>5. Average no. of Outgoing SMS per subscriber per month</b>	18	18	17	15	16
<b>6. Average revenue per outgoing minute from HSA (in ₹)</b>	0.13	0.11	0.06	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 Mar-20 (₹ in Crore)	QE Jun-20 (₹ in Crore)	QE Sep-20 (₹ in Crore)	Q-O-Q % Change	Y-O-Y % Change
Gross Revenue (GR)	67,534	66,858	68,228	2.05	13.73
Adjusted Gross Revenue (AGR)	44,940	44,128	45,707	3.58	22.41
Pass Through Charges (GR-AGR)	22,593	22,730	22,521	-0.92	-0.58
License Fee	3,604	3,526	3,656	3.70	22.34
Spectrum Usage Charges	1,424	1,369	1,451	5.94	30.16

3.1 Gross Revenue (GR) and Adjusted Gross Revenue (AGR) quarterly increased by 2.05% and 3.58% respectively in QE Sep-20. On YoY basis GR and AGR also increased by 13.73% and 22.41% respectively in QE Sep-20.

3.2 Pass through charges decreased on both quarterly and yearly basis by 0.92% and 0.58% respectively in the QE Sep-20.

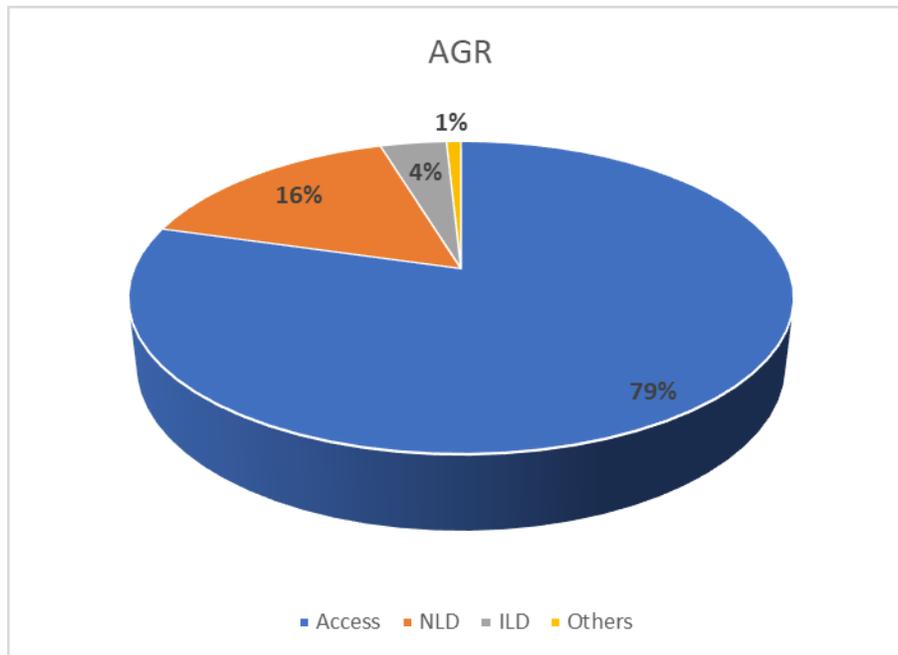
3.3 Pass-through charges as a percentage of Gross Revenue are 33% in QE Sep-20 as against 34% in the previous quarter.

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

(in ₹ Crore)

Service	GR	AGR	LF	Spectrum Usage Charges
<b>Access Providers</b>	51,124.34	36,317.75	2,905.93	1,446.79
<b>NLD</b>	9,549.83	7,246.34	579.71	-
<b>ILD</b>	3,511.76	1,756.09	140.49	-
<b>Others</b>	4,042.30	386.67	30.23	3.84
<b>Total</b>	<b>68,228.23</b>	<b>45,706.85</b>	<b>3,656.36</b>	<b>1,450.63</b>

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



3.4 Access services contributed 79% 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> increased by 3.30%, 5.80%, 5.81% and 5.98% respectively in QE Sep-20. However, Pass Through Charges quarterly decreased by 2.35% during the same period.

3.5 Monthly Average Revenue per User (ARPU) for Access Services based on AGR increased from 98.01 in QE Jun-20 to 103.87 in QE Sep-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 Sep-20	QE Jun-20	% Change
Reliance Jio	15915.14	15259.91	4.29
Bharti Airtel	10764.90	10088.46	6.71
Vodafone Idea	6435.79	5865.36	9.73
BSNL	2185.39	2140.40	2.10
Tata Tele.	583.08	540.84	7.81
MTNL	364.47	337.04	8.14
Reliance Com.	66.46	96.27	-30.97
Quadrant	-0.29	-0.06	-360.09
V-Con Mobile & Infra Pvt. Ltd.	2.82	-0.02	11757.84
<b>Grand Total (Access)</b>	<b>36317.75</b>	<b>34328.19</b>	<b>5.80</b>

3.6 Public Sector Undertakings' share in the Access AGR of telecom services is 7.02% in the QE Sep-20.

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

Category	AGR of Access Services for QE Sep-20 (in crore)	%age share of AGR
Metro	3695.62	10.18
A	13949.17	38.41
B	13586.12	37.41
C	5086.85	14.01
<b>Total</b>	<b>36317.75</b>	<b>100</b>

**Notes :**

1. Source: 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 9th August, 2010.
3. The figures have been re-grouped wherever considered necessary for analysis purpose.
4. Percentage of contribution of Five 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. M/s. V-Con Mobile & Infra Pvt. Ltd has started reporting GR/AGR with effect from Oct-Dec.,2019 onwards.

# **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 Jun, 2020		For Quarter Ending Sep, 2020	
			Out Of 110 (Nos.)	Out Of 110 (%)	Out Of 110 (Nos.)	Out Of 110 (%)
<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%	0	0%
<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%	2	1.82%
<b>3</b>	<b>Connection Maintenance (Retain ability)</b>					
(i)	Network QoS DCR Spatial Distribution Measure [Network_ QSD(90,90)]	≤ 2%	5	4.55%	5	4.55%
(ii)	Network QoS DCR Temporal Distribution Measure [Network_ QTD(97,90)]	≤ 3%	7	6.36%	5	4.55%
<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%	0	0%
<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	1	0.91%	0	0%
	Resolution of billing/charging/validity complaints	100% within 6 weeks	1	0.91%	2	1.82%
(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	1	0.91%	2	1.82%
<b>7 Response time to the customer for assistance</b>						
(i)	Accessibility of call centre/ customer care	≥ 95%	3	2.73%	2	1.82%
(ii)	%age of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	84	76.36%	29	26.36%
<b>8 Termination / closure of service</b>						
(i)	%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	1	0.91%	2	1.82%
(ii)	Time taken for refund of deposits after closures	100% within 60 days	66	60%	32	29.09%

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

- a. Network QoS DCR Temporal Distribution Measure [Network\_QTD (97,90)]
- b. Resolution of billing/charging/validity complaints 98% within 4 weeks
- c. Accessibility of call centre/ customer care
- d. %age of calls answered by the operators (voice to voice) within 90 sec

e. 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. Resolution of billing/charging/validity complaints 100% within 6 weeks
- b. Period of applying credit/ waiver/ adjustment to customer's account from the date of resolution of complaints
- c. %age requests for Termination / Closure of service complied within 7 days

**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</b>
TCH, RAB and E-RAB Congestion (%age)	≤ 2%	VIL-Brand Idea	Uttar Pradesh (West)	2.14
TCH, RAB and E-RAB Congestion (%age)	≤ 2%	VIL-Brand Vodafone	Uttar Pradesh (West)	2.14
Network QoS DCR Spatial Distribution Measure [Network_QSD(90,90)]	≤ 2%	BSNL	West Bengal	8.21
Network QoS DCR Spatial Distribution Measure [Network_QSD(90,90)]	≤ 2%	VIL-Brand Idea	Himachal Pradesh	2.56
Network QoS DCR Spatial Distribution Measure [Network_QSD(90,90)]	≤ 2%	VIL-Brand Idea	Jammu & Kashmir	2.56
Network QoS DCR Spatial Distribution Measure [Network_QSD(90,90)]	≤ 2%	VIL-Brand Vodafone	Himachal Pradesh	2.56
Network QoS DCR Spatial Distribution Measure [Network_QSD(90,90)]	≤ 2%	VIL-Brand Vodafone	Jammu & Kashmir	2.56
Network QoS DCR Temporal Distribution Measure [Network_QTD(97,90)]	≤ 3%	BSNL	West Bengal	10.00
Network QoS DCR Temporal Distribution Measure [Network_QTD(97,90)]	≤ 3%	VIL-Brand Idea	Himachal Pradesh	3.45
Network QoS DCR Temporal Distribution Measure [Network_QTD(97,90)]	≤ 3%	VIL-Brand Idea	Jammu & Kashmir	4.00
Network QoS DCR Temporal Distribution Measure [Network_QTD(97,90)]	≤ 3%	VIL-Brand Vodafone	Himachal Pradesh	3.45
Network QoS DCR Temporal Distribution Measure [Network_QTD(97,90)]	≤ 3%	VIL-Brand Vodafone	Jammu & Kashmir	4.00
Resolution of billing/charging complaints	100% within 6 weeks	VIL-Brand Idea	Gujarat	99.99
Resolution of billing/charging complaints	100% within 6 weeks	VIL-Brand Vodafone	Gujarat	99.99

<b>Parameter</b>	<b>Benchmark</b>	<b>Service Provider</b>	<b>Service Area</b>	<b>Performance</b>
Period of applying credit/ waiver/ adjustment to customer's account from the date of resolution of complaints	within 1 week of resolution of complaint	VIL-Brand Idea	Rajasthan	99.25
Period of applying credit/ waiver/ adjustment to customer's account from the date of resolution of complaints	within 1 week of resolution of complaint	VIL-Brand Vodafone	Rajasthan	99.25
Accessibility of call centre/ customer care	≥ 95%	BSNL	Kerala	93.00
Accessibility of call centre/ customer care	≥ 95%	BSNL	Rajasthan	89.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	Airtel	Andhra Pradesh	84.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	Airtel	Assam	85.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	Airtel	Bihar	93.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	Airtel	Delhi	91.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	Airtel	Gujarat	89.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	Airtel	Haryana	90.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	Airtel	Himachal Pradesh	91.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	Airtel	Jammu & Kashmir	91.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	Airtel	Karnataka	91.00

<b>Parameter</b>	<b>Benchmark</b>	<b>Service Provider</b>	<b>Service Area</b>	<b>Performance</b>
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	Airtel	Kerala	87.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	Airtel	Kolkata	92.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	Airtel	Madhya Pradesh	90.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	Airtel	Maharashtra	89.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	Airtel	Mumbai	92.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	Airtel	North East	86.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	Airtel	Punjab	94.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	Airtel	Rajasthan	91.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	Airtel	Tamil Nadu	78.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	Airtel	Uttar Pradesh (East)	91.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	Airtel	Uttar Pradesh (West)	90.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	Airtel	West Bengal	90.00
Percentage of calls answered by the	≥ 95%	BSNL	Karnataka	41.28

<b>Parameter</b>	<b>Benchmark</b>	<b>Service Provider</b>	<b>Service Area</b>	<b>Performance</b>
operators (voice to voice) within 90 seconds				
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	BSNL	Kerala	75.40
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	BSNL	Tamil Nadu	80.51
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	RJIL	Bihar	75.25
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	RJIL	Uttar Pradesh (East)	75.84
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	RJIL	Uttar Pradesh (West)	77.32
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	VIL-Brand Idea	Uttar Pradesh (East)	94.93
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	VIL-Brand Vodafone	Uttar Pradesh (East)	94.93
%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	VIL-Brand Idea	Andhra Pradesh	99.96
%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	VIL-Brand Vodafone	Andhra Pradesh	99.96
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Idea	Andhra Pradesh	45.57
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Idea	Assam	67.48
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Idea	Bihar	31.68
Time taken for refund of deposits after closures	100% within 60	VIL-Brand Idea	Delhi	74.25

<b>Parameter</b>	<b>Benchmark</b>	<b>Service Provider</b>	<b>Service Area</b>	<b>Performance</b>
	days			
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Idea	Haryana	92.58
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Idea	Kerala	77.33
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Idea	Kolkata	92.66
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Idea	Madhya Pradesh	12.00
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Idea	Maharashtra	52.75
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Idea	Mumbai	72.17
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Idea	North East	78.51
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Idea	Odisha	38.13
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Idea	Rajasthan	47.12
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Idea	Tamil Nadu	69.44
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Idea	Uttar Pradesh (West)	90.78
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Idea	West Bengal	88.46
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Vodafone	Andhra Pradesh	45.57
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Vodafone	Assam	67.48
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Vodafone	Bihar	31.68
Time taken for refund of deposits after closures	100% within 60	VIL-Brand Vodafone	Delhi	74.25

Parameter	Benchmark	Service Provider	Service Area	Performance
	days			
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Vodafone	Haryana	92.58
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Vodafone	Kerala	77.33
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Vodafone	Kolkata	92.66
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Vodafone	Madhya Pradesh	12.00
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Vodafone	Maharashtra	52.75
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Vodafone	Mumbai	72.17
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Vodafone	North East	78.51
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Vodafone	Odisha	38.13
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Vodafone	Rajasthan	47.12
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Vodafone	Tamil Nadu	69.44
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Vodafone	Uttar Pradesh (West)	90.78
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Vodafone	West Bengal	88.46

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			
			June, 2020		September, 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)	≤ 7	0	0.00%	0	0.00%
(ii)	% Fault repaired by next working day (for urban areas)	≥ 85%	10	9.62%	7	6.73%
	% Fault repaired within 5 days (for urban areas)	≥100%	2	1.92%	2	1.92%
(iii)	% Fault repaired by next working day (for rural and hilly areas)	≥ 75%	0	0.00%	2	1.92%
	% Fault repaired within 7 days (for rural and hilly areas)	≥100%	0	0.00%	0	0.00%
(iv)	<b>“Mean time to Repair”</b> (MTTR)	≤10Hs	10	9.62%	8	7.69%
(v)	<b>“Point of Interconnection”</b> (POI) Congestion (No. of PoIs not meeting benchmark)	≤ 0.5%	0	0.00%	0	0.00%
(vi)	<b>“Metering and Billing”</b> Metering and billing credibility - post-paid	≤ 0.1%	1	0.96%	0	0.00%
	Metering and Billing credibility -pre-paid	≤ 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>	13	12.50%	38	36.54%
	%age of calls answered by the operators (voice to voice) within 90 seconds	<b>≥ 95%</b>	30	28.85%	23	22.12%
<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>	1	0.96%	18	17.31%
<b>(xi)</b>	Time taken for refund of deposits after closures	<b>100% within 60 days</b>	13	12.50%	1	0.96%

**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)
- ❖ “Mean time to Repair” (MTTR)
- ❖ Metering and billing credibility - post-paid,
- ❖ %age of calls answered by the operators (voice to voice) within 90 seconds
- ❖ Time taken for refund of deposits after closures

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

- ❖ Accessibility of call centre/customer care
- ❖ %age of request for Termination/closure of service complied within 7 days

**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
% of faults repaired by next working day	For urban areas by next working day: $\geq 85\%$	BSNL	Maharashtra	79.00%
% of faults repaired by next working day	For urban areas by next working day: $\geq 85\%$	MTNL	Delhi	45.43%
			Mumbai	27.10%
% of faults repaired by next working day	For urban areas by next working day: $85\%$	TTSL	Kerala	40.00%
% of faults repaired by next working day	For urban areas by next working day: $85\%$	TTSL	Karnataka	71.62%
% of faults repaired by next working day	For urban areas by next working day: $85\%$	TTSL	Mumbai	65.68%
% of faults repaired by next working day	For urban areas by next working day: $85\%$	TTSL	Tamil Nadu	57.41
% of faults repaired within 5 days	For urban areas: $\geq 100\%$	MTNL	Delhi	72.91%
			Mumbai	50.80%
% of faults repaired by next working day	For rural and hilly areas: $\geq 75\%$	BSNL	Assam	70.00%
% of faults repaired by next working day	For rural and hilly areas: $\geq 75\%$	BSNL	Maharashtra	74.00%
Mean Time to Repair (MTTR)	$\leq 10$ Hrs	BSNL	Maharashtra	13
Mean Time to Repair (MTTR)	$\leq 10$ Hrs	MTNL	Delhi	34
Mean Time to Repair (MTTR)	$\leq 10$ Hrs	MTNL	Mumbai	84
Mean Time to Repair (MTTR)	$\leq 10$ Hrs	TTSL	Kerala	35
Mean Time to Repair (MTTR)	$\leq 10$ Hrs	TTSL	Karnataka	17
Mean Time to Repair (MTTR)	$\leq 10$ Hrs	TTSL	Maharashtra	10

Parameters	Benchmarks	Service Provider	Service areas	Parameters not met
Mean Time to Repair (MTTR)	≤ 10 Hrs	TTSL	Mumbai	20
Mean Time to Repair (MTTR)	≤ 10 Hrs	TTSL	Tamil Nadu	19
Metering and Billing credibility - post paid	≤0.1%	BSNL	Haryana	0.08
Accessibility of call centre/ customer care	≥95%	BSNL	Andhra Pradesh	88.61%
Accessibility of call centre/ customer care	≥95%	BSNL	Assam	94.98%
Accessibility of call centre/ customer care	≥95%	BSNL	Gujarat	49.47%
Accessibility of call centre/ customer care	≥95%	BSNL	Himachal Pradesh	93.84%
Accessibility of call centre/ customer care	≥95%	BSNL	Haryana	93.34%
Accessibility of call centre/ customer care	≥95%	BSNL	Jammu & Kashmir	94.59%
Accessibility of call centre/ customer care	≥95%	BSNL	Kerala	92.07%
Accessibility of call centre/ customer care	≥95%	BSNL	Kolkata	94.30%
Accessibility of call centre/ customer care	≥95%	BSNL	Karnataka	75.15%
Accessibility of call centre/ customer care	≥95%	BSNL	Maharashtra	38.96%
Accessibility of call centre/ customer care	≥95%	BSNL	Madhya Pradesh	3.64%
Accessibility of call centre/ customer care	≥95%	BSNL	Odisha	93.07%
Accessibility of call centre/ customer care	≥95%	BSNL	Punjab	93.59%
Accessibility of call centre/ customer care	≥95%	BSNL	Rajasthan	93.47%
Accessibility of call centre/ customer care	≥95%	BSNL	Tamil Nadu	69.19%
Accessibility of call centre/ customer care	≥95%	BSNL	UPE	94.15%
Accessibility of call centre/ customer care	≥95%	BSNL	UPW	93.41%
Accessibility of call centre/ customer care	≥95%	VIL	Andhra Pradesh	88%

Parameters	Benchmarks	Service Provider	Service areas	Parameters not met
Accessibility of call centre/ customer care	≥95%	VIL	Assam	88%
Accessibility of call centre/ customer care	≥95%	VIL	Bihar	88%
Accessibility of call centre/ customer care	≥95%	VIL	Delhi	88%
Accessibility of call centre/ customer care	≥95%	VIL	Gujarat	88%
Accessibility of call centre/ customer care	≥95%	VIL	Haryana	88%
Accessibility of call centre/ customer care	≥95%	VIL	Himachal Pradesh	88%
Accessibility of call centre/ customer care	≥95%	VIL	Jammu & Kashmir	88%
Accessibility of call centre/ customer care	≥95%	VIL	Kolkata	88%
Accessibility of call centre/ customer care	≥95%	VIL	Karnataka	88%
Accessibility of call centre/ customer care	≥95%	VIL	Kerala	88%
Accessibility of call centre/ customer care	≥95%	VIL	Madhya Pradesh	88%
Accessibility of call centre/ customer care	≥95%	VIL	Maharashtra	88%
Accessibility of call centre/ customer care	≥95%	VIL	Mumbai	88%
Accessibility of call centre/ customer care	≥95%	VIL	North East	88%
Accessibility of call centre/ customer care	≥95%	VIL	Punjab	88%
Accessibility of call centre/ customer care	≥95%	VIL	Orissa	88%
Accessibility of call centre/ customer care	≥95%	VIL	Rajasthan	88%
Accessibility of call centre/ customer care	≥95%	VIL	Tamil Nadu	88%
Accessibility of call centre/ customer care	≥95%	VIL	UP-East	88%
Accessibility of call centre/ customer care	≥95%	VIL	UP-West	88%
Accessibility of call centre/ customer care	≥95%	VIL	West Bengal	88%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	Andhra Pradesh	72.00%

Parameters	Benchmarks	Service Provider	Service areas	Parameters not met
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	Delhi	69.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	Gujarat	68.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	Haryana	75.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	Kerala	52.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	Kolkata	67.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	Karnataka	75.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	Maharashtra	67.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	Madhya Pradesh	69.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	Mumbai	69.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	Punjab	70.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	Rajasthan	71.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	Tamil Nadu	71.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	UPE	70.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	UPW	75.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	BSNL	Andhra Pradesh	88.38%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	BSNL	Gujarat	40.89%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	BSNL	Kerala	91.95%
Percentage of calls answered by the operators (voice to	≥95%	BSNL	Karnataka	73.88%

Parameters	Benchmarks	Service Provider	Service areas	Parameters not met
voice) within 90 seconds				
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	BSNL	Maharashtra	38.46%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	BSNL	Madhya Pradesh	3.58%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	BSNL	Tamil Nadu	67.86%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	MTNL	Mumbai	47.95%
%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	MTNL	Mumbai	96.97
%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	TTSL	Andhra Pradesh	NR
%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	TTSL	Bihar	NR
%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	TTSL	Delhi	NR
%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	TTSL	Gujarat	NR
%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	TTSL	Haryana	NR
%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	TTSL	Kerala	NR
%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	TTSL	Karnataka	NR
%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	TTSL	Maharashtra	NR
%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	TTSL	Madhya Pradesh	NR

Parameters	Benchmarks	Service Provider	Service areas	Parameters not met
%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	TTSL	Mumbai	NR
%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	TTSL	Odisha	NR
%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	TTSL	Punjab	NR
%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	TTSL	Rajasthan	NR
%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	TTSL	Tamil Nadu	NR
%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	TTSL	UPE	NR
%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	TTSL	UPW	NR
%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	TTSL	West Bengal	NR
Time taken for refund of deposits after closures	100% within 60 days	MTNL	Mumbai	8.62%

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 333 Internet Service Providers (ISPs) providing broadband (wireline) service at the end of September, 2020. Out of these 333 ISPs, only 60 Service Providers are having broadband subscriber base more than 10,000 and market share of these 60 SPs is 98.35% of total broadband subscriber base. This report covers performance of 56–broadband Service Providers vis-à-vis the QoS benchmarks prescribed by TRAI, for the QE September, 2020. Service providers namely M/s Ethernet Xpress India Pvt. Ltd. (New entrant), M/s Intermedia Cable Communication Pvt. Ltd. (New entrant), M/s IKF Technologies Ltd. and M/s United Telecoms Ltd. has not submitted their Performance Monitoring Report (PMR) in this quarter.

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

S. No.	Parameters	Benchmark	Quarter Ending		Quarter Ending	
			June, 2020		Sep, 2020	
			Out of 107	Out of 107	Out of 111	Out of 111
<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>3.74%</b>	4	<b>3.60%</b>
<b>2</b>	<b>Faults Repair</b>					
2.2	% of faults repaired by next working day (>90%)	>90%	7	<b>6.54%</b>	4	<b>3.60%</b>
2.3	% of faults repaired within 3 working day	=>99%	9	<b>8.41%</b>	6	<b>5.41%</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>	0	<b>0.00%</b>

S. No.	Parameters	Benchmark	Quarter Ending		Quarter Ending	
			June, 2020		Sep, 2020	
			Out of 107	Out of 107	Out of 111	Out of 111
3.5	%age of cases to whom refund of deposits is made within 60 days of closures	100% within 60 days	7	6.54%	1	0.90%
<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%	20	18.69%	11	9.91%
4.3	%age of calls answered by operator (Voice to voice) within 90 sec	>80%	22	20.56%	20	18.02%
<b>5</b>	<b>Bandwidth utilisation/ throughput</b>					
5.2	No. of Intra network links having Bandwidth utilisation >90% during peak hours (TCBH)	0	0	0.00%	1	0.90%
5.4	No. of Upstream links for International connectivity having bandwidth utilisation >90% during peak hours (TCBH)	0	0	0.00%	1	0.90%
5.7	% International bandwidth utilization during peak hours (TCBH) (Enclose MRTG) <90%	<90%	1	0.93%	0	0.00%
5.8	Broadband Connection Speed available (download) from ISP node to user	>80%	0	0.00%	0	0.00%
<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	0.00%	0	0.00%
<b>7</b>	<b>Packet loss (for wired broadband access) in %age</b>	<1%	0	0.00%	0	0.00%
<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	0.00%	0	0.00%
8.2	User reference point at ISP Gateway node to International nearest NAP port abroad (terrestrial)	<350 ms	0	0.00%	0	0.00%
8.3	User reference point at ISP Gateway node to International nearest NAP port abroad (satellite)	<800 ms	0	0.00%	0	0.00%

**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 (79.59%) <b>GTPL</b> - All India (99.70%) <b>Microscan</b> - Mumbai (99.00%) <b>You Broadband</b> - All India (94.05%)
<b>2</b>	<b>Faults Repair</b>		
2.2	% of faults repaired by next working day (>90%)	>90%	<b>MTNL</b> - Delhi & Mum (44.41%), <b>Tata (TTSL)</b> - All India (except MH) (85.00%) <b>Tata (TTML)</b> - Mah. & Mumbai (75.00%), <b>Yashash</b> - Karnataka (88.70%),
2.3	% of faults repaired within 3 working day	=>99%	<b>MTNL</b> - Delhi & Mumbai (60.38%), <b>KNET</b> - Chennai (98.12%), TN (98.26%) <b>Tata (TTSL)</b> - All India (except MH) (95.00%), <b>TATA(TTML)</b> - Mah. & Mumbai. (91.00%) <b>Yashash</b> - Karnataka (97.20%),
<b>3</b>	<b>Billing Performance</b>		
	%age of cases to whom refund of deposits is made within 60 days of closures	100%	<b>MTNL</b> - Delhi & Mum (53.70%)
<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>Bharti Airtel</b> - DL (57.00%),KR (44.00%),KOL (59.00%),J&K (56.00%),MP (57.00%),MH (58.00%),MUM (57.00%),UPE (58.00%)UPW (57.00%), <b>DEN</b> - All India (51.00%), <b>You Broadband</b> - All India (52.76%)
4.3	%age of calls answered by operator (Voice to voice) within 90 sec	>80%	<b>MTNL</b> - Delhi & Mumbai (74.12%) <b>Bharti Airtel</b> - AP (72.00%),DL (67.00%), GJ (69.00%), HR (71.00%), KTK (71.00%), KR (54.00%), KOL (68.00%), J&K (65.00%),MP (67.00%),MH (67.00%), MUM (67.00%), PB (72.00%), RJ (71.00%), TN (68.00%), UPE (68.00%),UPW (66.00%) <b>DEN</b> - All India (57.00%) <b>RailTel</b> - All India (76.33%) <b>You Broadband</b> - All India (63.38%)
<b>5</b>	<b>Bandwidth utilisation/throughput</b>		
5.2	No. of Intra network links having Bandwidth utilisation >90% during peak hours (TCBH)	0	<b>You Broadband</b> - All India (18)
5.4	No. of Upstream links for International connectivity having bandwidth utilisation >90% during peak hours (TCBH)	0	<b>You Broadband</b> - All India (80643)

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	Jun-20	Sep-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	909	911
2	Number of Pay TV Channels as reported by broadcasters	332	327
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	300	310
6.	Number of total active Subscribers with pay DTH operators	70.58	70.70

**A. Satellite TV Channels**

5.1 A total of 911 private satellite TV channels have been permitted by the Ministry of Information and Broadcasting (MIB) for uplinking only/downlinking only/both uplinking and downloading, as on 30<sup>th</sup> September, 2020. The quarter-wise figures of the total number of TV channels is depicted in below chart: -

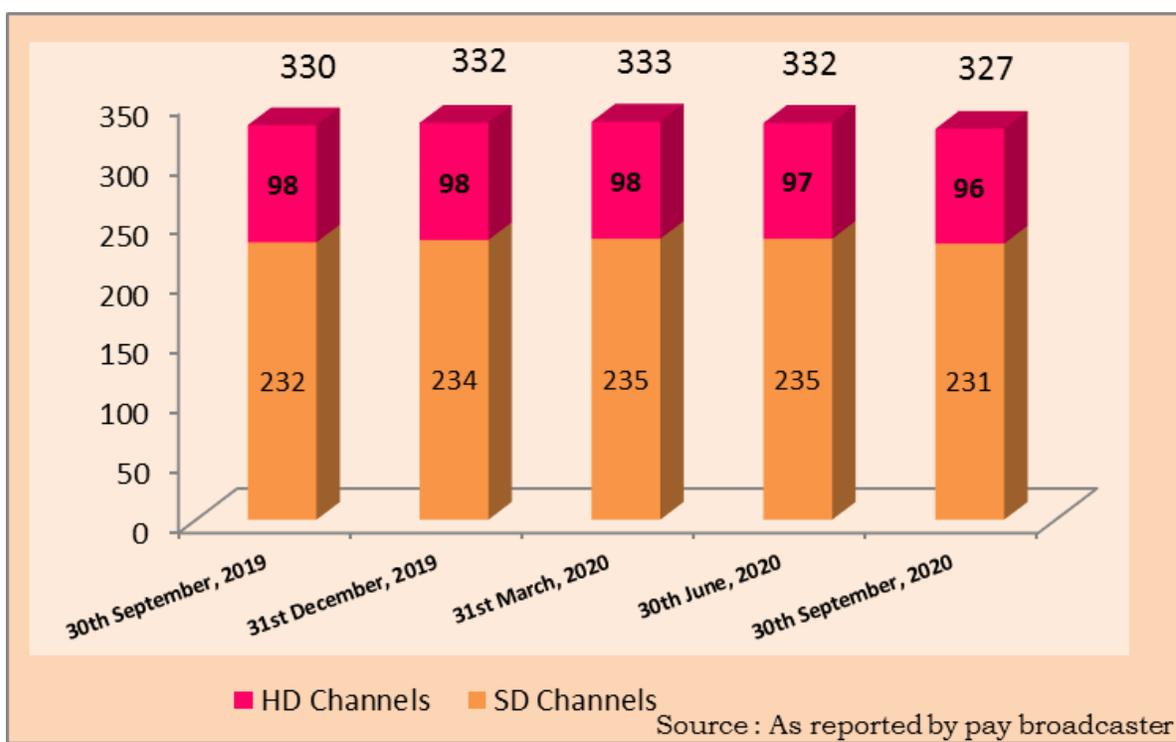
**Chart 5.1: Quarterly growth in number of Satellite TV channels (FTA & Pay) registered with Ministry of I&B**



## **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 **327** pay TV channels, as on 30<sup>th</sup> September 2020, which includes **231** SD pay TV channels and **96** HD Pay TV channels. A list of pay TV channels offered by broadcasters to 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**



### C. 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 30<sup>th</sup> September 2020, there are 1697 (includes 2 provisional MSOs) 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 September, 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	8,782,263
2.	GTPL Hathway	7,725,525
3.	Hathway Digital	5,281,920
4.	Den Networks	5,019,021
5.	TCCL	3,045,216
6.	Tamil Nadu Arasu Cable TV	3,024,345
7.	Kerala Communicators Cable Ltd (KCCL)	2,985,112
8.	Fastway Transmissions Pvt Ltd	2,238,075
9.	NXT Digital Ltd (HITS)	2,142,184
10.	KAL Cables	1,987,947
11.	VK Digital	1,659,460
12.	NXT Digital Ltd (CATV)	1,285,222
13.	Asianet Digital Network	1,226,453

#### **D. 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 30<sup>th</sup> September, 2020, there were 4 pay DTH service providers in India. A list of DTH Operators is attached as **Annexure 5.3**.

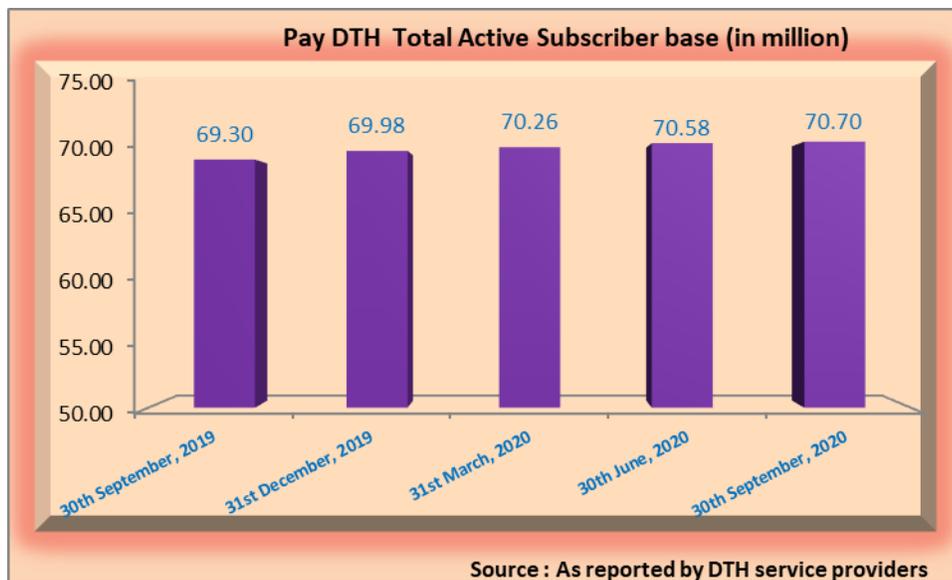
5.8 Pay DTH has attained Total active subscriber base of around 70.70 million. This is in addition to the subscribers of the DD Free Dish (free DTH services of Doordarshan). The total active subscriber base has increased from 70.58 million in June 2020 to 70.70 million in September 2020.

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.

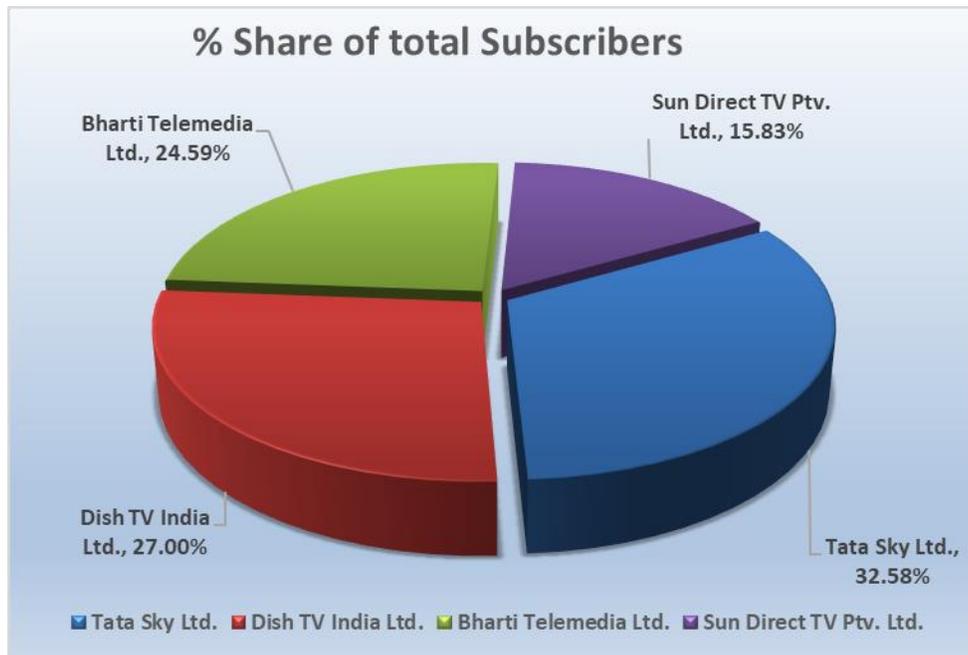
However as per new regulatory framework of Broadcasting and Cable TV Services, the total active subscribers are counted including only those subscribers which are inactive/ temporarily suspended for not more than last 90 days. This point has been duly clarified by the Authority in the Press Release no. 86/ 2019 dated 8<sup>th</sup> October, 2019 ([https://main.tra.gov.in/sites/default/files/PR\\_No.86of2019.pdf](https://main.tra.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 30<sup>th</sup> September 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**

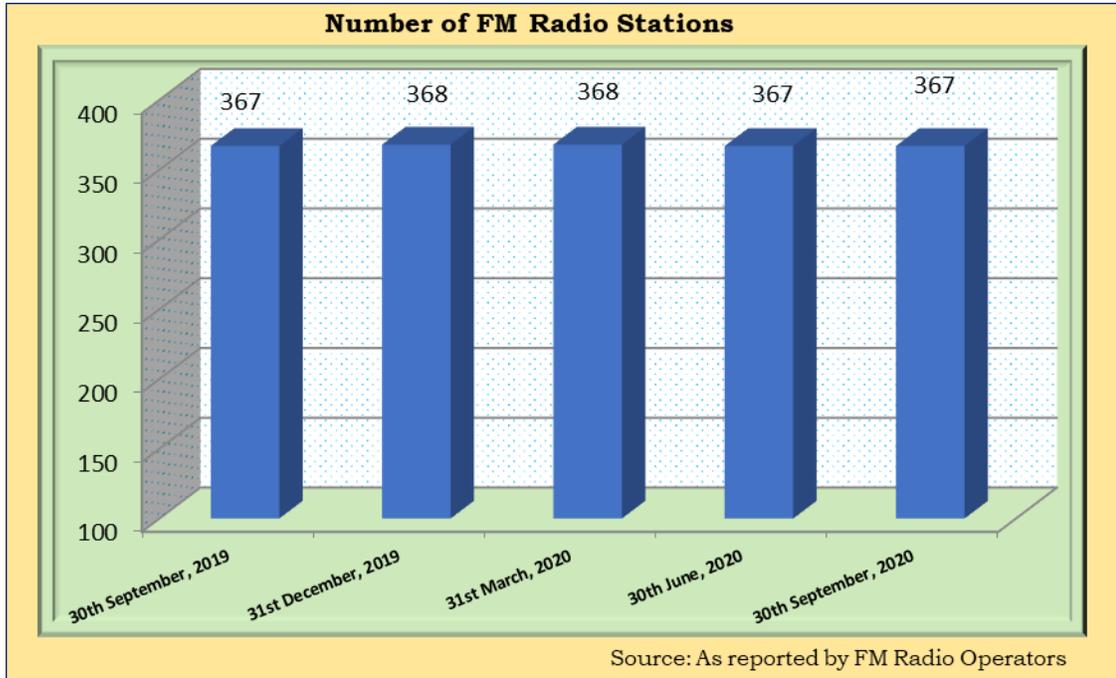


Source : As reported by DTH service providers

### **E. FM Radio Services**

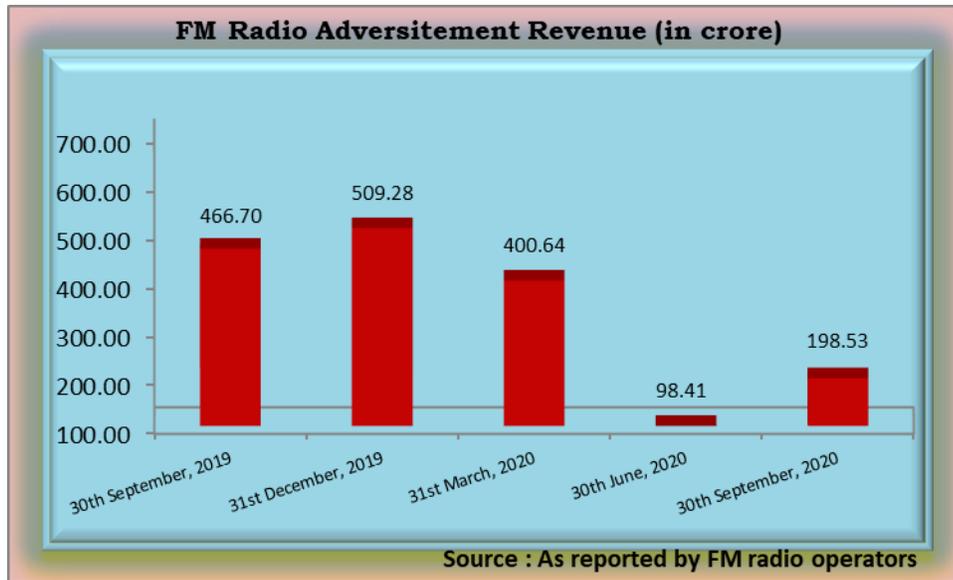
5.12 Apart from the radio stations operated by All India Radio – the public broadcaster, as on 30<sup>th</sup> September 2020, there are 367 operational private FM Radio stations in 105 cities with operational 31 Private FM Radio broadcasters as compared to 367 private FM Radio Stations in 105 cities 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 30<sup>th</sup> September, 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 30<sup>th</sup> September 2020 in respect of 366 private FM Radio stations is Rs.198.53 crore as against Rs.98.41 crore in respect of 366 private FM Radio stations for the previous quarter i.e 30<sup>th</sup> June 2020. One FM Radio Broadcaster, M/s Gwalior Firm Private Limited, operating in the city of Guwahati, has not submitted the advertisement revenue.

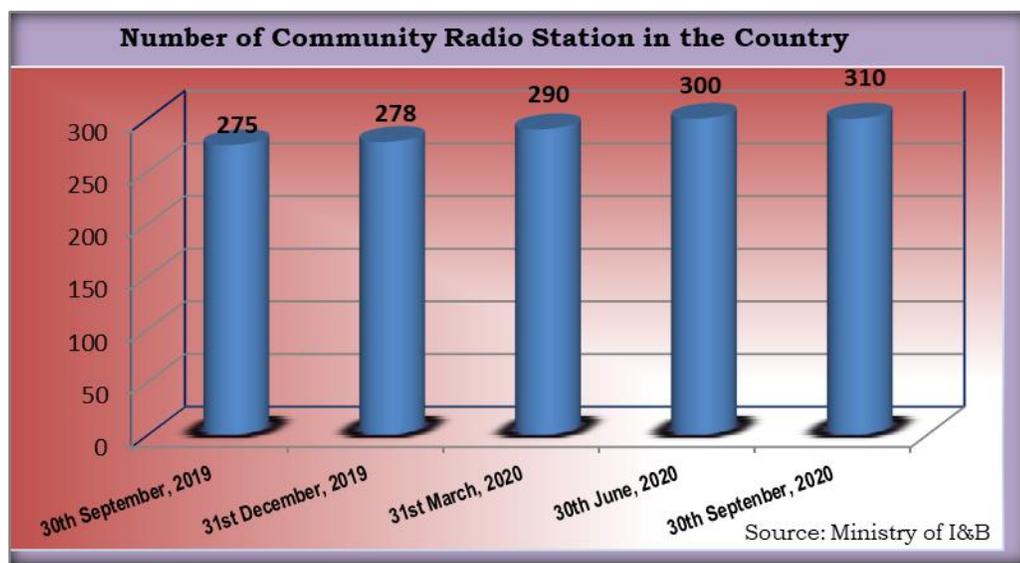
**Chart 5.6: Quarterly growth in FM Radio Advertisement Revenue**



### F. Community Radio

5.14 As on 30<sup>th</sup> September, 2020, there are 310 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
	Jun-20	Sep-20	Jun-20	Sep-20	Jun-20	Sep-20	Jun-20	Sep-20	Jun-20	Sep-20	Jun-20	Sep-20	Jun-20	Sep-20	
Andhra Pradesh	16948499	16630879	28513977	29367090	2175	1694	9855027	9781494			31033822	31184600	86,353,500	86,965,757	612257
Assam	3892299	3581363	8285759	8485892	0		2843947	2888111			8465436	8684391	23,487,441	23,639,757	152316
Bihar	13652772	12862375	33693996	34560614	360	351	5701746	5875219			30622243	30983400	83,671,117	84,281,959	610842
Delhi	16417191	16101122	15048030	15477754	1751	1190	0		2179026	2174003	18388992	18740188	52,034,990	52,494,257	459267
Gujarat	25892692	25474201	9920925	10372247	612	614	6106266	6109492			24316715	24830736	66,237,210	66,787,290	550080
Haryana	8361858	8088541	4498706	4767758	130	130	5013844	5073981			9381819	9429315	27,256,357	27,359,725	103368
Himachal Pradesh	788330	744572	3211925	3280745	103	104	2997445	2988503			3739380	3894963	10,737,183	10,908,887	171704
Jammu & Kashmir	588643	540719	5720475	5558818	0	0	1259303	1254948			4220936	4374426	11,789,357	11,728,911	-60446
Karnataka	10825486	10266022	27876260	28750088	1601	2269	7274657	7256391			20702665	20785830	66,680,669	67,060,600	379931
Kerala	17575190	17362961	5622201	6014889	690	698	10949638	10951796			9441962	9723173	43,589,681	44,053,517	463836
Madhya Pradesh	23058064	23083055	13315433	14051370	728	791	6376004	6303315			31814555	32346106	74,564,784	75,784,637	1219853
Maharashtra	35920408	34017639	15598186	16390350	912	859	7022942	7083722			32741143	34256776	91,283,591	91,749,346	465755
Mumbai	11937699	11239051	9205994	9486228	2318	1651	0		1175694	1163395	14147321	14314165	36,469,026	36,204,490	-264536
North East	1625330	1535017	5086549	5189422	0	0	1402201	1367606			3763129	3902705	11,877,209	11,994,750	117541
Orissa	2851806	2697878	10770115	10842112	379	386	6354332	6357676			12995977	13409091	32,972,609	33,307,143	334534
Punjab	8838348	8677625	9926586	10298938	307	402	5817451	5856662			13940730	13991923	38,523,422	38,825,550	302128
Rajasthan	12928571	12646298	20458171	21261002	385	416	6312472	6356489			24671680	24895132	64,371,279	65,159,337	788058
Tamil Nadu (incl. Chennai)	19408811	19228919	24498103	25191670	3132	2512	10689186	11013485			24027784	24110030	78,627,016	79,546,616	919600
UP(E)	26206694	24752673	30874068	31790706	687	737	11717082	11675292			29138887	29555077	97,937,418	97,774,485	-162933
UP(W)	22054123	21041049	13934826	14718017	283	340	6036679	6018620			20050305	20180022	62,076,216	61,958,048	-118168
Kolkata	7013690	7185220	5836094	5945343	33	33	2169503	2327265			10338362	10653841	25,357,682	26,111,702	754020
West Bengal	18317372	17738564	14775105	14810655	801	1,157	2409240	2450590			19305561	19883750	54,808,079	54,884,716	76637
<b>Total</b>	<b>305,103,876</b>	<b>295,495,743</b>	<b>316,671,484</b>	<b>326,611,708</b>	<b>17,387</b>	<b>16,334</b>	<b>118,308,965</b>	<b>118,990,657</b>	<b>3,354,720</b>	<b>3,337,398</b>	<b>397,249,404</b>	<b>404,129,640</b>	<b>1,140,705,836</b>	<b>1,148,581,480</b>	<b>7875644</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
		Jun-20	Sep-20	Jun-20	Sep-20	Jun-20	Sep-20	Jun-20	Sep-20	Jun-20	Sep-20	Jun-20	Sep-20	Jun-20	Sep-20	Jun-20	Sep-20	Jun-20	Sep-20	
1	Andhra Pradesh	217071	228534	26517	24265			161986	162180			710649	671604	51915	62290	142988	204571	1,311,126	1,353,444	42,318
2	Assam											91870	88179	3450	3480	17159	25245	112,479	116,904	4,425
3	Bihar			1937	1064			8124	7619			140696	136451	1830	1830	25121	44948	177,708	191,912	14,204
4	Delhi	1416973	1453257	62940	54847			144233	145610	1391811	1361213	-	-	75335	76820	97012	172397	3,188,304	3,264,144	75,840
5	Gujarat	101627	114715	8597	7003			82095	83005			579193	543509	32022	32907	154695	180740	958,229	961,879	3,650
6	Haryana	24810	28306	1314	895			38349	36795			174789	151169	360	360	49461	73457	289,083	290,982	1,899
7	Himachal Pradesh			953	684			1820	1839			89491	85059	30	30	1352	4745	93,646	92,357	-1,289
8	Jammu & Kashmir	4325	9585	0	0			0	0			111452	102635	0	0	25251	43115	141,028	155,335	14,307
9	Karnataka	776627	783151	92714	89354			267925	263744			823344	816343	80357	90212	84124	140128	2,125,091	2,182,932	57,841
10	Kerala	60252	60921	9487	8062			19377	19620			1379954	1279325	6090	6150	21465	35834	1,496,625	1,409,912	-86,713
11	Madhya Pradesh	234566	249866	4368	3511			12452	11785			303347	288195	2130	3675	64190	102763	621,053	659,795	38,742
12	Maharashtra	116173	125867	30889	23558			249175	241556			838078	834521	29223	30373	44952	65164	1,308,490	1,321,039	12,549
13	Mumbai	373704	374374	119526	109083			524705	517936	1694184	1669653	0	0	86886	93581	263091	305874	3,062,096	3,070,501	8,405
14	North East											86189	76059	270	270	10107	17154	96,566	93,483	-3,083
15	Orissa			1590	1519			8747	9283			174878	162307	6060	6240	12219	23060	203,494	202,409	-1,085
16	Punjab	133009	138258	9023	6169	177039	185615	11773	12379			294817	268507	3180	3210	48715	69937	677,556	684,075	6,519
17	Rajasthan	57600	65473	11802	8826			11303	11496			328940	299894	11780	16430	50095	74466	471,520	476,585	5,065
18	Tamil Nadu (incl. Chennai)	531136	535940	41223	37998			120655	120865			1102690	1044710	36755	39165	128014	182440	1,960,473	1,961,118	645
19	U.P. (E)	63375	71477	2701	1792			7575	7727			193146	185049	13900	19960	51960	80426	332,657	366,431	33,774
20	U.P. (W)	28135	36750	2040	1640			4662	4534			186171	171597	5460	5430	101403	113179	327,871	333,130	5,259
21	Kolkata	133050	138089	32293	31930			48127	47898			382620	357271	10700	13130	49137	93064	655,927	681,382	25,455
22	West Bengal			1509	1418			2372	2439			182698	177982	120	120	12831	25228	199,530	207,187	7,657
	<b>Total</b>	<b>4,272,433</b>	<b>4,414,563</b>	<b>461,423</b>	<b>413,618</b>	<b>177,039</b>	<b>185,615</b>	<b>1,725,455</b>	<b>1,708,310</b>	<b>3,085,995</b>	<b>3,030,866</b>	<b>8,175,012</b>	<b>7,740,366</b>	<b>457,853</b>	<b>505,663</b>	<b>1,455,342</b>	<b>2,077,935</b>	<b>19,810,552</b>	<b>20,076,936</b>	<b>266,384</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 30.06.2020	Number of PCOs as on 30.09.2020	Net PCO increase/ decrease as on 30.09.2020	Percentage Growth/ Decline as on 30.09.2020
Andhra Pradesh (Excluding Telangana)	Bharat Sanchar Nigam Limited	4,359	4,068	-291	-6.68%
	Bharti Airtel	0	0	0	-
Telangana	Bharat Sanchar Nigam Limited	4,833	4,306	-527	-10.90%
	Bharti Airtel	181	181	0	100.00%
Assam	Bharat Sanchar Nigam Limited	957	940	-17	-1.78%
Bihar (Excluding Jharkhand)	Bharat Sanchar Nigam Limited	654	619	-35	-5.35%
Jharkhand	Bharat Sanchar Nigam Limited	2,415	2,416	1	0.04%
Delhi	Bharti Airtel	330	330	0	0.00%
	MTNL	39,537	39,211	-326	-0.82%
Gujarat	Bharat Sanchar Nigam Limited	5,012	4,777	-235	-4.69%
	Bharti Airtel	14	14	0	0.00%
Haryana	Bharat Sanchar Nigam Limited	535	560	25	4.67%
	Bharti Airtel	135	135	0	0.00%
Himachal Pradesh	Bharat Sanchar Nigam Limited	641	641	0	0.00%
Jammu & Kashmir	Bharat Sanchar Nigam Limited	478	439	-39	-8.16%
Karnataka	Bharat Sanchar Nigam Limited	10,838	10,209	-629	-5.80%
	Bharti Airtel	2,848	2,789	-59	-2.07%
Kerala	Bharat Sanchar Nigam Limited	11,596	11,004	-592	-5.11%
	Bharti Airtel	392	384	-8	-2.04%
Kolkata	Bharat Sanchar Nigam Limited	2,061	1,983	-78	-3.78%
	Bharti Airtel	36	36	0	0.00%
Madhya Pradesh (Excluding Chhattisgarh)	Bharat Sanchar Nigam Limited	7,113	9,032	1,919	26.98%
	Bharti Airtel	1,210	1,176	-34	-2.81%
Chhattisgarh	Bharat Sanchar Nigam Limited	335	222	-113	-33.73%
Maharashtra (Excluding Mumbai & Goa)	Bharat Sanchar Nigam Limited	8,065	7,626	-439	-5.44%
	Bharti Airtel	0	0	0	100.00%
Mumbai	Bharti Airtel	50	50	0	0.00%
	MTNL	16,862	16,523	-339	-2.01%
Goa	Bharat Sanchar Nigam Limited	174	161	-13	-7.47%
Arunachal Pradesh	Bharat Sanchar Nigam Limited	1,045	9	-1,036	-99.14%

**Annexure 1.3 (contd.)**

<b>Name of Telecom Service Area</b>	<b>Service Provider</b>	<b>Number of PCOs as on 30.06.2020</b>	<b>Number of PCOs as on 30.09.2020</b>	<b>Net PCO increase/ decrease as on 30.09.2020</b>	<b>Percentage Growth/ Decline as on 30.09.2020</b>
Manipur	Bharat Sanchar Nigam Limited	772	772	0	0.00%
Meghalaya	Bharat Sanchar Nigam Limited	255	255	0	0.00%
Mizoram	Bharat Sanchar Nigam Limited	109	107	-2	-1.83%
Nagaland	Bharat Sanchar Nigam Limited	0	0	0	-
Tripura	Bharat Sanchar Nigam Limited	477	475	-2	-0.42%
Orissa	Bharat Sanchar Nigam Limited	1,211	1,151	-60	-4.95%
Punjab	Bharat Sanchar Nigam Limited	1,309	1,285	-24	-1.83%
	Bharti Airtel	4	4	0	0.00%
	Quadrant	670	561	-109	-16.27%
Rajasthan	Bharat Sanchar Nigam Limited	1,378	1,161	-217	-15.75%
	Bharti Airtel	209	209	0	0.00%
Tamil Nadu (Excluding Chennai)	Bharat Sanchar Nigam Limited	16,417	13,488	-2,929	-17.84%
	Bharti Airtel	2,868	3,127	259	9.03%
Chennai	Bharat Sanchar Nigam Limited	6,841	6,841	0	0.00%
Uttar Pradesh East	Bharat Sanchar Nigam Limited	4,052	3,618	-434	-10.71%
	Bharti Airtel	70	66	-4	-5.71%
Uttar Pradesh West (Excluding Uttarakhand)	Bharat Sanchar Nigam Limited	1,323	1,160	-163	-12.32%
Uttarakhand	Bharat Sanchar Nigam Limited	397	368	-29	-7.30%
West Bengal (Excluding Andaman & Nicobar and Sikkim)	Bharat Sanchar Nigam Limited	830	693	-137	-16.51%
Andaman & Nicobar	Bharat Sanchar Nigam Limited	39	0	-39	-100.00%
Sikkim	Bharat Sanchar Nigam Limited	0	0	0	0.00%
<b>Total</b>		<b>1,61,937</b>	<b>1,55,182</b>	<b>-6,755</b>	<b>-4.17%</b>
<b>Total (In Lakhs)</b>		<b>1.62</b>	<b>1.55</b>	<b>-0.07</b>	<b>-4.17%</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 30.06.2020</b>	<b>Number of VPTs as on 30.09.2020</b>	<b>Net VPTs increase/ decrease as on 30.09.2020</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 30.06.2020</b>	<b>Number of VPTs as on 30.09.2020</b>	<b>Net VPTs increase/ decrease as on 30.09.2020</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	22	222	200
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>68,406</b>	<b>68,606</b>	<b>200</b>
	<b>Total (In Lakh)</b>		<b>0.68</b>	<b>0.69</b>	<b>0.00</b>

**Annexure 1.5 : Internet Service Provider(ISP) wise Internet Subscriber base  
as on 30.09.2020**

S.No.	Name of the Service Provider:	Narrowband	Broadband	Total
1	Reliance Jio Infocomm Ltd	0	405648658	405648658
2	Bharti Airtel Ltd.	25726235	166004572	191730807
3	Vodafone Idea Limited	17680576	119852463	137533039
4	Bharat Sanchar Nigam Ltd.	6532911	24829441	31362352
5	Atria Convergence Technologies Pvt. Ltd.	0	1726652	1726652
6	Hathway Cable & Datacom Pvt. Ltd.	0	1046115	1046115
7	Mahanagar Telephone Nigam Ltd.	142756	782311	925067
8	You Broadband India Pvt. Ltd.	14618	819442	834060
9	GTPL Broadband Pvt. Ltd.	0	482792	482792
10	Excitel Broadband Private Limited	0	458134	458134
11	ONEOTT iNTERTAINMENT LTD	0	445356	445356
12	Alliance Broadband Services Pvt. Ltd.	0	328530	328530
13	Tikona Infinet Pvt Ltd	0	310312	310312
14	Asianet Satellite Communications Ltd.	0	259027	259027
15	Netplus Broadband Services Pvt. Ltd	0	257375	257375
16	RaiTel Corporation of India Ltd.	0	256946	256946
17	D-Vois Broadband Private Limited	0	227249	227249
18	INTECH ONLINE PVT LTD	0	226397	226397
19	Joister Infoserve Pvt. Ltd.	0	214362	214362
20	Quadrant Televentures Ltd.	91	205805	205896
21	Indinet Service Pvt Ltd	0	130694	130694
22	DEN Broadband Private Limited	0	117020	117020
23	Tata Sky Broadband Private Limited	0	100582	100582
24	Wish Net Pvt. Ltd.	0	81425	81425
25	Five Network Solution (India) Ltd.	0	72866	72866
26	ANI network Pvt Ltd	0	66210	66210
27	Tata Teleservices Ltd.	248	63288	63536
28	Nextra Teleservices Pvt. Ltd.	0	62396	62396
29	Fusionnet Web Services Pvt. Ltd.	0	51807	51807
30	Airnet Cable And Datacom Pvt Ltd	0	47100	47100
31	Honesty Net Solutions (I) Pvt Ltd	45	44530	44575
32	Limras Eronet Broadband Service Pvt Ltd	5670	34106	39776
33	K Net Solutions Pvt. Ltd.	0	39485	39485
34	SITI Broadband Services Pvt. Ltd.	0	39083	39083
35	Digital Satellite Connect Pvt. Ltd.	0	37178	37178
36	Ishan Netsol Pvt Ltd	0	36258	36258
37	Wan and Lan Internet Pvt. Ltd.	0	34883	34883
38	Shyam Spectra Private Limited	0	30592	30592
39	Airlink Communications Pvt. Ltd	0	28984	28984

S.No.	Name of the Service Provider:	Narrowband	Broadband	Total
40	Vasai Cable Pvt. Ltd.	0	28442	28442
41	DNA Infotel Pvt Ltd	0	25750	25750
42	MICROSCAN COMPUTERS PVT LTD	8019	17261	25280
43	ESTO BROADBAND Pvt. Ltd.	0	23509	23509
44	CSC e-Governance Services India Ltd.	0	22398	22398
45	Sikka Broadband(P) Ltd.	0	22241	22241
46	Ortel Communication Ltd.	0	21697	21697
47	World Phone Internet Services Pvt Ltd	0	20326	20326
48	Digital Network associates Pvt. Ltd	0	19655	19655
49	City Online Services Ltd	0	19590	19590
50	Rajesh Digital & Data Com Pvt. Ltd.	17	19467	19484
51	Tachyon Communications Pvt. Ltd.	0	16251	16251
52	IKF Technologies Ltd	0	15852	15852
53	Quest Consultancy Pvt. Ltd.	0	15766	15766
54	Tata Communications Limited	217	15262	15479
55	Sai Prasad Internet Services Pvt. Ltd.	0	14647	14647
56	RI Networks Pvt Ltd	0	14441	14441
57	Yashash Cable Network Pvt Ltd	0	14142	14142
58	United Telecoms Ltd.	0	13614	13614
59	Ethernet Xpress India Pvt. Ltd	0	12761	12761
60	Shree Omkar Infocom Pvt. Ltd.	0	12708	12708
61	Meghbela Cable & Broadband Servies (P) Ltd	0	12127	12127
62	Intermedia Cable Communication Pvt Ltd	0	10728	10728
63	Readylink Internet Services Pvt Ltd	0	10589	10589
64	Pioneerelabs Ltd.	351	9643	9994
65	North East Dataa Network Pvt Ltd.	0	9792	9792
66	Spiderlink Networks Pvt. Ltd.	0	9206	9206
67	Limerick Technologies Pvt Ltd	0	9064	9064
68	DL GTPL BROADBAND PVT LTD	0	8797	8797
69	Net 9 Online Hathway Private Limited	0	8737	8737
70	Veloxr Telecom Pvt. Ltd. (Shree Balaji Infoway Pvt Ltd.)	0	8288	8288
71	Jetway Broadband India Pvt.Ltd.	0	8020	8020
72	Apna Telelink Ltd.	0	7779	7779
73	Cityzone Infonet Pvt. Ltd	0	7762	7762
74	SSCN PVT LTD	0	7449	7449
75	Foxtel Telecommunications Pvt Ltd	7325	0	7325
76	Reliance Communications Limited	192	7062	7254
77	Kappa Internet Services Pvt Ltd.	0	7228	7228
78	Swiftmail Communications Ltd.	802	6097	6899
79	Wow Solutions & System Pvt Ltd	0	6783	6783
80	Siliguri Internet & Cable TV Pvt. Ltd.	0	6313	6313
81	Angel Air Network Solutions Private Limited	0	6236	6236

S.No.	Name of the Service Provider:	Narrowband	Broadband	Total
82	E I DOT Com Pvt. Ltd.	0	5074	5074
83	Geocity Network Solutions Pvt. Ltd.	0	5053	5053
84	Multicraft Digital Technologies Private Limited	0	4865	4865
85	Radinet Info Solutions Pvt Ltd	0	4861	4861
86	Sifi Online Pvt. Ltd.	0	4859	4859
87	IAXN Telecom Pvt. Ltd.	0	4766	4766
88	Multinet (Udaipur) Pvt. Ltd.	0	4644	4644
89	Swiftnet Broadband Pvt Ltd	0	4510	4510
90	Shine Communications Pvt. Ltd.	0	4482	4482
91	Mukand Infotel Pvt. Ltd.	4455	0	4455
92	Sonali Internet Services Pvt Ltd	0	4401	4401
93	Broadband Pacenet (I) Pvt. Ltd.	0	4195	4195
94	LM Energy and Software Pvt. Ltd.	0	4115	4115
95	Super Sonic Broadband Pvt Ltd	0	4089	4089
96	GBPS Networks Pvt. Ltd.	0	4060	4060
97	Blazenet Ltd.	0	4017	4017
98	WSNS Pvt. Ltd.	0	4005	4005
99	Pink Broadband Services Pvt. Ltd.	1992	1992	3984
100	CANDOR INFOSOLUTION PVT LTD	3978	0	3978
101	Juweriyah Networks Pvt Ltd	0	3951	3951
102	Bittel Telecom Pvt.Ltd	0	3915	3915
103	Five Net Service Provider Pvt. Ltd.	0	3848	3848
104	CHANNEL III INTERNET PVT LTD	0	3647	3647
105	Rainbow Internet teleservices Pvt Ltd	16	3184	3200
106	S.S.Netcom Pvt Ltd	0	3148	3148
107	Star Broadband Services (I) Pvt Ltd	0	3076	3076
108	VRD Web Services Private Limited	0	2915	2915
109	Airgenie Communications Pvt. Ltd.	0	2877	2877
110	Spacenet Internet Services Pvt Ltd	0	2779	2779
111	Vision Smartlink Networking Pvt. Ltd.	0	2747	2747
112	GETWAY BROADBAND PVT LTD	0	2738	2738
113	Transmedia Technologies (AP) Pvt Ltd	0	2690	2690
114	TGN NETWORKS PVT LTD	0	2679	2679
115	Dsouza Infotainment Pvt. Ltd.	0	2555	2555
116	Classic Internet and Cable Services Pvt Ltd	2496	0	2496
117	INET FIBER INDIA PVT LTD	0	2454	2454
118	Chandra Net Pvt. Limited	0	2435	2435
119	NISS INTERNET SERVICES PVT. LTD.	0	2397	2397
120	Blu Ultraband Internet Services Private Limited	0	2230	2230
121	City Online AP Pvt. Ltd.	0	2154	2154
122	Jetspot Networks Pvt. Ltd.	0	2115	2115
123	Fiberzone Communications Pvt. Ltd.	0	2081	2081

<b>S.No.</b>	<b>Name of the Service Provider:</b>	<b>Narrowband</b>	<b>Broadband</b>	<b>Total</b>
124	Symbois Creations Pvt. Ltd.	0	2026	2026
125	Deenet Services Pvt Ltd	0	2003	2003
126	Smart Net India Pvt Ltd	0	1975	1975
127	SMARTLINK SOLUTIONS PVT. LTD.	0	1965	1965
128	Speed Online.net Pvt. Ltd.	0	1882	1882
129	Southern Online Bio Technologies Ltd.	0	1815	1815
130	Capture Network Systems Pvt. Ltd.	288	1517	1805
131	Exnet Broadband Pvt. Ltd.	0	1780	1780
132	delDSL Internet Pvt Ltd	0	1747	1747
133	Assistive networks & technologie Pvt Ltd	0	1701	1701
134	GALAXYNET CONNECTIONS PVT LTD	0	1690	1690
135	Elyzium Technologies Pvt. Ltd.	0	1675	1675
136	Correl IT Services Pvt. Ltd.	121	1546	1667
137	F/X Wireless Technology Services Pvt. Ltd.	0	1643	1643
138	Ultranet Infotech Solution Private Limited	0	1600	1600
139	Datawave IT solutions Pvt. Ltd.	775	822	1597
140	DNS SKYLINK PVT. LTD.	0	1595	1595
141	STN Infotech Pvt. Ltd	0	1594	1594
142	Nettlinx Ltd.	0	1591	1591
143	Touch Net India Pvt. Ltd.	0	1570	1570
144	Sphier Infotech Pvt. Ltd.	0	1515	1515
145	Wnet Telecom Private Limited	0	1504	1504
146	Antarjal IT Communication Pvt. Ltd.	0	1465	1465
147	GIGACAST NETWORK PVT LTD	0	1439	1439
148	SCUD COMMUNICATION PVT LTD	0	1409	1409
149	Netfirre Communications Pvt. Ltd.	0	1408	1408
150	Bakcom Networks India Pvt Ltd	0	1398	1398
151	Packenet Solutions Pvt. Ltd.	0	1374	1374
152	Click4Net Internet Services Private Limited	0	1340	1340
153	Karunay Internet Private Limited	0	1329	1329
154	CJ Online Pvt. Ltd.	0	1283	1283
155	MAKS COMMUNICATIONS PVT.LTD.	0	1248	1248
156	DA Smartzone Pvt Ltd	0	1234	1234
157	United Stars Network Private Limited	0	1221	1221
158	Hughes Communications India Ltd.	117	1094	1211
159	Zoram Business Enterprise Private Limited	0	1200	1200
160	Aeroway Networks Pvt Ltd.	0	1179	1179
161	Aerocast Networks Pvt Ltd.	0	1162	1162
162	Skylink Fibernet Pvt. Ltd.	0	1151	1151
163	SS Fiber Net Optical Communication Pvt. Ltd.	0	1135	1135
164	ACN Fiber Pvt. Ltd.	0	1026	1026
165	NGC Broadband Pvt. Ltd.	0	997	997

S.No.	Name of the Service Provider:	Narrowband	Broadband	Total
166	AHM Digital Network Pvt Ltd	0	970	970
167	Telosy Telecom Pvt. Ltd.	0	960	960
168	Fastnet Communication Pvt Ltd	233	716	949
169	NETVISION AWADH NETWORKS PVT LTD	0	948	948
170	Grace Teleinfra Pvt Ltd	0	927	927
171	Rajesh Patel Net Services Pvt. Ltd.	13	905	918
172	Rida Communication Pvt. Ltd.	0	917	917
173	Sanchit Infocom Pvt Ltd	0	909	909
174	JBN Online Private Limited.	0	904	904
175	Amar Broadband Private Limited	0	903	903
176	Uzaina Business India Pvt Ltd	0	900	900
177	HOSTAXIS NETWORKS PVT LTD	0	896	896
178	TOUCHNET Broadband Services Pvt Ltd	0	888	888
179	Ficus Telecom Pvt. Ltd.	0	873	873
180	Japra Tele Link Pvt. Ltd.	0	869	869
181	ADRI INFOCOM PVT. LTD.	0	866	866
182	SKY ONLINE TECHNOSYSTEM PVT LTD	0	863	863
183	DREAMLINK TECHNOLOGIES PVT LTD	0	848	848
184	NetMagic Solutions(P) Ltd.	0	826	826
185	Southnet Broadband Pvt. Ltd.	0	805	805
186	Bandwidth Infinity Pvt Ltd	0	795	795
187	Ani Broadband Service Pvt. Ltd.	0	763	763
188	Darer Internet Services Pvt. Ltd.	0	756	756
189	Speedmaxx Digital Networks Pvt Ltd	0	756	756
190	Spirenet Digital Communications Pvt. Ltd.	0	720	720
191	CLOUDNET COMMUNICATIONS PVT LTD	0	714	714
192	Acegen Broadband Pvt. Ltd	0	711	711
193	Nandini Broadband Pvt Ltd	0	710	710
194	Unitel Media Pvt Ltd	0	707	707
195	SEFARO NETWORKS PRIVATE LTD	0	700	700
196	HPS DIGITAL BROADBAND PVT LTD	0	672	672
197	Craze IT Solutions Pvt Ltd	0	667	667
198	Primenet Global Ltd.	0	648	648
199	DATAMAX TECHNOLOGY PVT LTD	74	563	637
200	iAIRONET COMMUNICATION PVT LTD	0	631	631
201	REVOLUTION BROADBAND PVT LTD	0	628	628
202	Wi-Link Network Pvt. Ltd	0	614	614
203	Fttx Broadband Pvt. Ltd.	0	600	600
204	WEBRIDERS INTERNET PVT LTD	0	594	594
205	Vardaan Netservices Pvt. Ltd.	0	593	593
206	OM-ASHANet Pvt. Ltd.	0	589	589
207	Reticule Infotech Pvt. Ltd.	0	583	583

S.No.	Name of the Service Provider:	Narrowband	Broadband	Total
208	Alphanet Broadband Pvt Ltd	0	571	571
209	BASS JOKERNET PRIVATE LIMITED	0	560	560
210	Gazillio Technologies Pvt. Ltd.	0	557	557
211	Alegra Communication Pvt Ltd	0	552	552
212	SVD DIGITAL NETWORKS PVT LTD	0	552	552
213	Digital2Virtual ISP Pvt. Ltd.	0	549	549
214	Panav Network and Communications Private Limited	0	548	548
215	VIVA Communications Pvt Ltd	0	542	542
216	Amityhua Electronics Pvt. Ltd.	0	535	535
217	Power Grid Corporation of India Ltd.	0	534	534
218	VARESHA AIR WORLD NETWORKS PVT LTD	20	509	529
219	Daksh Broadband Services Pvt Ltd	0	528	528
220	Bass Networks Pvt Ltd	0	513	513
221	Data Ingenious Global Ltd	4	501	505
222	Shree Manoranjan Broadband Pvt. Ltd.	0	492	492
223	Sarva Air World Network Pvt Ltd	14	466	480
224	Varsha Datacom Services Pvt Ltd	0	479	479
225	STN Communication & Advertising Pvt Ltd.	1	467	468
226	ELECON INFOTMATION TECHNOLOGY LTD	0	464	464
227	Tamana Winet Pvt. Ltd.	0	450	450
228	Quick Link Broadband And Services Pvt. Ltd	0	448	448
229	Lotus Broadband Pvt Ltd	0	435	435
230	ANUSHREE DIGITAL NETWORK PVT LTD	0	424	424
231	Moradabad Internet Services Pvt Ltd	0	415	415
232	Pulse Telesystems Pvt. Ltd.	0	401	401
233	HELM CONSULTANTS PVT LTD	399	0	399
234	Sify Technologies Ltd.	207	189	396
235	Citylink Broadband Services Pvt. Ltd.	0	392	392
236	CNS INFOTEL SERVICES PVT LTD	0	392	392
237	Gorakhpur Net Services Pvt. Ltd.	0	390	390
238	Bhiwani Communications Pvt. Ltd.	0	375	375
239	WINDSOR INTERNET PVT LTD	0	374	374
240	Spider Broadband and Cable Pvt Ltd	0	364	364
241	Allied IT Infrastructures & Services Pvt. Ltd.	0	351	351
242	Sysnet Broadband Services Pvt. Ltd.	0	350	350
243	Gleam Worldwide Services Pvt. Ltd.	0	344	344
244	Oistel Telecom Pvt. Ltd.	166	166	332
245	Sai Akshay Internet Services Pvt Ltd.	0	332	332
246	CATLA IT&ENGG. CO. PVT LTD.	0	327	327
247	Twincity Communication Private Limited	0	325	325
248	Fastx Broadband Private Limited	0	316	316
249	Antariksh Broadband Wireless Solutions Pvt. Ltd.	311	0	311

S.No.	Name of the Service Provider:	Narrowband	Broadband	Total
250	Rocketwire Internet Solutions Pvt. Ltd.	0	310	310
251	SmartLink Broadband Services	0	302	302
252	SHEEN TELECOM CONSULTANTS PVT LTD	0	292	292
253	WAVETREE NETWORKS PVT LTD	0	291	291
254	Dhanam Internet Services India Pvt. Ltd.	0	289	289
255	AUSPICE INFRATAL PVT LTD	0	288	288
256	ALWAR ONLINE PVT LTD	0	283	283
257	VISPUTES INTERNET PRIVATE LIMITED	0	280	280
258	Goodwill Smartlink Pvt. Ltd.	0	277	277
259	A-Net Communication India Pvt.Ltd.	146	123	269
260	Sense Connect IT Pvt. Ltd.	0	267	267
261	Singh Internet Services Pvt. Ltd.	0	260	260
262	Imperium Digital Network Pvt. Ltd.	0	255	255
263	Cityline Networks Pvt Ltd	0	251	251
264	Faiconet Internet Pvt Ltd	0	245	245
265	NEXTGEN COMPUSOFT PVT LTD	0	240	240
266	Oasis Cable Pvt Ltd.	235	0	235
267	Panchsheel Broadband Services's Pvt Ltd.	0	235	235
268	Khetan Cable Network (P) Ltd	0	228	228
269	Development Logics Solutions Pvt Ltd	0	226	226
270	Shineplus Networks Pvt Ltd	0	225	225
271	VMO BROADBAND PVT LTD	225	0	225
272	Airmesh Communications Limited	0	223	223
273	ACEBROWSE PVT LTD	0	219	219
274	Verizon Communications India Pvt. Ltd.	0	219	219
275	Smart Wi5 Pvt. Ltd.	0	218	218
276	Texas Connect Pvt. Ltd.	7	211	218
277	CIT SOLUTIONS PVT. LTD.	0	217	217
278	SNT Broadband Pvt. Ltd.	0	215	215
279	Suncity Broadband Pvt Ltd.	0	215	215
280	Srinagar Technology Consultants Ltd	213	0	213
281	CERALINK COMMUNICATION PVT LTD	0	210	210
282	Microsense Pvt. Ltd.	0	209	209
283	Saibaba Broadband Pvt. Ltd.	0	206	206
284	Achiever Communication and Services Pvt. Ltd.	0	200	200
285	Ishani Broadband Pvt Ltd	0	200	200
286	JB Jain Broadband Solutions Private Limited.	0	200	200
287	HIPOINT CONNECT PRIVATE LIMITED	0	196	196
288	Way2Air Net Solution Pvt Ltd	0	196	196
289	Satpar Infotech Pvt Ltd	0	195	195
290	Wi5 Internet Services P Limited	0	195	195
291	Barani Data Solutions Private Limited	192	0	192

S.No.	Name of the Service Provider:	Narrowband	Broadband	Total
292	PROLINE DATATECH SERCIVCES PVT LTD	0	192	192
293	Netrexo Communications Pvt. Ltd.	0	191	191
294	Kataria Net Solutions Pvt. Ltd.	0	183	183
295	Optisky Fibernet Pvt. Ltd.	0	168	168
296	AIRMAX INTERNET PVT LTD	167	0	167
297	PMG NETWORKD PVT LTD	0	166	166
298	Nanjil Internet Services Pvt. Ltd.	0	158	158
299	Global India Tele Infra Pvt. Ltd.	36	100	136
300	Texas Connect Private Limited	112	24	136
301	AT&T Global Network Services India Private Limited	0	134	134
302	NR DATA SERVICE PVT LTD	0	134	134
303	Micronova Network Solutions Ltd	1	130	131
304	MLC INTERNET PVT LTD	0	126	126
305	Mediatech Communication Pvt. Ltd.	0	125	125
306	Shree Siddhivinayak Cable and Internet Service Provider Pvt. Ltd.	124	0	124
307	Shreepad Communication Pvt. Ltd.	0	121	121
308	ERNET India	60	60	120
309	Shri Vinayagaa Internet Pvt Ltd	0	119	119
310	V NET NETWORKS PVT. LTD	0	118	118
311	Vanshika Broadband Pvt. Ltd.	0	117	117
312	Highnet Broadband & Technologies Pvt. Ltd.	70	45	115
313	Zoram Infonet Pvt Ltd	0	113	113
314	KKM Broadband Internet Pvt Ltd	0	112	112
315	White Stallion Networks Pvt. Ltd.	0	112	112
316	Hipath Netcom Services Pvt. Ltd.	0	108	108
317	Malang Solutions Pvt. Ltd.	0	107	107
318	Pronoc Technologies Pvt. Ltd.	0	107	107
319	Veer Point Pvt. Ltd.	0	105	105
320	DRONAGIRI INFOTECH PVT LTD	0	104	104
321	Telstra Telecommunications Pvt. Ltd.	0	103	103
322	SATH TECHNOLOGIES PVT LTD	0	99	99
323	Omkar Net Services Pvt. Ltd.	0	97	97
324	Cheetah Networks Pvt. Ltd.	0	94	94
325	Shri Ram Braoadband Services Pvt Ltd	0	92	92
326	Sri Ram Broadband Services Pvt. Ltd.	0	92	92
327	INFINITY WIRELESS SERVICES PVT. LTD.	0	89	89
328	ROYAL WIRELESS SERVICES PVT LTD	0	88	88
329	Invensys Networks Pvt.Ltd.	0	87	87
330	Airtechzone Services India Pvt Ltd	85	0	85
331	Wireline Solution(India) Pvt. Ltd.	0	85	85
332	ARP INFONET PVT. LTD.	0	84	84

S.No.	Name of the Service Provider:	Narrowband	Broadband	Total
333	Vidarbha Wi-Fi & Network Services Pvt. Ltd.	84	0	84
334	Dream Plus Multi Services Pvt. Ltd.	0	82	82
335	Clicknet Communication Pvt Ltd	80	0	80
336	M-TEL Networks (P) Ltd	0	80	80
337	S A INTERNET SOLUTION PVT LTD	0	77	77
338	Mtel Networks Pvt. Ltd.	0	73	73
339	NETWIRE INTERNET SOLUTIONS PVT. LTD.	0	69	69
340	TRIPLE LINK PVT LTD	0	69	69
341	AirFiber IT Solutions Pvt. Ltd	0	66	66
342	BSL Technologies Pvt. Ltd.	0	63	63
343	Infiber Broadnet Pvt. Ltd.	0	56	56
344	City Broadband Pvt. Ltd.	0	52	52
345	SKYNETZONE WIFI SERVICES PVT LTD	0	52	52
346	Divine Broadband Services Pvt Ltd	0	45	45
347	QBC Infotech Pvt. Ltd.	0	43	43
348	Edge Telecommunications Pvt. Ltd.	0	40	40
349	Prompt infracom Pvt Ltd	0	35	35
350	Durga Broadband Pvt. Ltd.	0	34	34
351	Mesh Infranet Pvt Ltd	0	33	33
352	Navariya Satellite Services Pvt.Ltd.	33	0	33
353	Spacetrade Internet Pvt Ltd	0	33	33
354	Orange Business Services India Network Pvt. Ltd.	0	32	32
355	Dreamnet Pvt.Ltd.	0	30	30
356	Praveen Telecom Pvt. Ltd.	0	30	30
357	Sanyog Networks Pvt Ltd	0	29	29
358	Sun Broadband and Data Services PVT. LTD.	0	29	29
359	Gigalo Communication Pvt. Ltd.	27	0	27
360	WE INTERNET LIMITED	0	27	27
361	West Bengal Electronics Industry Development Corp. Ltd.	0	25	25
362	JAI MATA DI TELETRONIX PVT LTD	0	24	24
363	Pacific Internet India Pvt. Ltd.	0	23	23
364	GURU NETCOMM PVT LTD	0	20	20
365	Kartik Network Pvt. Ltd.	0	19	19
366	FASTHOOK NETWORKS PVT LTD	0	18	18
367	Adya Tech One Services Pvt Ltd	0	15	15
368	Microtel Internet Network Pvt. Ltd.	0	15	15
369	Promptnet Broadband Pvt. Ltd.	0	15	15
370	Hienet Internet Services Pvt Ltd	0	14	14
371	Airlink Broadband Pvt Ltd	0	12	12
372	Marutham Networks Pvt. Ltd.	0	12	12
373	Clear Beam Communication Pvt Ltd	10	0	10
374	UBERCORE DATA LABS PVT LTD	0	10	10

<b>S.No.</b>	<b>Name of the Service Provider:</b>	<b>Narrowband</b>	<b>Broadband</b>	<b>Total</b>
375	Angrow Netcomm Pvt. Ltd.	9	0	9
376	Rajdhani Telecom Pvt. Ltd.	2	6	8
377	Essel Shyam Communications Limited	0	7	7
378	A TO Z INFOLINK PVT.LTD.	0	6	6
379	Financial Technologies Communications Ltd.	0	6	6
380	Uttradoon Networks Pvt. Ltd.	2	4	6
381	Mastek Infosystems OPC Pvt. Ltd.	0	5	5
382	Tatanet Services Ltd	0	5	5
383	Cloudcast Digital Ltd	0	4	4
384	Instanet Technologies Private Limited	0	4	4
385	Aristo Telenet Pvt Ltd	0	3	3
386	Critel Technologies Pvt. Ltd.	0	2	2
387	Sabse Internet Services Provider Pvt Ltd	0	2	2
388	Sahiba Silk Mills Pvt. Ltd.	1	0	1
	<b>Total</b>	<b>50137674</b>	<b>726316898</b>	<b>776454572</b>

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

<b>S. No.</b>	<b>Name of Service Providers reported IP Telephony Minutes as on 30<sup>th</sup> September 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

Annexure 1.7: Service Area wise PMRTS subscriber Base					
S.No.	DOT Licensed Service	Area Served	Service Provider	Subscriber Base	
				30.06.2020	30.09.2020
1	Andhra Pradesh	Hyderabad	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	2,736	2,579
			QuickCall	975	990
		Visakhapatnam	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	4,477	4,008
<b>Total</b>				<b>8,188</b>	<b>7,577</b>
2	Delhi	Delhi	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	7,972	7,729
			Procall Ltd.	2,942	2,971
		<b>Total</b>			
3	Gujarat	Ahmedabad	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,134	1,133
		Amrela	Inative Networks Pvt. Ltd.	-	-
		Bharuch	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,503	1,519
			Inative Networks Pvt. Ltd.	-	-
		Dahej	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,005	1,088
		Jamnagar	Inative Networks Pvt. Ltd.	360	360
		Kutch	Inative Networks Pvt. Ltd.	205	205
		Surat	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,658	1,620
			Inative Networks Pvt. Ltd.	895	895
		Vadodara	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,678	1,682
Inative Networks Pvt. Ltd.	360		360		
<b>Total</b>				<b>8,798</b>	<b>8,862</b>
4	Karnataka	Bangalore	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	7,266	7,919
			QuickCall	604	544
		<b>Total</b>			
5	Kerala	Ernakulam	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	989	1,031
		Kerala	Wiwanet Solutions Pvt. Ltd	460	478
		<b>Total</b>			
6	Kolkata	Kolkata	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	<b>2,236</b>	<b>1,759</b>
7	Madhya Pradesh	Indore	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	<b>1,475</b>	<b>1,495</b>
8	Maharashtra	Pune	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	2,173	2,022
			Smartalk Pvt Ltd.	605	648
		<b>Total</b>			
9	Mumbai	Mumbai	Airtalk Solutions & Services Pvt. Ltd.	416	416
			Arya Omnitalk Radio Trunking Services Pvt.Ltd.	9,277	9,030
			Bhilwara Telenet Services Pvt.Ltd.	883	869
			Smartalk Pvt Ltd.	755	778
<b>Total</b>				<b>11331</b>	<b>11,093</b>
10	Rajasthan	Jaipur	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	863	870
			Procall Ltd.	355	370
		<b>Total</b>			
11	Tamil Nadu	Chennai	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	8,073	8,037
			QuickCall	508	496
		<b>Total</b>			
<b>Grand Total</b>				<b>64,838</b>	<b>63,901</b>

**Annexure 2.1: Wireless Revenue Service - Service Area wise Statistics for  
QE September, 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	95.87%	113	18	368	369	737
Gujarat	95.71%	100	17	332	299	631
Karnataka	93.90%	107	21	375	366	741
MH	95.83%	108	17	337	331	668
TN (incl. Chennai)	94.31%	116	17	373	375	748

**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	97.55%	81	10	358	352	710
Kerala	97.55%	116	10	296	304	599
MP	98.35%	95	17	361	363	724
Punjab	96.44%	102	10	354	347	700
Rajasthan	97.90%	94	16	364	365	730
UP(E)	98.06%	80	12	412	436	848
UP(W)	97.98%	85	13	382	392	774
WB	99.45%	98	17	391	407	799

**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	98.05%	107	30	398	421	819
Bihar	99.08%	90	12	453	494	947
HP	98.72%	86	10	307	308	615
J&K	55.12%	103	25	535	509	1044
NE	98.61%	114	36	368	376	744
Odisha	98.72%	94	17	411	433	845

**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	94.71%	74	13	376	373	749
Delhi	83.72%	71	14	457	409	866
Mumbai	78.70%	82	13	399	362	761

# 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 Accessible had down-time (not available for service) (%)	Worst affected BSS due to down-time (%)	Call Set-up Success Rate and Session Establishment Success Rate for Circuit Switched Voice or VoLTE as applicable (within licensee's own network)	SDCH/ Paging Channel Congestion/RRC Congestion (%)	TDR, RAB and E-RAB Congestion (%)	Network QoS DCR Spatial Distribution Measure (Network_QSD(90,90))	Network QoS DCR Temporal Distribution Measure (Network_QTD(97,90))	Connections with good voice quality, Circuit Switched Voice Quality and VoLTE quality	Point of Interconnection (POI) Congestion (No. of POIs not meeting the benchmark) (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	Period of applying credit/ waiver/ adjustment to customer's account from the date of resolution of complaints	Accessibility of call centres/ customer care	Percentage of calls answered by the operators (voice to voice) within 90 seconds	% requests for Termination / Closure of service complied within 7 days	Time taken for refund of deposits after disburse			
		≤ 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	0.15	0.70	99.23	0.13	0.16	1.15	1.49	96.65	0	0.19	0.20	0.01	0.00	100.00	100.00	100.00	100.00	84.00	100.00	100.00		
Andhra Pradesh	BSNL	1.24	1.85	98.63	0.84	1.47	1.67	1.79	98.70	0	0.65	0.85	0.00	0.00	100.00	100.00	100.00	97.00	96.00	100.00	100.00		
Andhra Pradesh	RJIL	0.03	0.02	99.74	0.00	0.00	0.28	0.38	99.95	0	0.00	0.11	0.00	0.00	100.00	100.00	100.00	97.18	98.61	100.00	100.00		
Andhra Pradesh	VIL-Brand Idea	0.04	0.70	99.13	0.33	0.35	1.98	2.81	99.39	0	0.00	0.02	0.00	0.00	100.00	100.00	100.00	97.34	99.97	99.96	45.57		
Andhra Pradesh	VIL-Brand Vodafone	0.04	0.70	99.13	0.33	0.35	1.98	2.81	99.39	0	0.00	0.02	0.00	0.00	100.00	100.00	100.00	97.34	99.97	99.96	45.57		
Assam	Airtel	0.39	1.26	98.31	0.35	0.46	1.90	2.44	96.49	0	0.26	0.30	0.00	0.00	100.00	100.00	100.00	100.00	85.00	100.00	100.00		
Assam	BSNL	1.86	1.89	98.37	0.83	1.82	1.77	2.57	97.43	0	NA	0.00	0.01	0.00	100.00	100.00	100.00	97.00	97.80	100.00	100.00		
Assam	RJIL	0.38	1.69	99.52	0.00	0.00	0.59	0.68	99.89	0	0.01	0.22	0.00	0.00	100.00	100.00	100.00	97.84	97.99	100.00	100.00		
Assam	VIL-Brand Idea	0.16	1.41	98.54	0.48	1.42	1.86	2.68	98.58	0	0.19	0.21	0.00	0.00	100.00	100.00	100.00	99.75	99.97	100.00	67.48		
Assam	VIL-Brand Vodafone	0.16	1.41	98.54	0.48	1.42	1.86	2.68	98.58	0	0.19	0.21	0.00	0.00	100.00	100.00	100.00	99.75	99.97	100.00	67.48		
Bihar	Airtel	0.17	0.49	98.00	0.68	1.45	1.76	1.83	97.95	0	0.10	0.36	0.01	0.00	100.00	100.00	100.00	100.00	93.00	100.00	100.00		
Bihar	BSNL	1.94	1.93	95.43	0.34	0.42	1.87	2.31	98.30	0	0.00	0.00	0.00	0.00	100.00	100.00	100.00	99.00	96.96	100.00	100.00		
Bihar	RJIL	0.29	1.29	99.37	0.00	0.00	0.49	0.57	99.92	0	0.01	0.17	0.00	0.00	100.00	100.00	100.00	98.37	75.25	100.00	100.00		
Bihar	VIL-Brand Idea	0.60	1.44	99.31	0.28	0.35	1.72	2.00	98.89	0	0.01	0.02	0.01	0.00	100.00	100.00	100.00	98.35	99.81	100.00	31.68		
Bihar	VIL-Brand Vodafone	0.60	1.44	99.31	0.28	0.35	1.72	2.00	98.89	0	0.01	0.02	0.01	0.00	100.00	100.00	100.00	98.35	99.81	100.00	31.68		
Delhi	Airtel	0.19	0.00	98.98	0.16	0.25	1.82	2.27	95.06	0	0.67	0.25	0.00	0.00	100.00	100.00	100.00	100.00	91.00	100.00	100.00		
Delhi	MTNL	0.05	0.13	97.65	0.07	0.85	1.28	1.53	98.02	0	NA	NA	0.00	0.00	100.00	100.00	100.00	99.85	99.84	100.00	100.00		
Delhi	RJIL	0.11	0.29	99.72	0.00	0.00	0.13	0.22	99.95	0	0.00	0.09	0.00	0.00	100.00	100.00	100.00	98.02	95.35	100.00	100.00		
Delhi	VIL-Brand Idea	0.15	0.23	99.84	0.15	0.13	1.28	1.60	99.65	0	0.26	0.34	0.09	0.05	100.00	100.00	100.00	100.00	100.00	100.00	74.25		
Delhi	VIL-Brand Vodafone	0.15	0.23	99.84	0.15	0.13	1.28	1.60	99.65	0	0.26	0.34	0.09	0.05	100.00	100.00	100.00	100.00	100.00	100.00	74.25		
Gujarat	Airtel	0.15	0.86	99.63	0.73	0.92	1.67	2.17	95.76	0	0.11	0.22	0.00	0.00	100.00	100.00	100.00	100.00	89.00	100.00	100.00		
Gujarat	BSNL	1.30	1.37	97.67	0.17	0.74	1.70	2.53	100.00	0	0.08	0.16	0.00	0.00	100.00	100.00	100.00	99.00	96.94	100.00	100.00		
Gujarat	RJIL	0.20	0.99	99.66	0.00	0.25	0.37	99.94	0	0.00	0.11	0.00	0.00	100.00	100.00	100.00	98.34	98.11	100.00	100.00			
Gujarat	VIL-Brand Idea	0.10	0.59	99.21	0.22	0.59	1.67	2.19	98.86	0	0.14	0.14	0.01	0.00	99.94	99.99	100.00	97.85	100.00	100.00	100.00		
Gujarat	VIL-Brand Vodafone	0.10	0.59	99.21	0.22	0.59	1.67	2.19	98.86	0	0.14	0.14	0.01	0.00	99.94	99.99	100.00	97.85	100.00	100.00	100.00		
Haryana	Airtel	0.08	0.25	99.74	0.13	0.19	1.10	1.54	97.84	0	0.19	0.35	0.01	0.00	100.00	100.00	100.00	100.00	90.00	100.00	100.00		
Haryana	BSNL	0.60	0.86	98.79	0.25	0.34	1.31	1.85	98.05	0	0.19	0.64	0.01	0.00	100.00	100.00	100.00	98.00	99.83	100.00	100.00		
Haryana	RJIL	0.15	0.62	99.66	0.00	0.00	0.35	0.47	99.95	0	0.00	0.09	0.00	0.00	100.00	100.00	100.00	97.97	96.93	100.00	100.00		
Haryana	VIL-Brand Idea	0.68	0.15	99.33	0.39	0.63	1.63	2.04	98.71	0	0.18	0.11	0.01	0.01	100.00	100.00	100.00	99.47	100.00	100.00	92.58		
Haryana	VIL-Brand Vodafone	0.68	0.15	99.33	0.39	0.63	1.63	2.04	98.71	0	0.18	0.11	0.01	0.01	100.00	100.00	100.00	99.47	100.00	100.00	92.58		
Himachal	Airtel	0.15	0.48	98.99	0.16	0.11	1.92	2.50	95.73	0	0.27	0.21	0.00	0.00	100.00	100.00	100.00	100.00	91.00	100.00	100.00		
Himachal	BSNL	1.43	1.61	98.95	0.41	0.66	1.94	2.03	96.25	0	0.00	0.00	0.10	0.00	100.00	100.00	100.00	98.00	99.13	100.00	100.00		
Himachal	RJIL	0.13	0.63	99.68	0.00	0.00	0.24	0.37	99.96	0	0.00	0.08	0.00	0.00	100.00	100.00	100.00	97.25	98.33	100.00	100.00		
Himachal	VIL-Brand Idea	0.13	0.37	99.52	0.05	0.13	2.56	3.45	98.29	0	0.23	0.42	0.02	0.02	100.00	100.00	100.00	99.67	98.78	100.00	100.00		
Himachal Pradesh	VIL-Brand Vodafone	0.13	0.37	99.52	0.05	0.13	2.56	3.45	98.29	0	0.23	0.42	0.02	0.02	100.00	100.00	100.00	99.67	98.78	100.00	100.00		
Jammu &	Airtel	0.12	0.25	98.83	0.15	0.07	1.56	2.44	95.12	0	0.40	0.37	0.00	0.00	100.00	100.00	100.00	100.00	91.00	100.00	100.00		
Jammu &	BSNL	1.91	1.74	97.70	0.81	1.43	1.99	2.49	96.14	0	0.01	0.03	0.00	0.01	100.00	100.00	100.00	97.00	99.48	100.00	100.00		
Jammu &	RJIL	0.11	0.43	99.73	0.00	0.00	0.33	0.44	99.96	0	0.00	0.09	0.00	0.00	100.00	100.00	100.00	96.42	97.18	100.00	100.00		
Jammu &	VIL-Brand Idea	0.35	1.91	99.40	0.09	0.27	2.56	4.00	98.50	0	0.20	0.24	0.01	0.02	100.00	100.00	100.00	98.31	99.33	100.00	100.00		
Jammu &	VIL-Brand Vodafone	0.35	1.91	99.40	0.09	0.27	2.56	4.00	98.50	0	0.20	0.24	0.01	0.02	100.00	100.00	100.00	98.31	99.33	100.00	100.00		
Karnataka	Airtel	0.25	0.76	99.73	0.15	0.14	1.35	1.68	95.48	0	0.20	0.16	0.01	0.00	100.00	100.00	100.00	100.00	91.00	100.00	100.00		
Karnataka	BSNL	1.51	1.96	98.03	0.40	0.79	1.53	1.64	97.48	0	0.54	0.60	0.00	0.00	99.84	100.00	100.00	95.00	41.28	100.00	100.00		
Karnataka	RJIL	0.10	0.26	99.77	0.00	0.00	0.26	0.38	99.95	0	0.00	0.11	0.00	0.00	100.00	100.00	100.00	96.96	97.81	100.00	100.00		
Karnataka	VIL-Brand Idea	0.14	1.16	99.55	0.25	0.42	1.82	2.63	99.45	0	0.14	0.40	0.03	0.01	100.00	100.00	100.00	99.13	99.72	100.00	100.00		
Karnataka	VIL-Brand Vodafone	0.14	1.16	99.55	0.25	0.42	1.82	2.63	99.45	0	0.14	0.40	0.03	0.01	100.00	100.00	100.00	99.13	99.72	100.00	100.00		
Kerala	Airtel	0.10	0.49	99.06	0.45	0.57	1.94	2.92	98.96	0	0.17	0.52	0.00	0.00	100.00	100.00	100.00	100.00	87.00	100.00	100.00		
Kerala	BSNL	0.61	1.41	98.67	0.57	1.03	1.92	2.36	98.30	0	0.00	0.00	0.00	0.00	99.00	100.00	100.00	93.00	75.40	100.00	100.00		
Kerala	RJIL	0.06	0.18	99.72	0.00	0.00	0.25	0.51	99.94	0	0.00	0.12	0.00	0.00	100.00	100.00	100.00	97.89	95.88	100.00	100.00		
Kerala	VIL-Brand Idea	0.22	0.28	99.47	0.13	0.45	0.99	1.46	98.50	0	0.08	0.43	0.04	0.01	100.00	100.00	100.00</						

## Annexure 4.1 (Contd.)

Kolkata	Airtel	0.06	0.00	99.84	0.23	0.25	1.85	2.56	98.40	0	0.42	0.91	0.00	0.00	100.00	100.00	100.00	100.00	92.00	100.00	100.00
Kolkata	BSNL	1.40	1.84	98.46	0.36	0.25	1.53	1.67	96.09	0	0.00	0.00	0.00	0.01	100.00	100.00	100.00	99.00	96.11	100.00	100.00
Kolkata	RJIL	0.03	0.06	99.78	0.00	0.00	0.12	0.19	99.97	0	0.00	0.07	0.00	0.00	100.00	100.00	100.00	98.00	97.10	100.00	100.00
Kolkata	VIL-Brand Idea	0.23	1.39	99.77	0.06	0.19	1.08	1.49	98.39	0	0.08	0.14	0.07	0.02	100.00	100.00	100.00	99.69	98.98	100.00	92.66
Kolkata	VIL-Brand Vodafone	0.23	1.39	99.77	0.06	0.19	1.08	1.49	98.39	0	0.08	0.14	0.07	0.02	100.00	100.00	100.00	99.69	98.98	100.00	92.66
Madhya Pradesh	Airtel	0.09	0.35	99.13	0.35	0.42	1.98	2.22	95.36	0	0.11	0.21	0.00	0.00	100.00	100.00	100.00	100.00	90.00	100.00	100.00
Madhya Pradesh	BSNL	1.12	1.32	98.65	0.40	1.20	1.89	2.21	97.79	0	NA	0.00	0.01	0.00	100.00	100.00	100.00	99.00	99.47	100.00	100.00
Madhya Pradesh	RJIL	0.24	1.15	99.63	0.00	0.00	0.45	0.53	99.90	0	0.01	0.20	0.00	0.00	100.00	100.00	100.00	98.18	95.10	100.00	100.00
Madhya Pradesh	VIL-Brand Idea	0.38	1.88	98.32	0.43	1.14	1.89	2.54	97.50	0	0.25	0.32	0.01	0.00	100.00	100.00	100.00	96.55	99.59	100.00	12.00
Madhya Pradesh	VIL-Brand Vodafone	0.38	1.88	98.32	0.43	1.14	1.89	2.54	97.50	0	0.25	0.32	0.01	0.00	100.00	100.00	100.00	96.55	99.59	100.00	12.00
Maharashtra	Airtel	0.03	0.05	99.44	0.16	0.23	1.31	1.66	95.17	0	0.12	0.19	0.00	0.00	100.00	100.00	100.00	100.00	89.00	100.00	100.00
Maharashtra	BSNL	1.60	1.94	96.77	0.87	1.26	1.99	2.63	96.25	0	0.05	0.15	0.01	0.00	100.00	100.00	100.00	100.00	95.61	100.00	100.00
Maharashtra	RJIL	0.36	1.31	99.66	0.00	0.00	0.37	0.47	99.91	0	0.00	0.18	0.00	0.00	100.00	100.00	100.00	98.46	97.78	100.00	100.00
Maharashtra	VIL-Brand Idea	0.48	1.85	97.60	0.97	1.36	1.79	2.80	98.41	0	0.37	0.23	0.05	0.01	99.99	100.00	100.00	99.11	100.00	100.00	52.75
Maharashtra	VIL-Brand Vodafone	0.54	1.27	98.44	0.91	1.50	1.95	2.87	98.80	0	0.10	0.28	0.05	0.01	99.99	100.00	100.00	99.11	100.00	100.00	52.75
Mumbai	Airtel	0.15	0.67	99.66	0.22	0.27	1.46	1.91	95.10	0	0.17	0.12	0.00	0.00	100.00	100.00	100.00	100.00	92.00	100.00	100.00
Mumbai	MTNL	0.58	1.09	98.37	0.13	0.22	1.69	2.43	98.74	0	NA	NA	0.00	0.00	100.00	100.00	100.00	95.00	98.64	100.00	100.00
Mumbai	RJIL	0.22	0.87	99.66	0.00	0.00	0.11	0.20	99.96	0	0.00	0.07	0.00	0.00	100.00	100.00	100.00	98.00	96.85	100.00	100.00
Mumbai	VIL-Brand Idea	0.12	0.26	99.51	0.13	0.45	1.74	2.38	98.81	0	0.14	0.21	0.02	0.01	99.94	100.00	100.00	99.08	100.00	100.00	72.17
Mumbai	VIL-Brand Vodafone	0.12	0.26	99.51	0.13	0.45	1.74	2.38	98.81	0	0.14	0.21	0.02	0.01	99.94	100.00	100.00	99.08	100.00	100.00	72.17
North East	Airtel	0.76	1.34	97.94	0.73	0.78	1.96	2.33	96.24	0	0.31	0.31	0.00	0.00	100.00	100.00	100.00	100.00	86.00	100.00	100.00
North East	BSNL	1.94	1.96	97.90	0.85	0.98	1.87	1.95	97.00	0	0.00	0.00	0.05	0.05	100.00	100.00	100.00	97.00	95.64	100.00	100.00
North East	RJIL	0.88	1.74	99.54	0.00	0.00	0.75	1.00	99.91	0	0.00	0.17	0.00	0.00	100.00	100.00	100.00	97.74	98.79	100.00	100.00
North East	VIL-Brand Idea	0.31	1.00	99.16	0.41	1.23	1.84	2.03	98.32	0	0.40	0.23	0.00	0.00	100.00	100.00	100.00	99.69	100.00	100.00	78.51
North East	VIL-Brand Vodafone	0.31	1.00	99.16	0.41	1.23	1.84	2.03	98.32	0	0.40	0.23	0.00	0.00	100.00	100.00	100.00	99.69	100.00	100.00	78.51
Odisha	Airtel	0.07	0.23	98.37	0.39	0.83	1.69	1.80	96.49	0	0.14	0.28	0.01	0.00	100.00	100.00	100.00	100.00	96.00	100.00	100.00
Odisha	BSNL	0.84	1.98	96.32	0.54	0.74	1.97	2.95	95.91	0	0.00	0.00	0.00	0.01	100.00	100.00	100.00	98.00	97.07	100.00	100.00
Odisha	RJIL	0.17	0.48	99.62	0.00	0.00	0.33	0.42	99.93	0	0.00	0.14	0.00	0.00	100.00	100.00	100.00	97.74	97.78	100.00	100.00
Odisha	VIL-Brand Idea	0.36	0.86	99.54	0.22	0.45	1.85	2.30	98.43	0	0.10	0.20	0.03	0.01	100.00	100.00	100.00	97.83	95.98	100.00	38.13
Odisha	VIL-Brand Vodafone	0.36	0.86	99.54	0.22	0.45	1.85	2.30	98.43	0	0.10	0.20	0.03	0.01	100.00	100.00	100.00	97.83	95.98	100.00	38.13
Punjab	Airtel	0.08	0.23	99.74	0.11	0.15	0.59	0.71	98.62	0	0.12	0.43	0.01	0.00	100.00	100.00	100.00	100.00	94.00	100.00	100.00
Punjab	BSNL	0.30	1.43	98.70	0.24	0.15	1.69	1.91	98.21	0	0.00	0.02	0.00	0.00	100.00	100.00	100.00	98.00	98.79	100.00	100.00
Punjab	RJIL	0.06	0.13	99.62	0.00	0.00	0.16	0.24	99.96	0	0.00	0.08	0.00	0.00	100.00	100.00	100.00	97.92	95.10	100.00	100.00
Punjab	VIL-Brand Idea	0.08	0.32	99.86	0.09	0.03	1.09	1.51	99.36	0	0.13	0.34	0.02	0.01	100.00	100.00	100.00	99.89	100.00	100.00	100.00
Punjab	VIL-Brand Vodafone	0.08	0.32	99.86	0.09	0.03	1.09	1.51	99.36	0	0.13	0.34	0.02	0.01	100.00	100.00	100.00	99.89	100.00	100.00	100.00
Rajasthan	Airtel	0.33	0.84	98.75	0.18	0.36	1.83	2.22	95.15	0	0.69	0.48	0.00	0.00	100.00	100.00	100.00	100.00	91.00	100.00	100.00
Rajasthan	BSNL	1.08	1.50	98.50	0.77	1.50	1.99	2.50	98.82	0	0.00	0.00	0.02	0.01	99.00	100.00	100.00	98.00	99.90	100.00	100.00
Rajasthan	RJIL	0.09	0.30	99.60	0.00	0.00	0.36	0.47	99.95	0	0.00	0.11	0.00	0.00	100.00	100.00	100.00	98.14	95.14	100.00	100.00
Rajasthan	VIL-Brand Idea	0.28	1.68	99.25	0.31	0.55	1.98	2.63	98.92	0	0.17	0.32	0.03	0.02	100.00	100.00	100.00	99.25	99.60	100.00	47.12
Rajasthan	VIL-Brand Vodafone	0.28	1.68	99.25	0.31	0.55	1.98	2.63	98.92	0	0.17	0.32	0.03	0.02	100.00	100.00	100.00	99.25	99.60	100.00	47.12
Tamil Nadu	Airtel	0.04	0.08	99.96	0.66	0.19	1.32	1.72	96.45	0	0.13	0.15	0.00	0.00	100.00	100.00	100.00	100.00	78.00	100.00	100.00
Tamil Nadu	BSNL	0.77	1.30	98.76	0.47	0.88	1.88	2.94	97.79	0	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	80.51	100.00	100.00
Tamil Nadu	RJIL	0.02	0.03	99.74	0.00	0.00	0.19	0.28	99.96	0	0.00	0.09	0.00	0.00	100.00	100.00	100.00	97.61	98.74	100.00	100.00
Tamil Nadu	VIL-Brand Idea	0.15	0.44	99.88	0.07	0.12	2.04	2.93	99.31	0	0.07	0.33	0.07	0.00	100.00	100.00	100.00	99.42	100.00	100.00	69.44
Tamil Nadu	VIL-Brand Vodafone	0.16	0.66	99.05	0.64	0.90	1.56	2.47	98.90	0	0.09	0.18	0.07	0.00	100.00	100.00	100.00	99.42	100.00	100.00	69.44
Uttar Pradesh (East)	Airtel	0.45	1.30	98.14	0.28	0.75	1.50	1.95	96.55	0	0.22	0.28	0.00	0.00	100.00	100.00	100.00	100.00	91.00	100.00	100.00
Uttar Pradesh (East)	BSNL	1.47	1.56	97.83	0.87	0.67	1.79	2.26	98.16	0	0.00	0.02	0.09	0.09	100.00	100.00	100.00	98.00	97.32	100.00	100.00
Uttar Pradesh (East)	RJIL	0.42	1.73	99.01	0.00	0.00	0.45	0.55	99.91	0	0.01	0.18	0.00	0.00	100.00	100.00	100.00	98.49	75.84	100.00	100.00
Uttar Pradesh (East)	VIL-Brand Idea	0.32	1.21	97.46	0.98	1.92	1.98	2.76	98.52	0	0.11	0.26	0.02	0.08	100.00	100.00	100.00	99.60	94.93	100.00	100.00
Uttar Pradesh (East)	VIL-Brand Vodafone	0.32	1.21	97.46	0.98	1.92	1.98	2.76	98.52	0	0.11	0.26	0.02	0.08	100.00	100.00	100.00	99.60	94.93	100.00	100.00
Uttar Pradesh (West)	Airtel	0.41	0.76	99.76	0.19	0.24	1.97	2.40	95.13	0	0.20	0.30	0.01	0.00	100.00	100.00	100.00	100.00	90.00	100.00	100.00
Uttar Pradesh (West)	BSNL	1.76	1.81	97.26	0.79	1.09	1.75	1.96	96.70	0	NA	0.00	0.00	0.00	100.00	100.00	100.00	98.00	97.21	100.00	100.00
Uttar Pradesh (West)	RJIL	0.19	1.24	99.38	0.00	0.00	0.42	0.51	99.94	0	0.00	0.12	0.00	0.00	100.00	100.00	100.00	98.62	77.32	100.00	100.00
Uttar Pradesh (West)	VIL-Brand Idea	0.17	0.83	96.52	0.94	2.14	1.89	2.98	98.15	0	0.11	0.20	0.04	0.01	100.00	100.00	100.00	99.23	100.00	100.00	90.78
Uttar Pradesh (West)	VIL-Brand Vodafone	0.17	0.83	96.52	0.94	2.14	1.89	2.98	98.15	0	0.11	0.20	0.04	0.01	100.00	100.00	100.00	99.23	100.00	100.00	90.78
West Bengal	Airtel	0.32	0.16	99.32	0.63	1.01	1.87	2.90	97.50	0	0.21	0.34	0.00	0.00	100.00	100.00	100.00	100.00	90.00	100.00	100.00
West Bengal	BSNL	0.31	0.93	97.40	0.99	1.48	8.21	10.00	97.35	0	0.22	1.81	0.00	0.01	98.00	100.00	100.00	97.00	95.73	100.00	100.00
West Bengal	RJIL	0.20	0.72	99.60	0.00	0.00	0.56	0.70	99.92	0	0.00	0.17	0.00	0.00	100.00	100.00	100.00	98.33	96.85	100.00	100.00
West Bengal	VIL-Brand Idea	0.19	1.48																		

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

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 complaints	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										
																		Benchmarks									
																		≤7	For urban areas by next working day: ≥85%	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
Andhra Pradesh	Bharti Airtel	1	85.78%	100.00%	NA	NA	208	5	0.00%	0.00%	NA	100.00%	100.00%	100.00%	100.00%	72.00%	100.00%	100.00%									
	BSNL	4	98.00%	100.00%	94.00%	100.00%	18	5	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	88.61%	88.38%	100.00%	100.00%									
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	1	0.00%	0.00%	0.00%	NA	NA	NA	96.00%	96.00%	100.00%	100.00%									
	TTSL	0	90.13%	100.00%	NA	NA	191	8	0.38%	0.00%	NA	100.00%	100.00%	100.00%	96.33%	97.98%	NR	100.00%									
	VIL	0	100.00%	100.00%	NA	NA	NA	2.11	NA	NA	NA	NA	NA	NA	88.00%	100.00%	100.00%	NA									
Assam	BSNL	4	87.00%	100.00%	70.00%	100.00%	603	4	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	94.98%	97.67%	100.00%	100.00%									
	RJIL	0	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	100.00%	100.00%	100.00%	100.00%									
	VIL	1	100.00%	100.00%	NA	NA	NA	8.15	NA	NA	NA	NA	NA	NA	88.00%	100.00%	100.00%	NA									
Bihar	BSNL	4	95.00%	100.00%	94.00%	100.00%	1181	4	0.00%	0.05%	0.00%	98.00%	100.00%	100.00%	97.22%	98.42%	100.00%	100.00%									
	RJIL	0	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	100.00%	97.00%	100.00%	100.00%									
	TTSL	0	96.47%	100.00%	NA	NA	9	4	0.00%	NA	NA	NA	NA	NA	98.82%	98.14%	NR	100.00%									
	VIL	2	100.00%	100.00%	NA	NA	NA	3.28	NA	NA	NA	NA	NA	NA	88.00%	100.00%	100.00%	NA									
Delhi	Bharti Airtel	1	92.77%	100.00%	NA	NA	0	5	0.00%	0.01%	NA	100.00%	100.00%	100.00%	100.00%	69.00%	100.00%	100.00%									
	MTNL	4	45.43%	72.91%	NA	NA	9542	34	0.00%	0.01%	NA	100.00%	100.00%	100.00%	99.76%	99.93%	100.00%	100.00%									
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	1	0.00%	0.00%	0.00%	NA	NA	NA	95.00%	96.00%	100.00%	100.00%									
	TTSL	0	92.81%	100.00%	NA	NA	6	7	0.20%	NA	NA	NA	NA	NA	97.98%	97.24%	NR	100.00%									
	VIL	1	100.00%	100.00%	NA	NA	NA	1.27	NA	NA	NA	NA	NA	NA	88.00%	100.00%	100.00%	NA									
Gujarat	Bharti Airtel	1	94.21%	100.00%	NA	NA	65	6	0.00%	0.01%	NA	100.00%	100.00%	100.00%	100.00%	68.00%	100.00%	100.00%									
	BSNL	5	94.00%	100.00%	92.00%	100.00%	124	4	0.00%	0.01%	0.00%	100.00%	100.00%	100.00%	49.47%	40.89%	100.00%	100.00%									
	RJIL	0	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	98.00%	97.00%	100.00%	100.00%									
	TTSL	0	91.75%	100.00%	NA	NA	34	6	0.19%	0.00%	NA	100.00%	100.00%	100.00%	98.12%	97.28%	NR	100.00%									
	VIL	0	100.00%	100.00%	NA	NA	NA	3.43	NA	NA	NA	NA	NA	NA	88.00%	100.00%	100.00%	NA									
Himachal Pradesh	BSNL	7	89.00%	100.00%	90.00%	100.00%	110	9	0.00%	0.02%	0.00%	98.00%	100.00%	100.00%	93.84%	100.00%	100.00%	100.00%									
	RJIL	0	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	100.00%	100.00%	100.00%	100.00%									
	VIL	0	100.00%	100.00%	NA	NA	NA	0	NA	NA	NA	NA	NA	NA	88.00%	100.00%	NA	NA									

## Annexure 4.2 (Contd.)

Haryana	Bharti Airtel	2	89.40%	100.00%	NA	NA	30	5	0.00%	0.00%	NA	100.00%	100.00%	100.00%	100.00%	75.00%	100.00%	100.00%
	BSNL	7	87.00%	100.00%	85.00%	100.00%	385	5	0.00%	0.08%	0.00%	100.00%	100.00%	100.00%	93.34%	99.33%	100.00%	100.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	100.00%	100.00%	100.00%	100.00%
	TTSL	0	NA	NA	NA	NA	2	NA	0.00%	NA	NA	NA	NA	NA	96.53%	100.00%	NR	100.00%
	VIL	7	100.00%	100.00%	NA	NA	NA	0.38	NA	NA	NA	NA	NA	NA	88.00%	100.00%	NA	NA
Jammu & Kashmir	BSNL	5	98.00%	100.00%	96.00%	100.00%	256	7	0.00%	0.01%	0.00%	98.00%	100.00%	100.00%	94.59%	99.67%	100.00%	100.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	97.00%	97.00%	100.00%	100.00%
Kerala	Bharti Airtel	2	94.94%	100.00%	NA	NA	83	7	0.00%	0.01%	NA	100.00%	100.00%	100.00%	100.00%	52.00%	100.00%	100.00%
	BSNL	4	91.00%	100.00%	91.00%	100.00%	1760	7	0.00%	0.07%	0.00%	100.00%	100.00%	100.00%	92.07%	91.95%	100.00%	100.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	1	0.00%	0.00%	0.00%	NA	NA	NA	100.00%	100.00%	100.00%	100.00%
	TTSL	0	40.00%	100.00%	NA	NA	1	35	0.00%	NA	NA	NA	NA	NA	99.07%	97.30%	NR	100.00%
	VIL	1	100.00%	100.00%	NA	NA	NA	5.15	NA	NA	NA	NA	NA	NA	88.00%	100.00%	100.00%	NA
Kolkata	Bharti Airtel	2	91.89%	100.00%	NA	NA	822	10	0.00%	0.00%	NA	100.00%	100.00%	100.00%	100.00%	67.00%	100.00%	100.00%
	BSNL	6	91.00%	100.00%	NA	NA	390	8	0.00%	0.00%	0.00%	98.00%	100.00%	100.00%	94.30%	99.33%	100.00%	100.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	0.00%	NA	NA	NA	95.00%	95.00%	100.00%	100.00%
	VIL	1	100.00%	100.00%	NA	NA	NA	7.13	NA	NA	NA	NA	NA	NA	88.00%	100.00%	100.00%	NA
Karnataka	Bharti Airtel	1	85.01%	100.00%	NA	NA	1474	6	0.00%	0.00%	NA	100.00%	100.00%	100.00%	100.00%	75.00%	100.00%	100.00%
	BSNL	5	95.00%	100.00%	99.00%	100.00%	6463	7	0.00%	0.09%	0.00%	98.00%	100.00%	100.00%	75.15%	73.88%	100.00%	100.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	8	0.00%	0.00%	0.00%	NA	NA	NA	96.00%	96.00%	100.00%	100.00%
	TTSL	0	71.62%	100.00%	NA	NA	49	17	0.34%	0.00%	NA	100.00%	100.00%	100.00%	97.45%	98.25%	NR	100.00%
	VIL	0	100.00%	100.00%	NA	NA	NA	5.6	NA	NA	NA	NA	NA	NA	88.00%	100.00%	100.00%	NA
Maharashtra	Bharti Airtel	0	91.20%	100.00%	NA	NA	121	7	0.00%	0.00%	NA	100.00%	100.00%	100.00%	100.00%	67.00%	100.00%	100.00%
	BSNL	7	79.00%	100.00%	74.00%	100.00%	29591	13	0.00%	0.01%	0.00%	100.00%	100.00%	100.00%	38.96%	38.46%	100.00%	100.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	NA	0	0.00%	0.00%	0.00%	NA	NA	NA	96.00%	96.00%	100.00%	100.00%
	TTSL	0	85.43%	100.00%	NA	NA	210	10	0.08%	0.00%	NA	100.00%	100.00%	100.00%	95.94%	96.97%	NR	100.00%
	VIL	0	100.00%	100.00%	NA	NA	NA	5.34	NA	NA	NA	NA	NA	NA	88.00%	100.00%	100.00%	NA
Madhya Pradesh	Bharti Airtel	2	85.96%	100.00%	NA	NA	573	4	0.00%	0.01%	NA	100.00%	100.00%	100.00%	100.00%	69.00%	100.00%	100.00%
	BSNL	6	89.00%	100.00%	90.00%	100.00%	602	7	0.00%	0.06%	0.00%	100.00%	100.00%	100.00%	3.64%	3.58%	100.00%	100.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	2	0.00%	0.00%	0.00%	NA	NA	NA	96.00%	96.00%	100.00%	100.00%
	TTSL	0	100.00%	100.00%	NA	NA	1	1	0.00%	NA	NA	NA	NA	NA	98.48%	97.67%	NR	100.00%
	VIL	1	100.00%	100.00%	NA	NA	NA	4.59	NA	NA	NA	NA	NA	NA	88.00%	100.00%	100.00%	NA
Mumbai	Bharti Airtel	0	88.35%	100.00%	NA	NA	786	9	0.00%	0.00%	NA	100.00%	100.00%	100.00%	100.00%	69.00%	100.00%	100.00%
	MTNL	3	27.10%	50.80%	NA	NA	147,752	84	0.45%	0.09%	NA	99.41%	100.00%	100.00%	98.84%	47.95%	96.97%	8.62%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	96.00%	97.00%	100.00%	100.00%
	TTSL	0	65.68%	100.00%	NA	NA	1614	20	0.36%	0.00%	NA	100.00%	100.00%	100.00%	97.43%	98.04%	NR	100.00%
	VIL	0	100.00%	100.00%	NA	NA	NA	1.39	NA	NA	NA	NA	NA	NA	88.00%	100.00%	100.00%	NA

## Annexure 4.2 (Contd.)

North East	RJIL	0	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	100.00%	100.00%	100.00%	100.00%
	VIL	0	100.00%	100.00%	NA	NA	NA	0	NA	NA	NA	NA	NA	NA	88.00%	100.00%	NA	NA
North East	BSNL	4	95.00%	100.00%	91.00%	100.00%	164	6	0.00%	0.02%	0.00%	99.00%	100.00%	100.00%	99.03%	100.00%	100.00%	100.00%
Odisha	BSNL	6	94.00%	100.00%	86.00%	100.00%	577	5	0.00%	0.09%	0.00%	99.00%	100.00%	100.00%	93.07%	98.33%	100.00%	100.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	100.00%	100.00%	100.00%	100.00%
	TTSL	0	98.67%	100.00%	NA	NA	4	2	0.00%	NA	NA	NA	NA	NA	100.00%	100.00%	NR	100.00%
	VIL	0	100.00%	100.00%	NA	NA	NA	1.54	NA	NA	NA	NA	NA	NA	88.00%	100.00%	100.00%	NA
Punjab	Bharti Airtel	2	85.25%	100.00%	NA	NA	228	6	0.00%	0.01%	NA	100.00%	100.00%	100.00%	100.00%	70.00%	100.00%	100.00%
	BSNL	5	90.00%	100.00%	81.00%	100.00%	135	5	0.00%	0.02%	0.00%	98.00%	100.00%	100.00%	93.59%	99.67%	100.00%	100.00%
	Quadrant	5	89.67%	100.00%	100.00%	100.00%	0	8	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	96.01%	95.25%	100.00%	100.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	97.00%	98.00%	100.00%	100.00%
	TTSL	0	100.00%	100.00%	NA	NA	0	2	0.00%	NA	NA	NA	NA	NA	99.45%	97.06%	NR	100.00%
	VIL	0	100.00%	100.00%	NA	NA	NA	1.53	NA	NA	NA	NA	NA	NA	88.00%	100.00%	100.00%	NA
Rajasthan	Bharti Airtel	2	85.55%	100.00%	NA	NA	85	5	0.00%	0.01%	NA	100.00%	100.00%	100.00%	100.00%	71.00%	100.00%	100.00%
	BSNL	5	95.00%	100.00%	95.00%	100.00%	649	6	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	93.47%	99.33%	100.00%	100.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	3	0.00%	0.00%	0.00%	NA	NA	NA	97.00%	98.00%	100.00%	100.00%
	TTSL	0	97.62%	100.00%	NA	NA	4	3	0.00%	NA	NA	NA	NA	NA	98.20%	100.00%	NR	100.00%
	VIL	0	100.00%	100.00%	NA	NA	NA	5.30	NA	NA	NA	NA	NA	NA	88.00%	100.00%	100.00%	NA
Tamilnadu	Bharti Airtel	2	89.24%	100.00%	NA	NA	3043	10	0.00%	0.01%	NA	100.00%	100.00%	100.00%	100.00%	71.00%	100.00%	100.00%
	BSNL	5	90.00%	100.00%	86.00%	100.00%	3549	7	0.00%	0.07%	0.00%	100.00%	100.00%	100.00%	69.19%	67.86%	100.00%	100.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	2	0.00%	0.00%	0.00%	NA	NA	NA	97.00%	96.00%	100.00%	100.00%
	TTSL	0	57.41%	100.00%	NA	NA	16	19	0.10%	NA	NA	NA	NA	NA	98.65%	97.52%	NR	100.00%
	VIL	0	100.00%	100.00%	NA	NA	NA	3.34	NA	NA	NA	NA	NA	NA	88.00%	100.00%	100.00%	NA
UPE	Bharti Airtel	1	90.25%	100.00%	NA	NA	72	5	0.00%	0.00%	NA	100.00%	100.00%	100.00%	100.00%	70.00%	100.00%	100.00%
	BSNL	7	85.00%	100.00%	91.00%	100.00%	3404	6	0.00%	0.09%	0.00%	100.00%	100.00%	100.00%	94.15%	99.67%	100.00%	100.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	97.00%	98.00%	100.00%	100.00%
	TTSL	0	90.48%	100.00%	NA	NA	3	2	0.00%	NA	NA	NA	NA	NA	100.00%	100.00%	NR	100.00%
	VIL	0	100.00%	100.00%	NA	NA	NA	6.21	NA	NA	NA	NA	NA	NA	88.00%	100.00%	100.00%	NA
UPW	Bharti Airtel	2	88.97%	100.00%	NA	NA	36	5	0.00%	0.01%	NA	100.00%	100.00%	100.00%	100.00%	75.00%	100.00%	100.00%
	BSNL	7	88.00%	100.00%	88.00%	100.00%	482	6	0.00%	0.09%	0.00%	99.00%	100.00%	100.00%	93.41%	99.67%	100.00%	100.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	97.00%	97.00%	100.00%	100.00%
	TTSL	0	91.67%	100.00%	NA	NA	0	4	0.00%	NA	NA	NA	NA	NA	100.00%	100.00%	NR	100.00%
	VIL	1	100.00%	100.00%	NA	NA	NA	3.21	NA	NA	NA	NA	NA	NA	88.00%	100.00%	100.00%	NA
West Bengal	BSNL	4	87.00%	100.00%	90.00%	100.00%	510	5	0.00%	0.01%	0.00%	100.00%	100.00%	100.00%	97.77%	98.87%	100.00%	100.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	96.00%	97.00%	100.00%	100.00%
	TTSL	0	91.57%	100.00%	NA	NA	12	7	0.00%	NA	NA	NA	NA	NA	99.58%	97.93%	NR	100.00%
	VIL	1	100.00%	100.00%	NA	NA	NA	0.0	NA	NA	NA	NA	NA	NA	88.00%	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

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	%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%	No. of Upstream links for International connectivity having	% International bandwidth utilization during peak hours (TCBH)	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	User reference point at ISP Gateway node to International	User reference point at ISP Gateway node to International
			100%	>90%	≥99%	in nos.	<2%	100%	100%	>60%	>80%	0	0	<90%	>80%	>98%	<1%	<120 ms	<350 ms	<800 ms
1	Bharat Sanchar Nigam Ltd.(BSNL)	All India (except Delhi & Mumbai)	100.00%	93.78%	99.71%	3576	0.07%	100.00%	100.00%	94.16%	95.96%	NA	0	69.20%	92.72%	99.65%	0.90%	25	194	NA
2	Mahanagar Telephone Nigam Ltd.	Delhi & Mumbai	79.59%	44.41%	60.38%	58026	0.00%	100.00%	53.70%	65.12%	74.12%	Nil	0	77.63%	89.96%	99.80%	0.52%	44	299	NA
3	Airlink Communications Pvt. Ltd.	All India	100.00%	90.80%	99.16%	0	NA	100.00%	NA	72.69%	100.00%	0	0	82.24%	97.53%	99.82%	0.47%	120	350	NA
4	Airnet Cable and Datacom Pvt.Ltd.	Maharashtra	100.00%	90.00%	99.67%	0	0	0.00%	0.00%	100.00%	100.00%	0	0	4.81%	100.00%	100.00%	0.57%	5	251	NA
5	Airnet Cable and Datacom Pvt.Ltd.	Mumbai	100.00%	91.00%	99.00%	0	0	0.00%	0.00%	100.00%	100.00%	0	0	16.43%	100.00%	100.00%	0.45%	5	251	NA
6	Alliance Broadband Services Pvt. Ltd.	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
7	ANI Network Pvt. Ltd.	Delhi	100.00%	92.00%	100.00%	0	0.00%	0.00%	0.00%	99.00%	100.00%	0	0	89.00%	100.00%	99.90%	0.40%	20	288	NA
8	Asianet Satellite Communications Ltd.	All India	100.00%	90.41%	99.60%	Nil	1.85%	100.00%	100.00%	60.55%	80.57%	Nil	0	69.54%	90.00%	99.50%	1.00%	50	270	NA
8	Atria Convergence Technologies Pvt.	All India	100.00%	91.53%	100.00%	37207	0.00%	100.00%	Nil	85.33%	100.00%	0	0	75.06%	95.65%	99.41%	0.00%	67	208	200
9	Bharti Airtel Ltd.	Andhra Pradesh	100.00%	90.77%	100.00%	952	0.11%	100.00%	100.00%	63.00%	72.00%	0%	0%	45.00%	100.00%	99.95%	0.00%	33	16	NA
		Delhi	100.00%	95.10%	99.48%	1154	0.09%	100.00%	100.00%	57.00%	67.00%	0%	0%	51.00%	100.00%	99.97%	0.00%	40	71	NA
		Gujarat	100.00%	95.20%	99.38%	196	0.13%	100.00%	100.00%	61.00%	69.00%	0%	NA	NA	100.00%	99.98%	0.00%	22	NA	NA
		Haryana	100.00%	91.64%	99.15%	74	0.05%	100.00%	100.00%	63.00%	71.00%	0%	NA	NA	100.00%	99.85%	0.00%	83	NA	NA
		Karnataka	100.00%	90.03%	100.00%	3467	0.10%	100.00%	100.00%	62.00%	71.00%	0%	0%	43.00%	100.00%	99.86%	0.00%	32	40	NA
		Kerala	100.00%	93.24%	99.86%	166	0.10%	100.00%	100.00%	44.00%	54.00%	0%	NA	NA	100.00%	99.96%	0.00%	59	NA	NA
		Kolkata	100.00%	93.41%	100.00%	1766	0.17%	100.00%	100.00%	59.00%	68.00%	0%	0%	40.00%	100.00%	99.95%	0.00%	48	69	NA
		Jammu & Kashmir*	100.00%	92.22%	99.23%	376	0.00%	100.00%	100.00%	56.00%	65.00%	0%	NA	NA	100.00%	99.25%	0.00%	23	NA	NA
		Madhya Pradesh	100.00%	90.84%	99.16%	902	0.10%	100.00%	100.00%	57.00%	67.00%	0%	0%	48.00%	100.00%	99.90%	0.00%	43	61	NA
		Maharashtra	100.00%	92.90%	99.26%	516	0.12%	100.00%	100.00%	58.00%	67.00%	0%	0%	46.00%	100.00%	99.88%	0.00%	17	53	NA
		Mumbai	100.00%	93.65%	99.26%	1483	0.16%	100.00%	100.00%	57.00%	67.00%	0%	0%	52.00%	100.00%	99.89%	0.00%	36	57	NA
		Punjab	100.00%	90.49%	99.27%	422	0.08%	100.00%	100.00%	63.00%	72.00%	0%	0%	61.00%	100.00%	99.96%	0.00%	78	81	NA
		Rajasthan	100.00%	90.16%	99.90%	98	0.09%	100.00%	100.00%	63.00%	71.00%	0%	NA	NA	100.00%	99.95%	0.00%	42	NA	NA
		Tamilnadu	100.00%	90.12%	99.95%	6693	0.16%	100.00%	100.00%	60.00%	68.00%	0%	0%	43.00%	100.00%	99.84%	0.00%	6	35	NA
		Uttar Pradesh - East	100.00%	90.17%	99.80%	300	0.07%	100.00%	100.00%	58.00%	68.00%	0%	0%	53.00%	100.00%	99.91%	0.00%	44	70	NA
Uttar Pradesh - West	100.00%	90.46%	99.09%	129	0.09%	100.00%	100.00%	57.00%	66.00%	0%	NA	NA	100.00%	99.93%	0.00%	27	NA	NA		
10	City Online Services Ltd.	AP	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%	47.00%	98.00%	98.00%	0.50%	25	280	NA
11	DEN Broadband Pvt. Ltd.	All India	100.00%	97.38%	99.72%	0	Nil	Nil	Nil	51.00%	57.00%	0	0	73.97%	92.00%	99.18%	0.62%	64	255	NA
12	Digital Network Associates Pvt. Ltd	Maharashtra & Goa	100.00%	90.64%	99.32%	None	0.00%	100.00%	Nil	62.58%	82.73%	Nil	0	80.00%	80.00%	99.77%	1.00%	4	255	600
		Mumbai	100.00%	95.76%	100.00%	None	0.00%	100.00%	Nil	89.20%	96.20%	Nil	0	80.00%	80.00%	99.77%	1.00%	4	255	600
13	Digital Satellite Connect Pvt. Ltd.	Maharashtra	100.00%	90.86%	99.35%	None	0.00%	100.00%	Nil	63.92%	86.05%	Nil	0	80.00%	80.00%	99.77%	1.00%	4	255	600
		Mumbai	100.00%	90.71%	99.35%	None	0.00%	100.00%	Nil	64.95%	84.78%	Nil	0	80.00%	80.00%	99.77%	1.00%	4	255	600
14	DNA Infotel Pvt. Ltd.	Maharashtra	100.00%	90.76%	99.27%	None	0.00%	100.00%	Nil	61.39%	83.62%	Nil	0	80.00%	80.00%	99.77%	1.00%	4	255	600
15	D-Vois Communications Pvt.Ltd.	All India	100.00%	94.31%	99.68%	0	0.00%	Nil	Nil	85.50%	91.10%	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%	85.00%	90.00%	0	0	59.04%	90.00%	98.95%	0.00%	40	100	720
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
		UP(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

**Annexure 4.3 (Contd.)**

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%	92.40%	99.40%	194	0.00%	100.00%	100.00%	71.20%	84.40%	0	0	72.00%	100.00%	100.00%	1.00%	120	350	NA	
20	GTPL Broadband Pvt.Ltd.	All India	99.70%	91.62%	99.39%	282	0.00%	100.00%	100.00%	68.42%	81.63%	NA	0	71.10%	92.58%	99.53%	0.00%	11	300	NA	
21	Hathway Cable & Datacom Ltd.	All India	100.00%	93.60%	99.57%	8467	0.88%	100.00%	100.00%	62.38%	83.93%	0	0	78.04%	90.00%	99.57%	0.43%	75	264	NA	
22	Honesty Net Solutions (I) Pvt. Ltd.	Mumbai	100.00%	93.00%	100.00%	0	Nil	100.00%	100.00%	68.00%	100.00%	0	NA	NA	95.00%	100.00%	1.00%	NA	66	NA	
23	Indinet Service Pvt Ltd	All India	100.00%	92.00%	100.00%	0	0.00%	100.00%	100.00%	81.00%	83.00%	0	0	78.00%	90.00%	99.03%	1.00%	44	250	NA	
24	Intech Online Pvt.Ltd.	Maharashtra	100.00%	90.38%	99.26%	100	0.77%	100.00%	100.00%	76.95%	89.81%	0	0	72.01%	84.66%	99.33%	1.00%	15	89	451	
		Mumbai	100.00%	90.54%	99.16%	97	0.72%	100.00%	100.00%	78.56%	88.87%	0	0	58.31%	86.66%	99.33%	1.00%	1	76	453	
25	Ishan Netsol Pvt Ltd	Gujarat	100.00%	94.39%	100.00%	0	0.00%	100.00%	100.00%	68.65%	86.25%	0	0	61.40%	91.00%	99.20%	1.00%	100	250	NA	
26	Joister Inforserve Pvt. Ltd. (Formerly Syscon Infoway Pvt. Ltd.)	Mumbai	100.00%	93.00%	100.00%	Nil	0.00%	100.00%	100.00%	88.00%	87.00%	0	0	88.00%	99.00%	100.00%	0.00%	1	47	265	
		Maharashtra	100.00%	95.00%	100.00%	Nil	0.00%	100.00%	NA	87.00%	88.00%	0	0	84.00%	99.00%	100.00%	1.00%	1	225	265	
27	K NET SOLUTIONS PVT. LTD.	Chennai	100.00%	90.55%	98.12%	128	NA	100.00%	100.00%	82.40%	84.40%	0	0	NA	100.00%	99.98%	0.00%	8	214	NA	
		TN	100.00%	93.84%	98.26%	13	NA	100.00%	100.00%	82.40%	84.40%	0	0	NA	100.00%	99.82%	0.00%	18	222	NA	
28	Limras Eronet Broadband Service Pvt.	All India	100.00%	99.00%	100.00%	0	1.00%	100.00%	100.00%	90.00%	100.00%	0	0	0.00%	95.00%	99.40%	1.00%	30	261	0	
29	Meghbela Cable & Broadband Services	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%	99.67%	0	0.00%	0.00%	0.00%	100.00%	100.00%	0	0	29.13%	100.00%	100.00%	0.47%	5	255	NA	
		Maharashtra	100.00%	95.00%	99.00%	0	0.00%	0.00%	0.00%	100.00%	100.00%	0	0	6.83%	100.00%	100.00%	0.45%	5	255	NA	
31	Netplus Broadband Services Pvt. Ltd.	Delhi	100.00%	100.00%	100.00%	0	0.00%	100.00%	100.00%	74.00%	87.00%	0	0	78.25%	75.70%	100.00%	0.10%	97	190	NA	
		Haryana	100.00%	93.37%	100.00%	0	0.21%	100.00%	100.00%	66.00%	83.00%	0	0	80.00%	96.27%	100.00%	0.10%	89	188	NA	
		Himachal Pradesh	100.00%	94.00%	100.00%	0	0.21%	100.00%	100.00%	66.00%	83.00%	0	0	79.00%	95.83%	100.00%	0.10%	87	192	NA	
		Jammu & Kashmir	100.00%	100.00%	100.00%	0	0.10%	100.00%	100.00%	66.00%	83.00%	0	0	79.32%	96.27%	100.00%	0.10%	99	198	NA	
		Punjab	100.00%	92.27%	100.00%	0	0.32%	100.00%	100.00%	66.00%	83.00%	0	0	77.00%	96.33%	100.00%	0.10%	87	154	NA	
		Rajasthan	100.00%	100.00%	100.00%	0	0.09%	100.00%	100.00%	66.00%	83.00%	0	0	77.00%	96.53%	100.00%	0.10%	94	193	NA	
		UP-West	100.00%	100.00%	100.00%	0	0.00%	100.00%	100.00%	66.00%	83.00%	0	0	77.42%	96.33%	100.00%	0.10%	92	190	NA	
32	Nextra Teleservices Pvt. Ltd.	Delhi	100.00%	91.57%	99.27%	1553	1.00%	100.00%	100.00%	63.00%	84.00%	0	0	82.00%	100.00%	100.00%	1.00%	120	350	NA	
33	Ortel Communications Ltd.	All India	100.00%	95.00%	99.43%	0	NA	NA	NA	100.00%	100.00%	0	0	65.42%	90.00%	99.01%	0.00%	77	186	NA	
34	ONEOTT Entertainment Limited	All India	100.00%	97.00%	99.00%	19	1.54%	100.00%	100.00%	100.00%	100.00%	0	0	267.00%	100.00%	99.98%	0.50%	65	220	NA	
35	Quadrant Televentures Ltd.	Punjab	100.00%	93.93%	99.37%	0	0.00%	100.00%	100.00%	78.70%	87.41%	0	0	76.60%	100.00%	99.98%	0.00%	80	280	0	
36	Quest Consultancy 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	
37	RailTel Corporation of India Ltd.	All India (Pan India)	100.00%	98.30%	100.00%	Nil	0.00%	Nil	Nil	69.33%	76.33%	0	0	77.30%	100.00%	99.95%	1.00%	120	350	NA	
38	Rajesh Digital Datacom Pvt.Ltd.	Mumbai	100.00%	97.00%	100.00%	0	0.00%	100.00%	100.00%	97.00%	97.00%	0	0	88.00%	83.00%	99.00%	0.00%	46	250	500	
39	Reliance Jio Infocomm Ltd.	Andhra Pradesh	100.00%	90.93%	99.92%	0	0.00%	100.00%	100.00%	83.00%	88.00%	0%	NA	NA	100.00%	100.00%	NA	13.09%	NA	NA	
		Assam	100.00%	90.62%	99.62%	0	0.00%	100.00%	100.00%	77.00%	80.00%	NA	NA	NA	100.00%	99.99%	NA	NA	NA	NA	
		Bihar	100.00%	91.09%	99.82%	0	0.00%	100.00%	100.00%	74.00%	100.00%	NA	NA	NA	100.00%	99.96%	NA	NA	NA	NA	
		Delhi	100.00%	90.78%	99.93%	0	0.00%	100.00%	100.00%	82.00%	86.00%	0%	0%	45.00%	100.00%	99.99%	0.01%	16.95%	NA	NA	
		Gujarat	100.00%	90.95%	99.90%	0	0.00%	100.00%	100.00%	81.00%	86.00%	0%	NA	NA	100.00%	100.00%	0.05%	24.44%	NA	NA	
		Haryana	100.00%	90.96%	99.84%	0	0.00%	100.00%	100.00%	77.00%	80.00%	NA	NA	NA	100.00%	99.97%	NA	NA	NA	NA	
		Himachal Pradesh	100.00%	91.21%	100.00%	0	0.00%	100.00%	100.00%	69.00%	100.00%	NA	NA	NA	100.00%	100.00%	NA	NA	NA	NA	
		Jammu & Kashmir	100.00%	91.14%	99.88%	0	0.00%	100.00%	100.00%	77.00%	80.00%	NA	NA	NA	100.00%	99.99%	NA	NA	NA	NA	
		Karnataka	100.00%	90.86%	99.85%	0	0.00%	100.00%	100.00%	76.00%	80.00%	0%	0%	7.00%	100.00%	99.98%	0.02%	13.80%	NA	NA	
		Kerala	100.00%	91.14%	99.89%	0	0.00%	100.00%	100.00%	77.00%	80.00%	NA	NA	NA	100.00%	100.00%	NA	NA	NA	NA	
		Kolkata	100.00%	90.79%	99.89%	0	0.00%	100.00%	100.00%	80.00%	85.00%	NA	NA	NA	100.00%	100.00%	0.00%	32.83%	NA	NA	
		Madhya Pradesh	100.00%	90.89%	99.92%	0	0.00%	100.00%	100.00%	77.00%	80.00%	NA	NA	NA	100.00%	99.99%	NA	NA	NA	NA	
		Maharashtra	100.00%	91.03%	99.85%	0	0.00%	100.00%	100.00%	77.00%	80.00%	0%	NA	NA	100.00%	99.97%	0.00%	18.95%	NA	NA	
		Mumbai	100.00%	90.43%	99.87%	0	0.00%	100.00%	100.00%	83.00%	87.00%	0%	0%	48.00%	100.00%	99.92%	0.01%	7.32%	105	NA	
		North East	100.00%	90.92%	99.69%	0	0.00%	100.00%	100.00%	77.00%	81.00%	NA	NA	NA	100.00%	99.93%	NA	NA	NA	NA	
		Orissa	100.00%	90.58%	99.83%	0	0.00%	100.00%	100.00%	77.00%	80.00%	NA	NA	NA	100.00%	100.00%	NA	NA	NA	NA	
		Punjab	100.00%	90.77%	99.79%	0	0.00%	100.00%	100.00%	82.00%	86.00%	NA	NA	NA	100.00%	100.00%	NA	NA	NA	NA	
		Rajasthan	100.00%	90.77%	99.81%	0	0.00%	100.00%	100.00%	82.00%	87.00%	NA	NA	NA	100.00%	99.99%	NA	NA	NA	NA	
		Tamilnadu	100.00%	90.95%	99.73%	0	0.00%	100.00%	100.00%	76.00%	80.00%	0%	0%	55.00%	100.00%	100.00%	0.01%	5.24%	31	NA	
		Uttar Pradesh - East	100.00%	90.21%	99.82%	0	0.00%	100.00%	100.00%	75.00%	100.00%	0%	NA	NA	100.00%	100.00%	NA	NA	33.09%	NA	NA
		Uttar Pradesh - West	100.00%	90.70%	99.63%	0	0.00%	100.00%	100.00%	76.00%	100.00%	NA	NA	NA	100.00%	99.99%	NA	NA	NA	NA	NA
West Bengal	100.00%	91.25%	99.24%	0	0.00%	100.00%	100.00%	78.00%	81.00%	NA	NA	NA	100.00%	99.99%	NA	NA	NA	NA	NA		

## Annexure 4.3 (Contd.)

40	RI Networks Pvt Ltd	All India	100.00%	91.30%	99.12%	466	NA	NA	100.00%	67.92%	85.41%	0%	0%	76.00%	100.00%	100.00%	1.00%	120	350	NA
41	Sai Prasad Internet Services Pvt.Ltd.	Maharashtra	100.00%	90.79%	99.25%	0	0.00%	100.00%	Nil	61.47%	83.73%	Nil	0	80.00%	80.00%	99.73%	1.00%	4	255	600
42	Shree Omkar Infocom Pvt. Ltd.	Mumbai	100.00%	98.00%	100.00%	0	0.00%	100.00%	100.00%	90.00%	95.00%	0	0	48.00%	DNF	98.90%	1.00%	2	123	600
43	Shyam Spectra Pvt. Ltd. (formerly Citycom Networks Pvt. Ltd.)	All India	100.00%	96.53%	99.20%	524	0.43%	100.00%	100.00%	80.60%	90.40%	0	0	17.20%	93.70%	99.60%	0.00%	10	153	NA
44	Sikka Broadband(P) Ltd.	UP (East)	100.00%	91.00%	99.26%	0	0.00%	0.00%	0.00%	88.00%	98.70%	0%	0%	85.00%	86.60%	99.50%	1.00%	10	290	400
45	Siti Broadband Services Pvt.Ltd.	All India (Pan India)	100.00%	93.96%	99.09%	33	Nil	Nil	100.00%	89.00%	93.00%	0	0	85.02%	95.00%	99.48%	0.00%	3	146	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	78.00%	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%	98.22%	99.20%	NA	NA	NA	NA	81.07%	84.39%	0	0	45.00%	100.00%	99.88%	0.00%	1	NA	NA
49	Tata Tele.Ltd. (TTSL)	All India (except MH)	100.00%	85.00%	95.00%	0	0.07%	100.00%	100.00%	92.24%	95.69%	0	0	71.00%	92.77%	99.60%	0.00%	69	68	Nil
50	Tata Tele.(Mah) Ltd. (TTML)	Mah. & Mumbai	100.00%	75.00%	91.00%	0	0.08%	100.00%	100.00%	91.98%	95.79%	0	0	65.00%	95.00%	99.70%	0.20%	73	242	Nil
51	Vasai Cable Pvt. Ltd.	Maharashtra	100.00%	94.00%	100.00%	None	0.14%	100.00%	Nil	64.57%	82.37%	Nil	0	63.00%	90.00%	100.00%	1.00%	4	255	NA
52	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
53	Wish Net Pvt. Ltd.	Kolkata	100.00%	98.93%	100.00%	0	0.00%	100.00%	NA	88.30%	99.00%	0	0	46.08%	100.00%	99.96%	1.00%	20	NA	NA
		West Bengal	100.00%	99.42%	100.00%	0	0.00%	100.00%	NA	79.50%	98.53%	0	0	46.08%	100.00%	99.94%	1.00%	20	NA	NA
54	World Phone Internet Services 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
55	Yashash Cable Network Pvt Ltd	Karnataka	100.00%	88.70%	97.20%	141	0.00%	0.00%	0.00%	63.60%	94.76%	0	0	78.21%	80.00%	99.45%	1.00%	30	301	0
56	You Broadband India Pvt. Ltd.	All India	94.05%	99.67%	99.86%	85	0.00%	0.00%	0.00%	52.76%	63.38%	18	80643	71.16%	86.95%	98.94%	0.00%	9	269	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		

**Annexure 5.1: List of pay channels, offered by broadcasters to subscribers as reported to TRAI (New Regulatory Framework) - as on 30<sup>th</sup> September 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.	Histry 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.	Asianet	GEC	Malayalam	SD
		7.	Asianet Plus	GEC	Malayalam	SD
		8.	Asianet Movies	Movies	Malayalam	SD
		9.	Suvarna Plus	Movies	Kannada	SD
		10.	Star Suvarna HD	GEC	Kannada	HD
		11.	Asianet HD	GEC	Malayalam	HD
		12.	Star Suvarna	GEC	Kannada	SD
3	Bangla Entertainment Private Limited	13.	AATH	GEC	Bangla	SD
		14.	SONY Marathi	GEC	Marathi	SD
4	BBC Global News India Private Limited	15.	BBC World News	News	English	SD
		16.	Cbeebies	Kids	English	SD
5	Bennett, Coleman & Company Limited	17.	Zoom	GEC	Hindi	SD
		18.	Romedy Now	Movies	English	SD
		19.	MN +	Movies	English	HD
		20.	Mirror Now	News	English/ Hindi	SD
		21.	ET NOW	News	English/ Hindi	SD
		22.	Times Now	News	English/ Hindi	SD
		23.	Romedy Now HD	Movies	English	HD
		24.	Movies Now HD	Movies	English	HD
		25.	MNX HD	Movies	English	HD
		26.	MNX	Movies	English	SD
27.	Times Now World	News	English	HD		
6	Celebrities Management Pvt Limited	28.	Travel XP HD	Lifestyle	English	HD
		29.	Travel XP Tamil	Lifestyle	Tamil	SD

7	CSL Info Media Private Limited	30.	JAN TV PLUS	News	Hindi	SD
8	Direct New Private Limited	31.	News X	News	English	SD
9	Discovery Communications India	32.	Animal Planet	Infotainment	English/ Hindi	SD
		33.	Discovery Channel	Infotainment	English/ Hindi	SD
		34.	DTAMIL	Infotainment	Tamil	SD
		35.	Discovery Kids Channel	Kids	English	SD
		36.	Discovery Science	Infotainment	English/ Hindi	SD
		37.	Discovery Turbo	Infotainment	English/ Hindi	SD
		38.	Investigation Discovery	GEC	Hindi	SD
		39.	Discovery HD	Infotainment	English	HD
		40.	Animal Planet HD World	Infotainment	English/ Hindi	HD
		41.	TLC HD	Infotainment	English/ Hindi	HD
		42.	Investigation Discovery HD	GEC	Hindi	HD
		43.	TLC	Infotainment	English/ Hindi	SD
		44.	EUROSPORT HD (Earlier name "Dsport HD")	Sports	English	HD
		45.	EUROSPORT (Earlier name "Dsport")	Sports	English	SD
10	Disney Broadcasting (India) Limited	46.	Disney Junior	Kids	English	SD
		47.	UTV Movies	Movies	Hindi	SD
		48.	Marvel HQ	Kids	English/ Hindi	SD
		49.	Disney International HD	GEC	English	HD
		50.	Hungama TV	Kids	English/ Hindi	SD
		51.	The Disney Channel	Kids	English/ Hindi	SD
		52.	UTV HD	Movies	Hindi	HD
		53.	UTV Bindass	GEC	Hindi	SD
		54.	UTV Action	Movies	Hindi	SD

11	Eenadu Television Private Limited	55.	ETV	GEC	Telugu	SD
		56.	ETV Andhra Pradesh	News	Telugu	SD
		57.	ETV - Telangana	News	Telugu	SD
		58.	ETV Cinema	Movies	Telugu	SD
		59.	ETV Life	GEC	Telugu	SD
		60.	ETV Plus	GEC	Telugu	SD
		61.	ETV Abhiruchi	GEC	Telugu	SD
		62.	ETV HD	GEC	Telugu	HD
		63.	ETV Plus HD	GEC	Telugu	HD
		64.	ETV Cinema HD	Movies	Telugu	HD
		65.	ETV Abhiruchi HD	GEC	Telugu	HD
66.	ETV Life HD	GEC	Telugu	HD		
12	IN 10 Media Private Limited	67.	EPIC TV	Infotainment	English/Hindi	SD
13	Fame Media Private Limited	68.	4tv News	News	Urdu/Hindi	SD
14	Greycells18 Media Limited	69.	Topper TV	Miscellaneous	English	SD
15	IBN Lokmat News Private Ltd	70.	News 18 Lokmat	News	Hindi	SD
16	Living Entertainment Enterprises Private Ltd	71.	Living Foodz HD	Infotainment	Hindi	HD
		72.	Living Travelz	Infotainment	Hindi	SD
17	Lifestyle and Media Broadcasting Limited	73.	Good Times	Lifestyle	English	SD
18	Lex Sportel Vision Private Limited	74.	1SPORTS	Sports	English	SD
19	Mavis Satcom Limited	75.	J Movies	Movies	Tamil	SD
		76.	Jaya Max	Music	Tamil	SD
		77.	Jaya Plus	News	Tamil	SD
		78.	Jaya TV HD	GEC	Tamil	HD
20	MSM World Wide Factual Media Private Limited	79.	SONY BBC EARTH	Infotainment	English/Hindi	SD
		80.	SONY BBC EARTH HD	Infotainment	English/Hindi	HD
21	Media World Wide Limited	81.	Travel XP	Lifestyle	English	SD
22	New Delhi Television Limited	82.	NDTV 24*7	News	English	SD
		83.	NDTV India	News	Hindi	SD
		84.	NDTV Profit	News	English	SD

23	NGC Network (India) Pvt Limited	85.	Fox Life	Infotainment	English/ Hindi	SD
		86.	National Geographic Channel (NGC)	Infotainment	English/ Hindi	SD
		87.	Fox Life HD	Infotainment	English/ Hindi	HD
		88.	Nat Geo Wild	Infotainment	English/ Hindi	SD
		89.	National Geographic HD	Infotainment	English/ Hindi	HD
		90.	Nat Geo Wild HD	Infotainment	English/ Hindi	HD
		91.	Baby TV HD	Kids	English/ Hindi	HD
24	NOIDA Software Technology Park Limited	92.	NHK World Premium (HD Distribution)	Infotainment	Japanese	HD
25	Odisha Television Limited	93.	Prarthana	Devotional	Odia	SD
		94.	Tarang	GEC	Odia	SD
		95.	Tarang Music	Music	Odia	SD
		96.	Alankar	Movies	Odia	SD
26	Raj Television Network Limited	97.	Raj Digital Plus	Movies	Tamil	SD
		98.	Raj Musix	Music	Tamil	SD
		99.	Raj News	News	Tamil	SD
		100.	Raj TV	GEC	Tamil	SD
27	Silverstar Communications Limited	101.	Mega 24	GEC	Tamil	SD
		102.	Mega Musiq	Music	Tamil	SD
		103.	Mega TV	GEC	Tamil	SD
28	Sony Pictures Networks India Private Limited	104.	Sony YAY!	Kids	English	SD
		105.	SET MAX	Movies	Hindi	SD
		106.	SAB	GEC	Hindi	SD
		107.	SONY ENTERTAINMENT CHANNEL (SET)	GEC	Hindi	SD
		108.	PIX	Movies	English	SD
		109.	SIX	Sports	English/ Hindi	SD
		110.	MAX 2	Movies	Hindi	SD
		111.	PAL	GEC	Hindi	SD
		112.	SET HD	GEC	Hindi	HD

		113.	SIX HD	Sports	English/ Hindi	HD
		114.	PIX HD	Movies	English	HD
		115.	MAX HD	Movies	Hindi	HD
		116.	Ten 2 HD	Sports	English/ Hindi	HD
		117.	Ten 3 HD	Sports	English/ Hindi	HD
		118.	Ten 2	Sports	English/ Hindi	SD
		119.	Ten 1	Sports	English	SD
		120.	Ten 3	Sports	English/ Hindi	SD
		121.	Ten 1 HD	Sports	English	HD
		122.	SONY Wah	Movies	Hindi	SD
		123.	SAB HD	GEC	Hindi	HD
29	Star India Private Limited	124.	Star Sports 3	Sports	English/ Hindi	SD
		125.	Star Sports 1 Tamil	Sports	Tamil	SD
		126.	Star Sports Select 2	Sports	English/ Hindi	SD
		127.	Star Bharat	GEC	Hindi	SD
		128.	Star Gold 2 (Movies OK)	Movies	Hindi	SD
		129.	Star Sports 1 Hindi	Sports	Hindi	SD
		130.	Star Gold	Movies	Hindi	SD
		131.	Star Jalsha	GEC	Bangla	SD
		132.	Star Movies	Movies	English	SD
		133.	Star Gold Select	Movies	Hindi	SD
		134.	Star Plus	GEC	Hindi	SD
		135.	Star Pravah	GEC	Marathi	SD
		136.	Star Sports 1	Sports	English/ Hindi	SD
		137.	Star Sports 2	Sports	English/ Hindi	SD
		138.	Star World	GEC	English	SD
		139.	Jalsha Movies	Movies	Bangla	SD
		140.	Star Sports HD 2	Sports	English/ Hindi	HD
		141.	Star Sports HD 1	Sports	English/ Hindi	HD

		142.	Star Bharat HD	GEC	Hindi	HD
		143.	Star Gold HD	Movies	Hindi	HD
		144.	Star Movies HD	Movies	English	HD
		145.	Star Plus HD	GEC	Hindi	HD
		146.	Star Sports 1 HD Hindi	Sports	Hindi	HD
		147.	Star Sports Select 1	Sports	English/ Hindi	SD
		148.	Star Movies Select HD	Movies	English	HD
		149.	Star World HD	GEC	English	HD
		150.	Star Sports First	Sports	English/ Hindi	SD
		151.	MAA Gold	Movies	Telugu	SD
		152.	MAA Movies	Movies	Telugu	SD
		153.	MAA Music	Music	Telugu	SD
		154.	MAA TV	GEC	Telugu	SD
		155.	Star Pravah HD	GEC	Marathi	HD
		156.	Star Jalsha HD	GEC	Bangla	HD
		157.	Jalsha Movies HD	Movies	Bangla	HD
		158.	Star Sports Select HD 1	Sports	English/ Hindi	HD
		159.	Star Sports Select HD 2	Sports	English/ Hindi	HD
		160.	MAA HD	GEC	Telugu	HD
		161.	Star Gold Select HD	Movies	Hindi	HD
		162.	MAA Movies HD	Movies	Telugu	HD
		163.	Star World Premiere HD	GEC	English	HD
		164.	Star Sport 1 Telugu	Sports	Telugu	SD
		165.	Star Sport 1 Kannada	Sports	Kannada	SD
		166.	Star Sports 1 Bangla	Sports	Bangla	SD
		167.	Star Utsav	GEC	Hindi	SD
		168.	Star Sports 1 Marathi	Sports	Marathi	SD
		169.	Star Utsav Movies	Movies	Hindi	SD
30	SUN TV Network Limited	170.	Adithya TV	GEC	Tamil	SD
		171.	Chintu TV	Kids	Kannada	SD

		172.	Chutti TV	Kids	Tamil	SD
		173.	Gemini Comedy	GEC	Telugu	SD
		174.	Gemini Life	GEC	Telugu	SD
		175.	Gemini Movies	GEC	Telugu	SD
		176.	Gemini Music	Music	Telugu	SD
		177.	Gemini TV	GEC	Telugu	SD
		178.	KTV	GEC	Tamil	SD
		179.	Surya Movies	GEC	Malayalam	SD
		180.	Kushi TV	Kids	Telugu	SD
		181.	SUN Life	GEC	Tamil	SD
		182.	Sun Music	Music	Tamil	SD
		183.	Sun News	News	Tamil	SD
		184.	Surya Music	Music	Malayalam	SD
	SUN TV Network Limited	185.	SUN TV	GEC	Tamil	SD
		186.	Surya Comedy	GEC	Malayalam	SD
		187.	Surya TV	GEC	Malayalam	SD
		188.	Udaya Comedy	GEC	Kannada	SD
		189.	Udaya Movies	GEC	Kannada	SD
		190.	Udaya Music	Music	Kannada	SD
		191.	Udaya TV	GEC	Kannada	SD
		192.	Kochu TV	Kids	Malayalam	SD
		193.	Sun TV HD	GEC	Tamil	HD
		194.	KTV HD	GEC	Tamil	HD
		195.	Sun Music HD	Music	Tamil	HD
		196.	Gemini TV HD	GEC	Telugu	HD
		197.	Gemini Music HD	Music	Telugu	HD
		198.	Gemini Movies HD	GEC	Telugu	HD
		199.	Surya TV HD	GEC	Malayalam	HD
		200.	Udaya TV HD	GEC	Kannada	HD
31	Suryansh Broadcasting Private Limited	201.	Flowers	GEC	Malayalam	SD
32	Turner International India Pvt Ltd	202.	Cartoon Network	Kids	Hindi	SD
		203.	CNN International	News	English	SD

		204.	HBO	Movies	English	SD
		205.	POGO	Kids	Hindi	SD
		206.	Cartoon Network HD+	Kids	Hindi	HD
		207.	WB	Movies	English	SD
		208.	HBO HD	Movies	English	HD
33	TV 18 Broadcast Limited	209.	CNN News 18	News	English	SD
		210.	CNBC Bazaar	News	Gujarati	SD
		211.	CNBC TV 18 Prime HD	News	English	HD
		212.	CNBC Awaaz	News	Hindi	SD
		213.	News 18 Tamil Nadu	News	Tamil	SD
		214.	News 18 Kerala	News	Malayalam	SD
		215.	News 18 Assam / North East	News	Assamese	SD
		216.	News 18 India	News	Hindi	SD
		217.	CNBC TV 18	News	English	SD
		218.	News 18 Bihar Jharkhand	News	Hindi	SD
		219.	News 18 Madhya Pradesh / Chattisgarh	News	Hindi	SD
		220.	News 18 Rajasthan	News	Hindi	SD
		221.	News 18 Uttar Pradesh/ Uttaranchal	News	Hindi	SD
		222.	News 18 Urdu	News	Urdu	SD
		223.	News 18 Kannada	News	Kannada	SD
		224.	News 18 Bangla	News	Bangla	SD
		225.	News 18 Punjab / Haryana / Himanchal Pradesh	News	Punjabi	SD
		226.	News 18 Gujarati	News	Gujarati	SD
		227.	News 18 Odia	News	Odia	SD
34	TV Today Network Limited	228.	Aaj Tak	News	Hindi	SD
		229.	India Today	News	English	SD
		230.	AAJ Tak HD	News	Hindi	HD
		231.	Aaj Tak Tez	News	Hindi	SD
35	Viacom 18 Media	232.	Colors	GEC	Hindi	SD

Private Limited

233.	Comedy Central (HD )	GEC	English	HD
234.	MTV	Music	Hindi	SD
235.	NICK	Kids	Hindi	SD
236.	NICK JR	Kids	English	SD
237.	SONIC	Kids	Hindi	SD
238.	VH 1 (HD Distribution)	Music	English	HD
239.	Colors Infinity HD	GEC	English	HD
240.	Colors Infinity	GEC	English	SD
241.	Colors HD	GEC	Hindi	HD
242.	NICKS HD+	Kids	Hindi	HD
243.	Colors Cineplex	Movies	Hindi	SD
244.	MTV Beats	Music	Hindi	SD
245.	Colors Kannada HD	GEC	Kannada	HD
246.	Colors Marathi HD	GEC	Marathi	HD
247.	Colors Bangla HD	GEC	Bangla	HD
248.	Colors Super	GEC	Kannada	SD
249.	Colors Bangla	GEC	Bangla	SD
250.	Colors Gujarati	GEC	Gujarati	SD
251.	Colors Kannada	GEC	Kannada	SD
252.	Colors Marathi	GEC	Marathi	SD
253.	Colors Oriya	GEC	Oriya	SD
254.	MTV Beats HD	Music	Hindi	HD
255.	Colors Tamil	GEC	Tamil	SD
256.	Colors Cineplex HD	Movies	Hindi	HD
257.	VH 1	Music	English	SD
258.	Colors Tamil HD	GEC	Tamil	HD
259.	MTV HD+	Music	Hindi	HD
260.	Colors Rishtey	GEC	Hindi	SD
261.	Colors Kannada Cinema	Movies	Kannada	SD
262.	Colors Gujarati Cinema	Movies	Gujarati	SD
263.	Comedy Central	GEC	English	SD
264.	Rishtey Cineplex	Movies	Hindi	SD

		265.	Colors Bangla Cinema	Movies	Bangla	SD
36	Zee Akaash News Private Limited	266.	Zee 24 Ghanta	News	Bangla	SD
37	Zee Entertainment Enterprises Limited	267.	Zee Bollywood	Movies	Hindi	SD
		268.	Zee Action	Movies	Hindi	SD
		269.	Zee Bangla Cinema	Movies	Bangla	SD
		270.	Zee Café HD	GEC	English	HD
		271.	Zee Café	GEC	English	SD
		272.	Zee Cinema	Movies	Hindi	SD
		273.	Zee Talkies	Movies	Marathi	SD
		274.	Zee TV	GEC	Hindi	SD
		275.	Zing	Music	Hindi	SD
		276.	& Picture	Movies	Hindi	SD
		277.	Zee Bangla	GEC	Bangla	SD
		278.	Zee Marathi	GEC	Marathi	SD
		279.	Living Foodz	Infotainment	English/ Hindi	SD
		280.	Zee TV HD	GEC	Hindi	HD
		281.	Zee Cinema HD	Movies	Hindi	HD
		282.	& TV	GEC	Hindi	SD
		283.	& TV HD	GEC	Hindi	HD
		284.	Zee Kannada	GEC	Kannada	SD
		285.	Zee Telugu	GEC	Telugu	SD
		286.	& Pictures HD	Movies	English/ Hindi	HD
		287.	Zee Cinemalu	Movies	Telugu	SD
		288.	Zee Yuva	GEC	Marathi	SD
		289.	Zee Marathi HD	GEC	Marathi	HD
		290.	& Prive HD	Movies	English	HD
		291.	Zee Bangla HD	GEC	Bangla	HD
		292.	Zee Tamil HD	GEC	Tamil	HD
293.	Zee Cinemalu HD	Movies	Telugu	HD		
294.	Zee Telugu HD	GEC	Telugu	HD		
295.	Zee Tamil	GEC	Tamil	SD		
296.	Zee Kannada HD	GEC	Kannada	HD		

		297.	Zee Anmol Cinema	Movies	Hindi	SD
		298.	& Flix HD	Movies	English	HD
		299.	& Flix	Movies	English	SD
		300.	Zee Keralam HD	GEC	Malayalam	HD
		301.	Zee Keralam	GEC	Malayalam	SD
		302.	Zee ETC	Music	Hindi	SD
38	Zee Media Corporation Limited	303.	Zee Anmol	GEC	Hindi	SD
		304.	Big Magic	GEC	Hindi	SD
		305.	Big Ganga	GEC	Bhojpuri	SD
		306.	Zee Classic	Movies	Hindi	SD
		307.	&Xplore HD	Movies	Hindi	HD
		308.	ZEE Sarthak	GEC	Odia	SD
		309.	Zee Talkies HD	Movies	Marathi	HD
		310.	Zee Punjabi	GEC	Punjabi	SD
		311.	Zee Thirai	Movies	Tamil	SD
		312.	Zee Picchar	Movies	Kannada	SD
		313.	Zee Biskope	Movies	Bhojpuri	SD
		314.	Zee 24 Taas	News	Marathi	SD
		315.	Zee Odisha	News	Odia	SD
		316.	Zee Business	News	Hindi	SD
		317.	Zee Punjab Haryana Himachal	News	Hindi	SD
		318.	Zee Madhya Pradesh Chattisgarh	News	Hindi	SD
		319.	Zee Salaam	News	Urdu	SD
		320.	Zee 24 Kalak	News	Hindi	SD
		321.	WION	News	Hindi	SD
		322.	Zee Uttar Pradesh Uttrakhand	News	Hindi	SD
		323.	Zee Hindustan	News	Hindi	SD
		324.	Zee Bihar Jharkhand	News	Hindi	SD
		325.	Zee News	News	Hindi	SD
		326.	Zee Rajasthan News	News	Hindi	SD
39	Zoom Entertainment Network Limited	327.	Movies Now	Movies	English	SD

**List of Major MSOs / HITS Operators**

- 1. M/s. Siti Networks Limited.,**  
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.**  
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.**  
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.**  
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.**  
IndusInd Media & Communication 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 Fastway Transmission Pvt. Ltd..**  
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
- 7. M/s Tamil Nadu ARASU Cable TV Corporation Ltd.**  
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
- 8. M/s Kerala Communicators Cable Ltd.**  
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
- 9. M/s Thamizhaga Cable TV Communication Pvt. Ltd.**  
Thamizhaga Cable TV Communication Pvt. Ltd.  
Old No. 150, New No. 48, Sami Naicken Street,  
Chinthadripet, Chennai-6000002 (T.N.)  
Ph: 044-49272222  
Website : [www.tccl.co.in](http://www.tccl.co.in)  
Toll Free No.1800-102-9845
- 10. M/s Asianet Digital Network Pvt. Network**  
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

**11. M/s Kal Cable Private Ltd.**

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.**

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 30<sup>th</sup> September, 2020**

<b>Sl.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	Bareily	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
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

**Annexure 5.4 (Contd.)**

<b>Sl.No.</b>	<b>City</b>	<b>Category</b>	<b>Stations</b>
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
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

**Annexure 5.4 (Contd.)**

<b>Sl.No.</b>	<b>City</b>	<b>Category</b>	<b>Stations</b>
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
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
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**Source:** As reported by Private FM Radio Service Providers to TRAI

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