



## **Telecom Regulatory Authority of India**

### **The Indian Telecom Services Performance Indicators** January – March, 2020

New Delhi, India

17<sup>th</sup> September, 2020

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## Snapshot

(Data as on Q.E. 31 <sup>st</sup> March, 2020)	
<b>Telecom Subscribers (Wireless+Wireline)</b>	
Total Subscribers	1,177.97 Million
% change over the previous quarter	0.47%
Urban Subscribers	656.46 Million
Rural Subscribers	521.51 Million
Market share of Private Operators	88.54%
Market share of PSU Operators	11.46%
Tele-density	87.37
Urban Tele-density	142.31
Rural Tele-density	58.79
<b>Wireless Subscribers</b>	
Total Wireless Subscribers	1,157.75 Million
% change over the previous quarter	0.55%
Urban Subscribers	638.48 Million
Rural Subscribers	519.27 Million
Market share of Private Operators	89.36%
Market share of PSU Operators	10.64%
Tele-density	85.87
Urban Tele-density	138.41
Rural Tele-density	58.54
Total Wireless Data Usage during the quarter	23403 million GB
Number of Public Mobile Radio Trunk Services (PMRTS)	66,576
Number of Very Small Aperture Terminals (VSAT)	3,00,686
<b>Wireline Subscribers</b>	
Total Wireline Subscribers	20.22 Million
% change over the previous quarter	-3.74%
Urban Subscribers	17.97 Million
Rural Subscribers	2.24 Million
Market share of Private Operators	58.47%
Market share of PSU Operators	41.53%
Tele-density	1.50
Urban Tele-density	3.90
Rural Tele-density	0.25
No. of Village Public Telephones (VPT)	67,762
No. of Public Call Office (PCO)	1,73,291

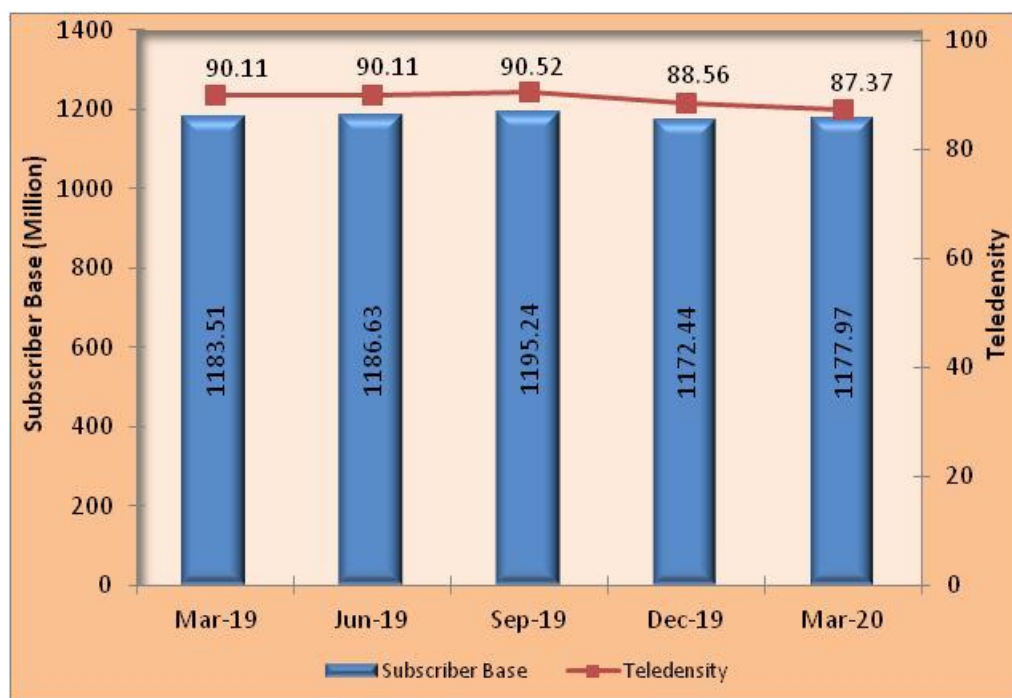
<b>Telecom Financial Data</b>	
Gross Revenue (GR) during the quarter	₹67,533.74 Crore
% change in GR over the previous quarter	5.91%
Adjusted Gross Revenue (AGR) during the quarter	₹44,940.32 Crore
% change in AGR over the previous quarter	9.94%
Share of Public sector undertakings in Access AGR	7.91%
Monthly Average Revenue Per User (ARPU) for Access Services	₹97.64
<b>Internet/Broadband Subscribers</b>	
Total Internet Subscribers	743.19 Million
% change over previous quarter	3.40%
Narrowband subscribers	55.75 Million
Broadband subscribers	687.44 Million
Wired Internet Subscribers	22.42 Million
Wireless Internet Subscribers	720.78 Million
Urban Internet Subscribers	457.23 Million
Rural Internet Subscribers	285.97 Million
Total Internet Subscribers per 100 population	55.12
Urban Internet Subscribers per 100 population	99.12
Rural Internet Subscribers per 100 population	32.24
<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	926
Number of Pay TV Channels as reported by broadcasters	333
Number of private FM Radio Stations (excluding All India Radio)	368
Number of total active subscribers with pay DTH operators	70.26 Million
Number of Operational Community Radio Stations	290
Number of pay DTH Operators	4
<b>Revenue &amp; Usage Parameters</b>	
Monthly ARPU of Wireless Service (GSM including LTE)	₹91.49
Minutes of Usage (MOU) per subscriber per month - Wireless Service (GSM including LTE)	750 Minutes
Total Outgoing Minutes of Usage for Internet Telephony	181.34 Million
<b>Wireless Data Usage</b>	
Average Wireless Data Usage per wireless data subscriber per month	11 GB
Average revenue realization per subscriber per GB wireless data during the quarter	11.23

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

## Executive Summary

1. The number of telephone subscribers in India increased from 1,172.44 million at the end of Dec-19 to 1,177.97 million at the end of Mar-20, registering a growth rate of 0.47% over the previous quarter. This reflects Year-On-Year (Y-O-Y) decline rate of 0.47% over the same quarter of the last year. The overall Tele-density in India decreased from 88.56 as in QE Dec-19 to 87.37 as in QE Mar-20.

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

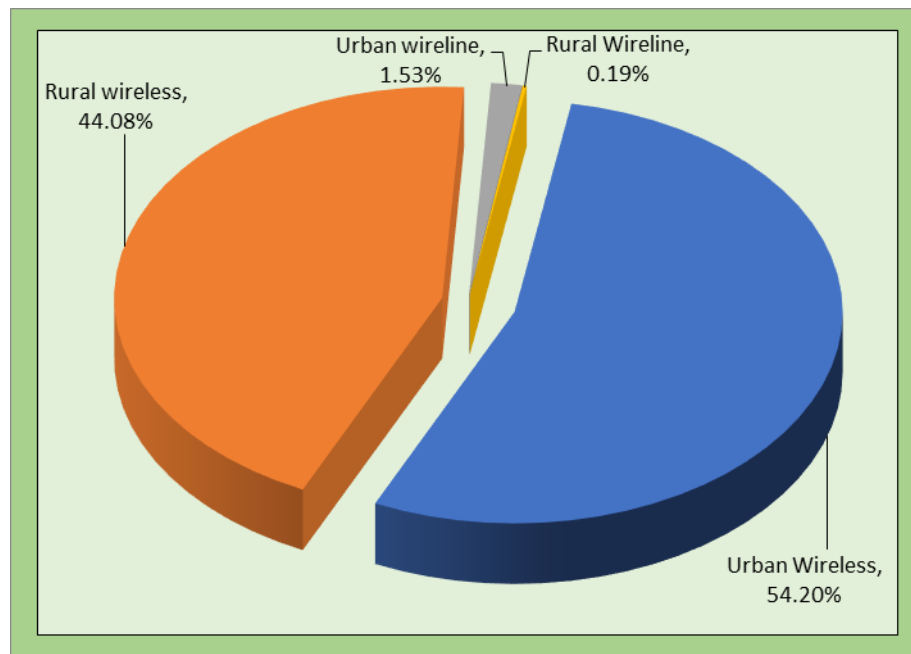


2. Telephone subscribers in Urban areas decreased from 662.45 million at the end of Dec-19 to 656.46 million at the end of Mar-20 and Urban Tele-density also declined from 156.26 to 142.31 during the same period.
3. Rural telephone subscribers increased from 509.99 million at the end of Dec-19 to 521.51 million at the end of Mar-20 and Rural

Tele-density also increased from 56.67 at the end of Dec-19 to 58.79 at the end of Mar-20 during the same period.

4. Out of the total subscription, the share of Rural subscription increased from 43.50% at the end of Dec-19 to 44.27% at the end of Mar-20.

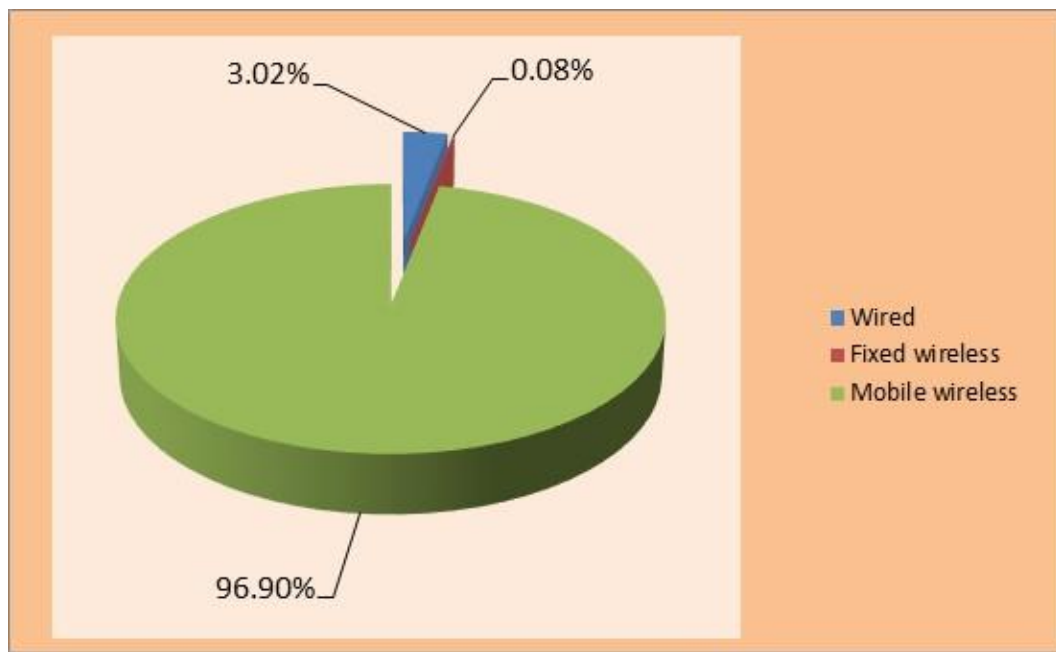
### **Composition of Telephone Subscribers**



5. With a net addition of 6.31 million subscribers during the quarter, the total wireless subscriber base increased from 1,151.44 million at the end of Dec-19 to 1,157.75 million at the end of Mar-20, registering a growth rate of 0.55% over the previous quarter. Wireless subscriptions decreased on Y-O-Y basis at the rate of 0.35% during the year.
6. Wireless Tele-density declined from 86.98 at the end of Dec-19 to 85.87 at the end of Mar-20 with quarterly decline rate of 1.28%.

7. Wireline subscribers decreased from 21 million at the end of Dec-19 to 20.22 million at the end of Mar-20 with a quarterly decline rate of 3.74% and on a Y-O-Y basis, wireline subscriptions also declined by 6.81% in QE Mar-20.
8. Wireline Tele-density decreased from 1.59 at the end of Dec-19 to 1.50 at the end of Mar-20.
9. Total number of Internet<sup>1</sup> subscribers increased from 718.74 million at the end of Dec-19 to 743.19 million at the end of Mar-20, registering a quarterly growth rate of 3.40%. Out of 718.74 million internet subscribers, number of Wired Internet subscribers are 22.42 million and number of Wireless Internet subscribers are 720.78 million.

**Composition of internet subscription**




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<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 687.44 million and Narrowband<sup>3</sup> Internet subscriber base of 55.75 million.
11. The broadband Internet subscriber base increased by 3.85% from 661.94 million at the end of Dec-19 to 687.44 million at the end of Mar-20. However, the narrowband Internet subscriber base declined by 1.85% from 56.81 million at the end of Dec-19 to 55.75 million at the end of Mar-20.
12. Monthly Average Revenue per User (ARPU)<sup>4</sup> for wireless service increased by 16.33%, from ₹78.65 in QE Dec-19 to ₹91.49 in QE Mar-20. On Y-O-Y basis, monthly ARPU for wireless service increased by 28.15% in this quarter.
13. Prepaid ARPU per month increased from ₹70 in QE Dec-19 to ₹84 in QE Mar-20 however for Postpaid ARPU per month decreased from ₹262 in QE Dec-19 to ₹244 in QE Mar-20.
14. On an all India average, the overall Minutes of Usage (MOU)<sup>5</sup> per subscriber per month for wireless service increased by 5.34% from 712 in QE Dec-19 to 750 in QE Mar-20.
15. Prepaid MOU per subscriber per month increased from 716 in QE Dec-19 to 757 in QE Mar-20. However, Postpaid MOU per subscriber per month decreased from 632 in QE Dec-19 to 611 in QE Mar-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. Mar-20 has been ₹67,533.74 Crore and ₹44,940.32 Crore respectively. GR and AGR increased by 5.91% and 9.94% respectively in Q.E. Mar-20 as compared to previous quarter.
17. The Y-O-Y growth in GR and AGR in Q.E. Mar-20 over the same quarter in last year has been 15.61% and 25.07% respectively.
18. Pass-through<sup>8</sup> charges decreased from ₹22,887 Crore in QE Dec-19 to ₹22,593 Crore in QE Mar-20 with quarterly decline rate of 1.28%. The Y-O-Y growth rate of 0.50% has been recorded in pass-through charges for QE Mar-20.
19. The License Fee<sup>9</sup> increased from ₹3,270 Crore for the QE Dec-19 to ₹3,604 Crore for the QE Mar-20. The quarterly and the Y-O-Y growth rates of license fee are 10.21% and 24.80% respectively in this quarter.

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<sup>6</sup> 1. 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.

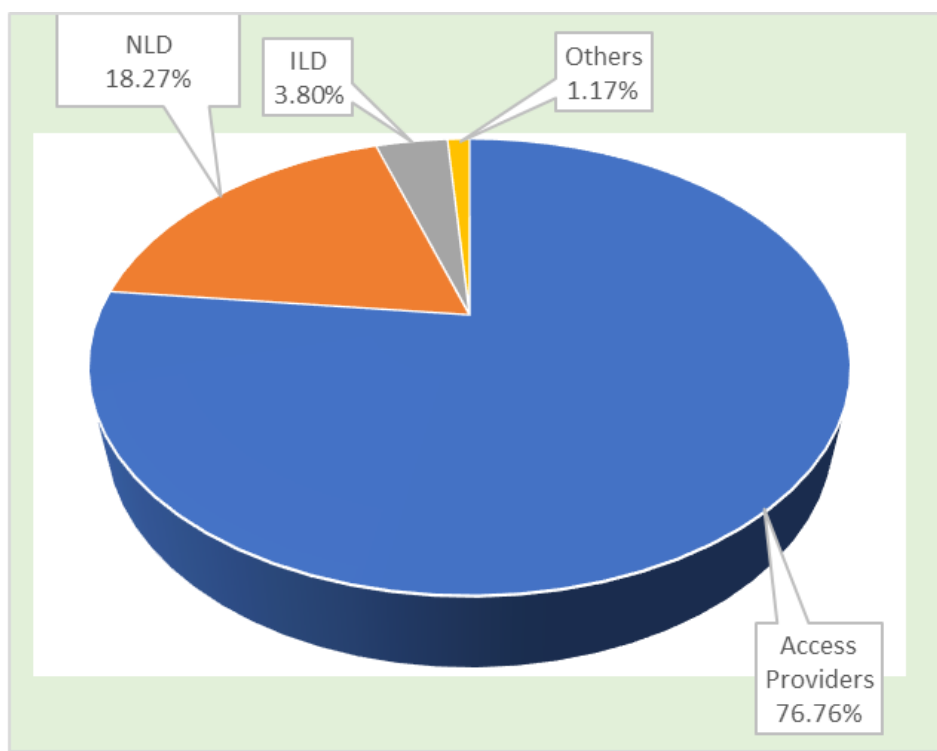
<sup>7</sup> Adjusted Gross Revenue: The following shall be excluded from the Gross Revenue to arrive at the AGR:

- 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 76.76% 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 8.24%, 13.76%, 14.05% and 13.59% respectively in QE Mar-20. However, Pass Through Charges declined quarterly by 2.59% during the same period.
21. Monthly Average Revenue per User (ARPU) for Access Services based on AGR, increased from ₹85.07 in QE Dec-19 to ₹97.64 in QE Mar-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>No improvement in this quarter as compared to the previous quarter has been observed</li> </ul>	<ul style="list-style-type: none"> <li>“Mean time to Repair” (MTTR) <math>\leq 10</math>Hs</li> <li>“Response time to the customer for assistance” <math>\geq 95\%</math></li> <li>%age of calls answered by the operators (voice to voice) within 90 seconds <math>\geq 95\%</math></li> <li>Time taken for refund of deposits after closures 100% within 60 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>Accessibility of call centre/ customer care</li> <li>%age of calls answered by the operators (voice to voice) within 90 sec</li> </ul>	<ul style="list-style-type: none"> <li>TCH, RAB and E-RAB Congestion (%age)</li> <li>Network QoS DCR Spatial Distribution Measure [Network_ QSD (90,90)]</li> <li>Network QoS DCR Temporal Distribution Measure [Network_ QTD (97,90)]</li> <li>Metering and billing credibility - post paid</li> <li>Resolution of billing/charging/ validity complaints (98% within 4 weeks)</li> <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>Time taken for refund of deposits after closures</li> </ul>

24. A total number of 926 private satellite TV channels have been permitted by the Ministry of Information and Broadcasting (MIB) for uplinking only/downlinking only/both uplinking and downlinking, as on 31<sup>st</sup> March, 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 333 pay channels as on 31<sup>st</sup> March, 2020, which include 235 SD (standard definition) pay TV channels and 98 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 the QE 31<sup>st</sup> March, 2020, there were 4 pay DTH service providers in the country.
27. Pay DTH has attained total active subscriber base of around 70.26 million in QE 31<sup>st</sup> March, 2020. This is in addition the subscribers of DTH Free Dish (free DTH services of Doordarshan).
28. Apart from the radio stations operated by All India Radio – the public broadcaster, as on 31<sup>st</sup> March 2020, there are 368 operational private FM Radio stations in 105 cities with operational 32 Private FM Radio broadcasters as compared to 368 private FM Radio Stations in 105 cities with operational 33 FM Radio broadcasters in the previous quarter.
29. The reported advertisement revenue during the quarter ending 31<sup>st</sup> March, 2020 in respect of 367 private FM Radio stations is ₹400.64 crore as against ₹509.28 crore in respect of 367 private FM Radio stations for the previous quarter.
30. As per data received from MIB, as on 31<sup>st</sup> March, 2020, 290 Community Radio Stations are operational in the country.

## Trends at a Glance

### A. Access Service (Wireline + Wireless)

	QE Mar 2019	QE Jun 2019	QE Sep 2019	QE Dec 2019	QE Mar 2020	%age change over Mar-2019	%age change over Jun-2019	%age change over Sept-2019	%age change over Dec-2019
						(12 months)	(9 months)	(6 months)	(3 months)
<b>1) Subscriber Base (in million)</b>									
Wireline	21.70	21.17	21.49	21.00	20.22	-6.81%	-4.49%	-5.92%	-3.74%
Wireless	1161.81	1165.46	1173.75	1151.44	1157.75	-0.35%	-0.66%	-1.36%	0.55%
<b>Total</b>	<b>1183.51</b>	<b>1186.63</b>	<b>1195.24</b>	<b>1172.44</b>	<b>1177.97</b>	<b>-0.47%</b>	<b>-0.73%</b>	<b>-1.45%</b>	<b>0.47%</b>
Rural	514.35	511.05	517.29	509.99	521.51	1.39%	2.05%	0.82%	2.26%
Urban	669.16	675.58	677.95	662.45	656.46	-1.90%	-2.83%	-3.17%	-0.90%
<b>2) Tele-density</b>									
Wireline	1.65	1.61	1.63	1.59	1.50	-9.23%	-6.72%	-7.87%	-5.49%
Wireless	88.46	88.50	88.90	86.98	85.87	-2.93%	-2.98%	-3.41%	-1.28%
<b>Total</b>	<b>90.11</b>	<b>90.11</b>	<b>90.52</b>	<b>88.56</b>	<b>87.37</b>	<b>-3.05%</b>	<b>-3.04%</b>	<b>-3.49%</b>	<b>-1.35%</b>
Rural	57.47	56.99	57.59	56.67	58.79	2.31%	3.16%	2.10%	3.75%
Urban	159.96	160.78	160.63	156.26	142.31	-11.03%	-11.49%	-11.40%	-8.93%
<b>3) Service Provider wise Subscribers Base (in Million) (wireless+wireline)</b>									
Bharti Airtel	329.36	324.65	329.88	331.61	332.21	0.87%	2.33%	0.71%	0.18%
Vodafone Idea	395.17	383.77	372.86	333.01	319.62	-19.12%	-16.72%	-14.28%	-4.02%
Reliance Jio	306.72	331.26	356.08	371.07	388.61	26.70%	17.31%	9.13%	4.73%
BSNL	126.91	126.86	127.19	127.70	128.60	1.33%	1.37%	1.11%	0.71%
MTNL	6.70	6.63	6.57	6.50	6.45	-3.63%	-2.64%	-1.82%	-0.70%
Tata Tele.	17.68	12.56	1.82	1.79	1.77	-89.99%	-85.91%	-2.59%	-1.01%
Reliance Com.	0.75	0.68	0.63	0.57	0.52	-30.16%	-23.53%	-16.84%	-8.43%
Quadrant	0.22	0.22	0.21	0.20	0.18	-17.84%	-16.81%	-12.84%	-7.89%
<b>Total</b>	<b>1183.51</b>	<b>1186.63</b>	<b>1195.24</b>	<b>1172.44</b>	<b>1177.97</b>	<b>-0.47%</b>	<b>-0.73%</b>	<b>-1.45%</b>	<b>0.47%</b>

## B. Internet Services

	QE Mar 2019	QE Jun 2019	QE Sep 2019	QE Dec 2019	QE Mar 2020	%age change over Mar-2019	%age change over Jun-2019	%age change over Sept-2019	%age change over Dec-2019
						(12 months)	(9 months)	(6 months)	(3 months)
<b>1) Subscriber's Base (in million)</b>									
<b>A. Wired Internet Subscribers</b>	21.68	21.67	22.26	22.39	22.42	3.40%	3.46%	0.71%	0.14%
<b>B. Wireless Internet Subscribers</b>	615.05	643.64	665.37	696.36	720.78	17.19%	11.98%	8.33%	3.51%
i. Mobile Wireless (Mobile & Dongle)	613.75	643.09	664.79	695.74	720.17	17.34%	11.99%	8.33%	3.51%
ii. Fixed Wireless (Wi-Fi, Wi-Max, Point-to-Point Radio & VSAT)	1.31	0.55	0.58	0.62	0.61	-53.20%	10.30%	5.21%	-0.93%
<b>Total Internet Subscribers</b>	<b>636.73</b>	<b>665.31</b>	<b>687.62</b>	<b>718.74</b>	<b>743.19</b>	<b>16.72%</b>	<b>11.71%</b>	<b>8.08%</b>	<b>3.40%</b>
<b>2) No. of Internet Subs per 100 Population</b>	48.48	50.52	52.08	54.29	55.12	13.70%	9.10%	5.84%	1.53%

## C. Usage and Revenue for Wireless Services

Traffic (MOU) (minutes of uses/subscriber/month)	692	701	691	712	750	8.41%	6.99%	8.61%	5.34%
ARPU (Rs./sub/month)	71	74	74	79	91	28.15%	23.14%	23.00%	16.33%

## D. Telecom Financial Data

	QE Mar 2019	QE Jun 2019	QE Sep 2019	QE Dec 2019	QE Mar 2020	%age change over Mar-2019	%age change over Jun-2019	%age change over Sept-2019	%age change over Dec-2019
						(12 months)	(9 months)	(6 months)	(3 months)
<b>1. Telecom Sector</b>									
i) Gross Revenue (₹ in Crores)	58414.36	61534.81	59992.13	63764.14	67533.74	15.61%	9.75%	12.57%	5.91%
ii) Adjusted Gross Revenue (₹ in Crores)	35932.44	39123.92	37338.49	40877.46	44940.32	25.07%	14.87%	20.36%	9.94%
<b>2. Access Services</b>									
Adjusted Gross Revenue (₹ in Crores)	26095.71	28650.28	27921.03	30323.29	34495.87	32.19%	20.40%	23.55%	13.76%
ARPU per month (AGR/ Average subscribers/3)	72.49	80.66	78.17	85.07	97.64	34.69%	21.05%	24.91%	14.78%

## **Introduction**

This Report presents the Key Parameters and growth trends for the Telecom Services in India for the quarter ending 31<sup>st</sup> March, 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 :**

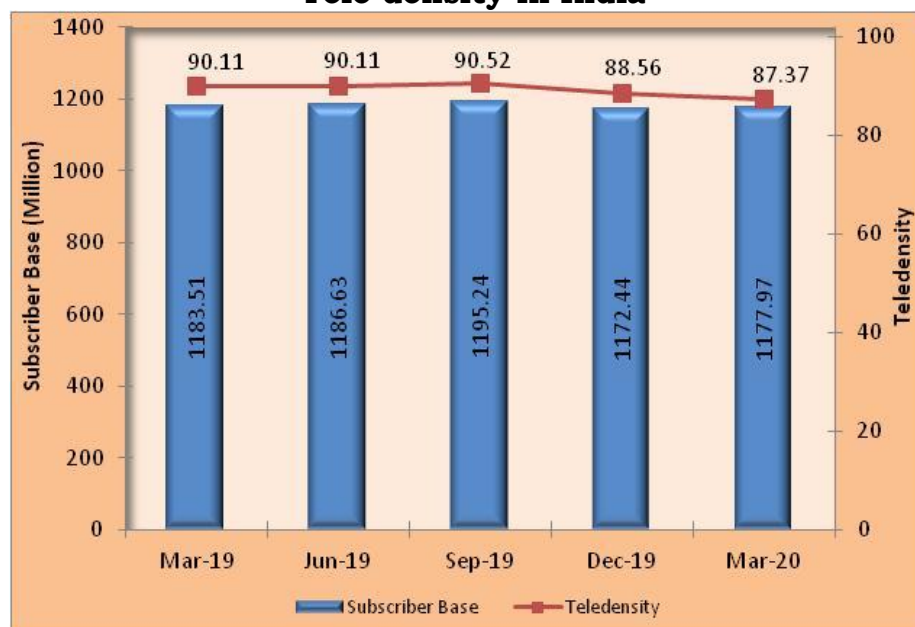
# **Subscription Data**

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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 1,172.44 million at the end of Dec-19 to 1,177.97 million at the end of Mar-20, registering a growth rate of 0.47% over the previous quarter. This reflects year-on-year (Y-O-Y) growth rate of -0.47% over the same quarter of last year. The overall Tele-density in India decreased from 88.56 as on 31<sup>st</sup> December, 2019 to 87.37 as on 31<sup>st</sup> March, 2020 with quarterly decline rate of 1.35%.

**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
Mar-19	514.35	669.16	57.47	159.96
Jun-19	511.05	675.58	56.99	160.78
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

- 1.2 Telephone subscription in Urban areas decreased from 662.45 million at the end of Dec-19 to 656.46 million at the end of Mar-20 and Urban Tele-density also declined from 156.26 to 142.31 at the end of the quarter.
- 1.3 Rural telephone subscription increased from 509.99 million at the end of Dec-19 to 521.51 million at the end of Mar-20 and Rural Tele-density also increased from 56.67 at the end of Dec-19 to 58.79 at the end of Mar-20.
- 1.4 The Y-O-Y growth rates of Urban and Rural telephone subscriptions from Mar-19 to Mar-20 are -1.90% and 1.39% respectively. The Y-O-Y growth rates of Urban and Rural Tele-density from Mar-19 to Mar-20 are -11.03% and 2.31% respectively.

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



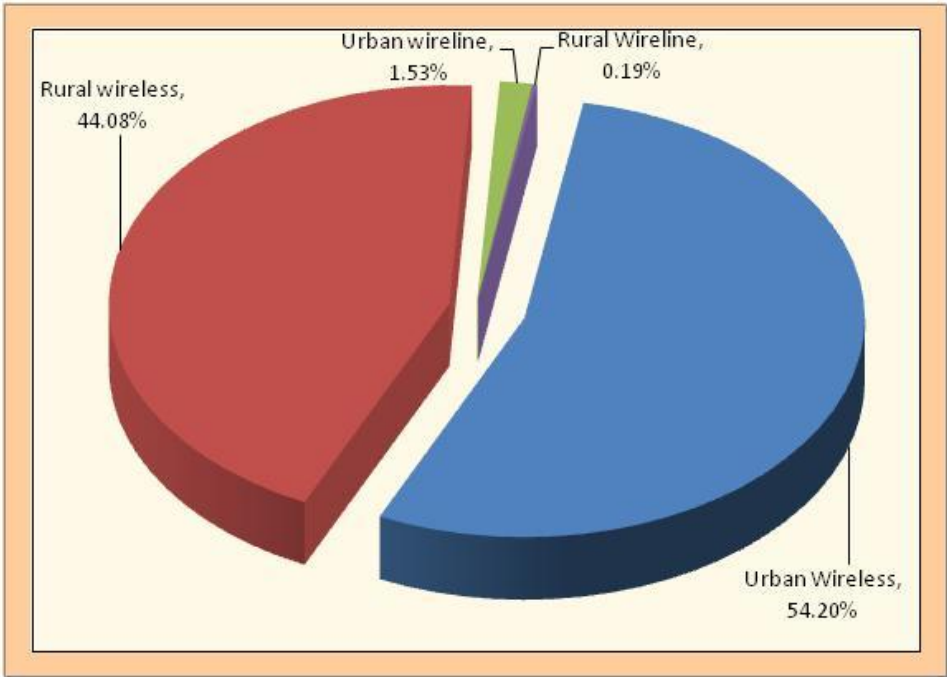
- 1.5 Share of subscriptions of rural areas in the total telephone subscriptions increased from 43.50% at the end of Dec-19 to 44.27% at the end of Mar-20.

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



1.6 Share of wireline subscription in total telephone subscription decreased from 1.79% at the end of Dec-19 to 1.72% at the end of Mar-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)			
	Dec-19	Mar-20	Net Additions	Rate of Growth
Andhra Pradesh	88.38	89.17	0.79	0.90%
Assam	23.72	23.72	-0.01	-0.02%
Bihar	84.50	84.90	0.40	0.47%
Delhi	56.22	56.67	0.45	0.80%
Gujarat	68.64	68.93	0.29	0.43%
Haryana	28.07	27.94	-0.13	-0.46%
Himachal Pradesh	10.70	10.89	0.19	1.77%
Jammu & Kashmir	10.45	12.00	1.54	14.75%
Karnataka	69.51	69.78	0.27	0.38%
Kerala	45.23	44.99	-0.24	-0.52%
Madhya Pradesh	75.74	75.90	0.16	0.21%
Maharashtra	94.01	94.15	0.14	0.14%
Mumbai	41.17	40.90	-0.27	-0.65%
North East	12.21	12.12	-0.09	-0.75%
Orissa	33.23	33.54	0.31	0.94%
Punjab	39.83	39.87	0.04	0.10%
Rajasthan	65.84	66.02	0.18	0.27%
T.N. (incl. Chennai)	83.87	83.99	0.12	0.14%
U.P.(E)	96.12	97.16	1.04	1.09%
U.P.(W)	63.22	63.69	0.48	0.75%
Kolkata	26.32	26.39	0.07	0.26%
West Bengal	55.46	55.25	-0.21	-0.38%
<b>All India</b>	<b>1,172.44</b>	<b>1,177.97</b>	<b>5.52</b>	<b>0.47%</b>

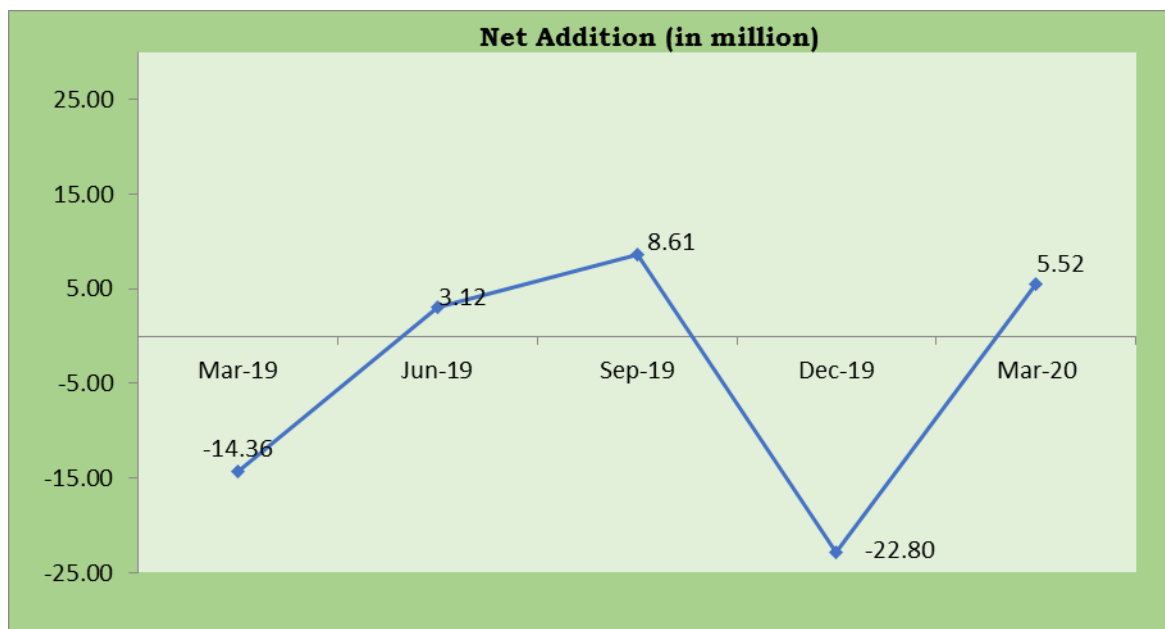
1.7 All service areas except Assam, Haryana, Kerala, Mumbai, North East, and West Bengal showed growth in their subscriber base during the quarter ending Mar-20. J&K service area showed maximum growth of 14.75% and North East service area showed minimum decline rate of 0.75% during the quarter.

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

Service Area	Number of Subscribers (in million)			
	Total	Rural	Urban	% of Rural Subscribers
Andhra Pradesh	89.17	43.22	45.96	48.46%
Assam	23.72	13.88	9.84	58.52%
Bihar	84.90	56.28	28.62	66.29%
Delhi	56.67	1.78	54.89	3.13%
Gujarat	68.93	26.81	42.12	38.89%
Haryana	27.94	12.78	15.16	45.75%
Himachal Pradesh	10.89	7.33	3.56	67.31%
Jammu & Kashmir	12.00	5.75	6.25	47.91%
Karnataka	69.78	28.57	41.21	40.94%
Kerala	44.99	20.92	24.07	46.50%
Madhya Pradesh	75.90	34.38	41.52	45.30%
Maharashtra	94.15	43.59	50.56	46.30%
Mumbai	40.90	2.12	38.78	5.18%
North East	12.12	5.93	6.19	48.95%
Orissa	33.54	22.34	11.20	66.61%
Punjab	39.87	13.65	26.22	34.23%
Rajasthan	66.02	35.64	30.38	53.98%
T.N. (incl. Chennai)	83.99	25.98	58.01	30.94%
U.P.(E)	97.16	55.90	41.26	57.54%
U.P.(W)	63.69	28.20	35.49	44.28%
Kolkata	26.39	1.88	24.51	7.13%
West Bengal	55.25	34.57	20.68	62.57%
<b>All India</b>	<b>1,177.97</b>	<b>521.51</b>	<b>656.46</b>	<b>44.27%</b>

1.8 Only seven 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 (67.31%) in its total telephone subscribers.

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



1.9 The net addition in telephone subscription is 5.52 million during QE Mar-20 as compared to the net decline of 22.80 million subscribers during QE Dec-19.

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

Service Area/ States	As on 31 <sup>st</sup> December, 2019			As on 31 <sup>st</sup> March, 2020		
	Rural Tele-density	Urban Tele-density	Total Tele-density	Rural Tele-density	Urban Tele-density	Total Tele-density
Andhra Pradesh	63.94	182.67	97.28	79.13	129.80	99.06
Assam	48.63	175.49	70.18	47.16	186.45	68.34
Bihar	42.77	158.71	58.92	41.68	117.38	53.25
Delhi	-	-	237.11	-	-	280.18
Gujarat	71.03	146.45	103.54	73.30	126.17	98.53
Haryana	70.97	139.27	96.99	73.64	128.95	95.97
Himachal Pradesh	109.51	411.44	146.53	111.07	473.05	148.13
J&K	49.62	159.81	81.22	60.14	154.23	88.15
Karnataka	71.38	162.78	108.05	75.54	144.36	105.14

Service Area/ States	As on 31 <sup>st</sup> December, 2019			As on 31 <sup>st</sup> March, 2020		
	Rural Tele-density	Urban Tele-density	Total Tele-density	Rural Tele-density	Urban Tele-density	Total Tele-density
Kerala	76.38	265.70	124.02	190.84	98.54	127.13
Madhya Pradesh	43.12	137.04	69.50	42.43	131.54	67.40
Maharashtra (incl. Mumbai)*	70.38	141.53	105.91	70.42	148.83	108.09
North East	54.32	169.34	84.24	57.72	122.51	79.07
Orissa	60.99	142.36	76.02	62.37	139.24	76.46
Punjab	78.10	177.56	123.83	76.50	194.68	127.33
Rajasthan	60.18	165.96	85.95	61.63	148.00	84.26
Tamil Nadu (incl. Chennai)	100.40	124.46	115.68	70.83	141.73	108.21
Uttar Pradesh (incl. UPE & UPW)*	44.76	134.95	65.84	46.29	132.86	67.17
West Bengal (incl. Kolkata)*	52.51	160.07	83.64	57.43	128.50	82.77
<b>All India</b>	<b>56.67</b>	<b>156.26</b>	<b>88.56</b>	<b>58.79</b>	<b>142.31</b>	<b>87.37</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 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.

1.10 Kerala service area has the highest Rural Tele-density of 190.84 followed by Himachal Pradesh service area (111.07). Bihar service area has the lowest Rural Tele-density of 41.68 followed by Madhya Pradesh service area with rural tele-density of 42.43 in QE Mar-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	46.60	24.96	21.65
2	Arunachal Pradesh	1.34	0.76	0.57
3	Assam	23.72	13.88	9.84
4	Bihar	62.54	44.07	18.47
5	Chhattisgarh	20.41	9.95	10.47
6	Goa	2.99	1.18	1.81
7	Gujarat	68.17	26.58	41.59
8	Haryana	30.95	12.83	18.12
9	Himachal Pradesh	10.89	7.33	3.56
10	Jharkhand	22.36	12.22	10.14
11	Karnataka	69.78	28.57	41.21
12	Kerala	44.90	20.83	24.07
13	Madhya Pradesh	55.49	24.44	31.05
14	Maharashtra Incl. Mumbai	132.06	44.53	87.52
15	Manipur	2.35	0.96	1.39
16	Meghalaya	2.32	1.30	1.02
17	Mizoram	1.35	0.54	0.82
18	Nagaland	1.66	0.84	0.82
19	Odisha	33.54	22.34	11.20
20	Punjab	38.26	13.61	24.66
21	Rajasthan	66.02	35.64	30.38
22	Sikkim	0.67	0.37	0.29
23	Tamil Nadu (incl. Chennai)	82.77	25.66	57.12
24	Telangana	42.57	18.26	24.31
25	Tripura	3.11	1.54	1.57
26	Uttar Pradesh (UPE + UPW)	150.62	77.77	72.85
27	Uttarakhand	13.41	6.34	7.06
28	West Bengal Incl. Kolkata	80.57	35.89	44.68
<b>Union Territories</b>				
1	Andaman & Nicobar Islands	0.39	0.18	0.21
2	Chandigarh	1.60	0.04	1.55
3	Dadra and Nagar Haveli and Daman and Diu	0.76	0.23	0.53
4	Delhi	50.49	1.72	48.77
5	Jammu & Kashmir	12.00	5.75	6.25
6	Ladakh			
7	Lakshdweep	0.09	0.09	0.003
8	Puduchery	1.22	0.33	0.89
<b>Total</b>		<b>1177.97</b>	<b>521.51</b>	<b>656.46</b>

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

Sl.No.	State/UT	Total Tele-density		
		Total	Rural	Urban
1	Andhra Pradesh	88.72	126.04	251.95
2	Arunachal Pradesh	87.93	66.79	151.45
3	Assam	68.34	47.16	186.45
4	Bihar	51.50	41.25	126.27
5	Chhattisgarh	70.05	46.25	137.13
6	Goa	193.10	278.30	161.03
7	Gujarat	98.89	73.13	127.61
8	Haryana	106.31	73.93	154.13
9	Himachal Pradesh	148.13	-	-
10	Jharkhand	58.87	43.27	104.03
11	Karnataka	105.14	75.54	144.36
12	Kerala	127.12	190.12	98.79
13	Madhya Pradesh	66.48	41.04	129.76
14	Maharashtra Incl. Mumbai	107.02	69.05	148.60
15	Manipur	74.85	44.77	139.85
16	Meghalaya	71.22	50.15	152.86
17	Mizoram	112.09	97.31	124.51
18	Nagaland	76.25	66.07	90.51
19	Odisha	76.46	62.37	139.24
20	Punjab	127.04	76.26	200.80
21	Rajasthan	84.26	61.63	148.00
22	Sikkim	99.70	97.97	101.99
23	Tamil Nadu (incl. Chennai)	108.80	70.82	143.32
24	Telangana	113.53	89.82	141.61
25	Tripura	77.00	59.52	108.12
26	Uttar Pradesh (UPE +UPW)	66.01	44.61	135.24
27	Uttarakhand	118.84	85.90	181.30
28	West Bengal Incl. Kolkata	82.58	57.10	128.74
<b>Union Territories</b>				
1	Andaman & Nicobar Islands	98.57	79.66	124.25
2	Chandigarh	133.80	-	-
3	Dadra and Nagar Haveli and Daman and Diu	74.48	101.34	66.68
4	Delhi	249.66	-	-
5	Jammu & Kashmir	88.15	60.14	154.21
6	Ladakh			
7	Lakshdweep	129.31	-	-
8	Puduchery	79.08	70.96	82.59
	<b>Total</b>	<b>88.56</b>	<b>56.67</b>	<b>156.26</b>

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

Service Provider	Subscriber base (millions)			Rate of Growth (%)	Market Share in QE Dec-19 (%)	Market Share in QE Mar-20 (%)
	Dec-19	Mar-20	Net Additions			
Reliance Jio	371.07	388.61	17.54	4.73%	31.65%	32.99%
Bharti Airtel	331.61	332.21	0.60	0.18%	28.28%	28.20%
Vodafone Idea Ltd	333.01	319.62	-13.39	-4.02%	28.40%	27.13%
BSNL	127.70	128.60	0.90	0.71%	10.89%	10.92%
MTNL	6.50	6.45	-0.05	-0.70%	0.55%	0.55%
Tata Teleservices	1.79	1.77	-0.02	-1.01%	0.15%	0.15%
Reliance Com.	0.57	0.52	-0.05	-8.43%	0.05%	0.04%
Quadrant	0.20	0.18	-0.016	-7.89%	0.02%	0.02%
<b>Total</b>	<b>1,172.44</b>	<b>1,177.97</b>	<b>5.52</b>	<b>0.47%</b>	<b>100%</b>	100.00%

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 32.99% in the access segment in terms of number of subscribers with 388.61 million subscribers at the end of Mar-20 followed by M/s Bharti Airtel Ltd with 332.21 million subscribers.

1.12 In term of net addition, Reliance Jio Infocomm Ltd became the biggest gainer with net addition of 17.54 million telephone subscribers during the QE Mar-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	319.62	167.02	52.25%	32.03%
Bharti Airtel	332.21	153.18	46.11%	29.37%
Reliance Jio	388.61	160.94	41.41%	30.86%
BSNL	128.60	40.24	31.29%	7.72%
Quadrant	0.18	0.04	19.46%	0.01%
Tata Teleservices	1.77	0.05	2.58%	0.01%
MTNL	6.45	0.05	0.71%	0.01%
Reliance Com.	0.52	0.001	0.18%	0.0002%
<b>Total</b>	<b>1,177.97</b>	<b>521.51</b>	<b>44.27%</b>	<b>100.00%</b>

1.13 M/s Vodafone Idea Ltd is the telecom service provider with highest proportion of rural telephone subscribers (52.25%) followed by Bharti Airtel (46.11%) to their total telephone subscribers at the end of Mar-20.

## Section B : Wireless Service

**Table 1.9: List of Cellular Mobile (GSM, LTE & CDMA) Service Providers currently providing service [As on 31<sup>st</sup> March, 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 31<sup>st</sup> March, 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 (2G+3G+4G) subscribers increased from 1,151.44 million at the end of Dec-19 to 1,157.75 million at the end of Mar-20, thereby showing a quarterly growth rate of 0.55%. During the quarter, net addition of 6.31 million wireless subscribers has been recorded.

1.15 The total wireless subscriber base recorded a Y-O-Y negative growth rate of 0.35% in QE Mar-20 over the same quarter in the previous year.

1.16 Wireless Teledensity in the country decreased from 86.98 at the end of Dec-19 to 85.87 at the end of Mar-20.

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



**Table 1.10: Wireless Subscriber Base & Teledensity - Rural & Urban**

Quarter ending	Subscriber Base (million)		Tele-density	
	Rural	Urban	Rural	Urban
Mar-19	511.32	650.49	57.13	155.49
Jun-19	508.19	657.27	56.68	156.42
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

1.17 Number of Rural Wireless subscribers increased from 507.46 million at the end of Dec-19 to 519.27 million at the end of Mar-20, however, the number of urban wireless subscribers decreased from 643.97 million to 638.48 million during the quarter. Quarterly growth rates of Rural and Urban wireless subscriptions are 2.33% and -0.85% respectively during QE Mar-20.

1.18 The share of rural wireless subscription increased from 44.07% to 44.85% 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 Dec-19 (%)	Market Share Mar-20 (%)
	Dec-19	Mar-20	Net Additions			
Reliance Jio	370.02	387.52	17.50	4.73%	32.14%	33.47%
Bharti Airtel	327.30	327.81	0.52	0.16%	28.43%	28.31%
Vodafone Idea Ltd	332.61	319.17	(13.44)	-4.04%	28.89%	27.57%
BSNL	118.12	119.87	1.76	1.49%	10.26%	10.35%
MTNL	3.38	3.36	(0.02)	-0.48%	0.29%	0.29%
Reliance Com.	0.02	0.02	0.00	0.45%	0.002%	0.002%
<b>Total</b>	<b>1,151.44</b>	<b>1,157.75</b>	<b>6.31</b>	<b>0.55%</b>	<b>100.00%</b>	<b>100.00%</b>

1.19 M/s RJIL Limited is the market leader with a wireless subscriber base of **387.52 million** which translates into market share of **33.47%** 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 **327.81 million** and

market share of **28.31%**. M/s RJIL has reported the highest net additions of **17.50 Million**.

- 1.20 In terms of net additions during QE Mar-20, except M/s Vodafone and MTNL all service providers have showed positive growth in their wireless subscribers.

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

Service Area	Subscriber base (in million)			
	Dec-19	Mar-20	Net Additions	Rate of change (%)
Andhra Pradesh	87.02	87.86	0.83	0.96%
Assam	23.61	23.60	0.00	-0.02%
Bihar	84.32	84.72	0.40	0.48%
Delhi	52.95	53.40	0.45	0.85%
Gujarat	67.45	67.93	0.48	0.72%
Haryana	27.80	27.67	-0.12	-0.43%
Himachal Pradesh	10.60	10.79	0.19	1.82%
Jammu & Kashmir	10.32	11.86	1.54	14.92%
Karnataka	67.39	67.63	0.24	0.36%
Kerala	43.50	43.43	-0.07	-0.16%
Madhya Pradesh	74.88	75.23	0.36	0.48%
Maharashtra	92.62	92.80	0.18	0.19%
Mumbai	38.10	37.83	-0.27	-0.70%
North East	12.11	12.02	-0.09	-0.74%
Orissa	33.01	33.33	0.32	0.96%
Punjab	39.10	39.17	0.07	0.18%
Rajasthan	65.33	65.53	0.20	0.31%
T.N. (incl. Chennai)	81.80	81.98	0.18	0.22%
U.P.(E)	95.69	96.76	1.06	1.11%
U.P.(W)	62.90	63.38	0.48	0.77%
Kolkata	25.65	25.73	0.08	0.32%
West Bengal	55.28	55.07	-0.21	-0.38%
<b>All India</b>	<b>1,151.44</b>	<b>1,157.75</b>	<b>6.31</b>	<b>0.55%</b>



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

Service Area	Subscriber base (in million)			
	Total	Rural	Urban	% of Rural Subscribers
Andhra Pradesh	87.86	43.07	44.79	49.02%
Assam	23.60	13.86	9.74	58.72%
Bihar	84.72	56.26	28.46	66.41%
Delhi	53.40	1.78	51.62	3.33%
Gujarat	67.93	26.72	41.21	39.33%
Haryana	27.67	12.74	14.94	46.03%
Himachal Pradesh	10.79	7.28	3.52	67.42%
Jammu & Kashmir	11.86	5.73	6.13	48.34%
Karnataka	67.63	28.47	39.16	42.10%
Kerala	43.43	20.02	23.41	46.10%
Madhya Pradesh	75.23	34.35	40.88	45.66%
Maharashtra	92.80	43.40	49.40	46.77%
Mumbai	37.83	2.12	35.71	5.60%
North East	12.02	5.92	6.10	49.22%
Orissa	33.33	22.30	11.03	66.91%
Punjab	39.17	13.52	25.65	34.51%
Rajasthan	65.53	35.59	29.94	54.31%
T.N. (incl. Chennai)	81.98	25.73	56.25	31.38%
U.P.(E)	96.76	55.85	40.91	57.72%
U.P.(W)	63.38	28.18	35.20	44.46%
Kolkata	25.73	1.88	23.85	7.31%
West Bengal	55.07	34.50	20.57	62.65%
<b>All India</b>	<b>1,157.75</b>	<b>519.27</b>	<b>638.48</b>	<b>44.85%</b>

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

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

Service Area	As on 31 <sup>st</sup> December, 2019			As on 31 <sup>st</sup> March, 2020		
	Rural Tele-density	Urban Tele-density	Total Tele-density	Rural Tele-density	Urban Tele-density	Total Tele-density
A.P.	63.70	177.97	95.79	78.86	126.49	97.59
Assam	48.57	173.81	69.85	47.11	184.65	68.02
Bihar	42.76	157.92	58.80	41.66	116.74	53.14
Delhi	-	-	223.32	-	-	264.02
Gujarat	70.66	142.77	101.74	73.05	123.44	97.10
Haryana	70.71	137.22	96.04	73.39	127.08	95.07
H.P.	108.65	406.29	145.13	110.26	467.11	146.79
J&K	49.47	156.60	80.19	60.00	151.23	87.16
Karnataka	71.09	154.99	104.75	75.27	137.18	101.90
Kerala	72.67	257.95	119.29	182.64	95.84	122.72
M.P.	43.02	134.46	68.71	42.39	129.52	66.81
Maharashtra (incl. Mumbai)*	70.06	134.85	102.41	70.12	141.79	104.55
North East	54.16	167.15	83.56	57.58	120.87	78.43
Orissa	60.87	140.22	75.53	62.25	137.14	75.98
Punjab	77.30	173.56	121.56	75.77	190.45	125.10
Rajasthan	60.09	163.47	85.28	61.55	145.84	83.63
Tamil Nadu (incl. Chennai)	99.35	120.56	112.83	70.12	137.44	105.62
Uttar Pradesh (incl. UPE&UPW)*	44.72	133.78	65.54	46.25	131.75	66.87
West Bengal (incl. Kolkata)*	52.41	157.31	82.77	57.32	126.33	81.92
<b>All India</b>	<b>56.39</b>	<b>151.90</b>	<b>86.98</b>	<b>58.54</b>	<b>138.41</b>	<b>85.87</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	45.89	24.84	21.04
2	Arunachal Pradesh	1.31	0.76	0.56
3	Assam	23.60	13.86	9.74
4	Bihar	62.45	44.05	18.39
5	Chhattisgarh	20.24	9.93	10.30
6	Goa	2.91	1.15	1.75
7	Gujarat	67.18	26.49	40.69
8	Haryana	30.66	12.79	17.87
9	Himachal Pradesh	10.79	7.28	3.52
10	Jharkhand	22.28	12.21	10.07
11	Karnataka	67.63	28.47	39.16
12	Kerala	43.35	19.94	23.41
13	Madhya Pradesh	55.00	24.42	30.58
14	Maharashtra	127.72	44.36	83.36
15	Manipur	2.33	0.96	1.37
16	Meghalaya	2.30	1.30	1.01
17	Mizoram	1.34	0.53	0.80
18	Nagaland	1.65	0.84	0.81
19	Odisha	33.33	22.30	11.03
20	Punjab	37.74	13.48	24.26
21	Rajasthan	65.53	35.59	29.94
22	Sikkim	0.66	0.37	0.29
23	Tamil Nadu	80.81	25.40	55.41
24	Telangana	41.97	18.23	23.74
25	Tripura	3.09	1.54	1.55
26	Uttar Pradesh	149.98	77.70	72.28
27	Uttarakhand	13.32	6.34	6.98
28	West Bengal	79.77	35.83	43.94
	<b>Union Territories</b>			
1	Andaman & Nicobar Islands	0.38	0.18	0.20
2	Chandigarh	1.42	0.04	1.38
3	Dadra and Nagar Haveli and Daman and Diu	0.76	0.23	0.52
4	Delhi	47.27	1.72	45.55
5	Jammu & Kashmir	11.86	5.73	6.13
6	Ladakh			
7	Lakshdweep	0.08	0.08	0.00
8	Puduchery	1.17	0.32	0.85
	<b>Total</b>	<b>1157.75</b>	<b>519.27</b>	<b>638.48</b>

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

Sl.No.	State/UT	Wireless Tele-density		
		Total	Rural	Urban
1	Andhra Pradesh	87.35	72.45	115.37
2	Arunachal Pradesh	86.41	66.33	146.76
3	Assam	68.02	47.11	184.65
4	Bihar	51.42	41.24	125.72
5	Chhattisgarh	69.44	46.17	135.03
6	Goa	187.48	272.18	155.60
7	Gujarat	97.44	72.88	124.84
8	Haryana	105.31	73.67	152.03
9	Himachal Pradesh	146.79	110.26	467.11
10	Jharkhand	58.65	43.25	103.25
11	Karnataka	101.90	75.27	137.18
12	Kerala	122.72	181.93	96.09
13	Madhya Pradesh	65.89	41.02	127.77
14	Maharashtra	103.51	68.79	141.53
15	Manipur	74.22	44.55	138.32
16	Meghalaya	70.70	50.08	150.57
17	Mizoram	111.12	97.16	122.86
18	Nagaland	75.94	66.04	89.83
19	Odisha	75.98	62.25	137.14
20	Punjab	125.30	75.54	197.58
21	Rajasthan	83.63	61.55	145.84
22	Sikkim	98.93	97.91	100.29
23	Tamil Nadu	106.22	70.13	139.02
24	Telangana	111.94	89.67	138.30
25	Tripura	76.52	59.45	106.92
26	Uttar Pradesh	65.72	44.57	134.17
27	Uttarakhand	118.09	85.82	179.27
28	West Bengal	81.76	57.00	126.58
	<b>Union Territories</b>			
1	Andaman & Nicobar Islands	94.42	76.89	118.23
2	Chandigarh	119.18	-	-
3	Dadra and Nagar Haveli and Daman and Diu	73.90	100.44	66.20
4	Delhi	233.72	-	-
5	Jammu & Kashmir	87.16	60.00	151.22
6	Ladakh			
7	Lakshdweep	122.97	-	-
8	Puduchery	76.09	69.57	78.90
	<b>All India Tele-density</b>	<b>85.87</b>	<b>58.54</b>	<b>138.41</b>

**Table 1.17 : Rural Wireless Subscriber base and Market Share as on 31.03.2020**

<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	387.52	160.94	41.53%	30.99%
Bharti Airtel*	327.81	153.18	46.73%	29.50%
Vodafone Idea Ltd	319.17	167.02	52.33%	32.16%
BSNL	119.87	38.09	31.77%	7.33%
MTNL	3.36	0.05	1.36%	0.01%
Reliance Com.	0.02	-	-	-
<b>Total</b>	<b>1,157.75</b>	<b>519.27</b>	<b>44.85%</b>	<b>100</b>

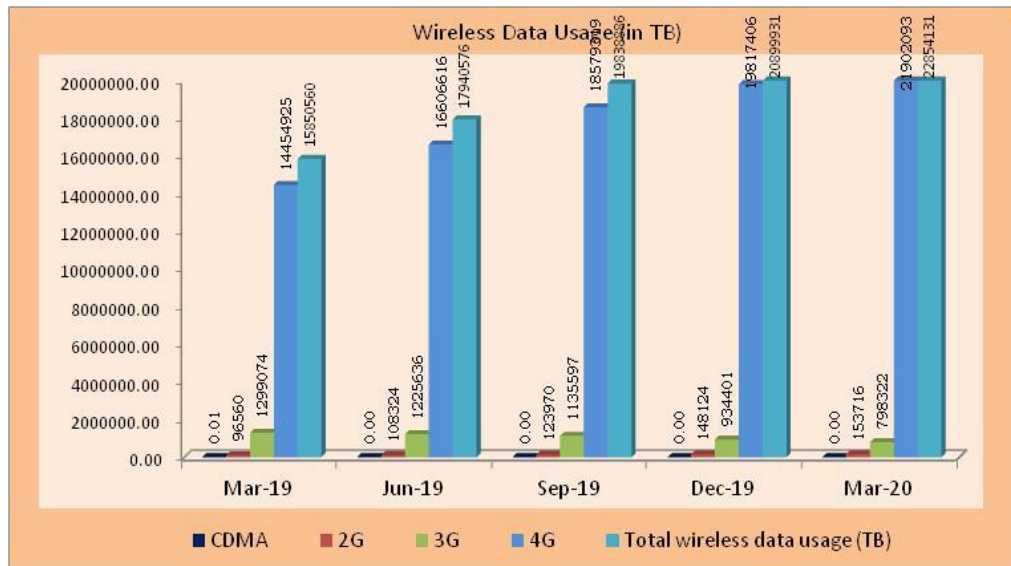
- Note:** 1. M/s Reliance Com. has not reported number of its rural wireless subscribers and hence its rural wireless subscription has been taken as NIL.
2. M/s Bharti Airtel Ltd has reported the wireless subscribers including the subscribers of M/s Tata Teleservices Ltd for QE March, 2020.

### **Wireless Data Usage**

- 1.22 Volume of total wireless data usage increased from 20,899,931 TB during Q.E. Dec-19 to 22,854,131 TB during Q.E. Mar-20 with quarterly growth rate of 9.35%. Out of total data wireless usage, 2G data usage was 153,716 terabytes, 3G data usage was 798,322 terabyte and 4G data usage was 21,902,093 TB during the quarter.
- 1.23 Total number of wireless data subscribers increased from 695.75 million at the end of Dec-19 to 720.18 million at the end of Mar-20.
- 1.24 The contribution of 2G, 3G and 4G data usage in total volume of wireless data usage are about 0.67%, 3.49% and 95.83% respectively during the QE Mar-20.

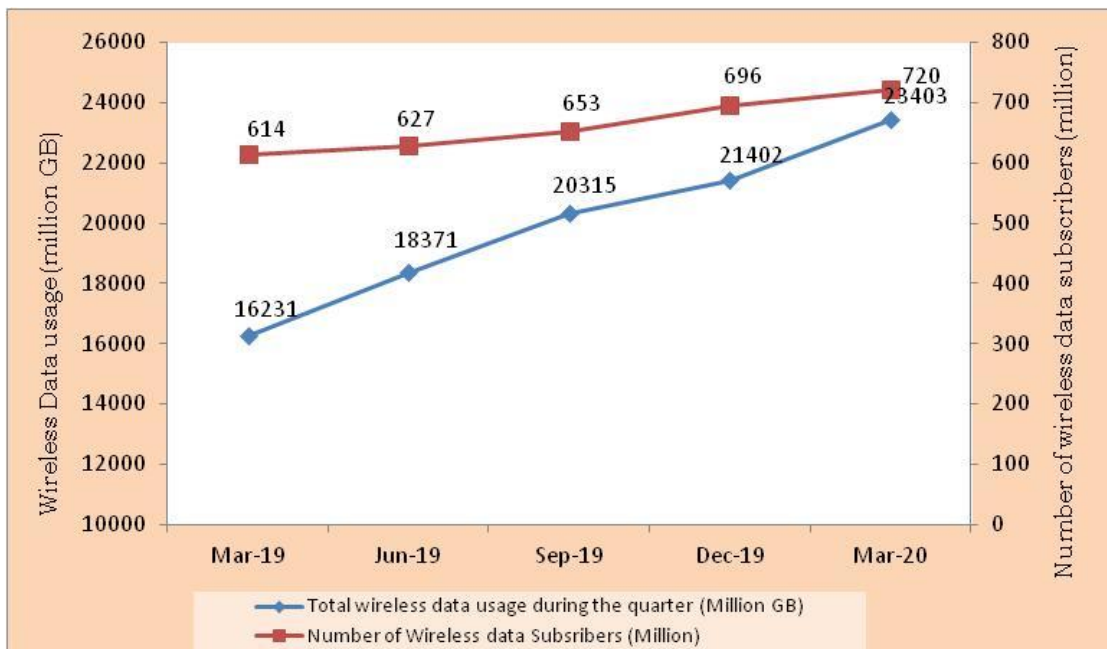
1.25 Technology-wise trend of growth in volume of wireless data usage is depicted in the following chart.

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



1.26 The following chart depicts the trend of number of wireless data subscribers and volume of wireless data usage in QE Mar-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 31<sup>st</sup> March, 2020]

Sl. No.	Name of the Service Provider	Area of Operation
1	Bharti Airtel Ltd	Telangana, Delhi, Gujarat, Haryana, 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 decreased from 21 million at the end of Dec-19 to 20.22 million at the end of Jan-20 with quarterly decline rate of 3.74%. Overall Wireline Teledensity also decreased from 1.59 at the end of Dec-19 to 1.50 at the end of Mar-20.

1.28 Urban wireline subscriber base declined by 2.70%, from 18.47 Million at the end of Dec-19 to 17.97 Million at the end of Mar-20. Rural wireline subscription also declined by 11.34%, from 2.53 million to 2.24 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
Mar-19	3.02	18.67	0.34	4.46
Jun-19	2.85	18.31	0.32	4.36
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

**Table 1.20 : Service Provider wise Subscriber base (Rural - Urban)  
- As on 31.03.2020**

Service Provider	Subscriber Base (million)			Share of Rural subscription (%)
	Rural	Urban	Total	
BSNL	2.16	6.57	8.73	24.73%
Bharti	0.00	4.39	4.39	--
MTNL	0.00	3.09	3.09	--
Tata Tele.	0.05	1.72	1.77	2.58%
Reliance Com.	0.001	0.50	0.51	0.19%
Quadrant	0.04	0.15	0.18	19.46%
Vodafone Idea	0.00	0.46	0.46	--
Reliance Jio	0.003	1.09	1.09	0.26%
<b>Total</b>	<b>2.24</b>	<b>17.97</b>	<b>20.22</b>	<b>11.09%</b>

1.29 Detailed table on service provider wise 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 12.05% in QE Dec-19 to 11.09% in QE Mar-20.

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

Service Provider	Subscriber Base (million)			Rate of change (%)	Market share-Dec-19(%)	Market share-Mar-20(%)
	Dec-19	Mar-20	Net Addition			
BSNL	9.58	8.73	-0.852	-8.90%	45.61%	43.16%
Bharti	4.31	4.39	0.083	1.92%	20.52%	21.73%
MTNL	3.12	3.09	-0.029	-0.94%	14.87%	15.30%
Tata Tele.	1.79	1.77	-0.018	-1.01%	8.51%	8.76%
Reliance Com	0.55	0.51	-0.048	-8.71%	2.64%	2.50%
Quadrant	0.20	0.18	-0.016	-7.89%	0.94%	0.90%
Vodafone	0.40	0.46	0.054	13.47%	1.91%	2.26%
Reliance Jio	1.05	1.09	0.040	3.80%	5.00%	5.39%
<b>Total</b>	<b>21.00</b>	<b>20.22</b>	<b>-0.79</b>	<b>-3.74%</b>	100.00%	100.00%

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

<b>Service Area</b>	<b>Dec-19</b>	<b>Mar-20</b>	<b>Net Additions</b>	<b>Rate of Change (%)</b>
Andhra Pradesh	1.36	1.32	-0.040	-2.93%
Assam	0.11	0.11	-0.001	-0.97%
Bihar	0.18	0.18	-0.003	-1.51%
Delhi	3.27	3.27	-0.001	-0.03%
Gujarat	1.19	1.00	-0.191	-16.03%
Haryana	0.27	0.26	-0.008	-2.96%
Himachal Pradesh	0.10	0.10	-0.003	-3.00%
Jammu & Kashmir	0.13	0.13	0.002	1.55%
Karnataka	2.12	2.15	0.026	1.23%
Kerala	1.72	1.56	-0.165	-9.59%
Madhya Pradesh	0.86	0.67	-0.195	-22.54%
Maharashtra	1.39	1.35	-0.040	-2.90%
Mumbai	3.07	3.07	0.000	-0.01%
North East	0.10	0.10	-0.001	-1.31%
Orissa	0.21	0.21	-0.005	-2.25%
Punjab	0.73	0.70	-0.031	-4.22%
Rajasthan	0.51	0.49	-0.026	-5.07%
T.N. (incl. Chennai)	2.07	2.01	-0.059	-2.84%
U.P.(E)	0.42	0.40	-0.020	-4.79%
U.P.(W)	0.32	0.31	-0.006	-2.00%
Kolkata	0.67	0.65	-0.015	-2.17%
West Bengal	0.18	0.17	-0.004	-2.45%
<b>All India</b>	<b>21.00</b>	<b>20.22</b>	<b>-0.786</b>	<b>-3.74%</b>

1.31 J&K service area showed maximum growth of 1.55% and Madhya Pradesh service area showed maximum decline of 22.54% in their wireline subscriber base during the quarter ending Mar-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	1.32	0.15	1.17	11.10%
Assam	0.11	0.02	0.10	14.42%
Bihar	0.18	0.02	0.16	11.75%
Delhi	3.27	0.00	3.27	0.00%
Gujarat	1.00	0.09	0.91	9.20%
Haryana	0.26	0.04	0.22	16.63%
Himachal Pradesh	0.10	0.05	0.04	54.58%
Jammu & Kashmir	0.13	0.01	0.12	10.00%
Karnataka	2.15	0.10	2.05	4.66%
Kerala	1.56	0.90	0.66	57.68%
Madhya Pradesh	0.67	0.03	0.64	4.84%
Maharashtra	1.35	0.20	1.16	14.52%
Mumbai	3.07	0.00	3.07	0.00%
North East	0.10	0.01	0.08	15.01%
Orissa	0.21	0.04	0.17	19.53%
Punjab	0.70	0.13	0.57	18.54%
Rajasthan	0.49	0.05	0.44	9.22%
T.N. (incl. Chennai)	2.01	0.26	1.75	12.87%
U.P.(E)	0.40	0.05	0.35	12.69%
U.P.(W)	0.31	0.02	0.29	7.40%
Kolkata	0.65	0.00	0.65	0.10%
West Bengal	0.17	0.07	0.11	37.54%
<b>All India</b>	<b>20.22</b>	<b>2.24</b>	<b>17.97</b>	<b>11.09%</b>

1.32 Kerala service area has the maximum share (57.68%) of rural wireline subscriber in its total wireline subscriber base at the end of Mar-20.

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

Service Area	As on 31 <sup>st</sup> December, 2019			As on 31 <sup>st</sup> March, 2020		
	Rural Tele-density	Urban Tele-density	Total Tele-density	Rural Tele-density	Urban Tele-density	Total Tele-density
Andhra Pradesh	0.24	4.70	1.49	0.27	3.30	1.46
Assam	0.06	1.67	0.33	0.05	1.81	0.32
Bihar	0.02	0.79	0.12	0.02	0.64	0.11
Delhi	-	-	13.79	-	-	16.16
Gujarat	0.37	3.69	1.80	0.25	2.72	1.43
Haryana	0.26	2.05	0.94	0.25	1.87	0.91
Himachal Pradesh	0.87	5.15	1.39	0.81	5.94	1.34
Jammu & Kashmir	0.15	3.21	1.03	0.14	2.99	0.99
Karnataka	0.29	7.79	3.30	0.26	7.17	3.24
Kerala	3.71	7.75	4.73	8.20	2.70	4.40
Madhya Pradesh	0.10	2.57	0.79	0.04	2.02	0.59
Maharashtra (incl. Mumbai)*	0.32	6.68	3.50	0.30	7.04	3.54
North East	0.15	2.19	0.68	0.14	1.64	0.64
Orissa	0.12	2.14	0.49	0.11	2.10	0.48
Punjab	0.79	4.00	2.27	0.73	4.22	2.23
Rajasthan	0.09	2.48	0.67	0.08	2.16	0.62
Tamil Nadu (incl. Chennai)	1.05	3.90	2.86	0.71	4.28	2.59
Uttar Pradesh (incl. UPE & UPW)*	0.04	1.16	0.31	0.04	1.11	0.30
West Bengal (incl. Kolkata)*	0.10	2.76	0.87	0.10	2.17	0.84
<b>All India</b>	<b>0.28</b>	<b>4.36</b>	<b>1.59</b>	<b>0.25</b>	<b>3.90</b>	<b>1.50</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 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 1.25: State/UT wise Wireline Subscriber base**

Sl.No.	States/UT	Wireline Subscribers (in million)		
		Total	Rural	Urban
1	Andhra Pradesh	0.72	0.12	0.60
2	Arunachal Pradesh	0.02	0.01	0.02
3	Assam	0.11	0.02	0.10
4	Bihar	0.09	0.01	0.08
5	Chhattisgarh	0.18	0.02	0.16
6	Goa	0.09	0.03	0.06
7	Gujarat	0.99	0.09	0.90
8	Haryana	0.29	0.04	0.25
9	Himachal Pradesh	0.10	0.05	0.04
10	Jharkhand	0.08	0.01	0.08
11	Karnataka	2.15	0.10	2.05
12	Kerala	1.55	0.90	0.66
13	Madhya Pradesh	0.49	0.01	0.48
14	Maharashtra Incl. Mumbai	4.34	0.17	4.17
15	Manipur	0.02	0.00	0.02
16	Meghalaya	0.02	0.002	0.02
17	Mizoram	0.01	0.001	0.01
18	Nagaland	0.01	0.000	0.01
19	Odisha	0.21	0.04	0.17
20	Punjab	0.52	0.13	0.40
21	Rajasthan	0.49	0.05	0.44
22	Sikkim	0.01	0.00	0.00
23	Tamil Nadu (incl. Chennai)	1.97	0.25	1.71
24	Telangana	0.60	0.03	0.57
25	Tripura	0.02	0.00	0.02
26	Uttar Pradesh (UPE+UPW)	0.65	0.07	0.58
27	Uttarakhand	0.08	0.01	0.08
28	West Bengal Incl. Kolkata	0.81	0.06	0.75
<b>Union Territories</b>				
1	Andaman & Nicobar Islands	0.02	0.01	0.01
2	Chandigarh	0.17	0.001	0.17
3	Dadra and Nagar Haveli and Daman and Diu	0.006	0.0021	0.004
4	Delhi	3.22	0.00	3.22
5	Jammu & Kashmir	0.13	0.01	0.12
6	Ladakh			
7	Lakshdweep	0.004	0.002	0.003
8	Puduchery	0.05	0.01	0.04
	<b>Total</b>	20.22	2.24	17.97

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

Sl.No.	State/UT	Wireline Tele-density		
		Total	Rural	Urban
1	Andhra Pradesh	2.51	0.43	6.41
2	Arunachal Pradesh	1.51	0.46	4.69
3	Assam	0.32	0.05	1.81
4	Bihar	0.08	0.01	0.55
5	Chhattisgarh	0.61	0.08	2.11
6	Goa	5.61	6.13	5.42
7	Gujarat	1.44	0.25	2.78
8	Haryana	1.00	0.25	2.09
9	Himachal Pradesh	1.34	0.81	5.94
10	Jharkhand	0.22	0.02	0.78
11	Karnataka	3.24	0.26	7.17
12	Kerala	4.40	8.19	2.70
13	Madhya Pradesh	0.59	0.02	1.99
14	Maharashtra Incl. Mumbai	3.52	0.26	7.07
15	Manipur	0.63	0.21	1.53
16	Meghalaya	0.53	0.07	2.30
17	Mizoram	0.97	0.14	1.66
18	Nagaland	0.30	0.03	0.69
19	Odisha	0.48	0.11	2.10
20	Punjab	1.74	0.72	3.22
21	Rajasthan	0.62	0.08	2.16
22	Sikkim	0.77	0.06	1.70
23	Tamil Nadu (incl. Chennai)	2.59	0.70	4.30
24	Telengana	1.59	0.15	3.30
25	Tripura	0.48	0.07	1.20
26	Uttar Pradesh (UPE + UPW)	0.28	0.04	1.07
27	Uttarakhand	0.75	0.08	2.02
28	West Bengal incl. Kolkata	0.83	0.09	2.16
	<b>Union Territories</b>			
1	Andaman & Nicobar Islands	4.15	2.77	6.03
2	Chandigarh	14.62	35.15	14.55
3	Dadra and Nagar Haveli and Daman and Diu	0.58	0.90	0.49
4	Delhi	15.94	0.00	16.06
5	Jammu & Kashmir	0.50	0.07	1.50
6	Ladakh			
7	Lakshdweep	6.34	59.52	3.96
8	Puduchery	3.00	1.39	3.69
	<b>Total</b>	<b>1.50</b>	<b>0.25</b>	<b>3.90</b>

## Public Call Offices (PCO)

1.33 Total number of PCOs in the country declined from 1,93,794 at the end of Dec-19 to 1,73,291 at the end of Mar-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 shows declining trend over the year. It has recorded a overall quarterly decline rate of 10.58% and the year-on-year Y-O-Y decline rate of 32.11% at the QE Mar-20.

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

Service Provider	Dec-19	Mar-20	Rate of change (%)	Market share (%) (Mar-20)
BSNL	117534	100769	-14.26%	58.15%
MTNL	65881	62464	-5.19%	36.05%
Bharti	9629	9355	-2.85%	5.40%
Quadrant	750	703	-6.27%	0.41%
<b>Total</b>	<b>193794</b>	<b>173291</b>	<b>-10.58%</b>	<b>100.00%</b>



## Village Public Telephones (VPTs)

1.35 There are 5,93,731 inhabited villages in India as per census 2001. During the Q.E. Mar-20, there are 67,762 villages having Village Public Telephones (VPTs).

1.36 Number of VPTs declined from 68,784 at the end of Dec-19 to 67,762 at the end of Mar-20 with quarterly decline rate of 1.49%. It shows yearly decline of 48.03% in QE Mar-20 over same quarter in previous year.

1.37 As per the information received in TRAI, at the end of Mar-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 Mar-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 360 operators as compared to 358 operators in last quarter, total number of internet subscribers increased from 718.74 million at the end of Dec-19 to 743.19 million at the end of Mar-20 with quarterly growth rate of 3.40%. Out of total 743.19 million internet subscribers, 687.44 million were broadband subscribers and 55.75 million were narrowband subscribers.

1.40 Wired Internet subscribers increased from 22.39 million at the end of Dec-19 to 22.42 million at the end of Mar-20 with quarterly growth rate of 0.14%. Wireless Internet subscribers increased from 696.36 million at the end of Dec-19 to 720.78 million at the end of Mar-20 with quarterly growth rate of 3.51%.

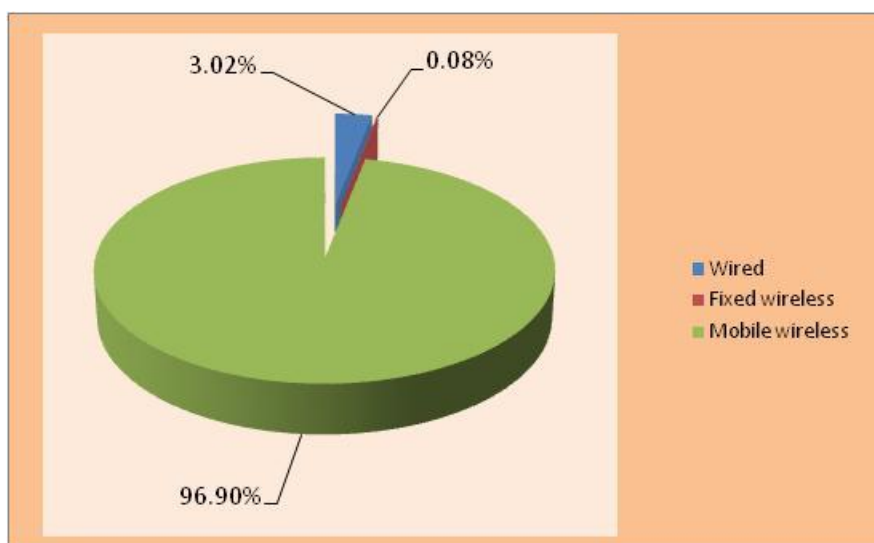
1.41 The number of Broadband subscribers increased from 661.94 million at the end of Dec-19 to 687.44 million at the end of Mar-20 with quarterly growth rate of 3.85%. However, the number of Narrowband subscribers declined from 56.80 million at the end of Dec-19 to 55.75 million at the end of Mar-20 with quarterly decline rate of 1.85%.

**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			
	Dec-19	Mar-20	Dec-19	Mar-20	Dec-19	Mar-20	Dec-19	Mar-20	Dec-19	Mar-20
Broadband	19.14	19.18	0.61	0.61	642.19	667.66	642.80	668.27	661.94	687.44
Narrowband	3.25	3.24	0.01	0.01	53.55	52.51	53.56	52.51	56.31	55.75
<b>Total</b>	<b>22.39</b>	<b>22.41</b>	<b>0.62</b>	<b>0.61</b>	<b>695.74</b>	<b>720.17</b>	<b>696.36</b>	<b>720.78</b>	<b>718.74</b>	<b>743.19</b>

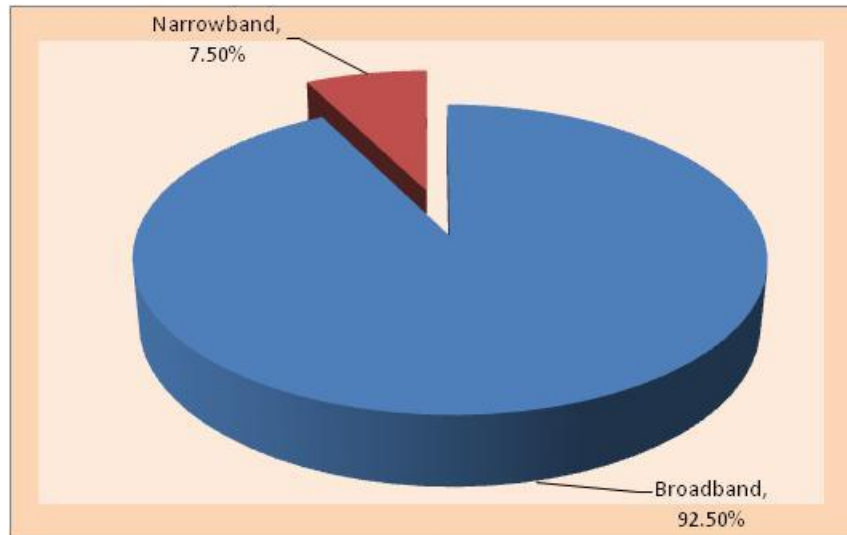
1.42 The following charts present the composition of Internet Subscribers by mode of access and composition of Broadband & Narrowband subscription as on 31<sup>st</sup> March, 2020.

**Chart 1.14: Composition of Internet subscription**



1.43 Out of total internet subscribers, 96.90% subscribers are using Mobile devices for access of internet service. Wired internet subscribers are only 3.02% in total internet subscribers at the end of Mar-20.

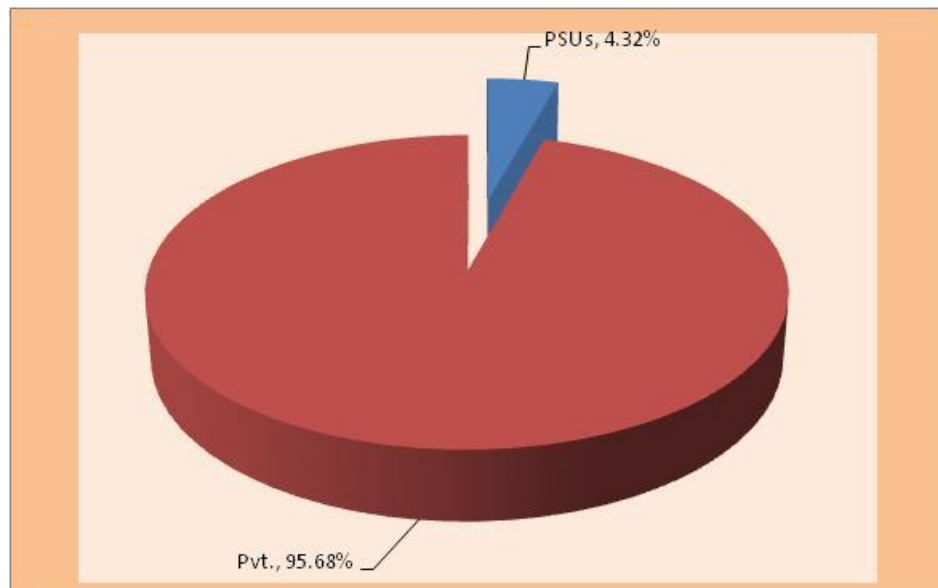
**Chart 1.85 : Composition of Broadband & Narrowband subscription**



1.44 Out of total internet subscribers, 92.50% subscribers are using broadband for access of internet.

1.45 Share of private internet service providers in total internet subscriber base, increased from 95.62% at QE Dec-19 to 95.68% at QE Mar-20. The following charts present the composition of market share of PSUs and Private Internet service providers.

**Chart 1.96 : 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 (million)**

Telecom Service Area	Narrowband		Broadband		Total Internet	
	Rural	Urban	Rural	Urban	Rural	Urban
Andhra Pradesh	2.05	1.85	23.46	31.29	25.51	33.14
Assam	0.64	0.37	7.68	5.57	8.31	5.93
Bihar	3.24	1.21	27.29	16.65	30.53	17.86
Delhi	0.19	2.90	0.57	37.34	0.75	40.24
Gujarat	0.98	1.25	12.69	30.39	13.67	31.64
Haryana	0.45	0.53	6.36	9.84	6.81	10.37
Himachal Pradesh	0.19	0.15	3.60	2.05	3.79	2.21
Jammu & Kashmir	0.36	0.19	3.09	4.04	3.45	4.23
Karnataka	1.77	1.73	15.24	27.09	17.01	28.82
Kerala	0.72	0.98	10.03	14.81	10.75	15.79
Kolkata	0.06	1.22	1.35	14.77	1.42	15.99
Madhya Pradesh	2.15	1.86	17.59	27.11	19.75	28.97
Maharashtra	2.27	2.43	22.90	35.41	25.16	37.85
Mumbai	0.06	2.22	1.47	26.55	1.53	28.77
North East	0.30	0.23	3.67	3.77	3.97	4.00
Orissa	1.18	0.39	11.18	6.52	12.36	6.91
Punjab	0.61	0.93	7.83	16.77	8.43	17.70
Rajasthan	1.67	1.33	18.35	21.15	20.02	22.48
Tamil Nadu	1.55	2.58	12.27	35.24	13.82	37.82
UP (East)	3.61	1.51	25.30	24.17	28.91	25.68
UP (West)	1.30	1.59	12.04	22.87	13.34	24.46
West Bengal	2.01	0.93	14.63	15.42	16.65	16.35
<b>Total</b>	<b>27.36</b>	<b>28.40</b>	<b>258.61</b>	<b>428.83</b>	<b>285.97</b>	<b>457.23</b>
<b>Total</b>	<b>55.75</b>		<b>687.44</b>		<b>743.19</b>	

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

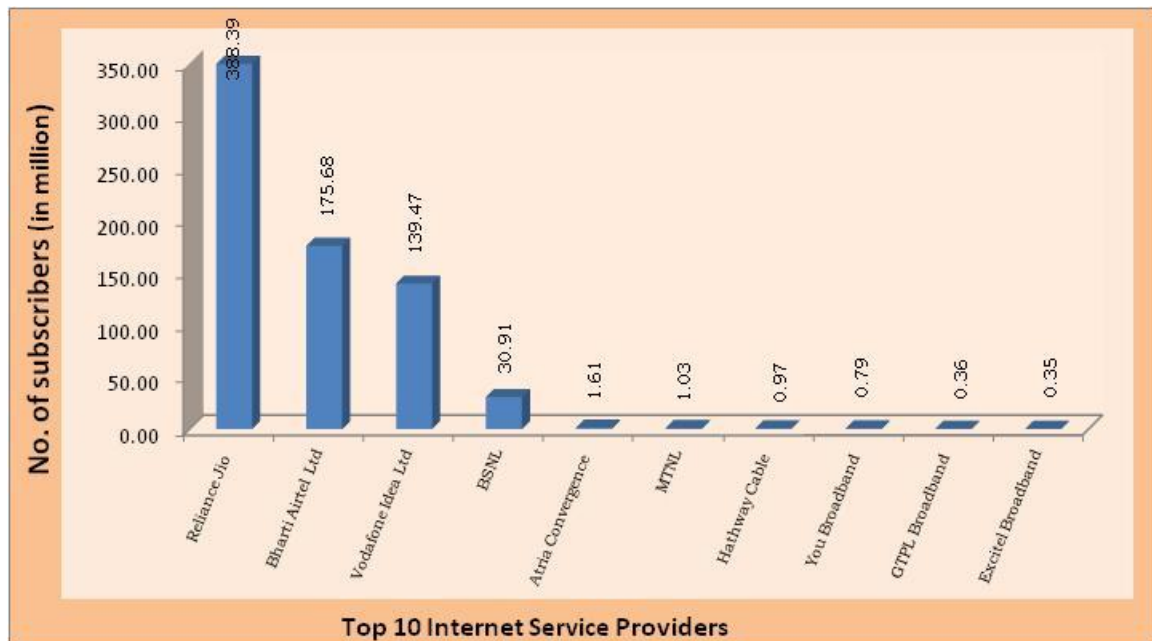
<b>S.No</b>	<b>ISP</b>	<b>No. of Subscribers</b>	<b>Share (%)</b>
1	Reliance Jio Infocomm Ltd	38,83,90,116	52.26%
2	Bharti Airtel Ltd.	17,56,80,949	23.64%
3	Vodafone Idea Limited	13,94,70,822	18.77%
4	Bharat Sanchar Nigam Ltd.	3,09,07,876	4.16%
5	Atria Convergence Technologies Pvt. Ltd.	16,07,015	0.22%
6	Mahanagar Telephone Nigam Ltd.	10,26,441	0.14%
7	Hathway Cable & Datacom Pvt. Ltd.	9,69,157	0.13%
8	You Broadband India Pvt. Ltd.	7,93,244	0.11%
9	GTPL Broadband Pvt. Ltd.	3,59,347	0.05%
10	Excitel Broadband Private Limited	3,50,783	0.05%
	<b>Total of Top 10 ISPs</b>	<b>73,95,55,750</b>	<b>99.51%</b>
	<b>Others</b>	<b>36,38,201</b>	<b>0.49%</b>
	<b>Grand Total</b>	<b>74,31,93,951</b>	<b>100.00%</b>

1.47 Reliance Jio holds the top position with 52.26% of market share of internet subscribers followed by Bharti Airtel Ltd with 23.64% at the QE Mar-20. M/s Vodafone Idea Ltd held the third position in respect of internet subscriber base with market share of 18.77%.

1.48 Out of total 360 internet service providers, top 10 Service Providers together hold 99.51% of total internet subscriber base at the QE Mar-20. Detailed table of number of internet subscriber base (broadband and narrowband) of all the service providers is available at **Annexure-1.5**.

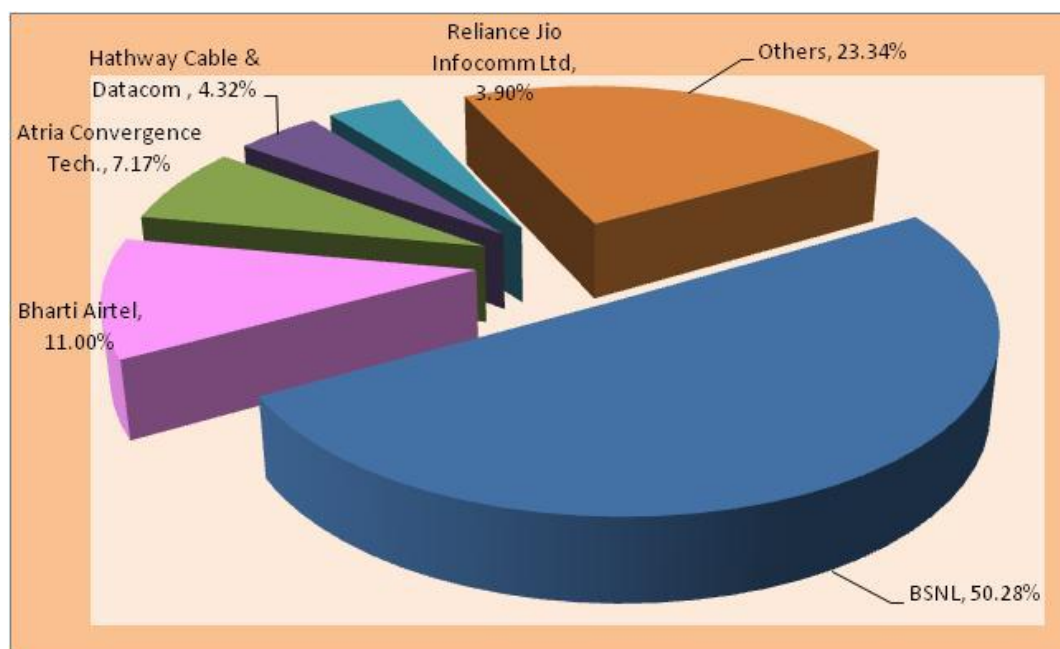
1.49 The following chart depicts the internet subscriber base of top ten Internet Service Providers (ISPs) in the QE Mar-20.

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



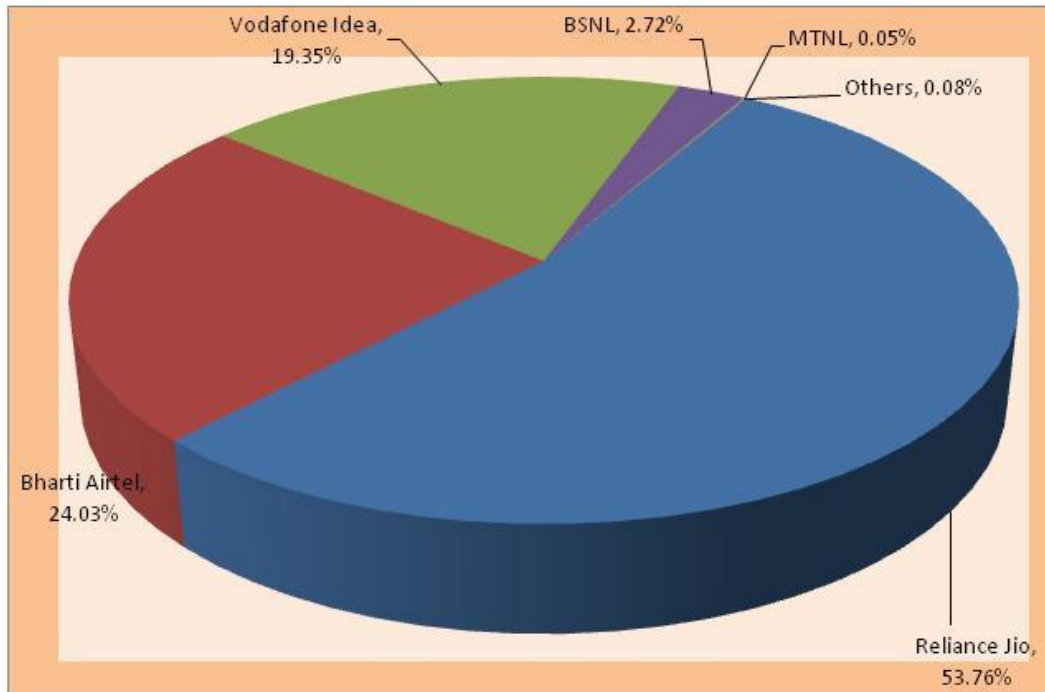
1.50 Out of total 22.42 million wired internet subscribers, BSNL holds 50.28% market share with 11.27 million subscribers, followed by Bharti with 2.47 million subscribers.

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

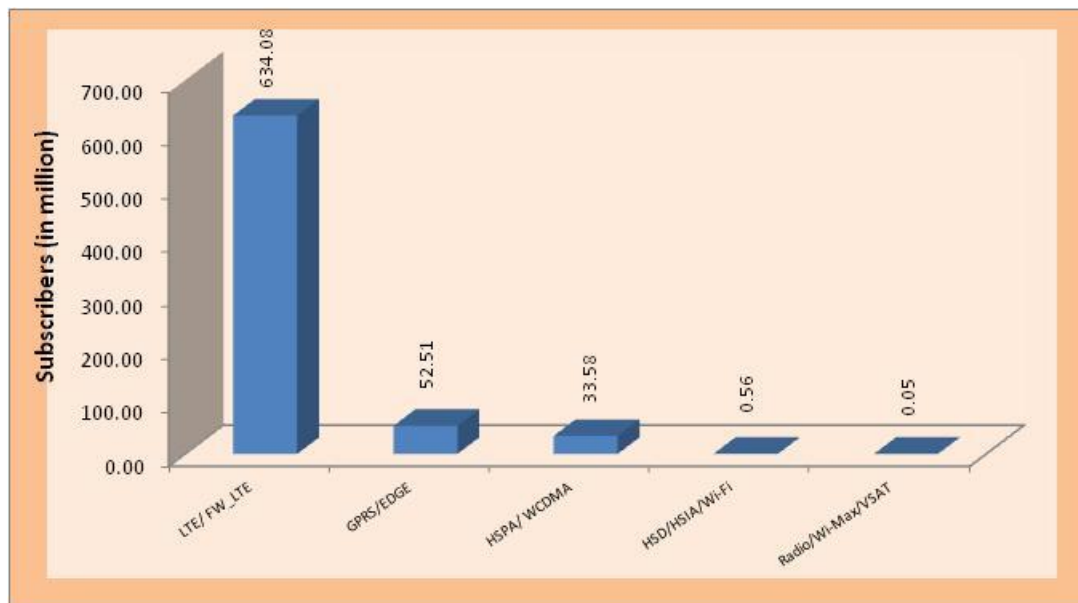


1.51 In wireless internet segment, Reliance Jio holds 53.76% market share with 387.52 million subscribers followed by Bharti Airtel Ltd with 24.03% of wireless internet subscribers at the QE Mar-20.

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

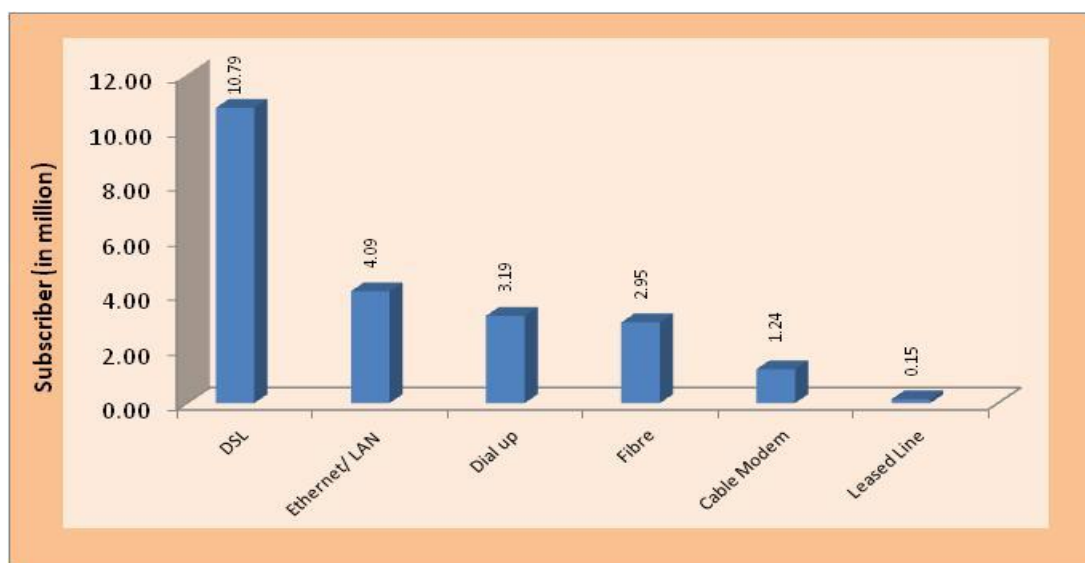


**Chart 1.20 : Technology trend for Wireless Internet Access**





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



1.52 Top five service areas in terms of internet subscriptions (wired+ wireless) are Maharashtra (63.01 million), Andhra Pradesh including Telengana (58.65 million), U.P.(East) (54.60 million) Tamil Nadu including Chennai (51.64 million) and Madhya Pradesh including Chhatisgarh (48.72 million).

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

Service Area	Internet Subscribers (in million)			No. of Internet subscribers per 100 population		
	Rural	Urban	Total	Rural	Urban	Total
Andhra Pradesh	25.51	33.14	58.65	46.71	93.61	65.15
Assam	8.31	5.93	14.25	28.25	112.47	41.06
Bihar	30.53	17.86	48.40	22.61	73.26	30.35
Delhi	0.75	40.24	41.00	-	-	202.71
Gujarat	13.67	31.64	45.32	37.38	94.78	64.77
Haryana	6.81	10.37	17.18	39.24	88.21	59.01
Himachal Pradesh	3.79	2.21	6.00	57.48	293.21	81.62
Jammu & Kashmir	3.45	4.23	7.68	36.05	104.49	56.43
Karnataka	17.01	28.82	45.83	44.98	100.96	69.06

Service Area	Internet Subscribers (in million)			No. of Internet subscribers per 100 population		
	Rural	Urban	Total	Rural	Urban	Total
Kerala	10.75	15.79	26.55	98.10	64.65	75.01
Madhya Pradesh	19.75	28.97	48.72	24.36	91.79	43.26
Maharashtra	25.16	37.85	63.01	41.13	110.98	74.69
Mumbai	1.53	28.77	30.30			
North East	3.97	4.00	7.97	38.65	79.12	51.99
Orissa	12.36	6.91	19.28	34.51	85.98	43.95
Punjab	8.43	17.70	26.13	47.26	131.39	83.45
Rajasthan	20.02	22.48	42.50	34.62	109.52	54.24
Tamil Nadu	13.82	37.82	51.64	37.67	92.40	66.53
UP (East)	28.91	25.68	54.60	23.25	86.80	38.58
UP (West)	13.34	24.46	37.80			
Kolkata	1.42	15.99	17.41	28.46	91.96	51.10
West Bengal	16.65	16.35	33.00			
<b>Total</b>	<b>285.97</b>	<b>457.23</b>	<b>743.19</b>	<b>32.24</b>	<b>99.12</b>	<b>55.12</b>

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

Notes:

1. 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)
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.

## ISP Connectivity

1.53 The International Internet bandwidth owned by various service providers is reported to be 16,041 Gbps during the quarter ending Dec-19 as compare to 15,526 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 remained same i.e. 181.34 million during the Q.E. Mar-20 as it was previous quarter. 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 661.94 million at the end of Dec-19 to 687.44 million at the end of Mar-20. Out of which number of wired broadband subscribers are 19.18 million and wireless broadband subscribers are 668.27 million.

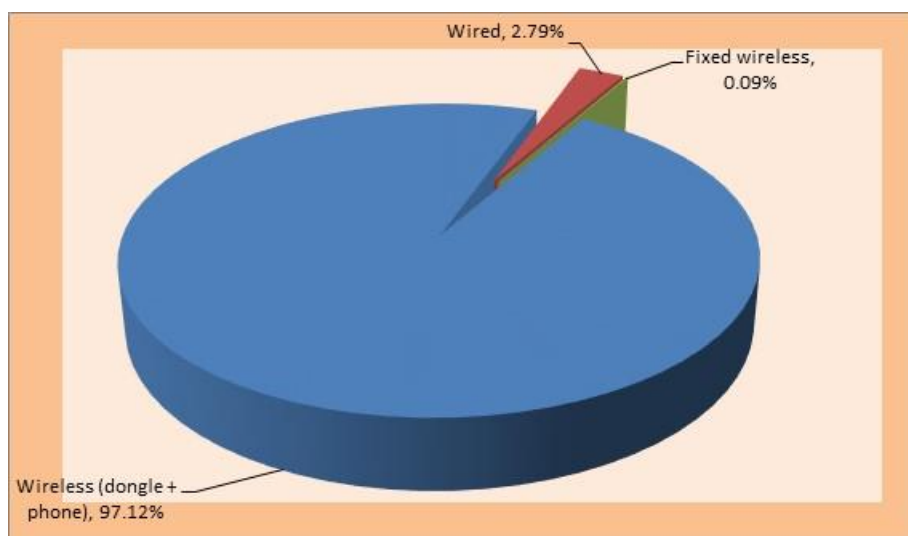
1.56 Top five broadband (wired+wireless) service providers in term of subscribers are Reliance Jio (388.39 million), Bharti Airtel (148.57 million), Vodafone Idea Ltd (117.45 million), BSNL (24.51 million) and Atria Convergence (1.61 million).

1.57 In wired broadband segment, BSNL holds 42.11% market share with 8.08 million subscribers followed by Bharti with 2.47 million subscribers in QE Mar-20.

1.58 In wireless broadband segment, Reliance Jio holds 57.99% market share with 387.52 million subscribers followed by Bharti Airtel Ltd (21.86%) with 146.11 million subscribers in QE Mar-20.

1.59 Top five service areas in respect of broadband subscriptions at Q.E. Mar-20 are Maharashtra (58.31 million), Andhra Pradesh including Telengana (54.75 million), , U.P.-East (49.48 million), Tamil Nadu including Chennai (47.51 million) and Madhya Pradesh (44.70 million).

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

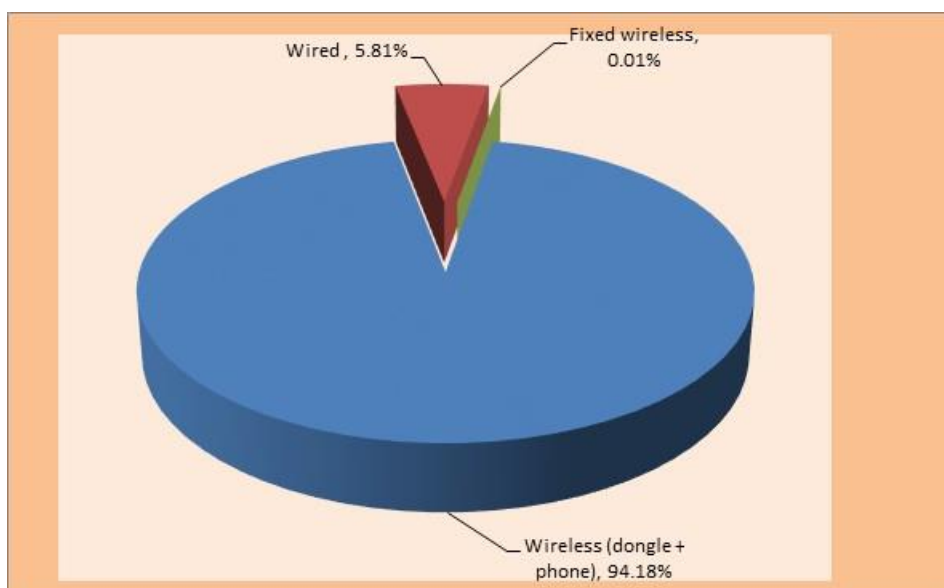


1.60 Mobile Device Users (dongle+phone) constitute 97.12% of total broadband subscribers at the end of Mar-20.

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

- 1.61 Total number of narrowband subscribers declined from 56.81 million at the end of Dec-19 to 55.75 million at the end of Mar-20 with the quarterly decline rate of 1.85%. Out of 55.75 million narrowband subscribers, Wired Narrowband subscribers are 3.24 million and Wireless Narrowband subscribers are 52.51 million.
- 1.62 The top five narrowband (wired+wireless) service providers in term of subscriber base are Bharti Airtel (27.11 million), Vodafone Idea Ltd (22.02 million), BSNL (6.40 million), MTNL (0.17 million) and You Broadband (0.02 million) at the end of Mar-20.
- 1.63 In wired narrowband segment, BSNL holds 98.58% 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 51.63% market share with 27.11 million subscribers followed by Vodafone Idea Ltd with 22.02 million subscribers.

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



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

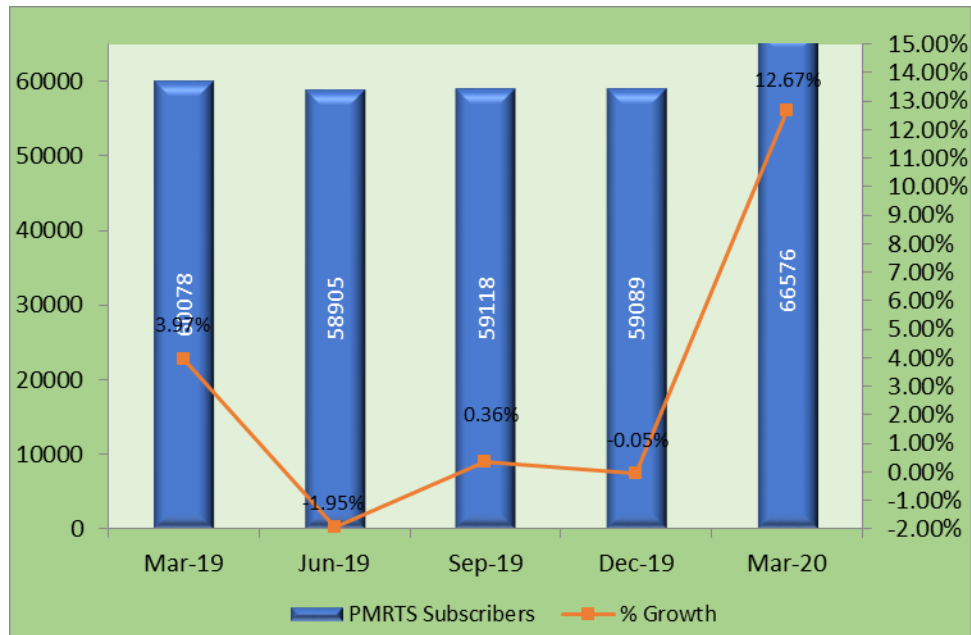
1.65 The subscriber base of PMRTS increased from 59,089 at the end of Dec-19 to 66,576 at the end of Mar-20 with quarterly growth rate of 12.67%.

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

<b>Sl. No</b>	<b>Name of the Service Provider</b>	<b>Subscriber Base as on 31.12.2019</b>	<b>Subscriber Base as on 31.03.2020</b>	<b>Growth in Subscribers</b>	<b>% Growth in subscribers in QE Mar-20</b>
1	Arya Omnitalk Radio Trunking Services Pvt. Ltd.	49043	56396	7353	14.99%
4	Procall Ltd.	3270	3249	-21	-0.64%
2	Quick Call	2144	2098	-46	-2.15%
3	Inative Networks Pvt Ltd	1820	1820	0	0.00%
5	Smartalk Pvt Ltd	1074	1193	119	11.08%
6	Bhilwara Telenet Services Pvt Ltd	870	868	-2	-0.23%
7	Wiwonet Solutions Pvt Ltd	409	457	48	11.74%
8	Airtalk Solutions & Services Pvt Ltd	459	495	36	7.84%
	<b>Total</b>	<b>59089</b>	<b>66576</b>	<b>7487</b>	<b>12.67%</b>

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

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



**Very Small Aperture Terminal (VSAT)**

1.67 The total number of VSAT subscribers increased from 2,98,464 at the end of Dec-19 to 3,00,686 at the end of Mar-20. Net addition during the quarter has been 2,222 at the growth rate of 0.74%.

**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 (%) Mar-20
		Dec-19	Mar-20			
1	Hughes Communications Ltd.	119292	121221	1929	1.62%	40.31%
2	Bharti Airtel Limited	80857	80094	-763	-0.94%	26.64%
3	Tatanet Services	66367	70207	3840	5.79%	23.35%
4	HCL Comnet	16442	15065	-1377	-8.37%	5.01%
5	BSNL	12869	11468	-1401	-10.89%	3.81%
6	Infotel Satcom	2587	2581	-6	-0.23%	0.86%
7	Cloudcast Digital Ltd (eartwhile Planetcast Media Services Ltd)	50	50	0	0.00%	0.02%
	<b>Total</b>	<b>298464</b>	<b>300686</b>	<b>2222</b>	<b>0.74%</b>	<b>100.00%</b>

1.68 Hughes Communication Limited continues to be the market leader with 40.31% share in VSAT with subscriber base of 1,21,221 followed by Bharti Airtel Ltd (80,094) at the end of Mar-20.

1.69 In term of net addition, M/s Tatanet Services added maximum number of VSAT subscribers (3,840 subscribers) during the QE Mar 20. Bharti Airtel Limited, HCL Comnet, BSNL, and Infotel Satcom have lost VSAT subscribers during the quarter.



# **Chapter 2 :**

# **Revenue and Usage**

# **Wireless Services**

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- 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> January, 2020 to 31<sup>st</sup> March, 2020 in the various service areas.

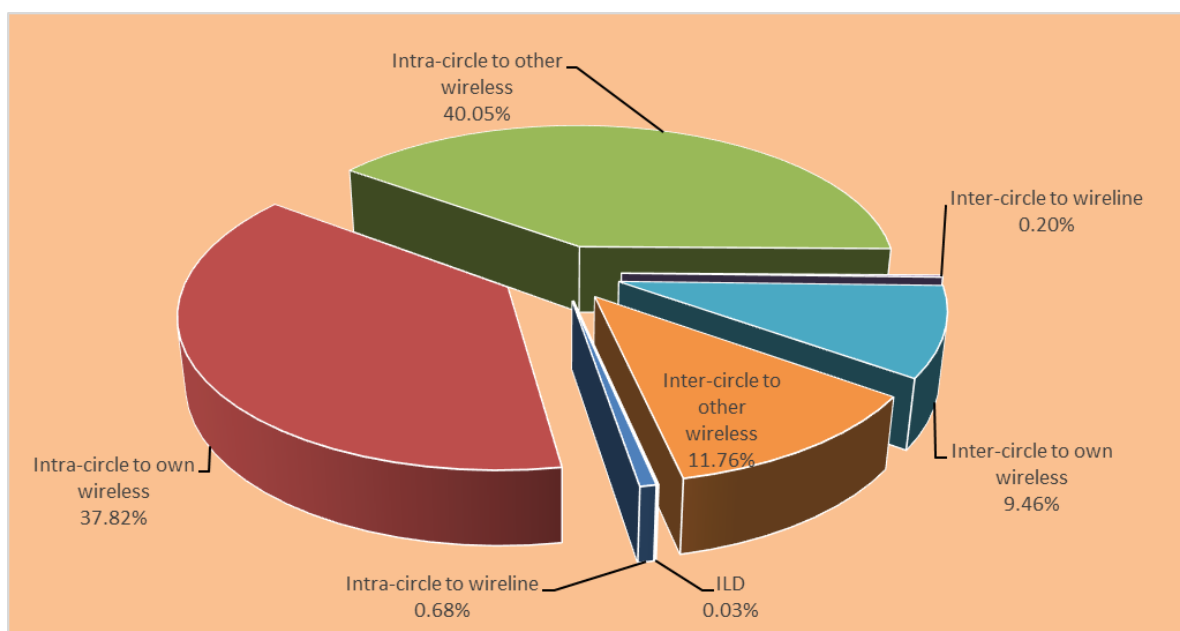
**Table 2.1: Key Indicators – Wireless Services (GSM including LTE)**

Parameter	Mar-20	Dec-19	Mar-19	QoQ %age change	YoY %age change
Subscriber Base* (million)	1157.82	1148.19	1179.02	0.84%	-1.80%
Share of Prepaid (%)	95.35%	95.46%	94.42%	-0.12%	0.98%
Incoming MOU per subscriber per month	376.07	355.00	343.25	5.94%	9.56%
Outgoing MOU per subscriber per month	373.86	357.18	348.59	4.67%	7.25%
No. of Outgoing SMS per subscriber per month	17.26	17.86	16.27	-3.36%	6.06%
Average Revenue Per User (ARPU) per month (₹)	91.49	78.65	71.39	16.33%	28.15%

\* Subscriber figures are closing figures as on last day of the quarter.  
 # Subscriber figures for 4G LTE is also included.

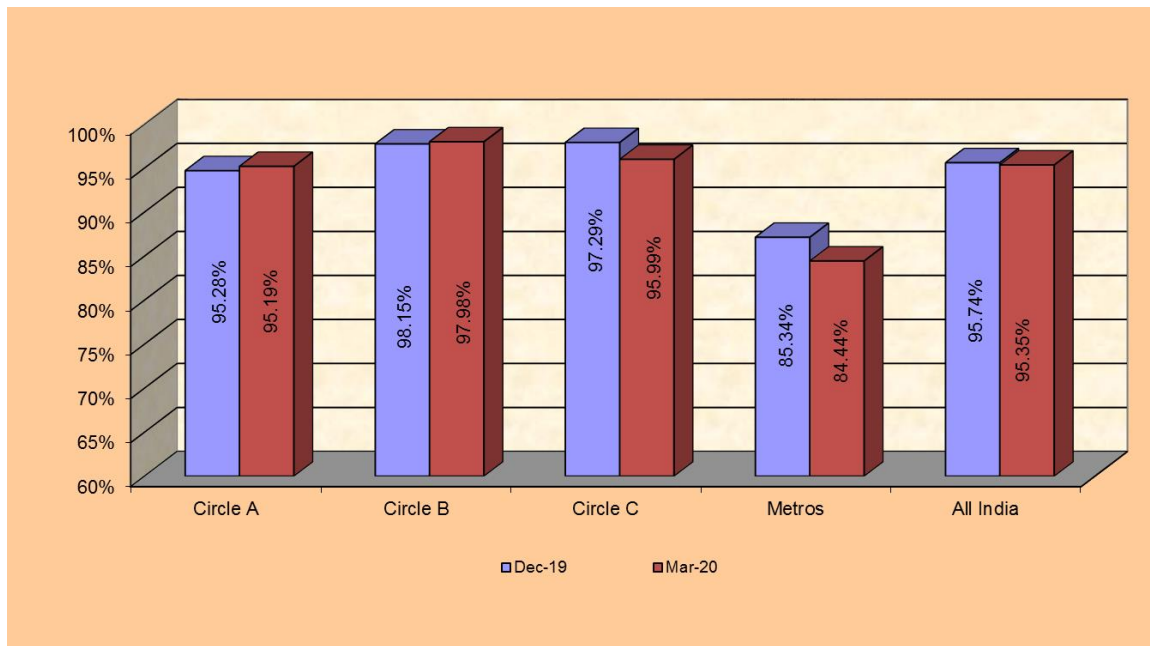
2.1 The following chart presents % break-up of outgoing minutes from Home Service Area (HSA) in the QE Mar-20.

**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 prepaid segments has decreased from 95.46% at the end of December-19 to 95.35% at the end of March-20.

2.4 The ARPU per month (all India blended) increased from Rs.78.65 in QE December-19 to Rs.91.49 in QE March-20 with quarterly growth rate of 16.33%. Year-on-year basis, ARPU per month increased by 28.15% in this quarter.

2.5 The ARPU per month for pre-paid segment is Rs.84 and ARPU per month for postpaid segment is 244 in QE Mar-20.

2.6 The following table presents the ARPU per month for various categories of circles and various platforms for payment viz. post-paid and pre-paid.

**Table 2.2: Monthly ARPU – Wireless Services in QE Dec-19**

Circle Category	ARPU per month (in ₹)		
	Post-paid	Pre-paid	Blended
Circle A	286	96	105
Circle B	251	81	84
Circle C	190	77	81
Metros	218	64	88
<b>All India</b>	<b>244</b>	<b>84</b>	<b>91.49</b>
All private SPs	247	90	97
BSNL/MTNL	204	38	43

2.7 The following table presents the composition of ARPU per month for QE Mar-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
1	<b>Usage from Home Service Area</b>		
1.1.	Rental Revenue	0.91	0.9%
1.2.	Revenue from calls	18.21	17.7%
1.3.	Revenue from SMS	0.84	0.8%
1.4.	Revenue from data usage	75.73	73.8%
1.5.	Revenue from other VAS	1.54	1.5%
1.6.	Other revenue	4.37	4.3%
2	<b>Usage outside Home Service Area</b>		
2.1.	Revenue from out-roamers	1.08	1.1%
3	<b>Total revenue from subscribers (1+2)</b>	<b>102.67</b>	<b>100%</b>
4	Net inter-operator settlement charges receivable *	-11.18	
5	<b>Net Revenue (ARPU) per month (3+4)</b>	<b>91.49</b>	

\* includes Interconnect Usages Charges and roaming settlement charges

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 (11.18) accounts for 10.89% of the total revenue from subscribers in the Q.E. March-2020.

2.9 On an all India average, the overall MOU per subscriber per month increased by 5.33% from 712 in Q.E. December-19 to 750 in Q.E. March-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.

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

Circle category	MOU per subscriber per month								
	Postpaid			Prepaid			Blended		
	Outgoing MOU	Incoming MOU	Total MOU	Outgoing MOU	Incoming MOU	Total MOU	Outgoing MOU	Incoming MOU	Total MOU
Circle A	331	295	626	334	322	656	334	321	655
Circle B	329	307	636	373	386	759	372	385	757
Circle C	422	444	865	452	452	944	451	491	941
<b>Metro</b>	272	213	485	428	428	810	404	356	759
<b>All India</b>	<b>322</b>	<b>288</b>	<b>611</b>	<b>376</b>	<b>376</b>	<b>757</b>	<b>374</b>	<b>376</b>	<b>750</b>

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

2.11 The overall ratio of incoming MOU and outgoing MOUs for the Q.E. March is 50.1: 49.9.

2.12 Average number of Outgoing SMS per subscriber per month is 17 in QE March-20. The following table presents the outgoing SMS usage (usage from and outside, the home service area) per subscriber per

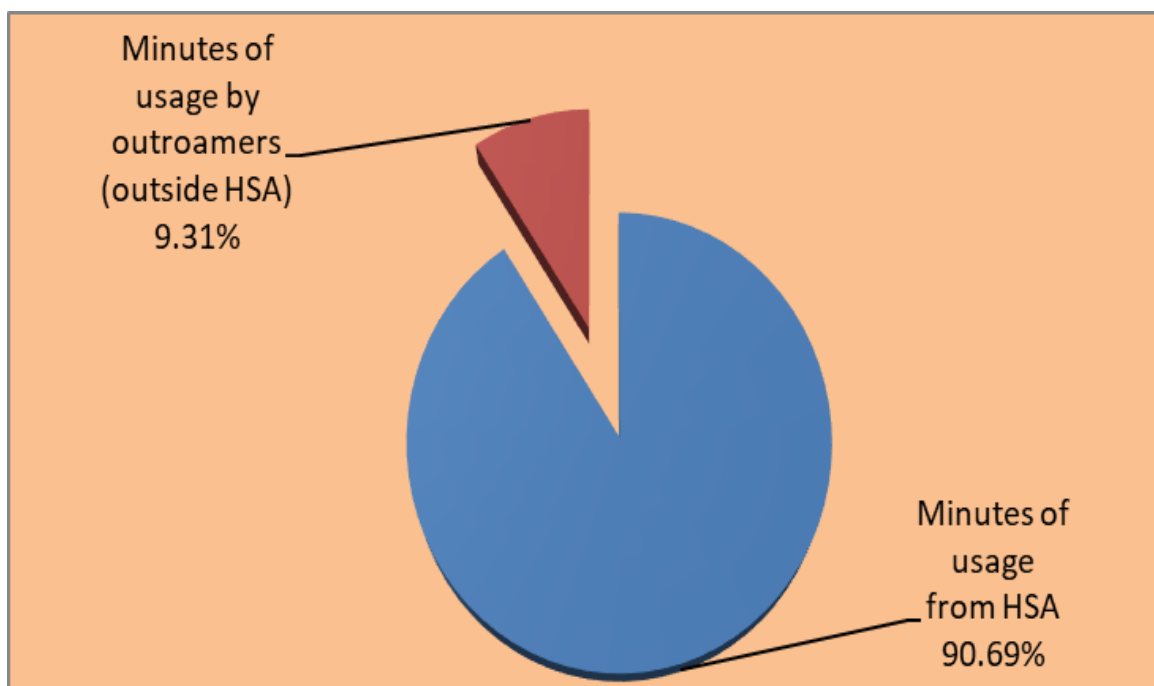
month for various categories of circles and various platforms for payment viz. post-paid and pre-paid during Q.E. March-20.

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

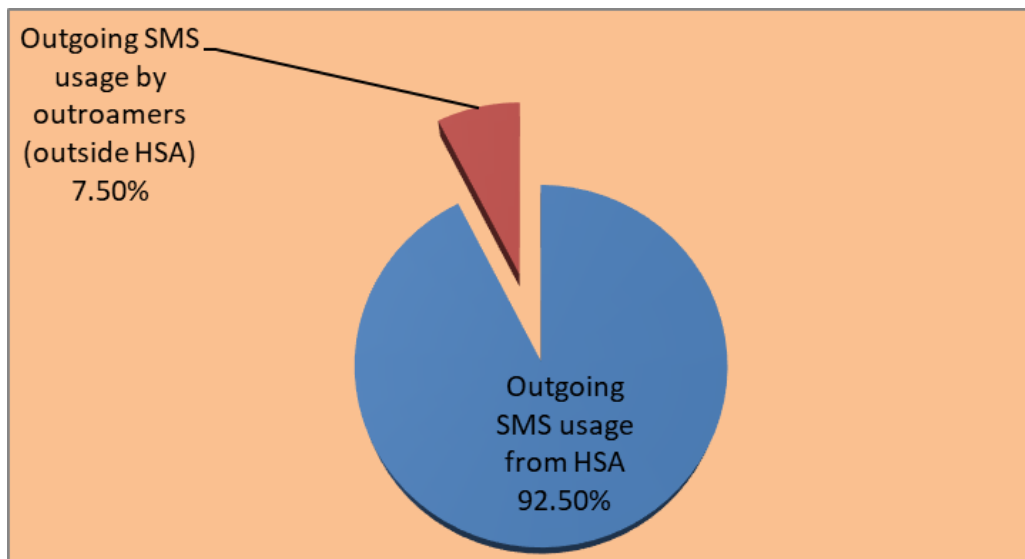
Circle category	Outgoing SMS per subscriber month		
	Postpaid	Prepaid	Blended
Circle A	52	18	19
Circle B	44	14	14
Circle C	40	19	20
Metro	35	14	17
<b>All India</b>	<b>43</b>	<b>16</b>	<b>17</b>

*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. March-2020**



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



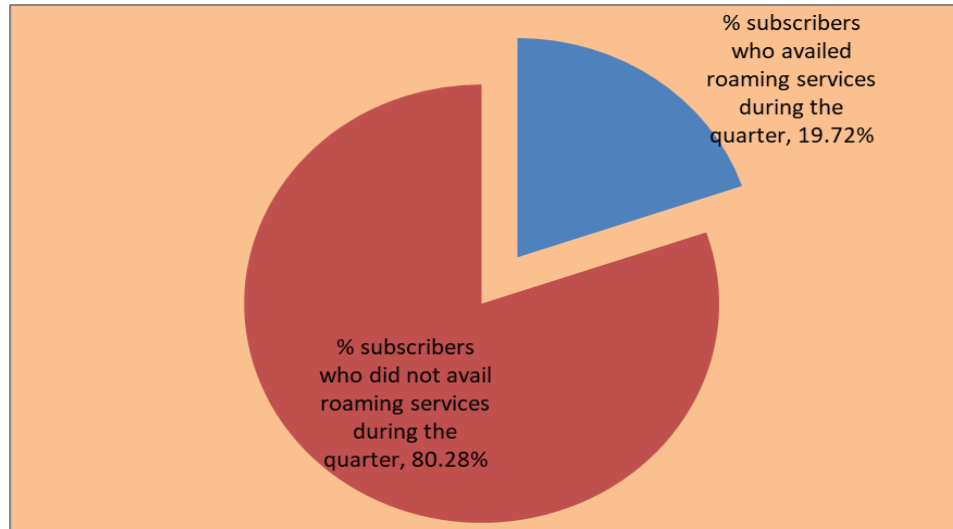
2.13 The following table presents the percentage break-up of outgoing minutes of usage from home service area between various categories of termination networks in the Q.E. March-20.

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

<b>Circle Category</b>	<b>% Intra-circle to wireline</b>	<b>% Intra-circle to own wireless</b>	<b>% Intra-circle to other wireless</b>	<b>% Inter-circle to wireline</b>	<b>% Inter-circle to own wireless</b>	<b>% Inter-circle to other wireless</b>	<b>% ILD</b>
<b>Circle A</b>	1.05%	38.99%	44.40%	0.23%	6.84%	8.46%	0.03%
<b>Circle B</b>	0.46%	38.25%	40.62%	0.16%	8.96%	11.52%	0.02%
<b>Circle C</b>	0.25%	41.25%	35.46%	0.17%	10.92%	11.74%	0.01%
<b>Metros</b>	1.17%	26.10%	32.46%	0.33%	16.95%	22.19%	0.08%
<b>All India</b>	<b>0.68%</b>	<b>37.82%</b>	<b>40.05%</b>	<b>0.20%</b>	<b>9.46%</b>	<b>11.76%</b>	<b>0.03%</b>

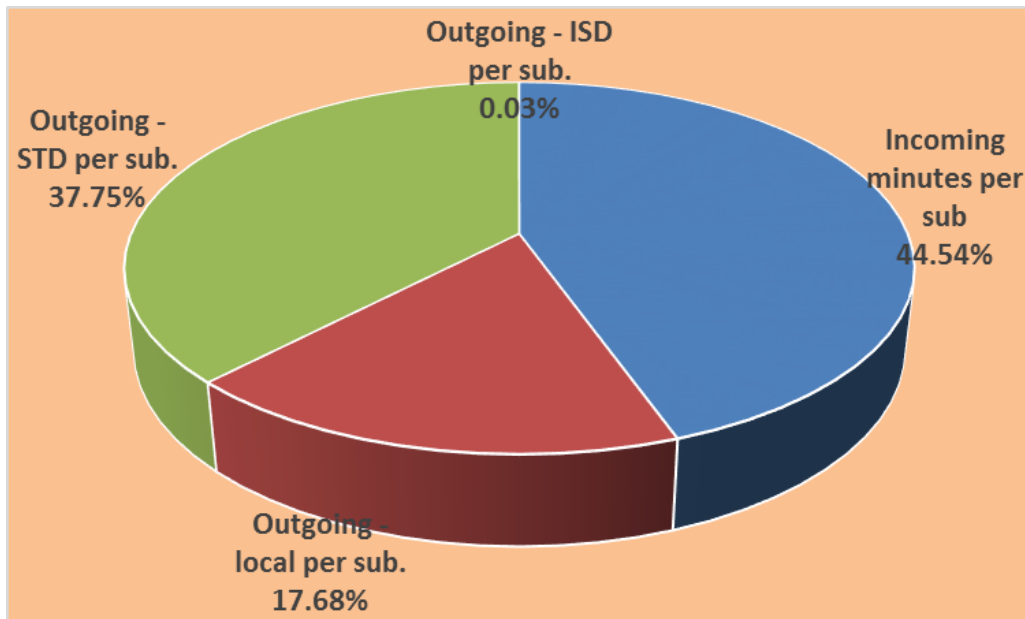
2.14 The following chart presents the percentage of subscribers who availed roaming services (out-roamers) during the QE Mar-20.

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



2.15 The usage pattern of out-roamers i.e. usage from outside the home service area shows that incoming minutes accounts for 44.54% of the total minutes of usage by out-roamers in QE March-20 as against 41.45% in the December-19 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 outgo per outgoing minute for usage from Home Service Area (HSA\*) as defined below would be a realistic indicator of average tariff levels.

Average Outgo per Outgoing Minute for usage from HSA

$$= \frac{\text{Rental revenue} + \text{revenue from outgoing calls from HSA}}{\text{No. of outgoing minutes from HSA}}$$

**Table 2.7: Average outgo per outgoing minute from HSA in QE Mar-20**

<b>Circle Category</b>	<b>(In Rs. per minute)</b>		
	<b>Postpaid</b>	<b>Prepaid</b>	<b>Blended</b>
Circle A	0.13	0.06	0.06
Circle B	0.14	0.05	0.06
Circle C	0.11	0.05	0.05
Metros	0.12	0.04	0.05
<b>All India</b>	<b>0.13</b>	<b>0.05</b>	<b>0.06</b>

2.17 All India average outgo per outgoing minute decreased to Rs.0.06 in the Q.E. Mar-20 as compared to Rs.0.11 in the previous quarter.

**Table 2.8: Trends of Key Parameters - GSM and LTE Services**

<b>Parameter</b>	<b>Mar-19</b>	<b>Jun-19</b>	<b>Sep-19</b>	<b>Dec-19</b>	<b>Mar-20</b>
<b>1. ARPU (₹ Per month)</b>	71	74	74	79	91
<b>3. Average revenue Realization per subscriber per GB wireless data (in ₹)</b>	7.95	7.70	6.99	8.45	11.23
<b>3. MOU per subscriber per month</b>	692	702	691	712	750
<b>4. Outgoing MOU per subscriber per month</b>					
4.1 Local (Intra-circle)	248	261	254	265	276
4.2 NLD (inter-circle)	100	91	92	92	98
4.3 ILD	0.17	0.15	0.16	0.11	0.10
<b>5. Average no. of Outgoing SMS per subscriber per month</b>	16	17	18	18	17
<b>6. Average Outgo (voice) per outgoing minute from HSA (in ₹)</b>	0.13	0.13	0.13	0.11	0.06

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**

<b>Particulars</b>	<b>QE Mar-19 (₹ in Crore)</b>	<b>QE Dec-19 (₹ in Crore)</b>	<b>QE Mar-20 (₹ in Crore)</b>	<b>Q-O-Q % Change</b>	<b>Y-O-Y % Change</b>
Gross Revenue (GR)	58,414	63,764	67,534	5.91	15.61
Adjusted Gross Revenue (AGR)	35,932	40,877	44,940	9.94	25.07
Pass Through Charges (GR-AGR)	22,482	22,887	22,593	-1.28	0.50
License Fee	2,888	3,270	3,604	10.21	24.80
Spectrum Usage Charges	1,055	1,256	1,424	13.40	35.04

3.1 Gross Revenue (GR) and Adjusted Gross Revenue (AGR) quarterly increased by 5.91% and 9.94% respectively in QE Mar-20. Also, GR and AGR yearly increased by 15.61% and 25.07% respectively in QE Mar-20.

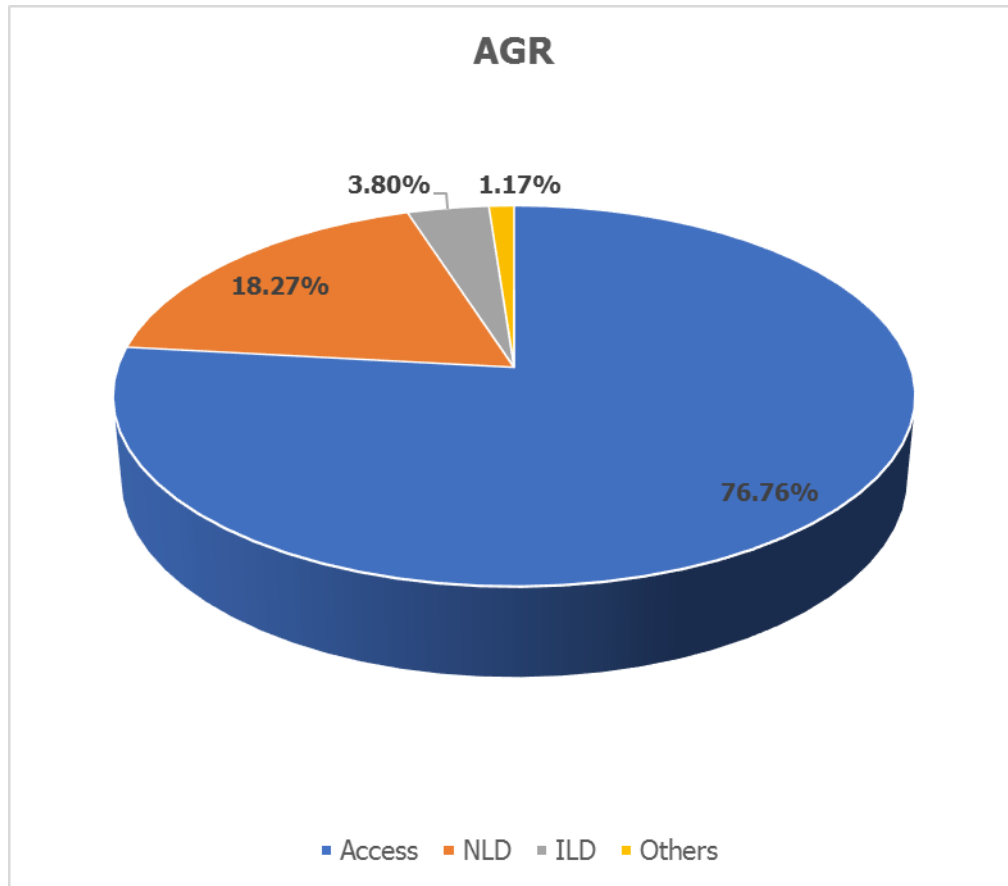
3.2 Pass through charges quarterly declined by 1.28% however, yearly increased by 0.50% in the QE Mar-20.

3.3 Pass-through charges as a percentage of Gross Revenue are 33.45% in QE Mar-20 as against 35.90% in the previous quarter.

**Table 3.2: Service-wise Gross Revenue, Adjusted Gross Revenue, License Fee and Spectrum Charges for QE Mar-20**  
(in ₹ Crore)

<b>Service</b>	<b>GR</b>	<b>AGR</b>	<b>LF</b>	<b>Spectrum Usage Charges</b>
<b>Access Providers</b>	49,563.24	34,495.88	2,769.30	1419.53
<b>NLD</b>	10,504.45	8,210.30	658.26	-
<b>ILD</b>	3,212.32	1,707.86	136.59	-
<b>Others</b>	4,253.73	526.27	39.80	4.44
<b>Total</b>	67,533.74	44,940.32	3,603.95	1423.98

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



3.4 Access services contributed 76.76% 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 8.24%, 13.76%, 14.05% and 13.59% respectively in QE Mar-20. However, Pass Through Charges quarterly declined by 2.59% during the same period.

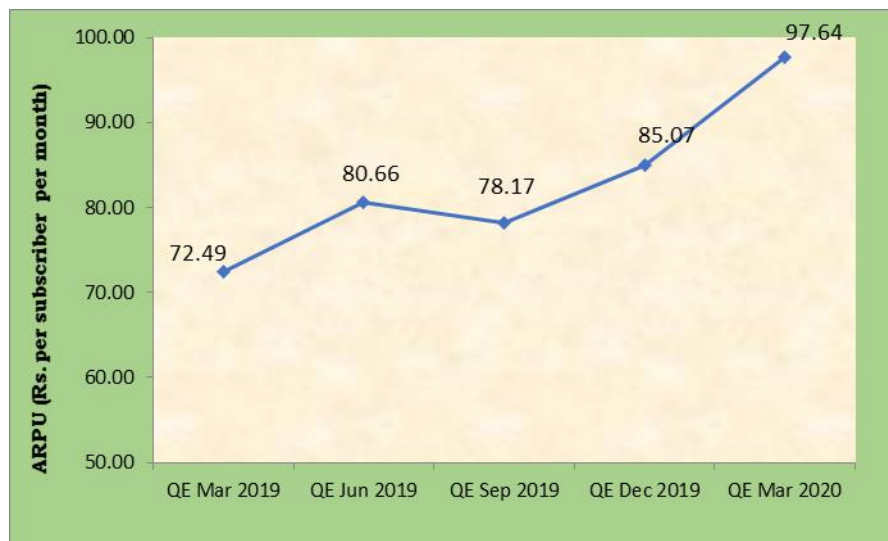
3.5 Monthly Average Revenue per User (ARPU) for Access Services based on AGR increased from 85.07 in QE Dec-19 to 97.64 in

<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)

QE Mar-20. Trend of ARPU per month for Access Services is depicted in the following chart 3.2.

**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 Mar-20	QE Dec-19	% Change
<b>Reliance Jio</b>	13428.07	12631.95	6.30%
<b>Bharti Airtel</b>	9737.00	8143.48	19.57%
<b>Vodafone Idea</b>	7866.60	6510.97	20.82%
<b>BSNL</b>	2274.32	1950.62	16.59%
<b>Tata Tele.</b>	664.18	499.61	32.94%
<b>MTNL</b>	453.89	476.14	-4.67%
<b>Reliance Com.</b>	69.58	107.22	-35.10%
<b>Quadrant</b>	0.06	1.98	-96.33%
<b>V-Con Mobile &amp; Infra Pvt. Ltd.</b>	2.17	1.33	63.42%
<b>Grand Total (Access)</b>	<b>34495.87</b>	<b>30323.30</b>	<b>13.76%</b>

3.6 Public Sector Undertakings' share in the Access AGR of telecom services is 7.91% in the QE Mar-20.

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

<b>Category</b>	<b>AGR of Access Services for QE Mar-20 (in crore)</b>	<b>%age share of AGR</b>
Metro	4,063.48	11.78
A	13,411.22	38.88
B	12,671.61	36.73
C	4,349.56	12.61
<b>Total</b>	<b>34,495.88</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**

S.N.	Parameters	Benchmark	Performance in respect of UASL/CMTS Licensees for the Parameters and Benchmarks			
			For Quarter Ending December 2019		For Quarter Ending March, 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%	1	0.91%	2	1.82%
<b>3</b>	<b>Connection Maintenance (Retain ability)</b>					
(i)	Network QoS DCR Spatial Distribution Measure [Network_QSD(90,90)]	≤ 2%	4	3.64%	7	6.36%
(ii)	Network QoS DCR Temporal Distribution Measure [Network_QTD(97,90)]	≤ 3%	4	3.64%	7	6.36%
<b>4</b>	<b>Connections with good voice quality, Circuit Switched Voice Quality and VoLTE quality</b>	≥ 95%	0	0%	0	0%
<b>5</b>	<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%
<b>6</b>	<b>Down Link (DL) Packet Drop Rate or DL-PDR</b>	≤ 2%	0	0%	0	0%
<b>7</b>	<b>Up Link (UL) Packet Drop Rate or UL-PDR</b>	≤ 2%	0	0%	0	0%

<b>II.</b>	<b>Customer Service Quality Parameters</b>					
<b>6</b>	<b>Metering and Billing/</b>					
(i)	Metering and billing credibility - post paid	≤ 0.1%	0	0%	1	0.91%
(ii)	Metering and billing credibility - pre paid	≤ 0.1%	0	0%	0	0%
(iii)	Resolution of billing/charging/validity complaints	98% within 4 weeks	0	0%	1	0.91%
	Resolution of billing/charging/validity complaints	100% within 6 weeks	0	0%	1	0.91%
(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	0	0%	1	0.91%
<b>7</b>	<b>Response time to the customer for assistance</b>					
(i)	Accessibility of call centre/ customer care	≥ 95%	3	2.73%	1	0.91%
(ii)	%age of calls answered by the operators (voice to voice) within 90 Seconds	≥ 95%	52	47.27%	23	20.91 %
<b>8</b>	<b>Termination/closure of service</b>					
(i)	%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	1	0.91%	1	0.91%
(ii)	Time taken for refund of deposits after closures	100% within 60 days	2	1.82%	11	10.00 %

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

- a. Accessibility of call centre/ customer care
- b. %age of calls answered by the operators (voice to voice) within 90 sec

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

- a. TCH, RAB and E-RAB Congestion (%age)
- b. Network QoS DCR Spatial Distribution Measure [Network\_QSD (90,90)]

- c. Network QoS DCR Temporal Distribution Measure [Network\_ QTD (97,90)]
- d. Metering and billing credibility - post paid
- e. Resolution of billing/charging/validity complaints (98% within 4 weeks)
- f. Resolution of billing/charging/validity complaints (100% within 6 weeks)
- g. Period of applying credit/ waiver/ adjustment to customer's account from the date of resolution of complaints
- h. Time taken for refund of deposits after closures

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

Parameter	Benchmark	Service Provider	Service Area	Performance
TCH, RAB and E-RAB Congestion (%age)	≤ 2%	VIL-Brand Idea	Uttar Pradesh (West)	2.41
		VIL-Brand Vodafone	Uttar Pradesh (West)	2.41
Network QoS DCR Spatial Distribution Measure [Network_ QSD(90,90)]	≤ 2%	BSNL	West Bengal	8.74
		VIL-Brand Idea	Himachal Pradesh	2.44
			Jammu & Kashmir	4.36
			Uttar Pradesh (West)	2.17
		VIL-Brand Vodafone	Himachal Pradesh	2.44
			Jammu & Kashmir	4.36
Uttar Pradesh (West)	2.17			
Network QoS DCR Temporal	≤ 3%	BSNL	West Bengal	9.64

<b>Parameter</b>	<b>Benchmark</b>	<b>Service Provider</b>	<b>Service Area</b>	<b>Performance</b>
Distribution Measure [Network_QTD(97,90)]		VIL-Brand Idea	Himachal Pradesh	3.57
			Jammu & Kashmir	6.67
			Uttar Pradesh (West)	3.85
		VIL-Brand Vodafone	Himachal Pradesh	3.57
			Jammu & Kashmir	6.67
			Uttar Pradesh (West)	3.85
Metering and billing credibility - post paid	≤ 0.1%	VIL-Brand Idea	Delhi	0.17
Resolution of billing/charging complaints	98% within 4 weeks	MTNL	Delhi	83.33
	100% within 6 weeks		Delhi	91.66
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	Gujarat	99.49
Accessibility of call centre/ customer care	≥ 95%	BSNL	Karnataka	84.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	Airtel	Andhra Pradesh	89.00
			Delhi	94.00
			Gujarat	94.00
			Jammu & Kashmir	86.00
			Karnataka	92.00
			Kerala	93.00
			Kolkata	90.00
			Maharashtra	94.00

<b>Parameter</b>	<b>Benchmark</b>	<b>Service Provider</b>	<b>Service Area</b>	<b>Performance</b>
			Mumbai	93.00
			North East	91.00
			Punjab	93.00
			Tamil Nadu	91.00
			West Bengal	88.00
		BSNL	Andhra Pradesh	73.00
			Haryana	94.00
			Jammu & Kashmir	73.00
			Karnataka	60.54
			Kerala	15.67
			Punjab	89.06
			Rajasthan	88.00
			Tamil Nadu	60.92
		Uttar Pradesh (West)	86.34	
VIL-Brand Idea	Jammu & Kashmir	94.27		
%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	VIL-Brand Idea	Gujarat	99.99
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Idea	Andhra Pradesh	99.86
			Haryana	98.61
			Karnataka	95.88
			Kerala	94.36
			Madhya Pradesh	93.87
			Mumbai	96.39
			Rajasthan	99.18
			Tamil Nadu	93.78
			Uttar Pradesh (West)	97.82
		VIL-Brand Vodafone	Gujarat	99.51
VIL-Brand Vodafone	Kerala	99.97		

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**

S. No.	Parameters	Benchmark	No of license areas where operators not meeting the benchmarks			
			December, 2019		March, 2020	
			Out of 104 In Nos.	Out of 104 In %age	Out of 104 In Nos.	Out of 104 In %age
(i)	<b>“Fault repair”</b> Fault incidences No. of faults per 100 subs/month)	≤ 7	1	0.96%	1	0.96%
(ii)	% Fault repaired by next working day (for urban areas)	≥ 85%	2	1.92%	2	1.92%
	% 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%	0	0.00%
	% 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	2	1.92%	3	2.88%
(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%	0	0.00%	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>	9	8.65%	10	9.62%
	%age of calls answered by the operators (voice to voice) within 90 seconds	<b>≥ 95%</b>	0	0.00%	26	25.00%
<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%	1	0.96%
<b>(xi)</b>	Time taken for refund of deposits after closures	<b>100% within 60 days</b>	0	0.00%	2	1.92%

**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: -

❖ No improvement in this quarter as compared to the previous quarter has been observed

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

- a. “Mean time to Repair” (MTTR) ≤10Hs
- b. “Response time to the customer for assistance” ≥ 95%
- c. %age of calls answered by the operators (voice to voice) within 90 seconds ≥ 95%
- d. Time taken for refund of deposits after closures 100% within 60 days

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

<b>Parameters</b>	<b>Benchmarks</b>	<b>Service Provider</b>	<b>Service areas</b>	<b>Parameters not met</b>
Faults incidences (No. of faults/ 100 Subs./ month)	≤7	TTSL	Madhya Pradesh	13.61
% of faults repaired by next working day	For urban areas by next working day:	MTNL	Delhi	54.64%
% of faults repaired by next working day	≥85%	MTNL	Mumbai	64.20%
% of faults repaired within 5 days	For urban areas: ≥ 100%	MTNL	Delhi	84.21%
% of faults repaired within 5 days	For urban areas: ≥ 100%	MTNL	Mumbai	82.30%
Mean Time to Repair (MTTR)	≤ 10 Hrs	MTNL	Delhi	20.55
Mean Time to Repair (MTTR)	≤ 10 Hrs	MTNL	Mumbai	28.70
Mean Time to Repair (MTTR)	≤ 10 Hrs	TTSL	Haryana	15.06
Accessibility of call centre/ customer care	≥95%	BSNL	Andhra Pradesh	89.27%
Accessibility of call centre/ customer care	≥95%	BSNL	Chhattisgarh	81.01%
Accessibility of call centre/ customer care	≥95%	BSNL	Chennai	89.42%
Accessibility of call centre/ customer care	≥95%	BSNL	Gujarat	87.68%
Accessibility of call centre/ customer care	≥95%	BSNL	Kerala	90.29%
Accessibility of call centre/ customer care	≥95%	BSNL	Karnataka	87.52%
Accessibility of call centre/ customer care	≥95%	BSNL	Maharashtra	85.36%



<b>Parameters</b>	<b>Benchmarks</b>	<b>Service Provider</b>	<b>Service areas</b>	<b>Parameters not met</b>
Accessibility of call centre/ customer care	≥95%	BSNL	Madhya Pradesh	88.50%
Accessibility of call centre/ customer care	≥95%	BSNL	Tamilnadu	88.24%
Accessibility of call centre/ customer care	≥95%	TTSL	Rajasthan	94.74%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	AP	87.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	Delhi	86.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	Gujarat	88.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	Haryana	86.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	Kerala	91.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	Kolkata	82.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	Karnataka	83.00%

<b>Parameters</b>	<b>Benchmarks</b>	<b>Service Provider</b>	<b>Service areas</b>	<b>Parameters not met</b>
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	Maharashtra	78.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	Madhya Pradesh	88.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	Mumbai	87.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	Punjab	87.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	Rajasthan	86.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	Tamilnadu	85.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	UPE	87.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	Bharti Airtel	UPW	88.00%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	BSNL	AP	86.43%

<b>Parameters</b>	<b>Benchmarks</b>	<b>Service Provider</b>	<b>Service areas</b>	<b>Parameters not met</b>
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	BSNL	Chhattisgarh	87.05%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	BSNL	Chennai	87.26%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	BSNL	Gujarat	86.98%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	BSNL	Kerala	89.25%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	BSNL	Kolkata	94.67%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	BSNL	Karnataka	85.41%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	BSNL	Maharashtra	85.75%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	BSNL	Madhya Pradesh	85.78%
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	BSNL	Tamilnadu	85.32%

<b>Parameters</b>	<b>Benchmarks</b>	<b>Service Provider</b>	<b>Service areas</b>	<b>Parameters not met</b>
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥95%	MTNL	Mumbai	52.30%
%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	MTNL	Mumbai	95.99%
Time taken for refund of deposits after closures	100% within 60 days	MTNL	Delhi	94.48%
Time taken for refund of deposits after closures	100% within 60 days	MTNL	Mumbai	0.00%

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 304 Internet Service Providers (ISPs) providing broadband (wireline) service at the end of March, 2020. Out of these 304 ISPs, 59 Service Providers are having broadband subscriber base more than 10,000 and market share of these 59 SPs is 98.31% of total broadband subscriber base. This report covers performance of 57 broadband Service Providers vis-à-vis the QoS benchmarks prescribed by TRAI, for the QE March, 2020. Two service providers namely M/s Hi Reach Broadband Pvt. Ltd. (New entrant) and M/s IKF Technologies 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	December, 2019		March, 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%	2	<b>1.87%</b>	6	<b>5.41%</b>
<b>2</b>	<b>Faults Repair</b>					
2.2	% of faults repaired by next working day (>90%)	>90%	3	<b>2.80%</b>	4	<b>3.60%</b>
2.3	% of faults repaired within 3 working day	=>99%	4	<b>3.74%</b>	4	<b>3.60%</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>
3.5	%age of cases to whom refund of deposits is made within 60 days of closures	100% within 60 days	0	<b>0.00%</b>	1	<b>0.90%</b>
<b>4</b>	<b>Response Time to the Customer for assistance</b>					
4.2	%age of calls answered by operator (Voice to voice) within 60 sec	>60%	1	<b>0.93%</b>	1	<b>0.90%</b>
4.3	%age of calls answered by operator (Voice to voice) within 90 sec	>80%	1	<b>0.93%</b>	4	<b>3.60%</b>
<b>5</b>	<b>Bandwidth utilisation/ throughput</b>					
5.2	No. of Intra network links having Bandwidth utilisation >90% during peak hours (TCBH)	0	0	<b>0.00%</b>	0	<b>0.00%</b>
5.4	No. of Upstream links for International connectivity having bandwidth utilisation >90% during peak hours (TCBH)	0	0	<b>0.00%</b>	0	<b>0.00%</b>
5.7	% International bandwidth utilization during peak hours (TCBH) (Enclose MRTG) <90%	<90%	0	<b>0.00%</b>	0	<b>0.00%</b>

5.8	Broadband Connection Speed available (download) from ISP node to user	>80%	0	<b>0.00%</b>	0	<b>0.00%</b>
<b>6</b>	<b>Service availability /uptime (for all users) in %age</b>					
6.3	Service availability /uptime (for all users) in %age	>98%	0	<b>0.00%</b>	0	<b>0.00%</b>
<b>7</b>	<b>Packet loss (for wired broadband access) in %age</b>					
		<1%	0	<b>0.00%</b>	0	<b>0.00%</b>
<b>8</b>	<b>Network latency (for wired broadband access)</b>					
8.1	User reference point at POP/ISP Gateway node to IGSP/NIXI	<120 ms	0	<b>0.00%</b>	0	<b>0.00%</b>
8.2	User reference point at ISP Gateway node to International nearest NAP port abroad (terrestrial)	<350 ms	0	<b>0.00%</b>	0	<b>0.00%</b>
8.3	User reference point at ISP Gateway node to International nearest NAP port abroad (satellite)	<800 ms	0	<b>0.00%</b>	0	<b>0.00%</b>

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

<b>S.No.</b>	<b>Parameters</b>	<b>Bench- mark</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 & Mumbai (86.50%), <b>Atria Convergence</b> - All India (96.37%), <b>Microscan Infocommetech</b> - Mah. (99.00%) & Mum (99.00%), <b>RI Networks Pvt.Ltd.</b> - All India (99.10%), <b>You Broadband</b> - All India (99.07%)
<b>2</b>	<b>Faults Repair</b>		
2.2	% of faults repaired by next working day (>90%)	>90%	<b>MTNL</b> - Delhi & Mum (59.44%), <b>Tata (TTML)</b> - Mah. & Mumbai (85.33%), <b>World Phone</b> - All India (82.33%), <b>You Broadband</b> - All India (89.21%)
2.3	% of faults repaired within 3 working day	=>99%	<b>MTNL</b> - Delhi & Mumbai (73.08%), <b>Tata Sky</b> - All India (96.20%), <b>Tata (TTSL)</b> - All India (except MH-Mum) (97.54%), <b>TATA (TTML)</b> - Mah.-Mum (95.06%)
<b>3</b>	<b>Billing Performance</b>		
3.5	%age of cases to whom refund of deposits is made within 60 days of closures	100%	<b>MTNL</b> - Delhi & Mum (47.24%)
<b>4</b>	<b>Response Time to the Customer for assistance</b>		
4.2	%age of calls answered by operator (Voice to voice) within 60 sec	>60%	<b>Atria Convergence</b> - All India (69.00%)
4.3	%age of calls answered by operator (Voice to voice) within 90 sec	>80%	<b>MTNL</b> - Delhi & Mum. (76.01%), <b>Atria Convergence</b> - All India (72.00%), <b>Bharti Airtel</b> - Mah. (77.00%), <b>GTPL</b> - All India (77.00%)

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

# **Chapter 5 :**

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



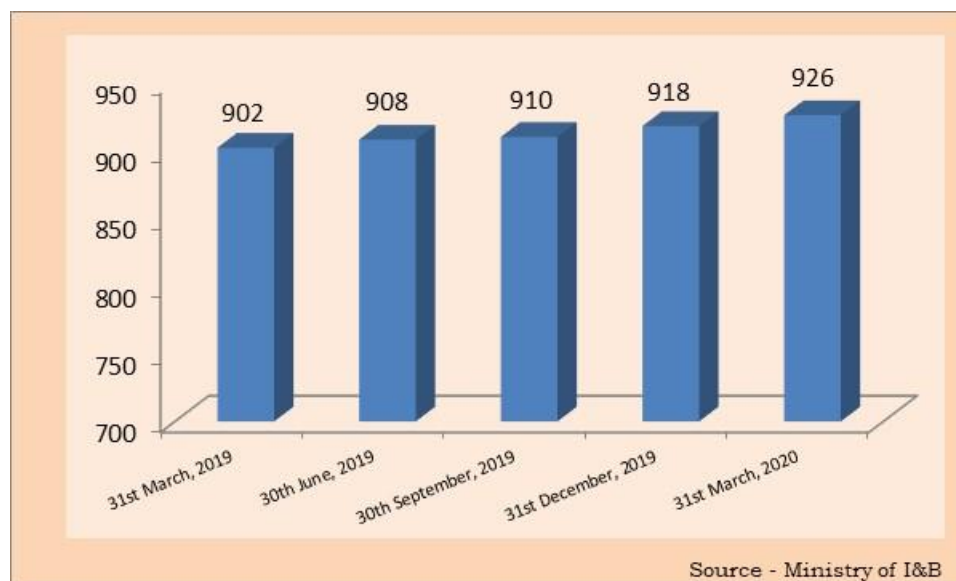
**Table 5.1: Key Parameters - Broadcasting & Cable TV Services**

S.No	Parameter	QE Dec-19	QE Mar-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	918	926
2	Number of Pay TV Channels as reported by broadcasters	332	333
3	Number of FM Radio Stations (excluding All India Radio)	368	368
4	Number of pay DTH Operators	4	4
5	Number of Operational Community Radio Stations	278	290

**A. Satellite TV Channels**

5.1 A total of 926 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 31<sup>st</sup> March, 2020. The quarter-wise figures of the total number of TV channels is depicted in below chart: -

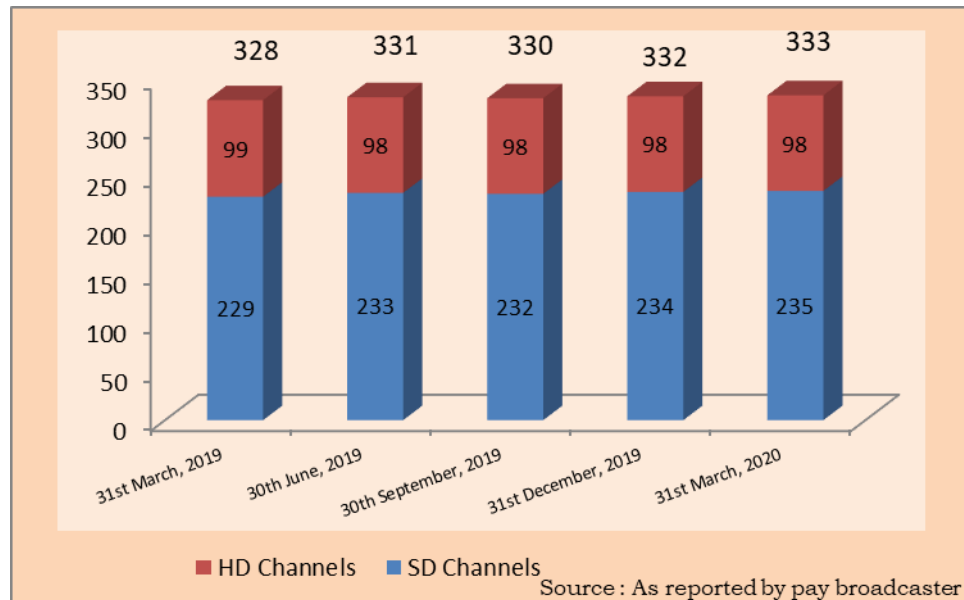
**Chart 5.1: Quarterly growth in number of Satellite TV channels (FTA & Pay) registered with Ministry of I&B**



## **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 **333** pay TV channels, as on 31<sup>st</sup> March 2020, which includes **235** SD pay TV channels and **98** 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 31<sup>st</sup> March 2020, there are 1648 MSOs registered with MIB. Further, as per the data reported by MSOs/HITS operators, there are 13 MSOs & 1 HITS operator who have subscriber base greater than one million. Details of the total active subscriber base of these 13 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 March, 2020 (More than one million subscribers)**

<b>Sl. No.</b>	<b>Name of the operator</b>	<b>Total Active Subscriber Base (includes subscribers who have been inactive or temporarily suspended for not more than last 90 days)</b>
1.	Siti Networks	89,25,832
2.	GTPL Hathway	76,91,962
3.	Hathway Digital	54,57,716
4.	Den Networks	52,49,179
5.	Tamil Nadu Arasu Cable TV	29,42,704
6.	Kerala Communicators Cable Ltd (KCCL)	27,82,297
7.	TCCL	25,66,239
8.	Fastway Transmissions Pvt Ltd	24,22,911
9.	IndusInd Media and Communication Ltd (HITS)	21,59,005
10.	KAL Cables	19,64,567
11.	VK Digital	15,69,287
12.	IndusInd Media and Communication Ltd (CATV)	13,96,993
13.	Asianet Digital Network	12,44,096
14.	E-Digital	12,10,724

#### **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 31<sup>st</sup> March, 2020, there were 4 pay DTH service providers in India.

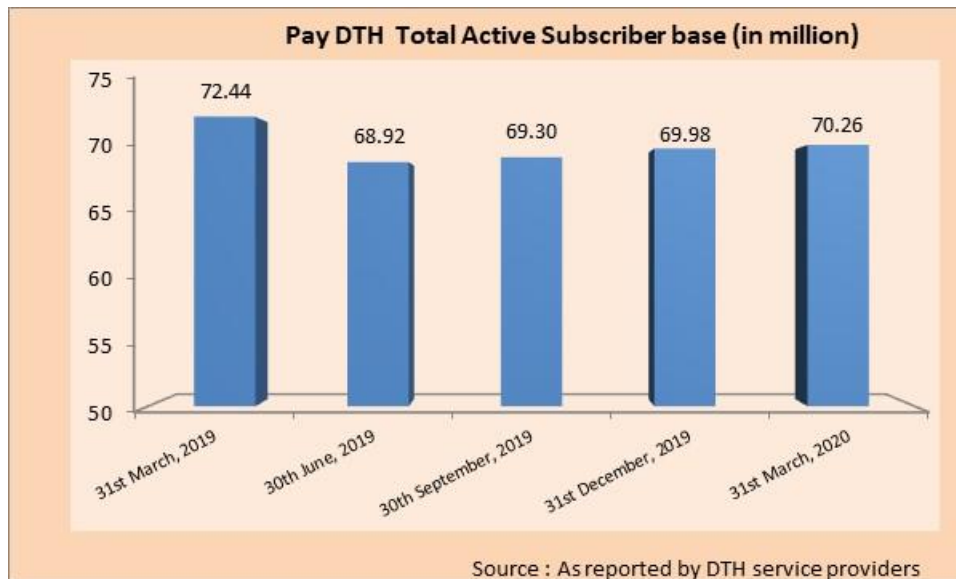
5.8 Pay DTH has attained Total active subscriber base of around 70.26 million. This is in addition to the subscribers of the DD Free Dish (free DTH services of Doordarshan). The total active subscriber base has increased from 69.98 million in December 2019 to 70.26 million in March 2020.

5.9 It is important to note that previously (upto March 2019) the subscription figure of total active subscribers included inactive and

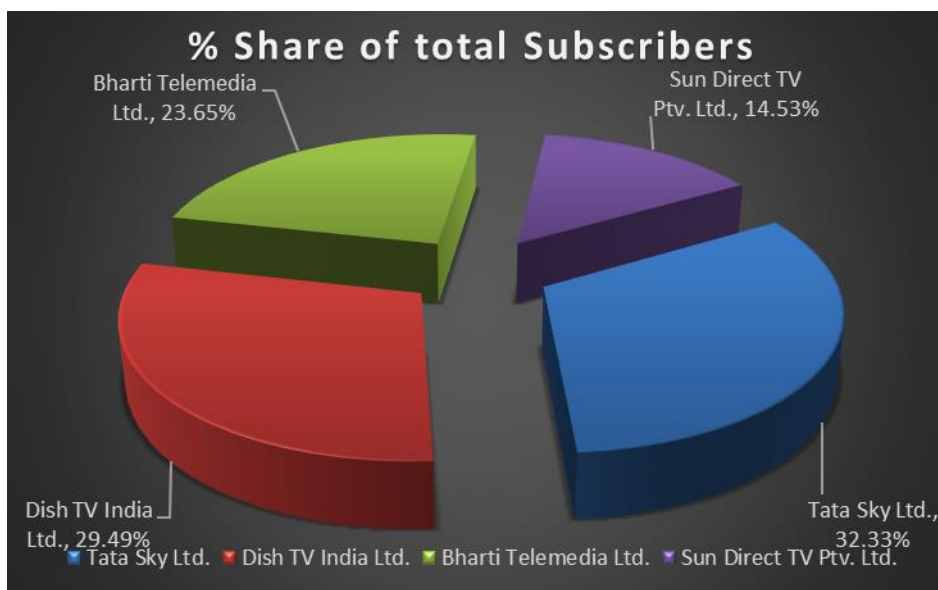
temporarily suspended subscribers for not more than last 120 days. However as per new regulatory framework of Broadcasting and Cable TV Services, the total active subscribers are counted including only those subscribers which are inactive/ temporarily suspended for not more than last 90 days. This point 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 31<sup>st</sup> March 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**

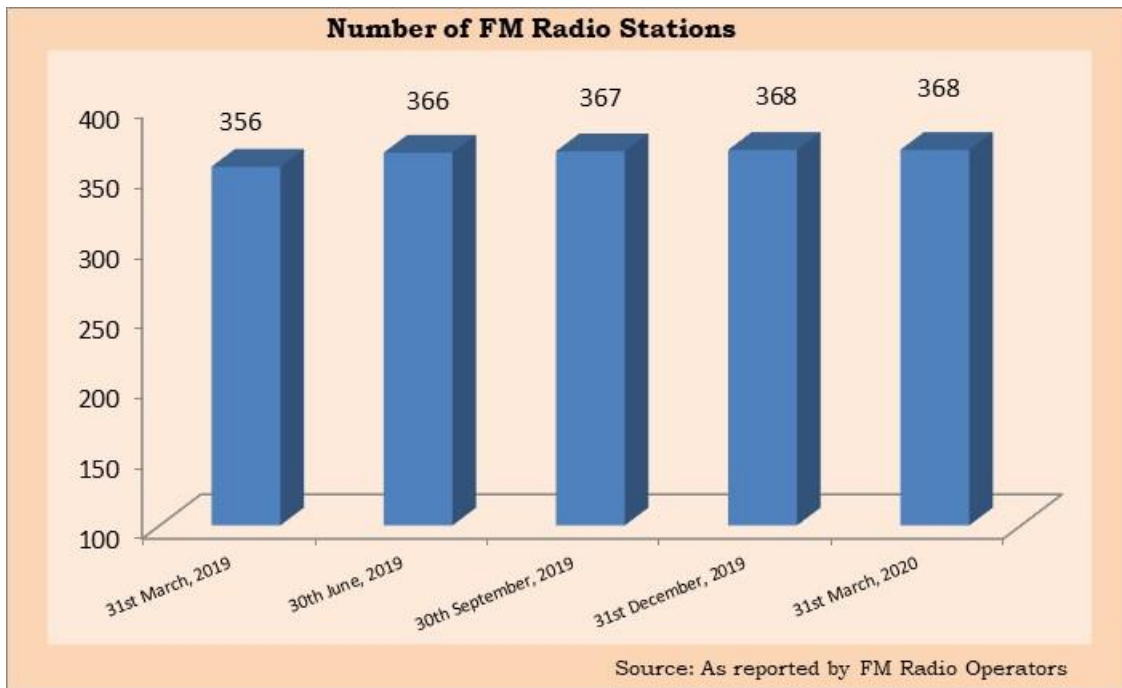


Source : As reported by DTH service providers

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

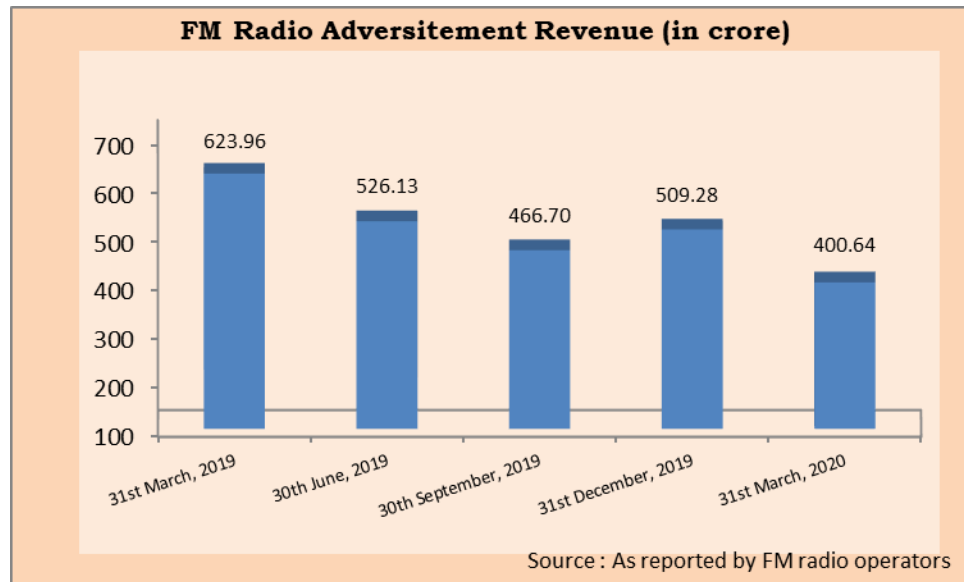
5.12 Apart from the radio stations operated by All India Radio – the public broadcaster, as on 31<sup>st</sup> March 2020, there are **368** operational private FM Radio stations in **105** cities with operational **32** Private FM Radio broadcasters as compared to **368** private FM Radio Stations in **105** cities with operational **33** FM Radio broadcasters in the previous quarter. A list of 105 existing cities with operational private FM radio channels in India, as on 31<sup>st</sup> March, 2020 is placed at **Annexure 5.3**. During the QE 31<sup>st</sup> March 2020, M/s Hitz FM Radio India Pvt Ltd has shutdown the transmission/operation of its single FM Radio station at Kolkata. Further, 01 new private FM Radio Station has become operational by Purvy Broadcast Pvt Ltd in Itanagar (Existing city). The following chart 5.5 depicts the quarterly growth in private FM Radio stations.

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



5.13 The reported advertisement revenue during the quarter ending 31<sup>st</sup> March 2020 in respect of **367** private FM Radio stations is **₹400.64** crore as against **₹509.28** crore in respect of **367** private FM Radio stations for the previous quarter i.e 31<sup>st</sup> December 2019. One FM Radio Broadcaster, M/s Gwalior Firm Private Limited, operating in the city of **Guwahati**, has not submitted the advertisement revenue.

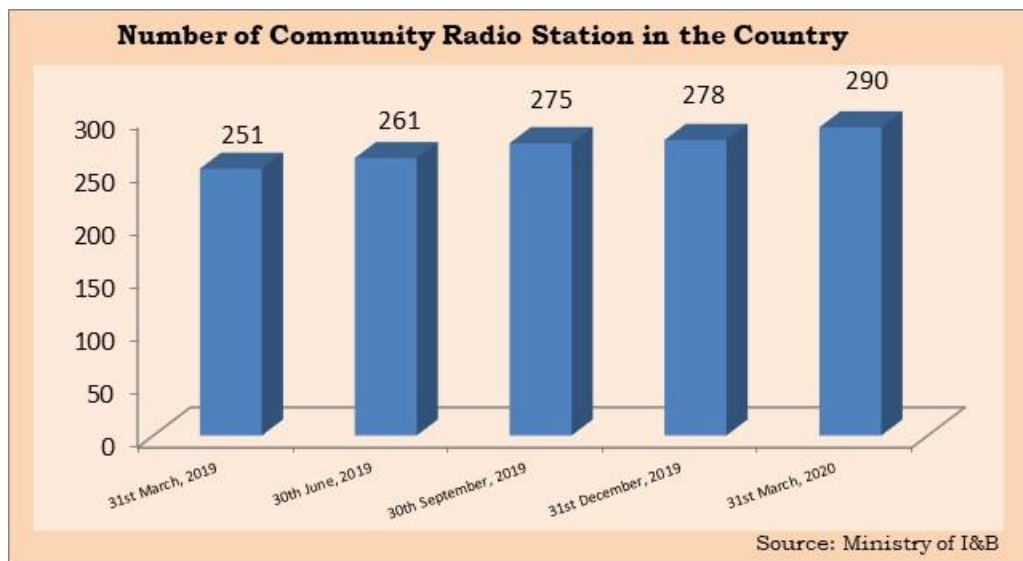
**Chart 5.6: Quarterly growth in FM Radio Advertisement Revenue**



**F. Community Radio**

5.14 As on 31<sup>st</sup> March, 2020, there are 290 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
	Dec-19	Mar-20	Dec-19	Mar-20	Dec-19	Mar-20	Dec-19	Mar-20	Dec-19	Mar-20	Dec-19	Mar-20	Dec-19	Mar-20	
Andhra Pradesh	18,885,514	18117771	28,873,882	29,359,105	2,176	2215	9914603	9,880,476			29,346,713	30496220	87,022,888	87,855,787	832,899
Assam	4,633,250	4183200	8,358,529	8,353,872		0	2743312	2,790,779			7,872,608	8275824	23,607,699	23,603,675	(4,024)
Bihar	15,431,406	14591200	35,456,281	34,977,894	383	381	5310328	5,628,326			28,123,388	29526256	84,321,786	84,724,057	402,271
Delhi	17,701,405	17332519	15,572,477	15,622,321	1,729	1789			2,186,235	2,181,486	17,485,005	18259352	52,946,851	53,397,467	450,616
Gujarat	27,506,873	27072381	10,962,911	10,993,217	577	605	6,085,008	6,111,290			22,893,405	23755633	67,448,774	67,933,126	484,352
Haryana	9,156,703	8785711	4,479,975	4,537,398	140	136	4,955,027	5,003,797			9,203,509	9347510	27,795,354	27,674,552	(120,802)
Himachal Pradesh	934,451	850315	3,424,834	3,328,098	105	104	2,767,116	2,991,601			3,471,715	3620570	10,598,221	10,790,688	192,467
Jammu & Kashmir	561,433	610483	4,544,784	5,928,411	-	0	1,264,988	1,257,282			3,949,544	4064862	10,320,749	11,861,038	1,540,289
Karnataka	12,007,384	11268724	28,630,803	28,721,892	1,550	1540	7,324,448	7,318,035			19,423,779	20318123	67,387,964	67,628,314	240,350
Kerala	18,471,237	17962231	5,531,696	5,609,440	625	634	10,936,754	10,944,293			8,561,983	8915611	43,502,295	43,432,209	(70,086)
Madhya Pradesh	24926265	23,870,180	14769663	14,476,869	738	750	6315355	6,368,950			28865775	30517136	74,877,796	75,233,885	356,089
Maharashtra	39676542	38,126,290	15970302	16,099,766	1082	1050	7089469	7,051,528			29884843	31518967	92,622,238	92,797,601	175,363
Mumbai	13468986	12,712,857	9800346	9,921,502	2420	2397			1,190,068	1,178,701	13634278	14013751	38,096,098	37,829,208	(266,890)
North East	1926024	1,721,989	5227184	5,232,246	0	0	1466782	1,422,503			3492349	3645578	12,112,339	12,022,316	(90,023)
Orissa	3430621	3,159,284	11756381	11,428,399	368	364	6023748	6,227,956			11802088	12515137	33,013,206	33,331,140	317,934
Punjab	9712824	9,328,394	10342217	10,288,523	279	316	5723473	5,779,360			13325697	13777111	39,104,490	39,173,704	69,214
Rajasthan	13958201	13,598,361	21334295	21,115,780	333	368	6139102	6,271,217			23897943	24547174	65,329,874	65,532,900	203,026
Tamil Nadu (incl. Chennai)	21164029	20,335,566	25604916	25,220,269	3200	3135	12461401	12,696,544			22568898	23724399	81,802,444	81,979,913	177,469
UP(E)	26665805	25,719,403	30864257	30,968,581	856	866	11654121	11,693,544			26509498	28376042	95,694,537	96,758,436	1,063,899
UP(W)	24679320	23,633,309	13545301	13,933,712	306	301	5941889	5,964,689			18731325	19849305	62,898,141	63,381,316	483,175
Kolkata	7679355	7368356	6354972	6244080	36	36	1856520	2096657			9760191	10024019	25,651,074	25,733,148	82,074
West Bengal	20035243	18820090	15891719	15,451,606	814	809	2142879	2,373,296			17211626	18428223	55,282,281	55,074,024	(208,257)
<b>Total</b>	<b>332,612,871</b>	<b>319,168,614</b>	<b>327,297,725</b>	<b>327,812,981</b>	<b>17,717</b>	<b>17,796</b>	<b>118,116,323</b>	<b>119,872,123</b>	<b>3,376,303</b>	<b>3,360,187</b>	<b>370,016,160</b>	<b>387,516,803</b>	1,151,437,099	1,157,748,504	<b>6,311,405</b>

## Annexure 1.2: Wireline Subscriber Base

Service Area	Bharti Airtel		Reliance Com.		Quadrant		Tata Tele.		MTNL		BSNL		Vodafone Idea		Reliance Jio		Total		Net Additions
	Dec-19	Mar-20	Dec-19	Mar-20	Dec-19	Mar-20	Dec-19	Mar-20	Dec-19	Mar-20	Dec-19	Mar-20	Dec-19	Mar-20	Dec-19	Mar-20	Dec-19	Mar-20	
Andhra Pradesh	215233	213913	32460	29286			171,926	166571			789,437	754108	46,465	51345	100,155	100686	1,355,676	1,315,909	-39,767
Assam											97,819	95015	3,390	3450	11,219	12875	112,428	111,340	-1,088
Bihar			2203	2056			8,334	8402			151,311	146322	1,920	1980	15,319	17614	179,087	176,374	-2,713
Delhi	1484992	1491730	75735	67232			146,623	147802	1410426	1395358	-		69,085	78115	81,880	87626	3,268,741	3,267,863	-878
Gujarat	97525	99478	11058	9725			86,137	85404			826,150	643726	31,785	32052	139,023	130278	1,191,678	1,000,663	-191,015
Haryana	21975	22600	1815	1526			39,029	38096			185,133	175363	330	360	24,024	26290	272,306	264,235	-8,071
Pradesh			1343	1117			1,957	1933			97,819	94579	60	60	355	795	101,534	98,484	-3,050
Kashmir			0	0			-				123,459	120470	-	0	9,284	14337	132,743	134,807	2,064
Karnataka	726529	778931	103570	97249			275,474	272504			900,147	863720	58,047	82947	57,051	51624	2,120,818	2,146,975	26,157
Kerala	63134	62520	11847	10242			19,586	19648			1,610,709	1445592	5,640	5670	12,900	14857	1,723,816	1,558,529	-165,287
Madhya Pradesh	240471	240632	5316	4692			13635	13334			553213	358417	1980	2310	49614	50033	864,229	669,418	-194,811
Maharashtra	107293	113704	38805	35947			262002	257716			920456	877812	26480	29723	36998	36781	1,392,034	1,351,683	-40,351
Mumbai	390886	398083	149162	137505			542573	538886	1712597	1698442	0		71215	85887	206351	213724	3,072,784	3,072,527	-257
North East											93865	90954	240	270	4675	6265	98,780	97,489	-1,291
Orissa			1771	1651			8588	8697			191530	185731	5730	5760	7218	8160	214,837	209,999	-4,838
Punjab	138041	139989	10165	9444	197881	182269	12093	12314			331049	314234	3000	3030	36878	37031	729,107	698,311	-30,796
Rajasthan	57267	58468	13830	12659			11569	11599			377178	356233	13590	9960	41247	39655	514,681	488,574	-26,107
Tamil Nadu (incl. Chennai)	547511	547423	52922	45557			122882	122719			1238419	1165205	25660	32545	84261	99310	2,071,655	2,012,759	-58,896
U.P.(E)	62411	63353	3213	2745			8297	8308			294482	277783	19740	13330	33807	36200	421,950	401,719	-20,231
U.P.(W)	24538	25940	2276	2118			4792	4820			222530	209990	5490	5550	57397	62279	317,023	310,697	-6,326
Kolkata	131949	135817	34760	33239			50247	48882			407553	389392	11840	11480	33,036	36,071	669,385	654,881	-14,504
West Bengal			1615	1615			2477	2473			167020	162457	120	120	8,010	8186	179,242	174,851	-4,391
<b>Total</b>	<b>4,309,755</b>	<b>4,392,581</b>	<b>553,866</b>	<b>505,605</b>	<b>197,881</b>	<b>182,269</b>	<b>1,788,221</b>	<b>1,770,108</b>	<b>3,123,023</b>	<b>3,093,800</b>	<b>9,579,279</b>	<b>8,727,103</b>	<b>401,807</b>	<b>455,944</b>	<b>1,050,702</b>	<b>1,090,677</b>	<b>21,004,534</b>	<b>20,218,087</b>	<b>-786,447</b>

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

<b>Name of Telecom Service Area</b>	<b>Service Provider</b>	<b>Number of PCOs as on 31.12.2019</b>	<b>Number of PCOs as on 31.03.2020</b>	<b>Net PCO increase/ decrease as on 31.03.2020</b>
Andhra Pradesh (Excluding Telangana)	Bharat Sanchar Nigam Limited	4,912	4,677	-235
	Bharti Airtel	184	185	1
Telangana	Bharat Sanchar Nigam Limited	0	0	0
Assam	Bharat Sanchar Nigam Limited	915	1,173	258
Bihar (Excluding Jharkhand)	Bharat Sanchar Nigam Limited	822	822	0
Jharkhand	Bharat Sanchar Nigam Limited	2,441	2,440	-1
Delhi	Bharti Airtel	330	330	0
	MTNL	45,694	45,602	-92
Gujarat	Bharat Sanchar Nigam Limited	7,509	5,612	-1,897
	Bharti Airtel	14	14	0
Haryana	Bharat Sanchar Nigam Limited	789	732	-57
	Bharti Airtel	138	137	-1
Himachal Pradesh	Bharat Sanchar Nigam Limited	730	719	-11
Jammu & Kashmir	Bharat Sanchar Nigam Limited	973	840	-133
Karnataka	Bharat Sanchar Nigam Limited	13,348	11,019	-2,329
	Bharti Airtel	3,036	2,978	-58
Kerala	Bharat Sanchar Nigam Limited	12,585	11,635	-950
	Bharti Airtel	397	395	-2
Kolkata	Bharat Sanchar Nigam Limited	2,189	2,078	-111
	Bharti Airtel	37	39	2
Madhya Pradesh (Excluding Chhattisgarh)	Bharat Sanchar Nigam Limited	8,865	8,062	-803
	Bharti Airtel	1,338	1,305	-33
Chhattisgarh	Bharat Sanchar Nigam Limited	925	894	-31

**Annexure 1.3 (contd.)**

<b>Name of Telecom Service Area</b>	<b>Service Provider</b>	<b>Number of PCOs as on 31.12.2019</b>	<b>Number of PCOs as on 31.03.2020</b>	<b>Net PCO increase/ decrease as on 31.03.2020</b>
Maharashtra (Excluding Mumbai & Goa)	Bharat Sanchar Nigam Limited	15,620	10,235	-5,385
	Bharti Airtel	0	1	1
Mumbai	Bharti Airtel	50	50	0
	MTNL	20,187	16,862	-3,325
Goa	Bharat Sanchar Nigam Limited	589	589	0
Arunachal Pradesh	Bharat Sanchar Nigam Limited	1,352	908	-444
Manipur	Bharat Sanchar Nigam Limited	772	772	0
Meghalaya	Bharat Sanchar Nigam Limited	255	255	0
Mizoram	Bharat Sanchar Nigam Limited	115	113	-2
Nagaland	Bharat Sanchar Nigam Limited	0	0	0
Tripura	Bharat Sanchar Nigam Limited	483	478	-5
Orissa	Bharat Sanchar Nigam Limited	1,283	1,230	-53
Punjab	Bharat Sanchar Nigam Limited	1,455	1,400	-55
	Bharti Airtel	9	8	-1
	Quadrant	750	703	-47
Rajasthan	Bharat Sanchar Nigam Limited	2,064	1,637	-427
	Bharti Airtel	209	209	0
Tamil Nadu (Excluding Chennai)	Bharat Sanchar Nigam Limited	18,639	17,519	-1,120
	Bharti Airtel	3,814	3,631	-183
Chennai	Bharat Sanchar Nigam Limited	7,239	6,841	-398
Uttar Pradesh East	Bharat Sanchar Nigam Limited	7,225	5,073	-2,152
	Bharti Airtel	73	73	0
Uttar Pradesh West (Excluding Uttarakhand)	Bharat Sanchar Nigam Limited	1,448	1,307	-141

**Annexure 1.3 (contd.)**

<b>Name of Telecom Service Area</b>	<b>Service Provider</b>	<b>Number of PCOs as on 31.12.2019</b>	<b>Number of PCOs as on 31.03.2020</b>	<b>Net PCO increase/ decrease as on 31.03.2020</b>
Uttarakhand	Bharat Sanchar Nigam Limited	500	451	-49
West Bengal (Excluding Andaman & Nicobar and Sikkim)	Bharat Sanchar Nigam Limited	1,453	1,219	-234
Andaman & Nicobar	Bharat Sanchar Nigam Limited	39	39	0
Sikkim	Bharat Sanchar Nigam Limited	0	0	0
<b>Total</b>		<b>1,93,794</b>	<b>1,73,291</b>	<b>-20,503</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 31.12.2019</b>	<b>Number of VPTs as on 31.03.2020</b>	<b>Net VPTs increase/ decrease as on 31.03.2020</b>
1	Andhra Pradesh (Excluding Telangana)	Bharat Sanchar Nigam Limited	2,098	2,052	-46
2	Telangana	Bharat Sanchar Nigam Limited	844	0	-844
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 Chhattisgarh)	Bharat Sanchar Nigam Limited	9,907	9,907	0
14	Chhattisgarh	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 31.12.2019</b>	<b>Number of VPTs as on 31.03.2020</b>	<b>Net VPTs increase/decrease as on 31.03.2020</b>
20	Mizoram	Bharat Sanchar Nigam Limited	12	12	0
21	Nagaland	Bharat Sanchar Nigam Limited	25	25	0
22	Tripura	Bharat Sanchar Nigam Limited	222	222	0
23	Orissa	Bharat Sanchar Nigam Limited	1,554	1,554	0
24	Punjab	Bharat Sanchar Nigam Limited	4,625	4,493	-132
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>68,784</b>	<b>67,762</b>	<b>-1,022</b>



**Annexure 1.5 : Internet Service Provider(ISP) wise Internet Subscriber base as on 31.03.2020**

<b>S.N.</b>	<b>Name of the Service Provider</b>	<b>Narrowband</b>	<b>Broadband</b>	<b>Total</b>
1	Reliance Jio Infocomm Ltd	0	388390116	388,390,116
2	Bharti Airtel Ltd.	27111012	148569937	175,680,949
3	Vodafone Idea Limited	22019406	117451416	139,470,822
4	Bharat Sanchar Nigam Ltd.	6400380	24507496	30,907,876
5	Atria Convergence Technologies Pvt. Ltd.	0	1607015	1,607,015
6	Mahanagar Telephone Nigam Ltd.	170697	855744	1,026,441
7	Hathway Cable & Datacom Pvt. Ltd.	0	969157	969,157
8	You Broadband India Pvt. Ltd.	14660	778584	793,244
9	GTPL Broadband Pvt. Ltd.	0	359347	359,347
10	Excitel Broadband Private Limited	0	350783	350,783
11	Tikona Infinet Pvt Ltd	0	268643	268,643
12	Planet E-Shop Holdings India Ltd.	0	247193	247,193
13	D-Vois Broadband Private Limited	0	237972	237,972
14	Alliance Broadband Services Pvt. Ltd.	0	227541	227,541
15	INTECH ONLINE PVT LTD	0	214734	214,734
16	Asianet Satellite Communications Ltd.	0	197323	197,323
17	Quadrant Televentures Ltd.B361	100	194919	195,019
18	Indinet Service Pvt Ltd	0	130692	130,692
19	RailTel Corporation of India Ltd.	0	128621	128,621
20	DEN Broadband Private Limited	0	126189	126,189
21	Joister Infoserve Pvt. Ltd.	0	125646	125,646
22	Tata Sky Broadband Private Limited	0	72274	72,274
23	Wish Net Pvt. Ltd.	0	65728	65,728
24	ANI network Pvt Ltd	0	64415	64,415
25	Five Network Solution (India) Ltd.	0	60634	60,634
26	Nextra Teleservices Pvt. Ltd.	0	57857	57,857
27	Airlink Communications Pvt. Ltd	0	47973	47,973
28	Tata Teleservices	313	73270	73,583
29	Honesty Net Solutions (I) Pvt Ltd	78	44990	45,068
30	Fusionnet Web Services Pvt. Ltd.	0	43721	43,721
31	Airnet Cable And Datacom Pvt Ltd	0	37655	37,655
32	Ishan Netsol Pvt Ltd	0	35147	35,147
33	Shyam Spectra Private Limited	0	35065	35,065
34	Wan and Lan Internet Pvt. Ltd.	0	33926	33,926
35	Limras Eronet Broadband Service Pvt Ltd	5335	27586	32,921
36	K NET SOLUTIONS PVT LTD	0	31206	31,206
37	Digital Satellite Connect Pvt. Ltd.	0	27177	27,177

<b>S.N.</b>	<b>Name of the Service Provider</b>	<b>Narrowband</b>	<b>Broadband</b>	<b>Total</b>
38	Microscan Computers Pvt Ltd	8349	15773	24,122
39	Vasai Cable Pvt. Ltd.	0	23238	23,238
40	DNA Infotel Pvt Ltd	0	22641	22,641
41	SITI Broadband Services Pvt. Ltd.	0	21938	21,938
42	Hi Reach Broadband Pvt. Ltd.	0	21825	21,825
43	Ortel Communication Ltd.	0	19313	19,313
44	Rajesh Digital Datacom Pvt Ltd	17	18530	18,547
45	City Online Services Ltd	0	17049	17,049
46	Sikka Broadband(P) Ltd.	0	16543	16,543
47	Digital Network associates Pvt. Ltd	0	15938	15,938
48	IKF Technologies Ltd	0	15852	15,852
49	ESTO BORADNAD PVT LTD./ESTO INTERNET PVT LTD	0	14832	14,832
50	Tata Communications Limited	169	14292	14,461
51	Quest Consultancy Pvt. Ltd.	0	14454	14,454
52	Meghbela Cable & Broadband Servies (P) Ltd	0	13817	13,817
53	World Phone Internet Services Pvt Ltd	0	12818	12,818
54	RI Networks Pvt Ltd	0	11283	11,283
55	Sifi Online Pvt. Ltd.	0	11132	11,132
56	Sai Prasad Internet Pvt Ltd	0	10898	10,898
57	Geocity Network Solutions Pvt. Ltd.	0	10651	10,651
58	Yashash Cable Network Pvt Ltd	0	10496	10,496
59	Shree Omkar Infocom Pvt. Ltd.	0	10143	10,143
60	Netplus Broadband Services Pvt. Ltd	0	10033	10,033
61	Pioneerelabs	351	9643	9,994
62	United Telecoms Ltd.	0	9889	9,889
63	Tachyon Communications Pvt. Ltd.	0	9878	9,878
64	North East Dataa Network Pvt Ltd.	0	9782	9,782
65	Intermedia Cable Communication Pvt Ltd	0	9508	9,508
66	Wow Solutions & System Pvt Ltd	0	8822	8,822
67	Net 9 Online Hathway Private Limited	0	8527	8,527
68	Shree Balaji Infoway Pvt Ltd	0	7943	7,943
69	Readylink Internet Services Pvt Ltd	0	7900	7,900
70	DL GTPL BROADBAND PVT LTD	0	7765	7,765
71	Cityzone Infonet Pvt. Ltd	0	7645	7,645
72	Jetway Broadband India Pvt.Ltd.	0	7502	7,502
73	Foxtel Telecommunications Pvt Ltd	7325	0	7,325
74	Reliance Communications Limited	192	7062	7,254
75	Apna Telelink Ltd.	0	7249	7,249
76	Limerick Technologies Pvt Ltd	0	7015	7,015

<b>S.N.</b>	<b>Name of the Service Provider</b>	<b>Narrowband</b>	<b>Broadband</b>	<b>Total</b>
77	Kappa Internet Services Pvt Ltd.	0	6961	6,961
78	SSCN PVT LTD	0	6340	6,340
79	Bittel Telecom Pvt.Ltd	0	6329	6,329
80	Swiftmail Communications Ltd.	779	4896	5,675
81	L S Fibernet Pvt. Ltd.	0	5427	5,427
82	Broadband Pacenet (I) Pvt. Ltd.	0	5323	5,323
83	CSC e-Governance Services India Ltd.	0	5256	5,256
84	Spiderlink Networks Pvt. Ltd.	0	5177	5,177
85	Swiftnet Broadband Pvt Ltd	0	5077	5,077
86	Angel Air Network Solutions Private Limited	0	4912	4,912
87	Multicraft Digital Technologies Private Limited	0	4865	4,865
88	IAXN Telecom Pvt. Ltd.	0	4766	4,766
89	Siliguri Internet & Cable TV Pvt. Ltd.	0	4568	4,568
90	GBPS Networks Pvt. Ltd.	0	4462	4,462
91	Mukand Infotel Pvt. Ltd.	4422	0	4,422
92	Multinet (Udaipur) Pvt. Ltd.	0	4053	4,053
93	Blazenet Ltd.	0	4017	4,017
94	LM Energy & Software Pvt Ltd	0	3876	3,876
95	Five Net Service Provider Pvt Ltd	0	3848	3,848
96	Super Sonic Broadband Pvt Ltd	0	3764	3,764
97	Sonali Internet Services Pvt Ltd	0	3719	3,719
98	CHANNEL III INTERNET PVT LTD	0	3646	3,646
99	Pink Broadband Services Pvt. Ltd.	1804	1804	3,608
100	Vision Smartlink Networking Pvt. Ltd.	0	3516	3,516
101	CANDOR INFOSOLUTION PVT LTD	3412	0	3,412
102	GETWAY BROADBAND PVT LTD	0	3363	3,363
103	Rainbow Internet teleservices Pvt Ltd	16	3184	3,200
104	Juweriyah Networks Pvt Ltd	0	3177	3,177
105	Spacenet Internet Services Pvt Ltd	0	3150	3,150
106	WSNS PVT LTD	0	3150	3,150
107	Star Broadband Services (I) Pvt Ltd	0	3076	3,076
108	Airgenie Communications Pvt. Ltd.	0	2877	2,877
109	VRD Web Services Pvt Ltd	0	2731	2,731
110	S.S.Netcom Pvt Ltd	0	2704	2,704
111	TGN NETWORKS PVT LTD	0	2679	2,679
112	Kaizen Infonet Pvt Ltd	0	2526	2,526
113	Chandra Net Pvt. Limited	0	2435	2,435
114	Niss internet services pvt. Ltd.	0	2388	2,388
115	Blu Ultraband Internet Services Private Limited	0	2313	2,313

<b>S.N.</b>	<b>Name of the Service Provider</b>	<b>Narrowband</b>	<b>Broadband</b>	<b>Total</b>
116	Transmedia Technologies (AP) Pvt Ltd	0	2271	2,271
117	Symbois Creations Pvt. Ltd.	0	2031	2,031
118	Smartlink solutions pvt. Ltd.	0	1965	1,965
119	INET FIBER INDIA PVT LTD	0	1870	1,870
120	Speed Online.net Pvt. Ltd.	0	1856	1,856
121	Jetspot Networks Pvt. Ltd.	0	1845	1,845
122	Smart Net India Pvt Ltd	0	1830	1,830
123	Capture Network Systems Pvt. Ltd.	288	1517	1,805
124	F/X Wireless Technology Services Pvt. Ltd.	0	1768	1,768
125	Assistive networks & technologie Pvt Ltd	0	1701	1,701
126	Elyzium Technologies Pvt. Ltd.	0	1670	1,670
127	Ultranet Infotech Solution Private Limited	0	1600	1,600
128	Nettlinx Ltd.	0	1591	1,591
129	Touch Net India Pvt. Ltd.	0	1570	1,570
130	Aerocast Networks Pvt Ltd.	0	1552	1,552
131	DNS SKYLINK PVT. LTD.	0	1533	1,533
132	delDSL Internet Pvt Ltd	0	1521	1,521
133	Southern Online Bio Technologies Ltd.	1	1515	1,516
134	Sphier Infotech Pvt. Ltd.	0	1515	1,515
135	SCUD COMMUNICATION PVT LTD	0	1501	1,501
136	Galaxynet Connections Pvt Ltd	0	1423	1,423
137	Netfirre Communications Pvt Ltd	0	1408	1,408
138	Bakcom Networks India Pvt Ltd	0	1398	1,398
139	Imperium Digital Network Pvt. Ltd.	0	1322	1,322
140	Fiberzone Communications Pvt. Ltd.	0	1310	1,310
141	Skylink Fibernet Pvt. Ltd.	0	1307	1,307
142	HARDWORK CABLE & INTERNET SERVICES PVT LTD	0	1305	1,305
143	Wnet Telecom Private Limited	0	1283	1,283
144	CJ Online Pvt. Ltd.	0	1273	1,273
145	Maks communications Pvt. Ltd.	0	1248	1,248
146	Hughes Communications India Ltd.	121	1124	1,245
147	Click4Net Internet Services Private Limited	0	1238	1,238
148	GIGACAST NETWORK PVT LTD	0	1218	1,218
149	Karunay Internet Private Limited	0	1207	1,207
150	DA Smartzone Pvt Ltd	0	1205	1,205
151	Zoram Business Enterprise Private Limited	0	1200	1,200

<b>S.N.</b>	<b>Name of the Service Provider</b>	<b>Narrowband</b>	<b>Broadband</b>	<b>Total</b>
152	Deenet Services Pvt Ltd	0	1125	1,125
153	Craze IT Solutions Pvt Ltd	0	1100	1,100
154	Rajesh Patel Net Services Pvt. Ltd.	13	1080	1,093
155	Aeroway Networks Pvt Ltd.	0	1085	1,085
156	Amar Broadband Private Limited	0	1058	1,058
157	ACN Fiber Pvt. Ltd.	0	1050	1,050
158	SS FIBER NET OPTICAL COMMUNICATION PVT. LTD	0	1044	1,044
159	NGC Broadband Pvt. Ltd.	0	997	997
160	Touchnet Broadband Services Pvt. Ltd.	0	989	989
161	AHM Digital Network Pvt Ltd	0	970	970
162	Correl IT Services Pvt. Ltd.	0	928	928
163	Grace Teleinfra Pvt Ltd	0	927	927
164	Sanchit Infocomm Pvt Ltd	0	909	909
165	Ficus Telecom Pvt. Ltd.	0	873	873
166	Japra Tele Link Pvt. Ltd.	0	869	869
167	NetMagic Solutions(P) Ltd.	0	868	868
168	Sky Online Technosystem Pvt Ltd	0	863	863
169	Dreamlink Technologies Pvt Ltd	0	848	848
170	Fastnet Communication Pvt Ltd	209	638	847
171	Light Air Transmission Pvt. Ltd.	398	398	796
172	Svd Digital Networks Pvt Ltd	0	790	790
173	Ani Broadband Service Pvt. Ltd.	0	763	763
174	Daksh Broadband Services Pvt Ltd	0	760	760
175	Packenet Solutions Pvt. Ltd.	0	754	754
176	SPIRENET DIGITAL COMMUNICATION PVT LTD	0	740	740
177	Datawave IT solutions Pvt. Ltd.	0	737	737
178	Cloudnet Communications Pvt Ltd	0	714	714
179	Telosy Telecom Pvt. Ltd.	0	711	711
180	Acegen Broadband Pvt. Ltd	0	697	697
181	HOSTAXIS NETWORKS PVT LTD	0	683	683
182	Darer Internet Services Pvt. Ltd.	0	673	673
183	HPS Digital Broadband Pvt Ltd	0	672	672
184	DATAMAX TECHNOLOGY PVT LTD	64	582	646
185	Sefaro Networks Private Ltd	0	642	642
186	Speedmaxx Digital Networks Pvt Ltd	0	635	635
187	Unitel Media Pvt Ltd	0	632	632
188	iAIRONET COMMUNICATION PVT LTD	0	631	631
189	Primenet Global Ltd.	0	625	625

<b>S.N.</b>	<b>Name of the Service Provider</b>	<b>Narrowband</b>	<b>Broadband</b>	<b>Total</b>
190	Wi-Link Network Pvt. Ltd	0	614	614
191	Netvision Awadh Networks Pvt Ltd	137	474	611
192	WEBRIDERS INTERNET PVT LTD	0	594	594
193	STN Communication & Advertising Pvt Ltd.	1	579	580
194	Reticule Infotech Pvt. Ltd.	0	579	579
195	ADRI INFOCOM PVT. LTD.	0	578	578
196	Alphanet Broadband Pvt Ltd	0	571	571
197	Rida Communication Pvt. Ltd.	0	559	559
198	Alegra Communication Pvt Ltd	0	552	552
199	Digital2Virtual ISP Pvt. Ltd.	0	549	549
200	Panav Network and Communications Private Limited	0	548	548
201	VIVA Communications Pvt Ltd	0	542	542
202	Power Grid Corporation of India Ltd.	0	529	529
203	Data Ingenious Global Ltd	4	508	512
204	VARESHA AIR WORLD NETWORKS PVT LTD	28	477	505
205	ELECON INFOTMATION TECHNOLOGY LTD	0	492	492
206	Powernet Communication Pvt Ltd	486	0	486
207	Radinet Info Solutions Pvt Ltd	0	484	484
208	Sify Technologies Ltd.	251	227	478
209	HELM CONSULTANTS PVT LTD	467	0	467
210	Oasis Cable Pvt Ltd.	0	445	445
211	SHREE MANORANJAN BROADBAND PVT LTD	0	431	431
212	Tamana Winet Pvt. Ltd.	0	409	409
213	Oistel Telecom Pvt. Ltd.	203	203	406
214	Spider Broadband and Cable Pvt Ltd	0	404	404
215	Pulse Telesystems Pvt. Ltd.	0	401	401
216	CNS INFOTEL SERVICES PVT LTD	0	392	392
217	REVOLUTION BROADBAND PVT LTD	0	392	392
218	Kartik Network Pvt. Ltd.	0	382	382
219	Nandini Broadband Pvt Ltd	0	382	382
220	Gorakhpur Net Services Pvt. Ltd.	0	375	375
221	WINDSOR INTERNET PVT LTD	0	374	374
222	Lotus Broadband Pvt Ltd	0	366	366
223	Bass Jokernet Private Limited	0	352	352
224	Moradabad Internet Dervices Pvt Ltd	0	347	347
225	Bass Networks Pvt Ltd	0	338	338
226	Sai Akshay Internet Services Pvt Ltd.	0	332	332

<b>S.N.</b>	<b>Name of the Service Provider</b>	<b>Narrowband</b>	<b>Broadband</b>	<b>Total</b>
227	CATLA IT&ENGG. CO. PVT LTD.	0	327	327
228	Sysnet Broadband Services Pvt. Ltd.	0	326	326
229	Twincity Communication Private Limited	0	325	325
230	Citylink Broadband Services Pvt. Ltd.	0	324	324
231	SmartLink Broadband Services	0	309	309
232	Quick Link Broadband And Services Pvt. Ltd	0	308	308
233	Bhiwani Communications Pvt. Ltd.	73	233	306
234	Dhanam Internet Services India Pvt. Ltd.	0	289	289
235	DEVELOPMENT LOGICS SOLUTIONS PVT LTD	0	284	284
236	ALWAR ONLINE PVT LTD	0	283	283
237	Goodwill Smartlink Pvt. Ltd.	0	277	277
238	Southnet Broadband Pvt Ltd	0	277	277
239	Visputes Internet Private Limited	0	277	277
240	ANTARIKSH BROADBAND & WIRELESS SOLUTIONS PVT LTD	274	0	274
241	NEXTGEN COMPUSOFT PVT LTD	0	274	274
242	Gleam Worldwide Services Pvt. Ltd.	0	269	269
243	WAVETREE NETWORKS PVT LTD	0	267	267
244	PANCHSHEEL BROADBAND SERVICES'S PVT LTD.	0	265	265
245	AUSPICE INFRATAL PVT LTD	0	263	263
246	Singh Internet Services Pvt. Ltd.	0	260	260
247	Airmesh Communications Limited	0	254	254
248	Cityline Networks Pvt Ltd	0	251	251
249	Faiconet Internet Pvt Ltd	0	245	245
250	Anushree Digital Network Pvt Ltd	0	242	242
251	Sheen Telecom Consultants Pvt Ltd	0	234	234
252	Gazillio Technologies Pvt. Ltd.	0	232	232
253	Khetan Cable Network (P) Ltd	0	228	228
254	Shineplus Networks Pvt Ltd	0	225	225
255	VMO BROADBAND PVT LTD	225	0	225
256	ACEBROWSE PVT LTD	0	219	219
257	Smart Wi5 Pvt. Ltd.	0	218	218
258	CIT SOLUTIONS PVT. LTD.	0	217	217
259	SRINAGAR TECHNOLOGY CONSULTANTS LTD	213	0	213
260	Wi5 Internet Services P Limited	0	212	212
261	Microsense Pvt. Ltd.	0	209	209
262	Satpar Infotech Pvt Ltd	0	208	208

<b>S.N.</b>	<b>Name of the Service Provider</b>	<b>Narrowband</b>	<b>Broadband</b>	<b>Total</b>
263	Saibaba Broadband Pvt. Ltd.	0	206	206
264	Suncity Broadband Pvt Ltd.	0	205	205
265	Fastx Broadband Private Limited	0	199	199
266	PMG NETWORKD PVT LTD	0	199	199
267	Ceralink Communication Pvt Ltd	0	196	196
268	Netrexo Communications Pvt. Ltd.	0	191	191
269	Proline Datatech Sercivces Pvt Ltd	0	188	188
270	Barani Data Solutions Private Limited	185	0	185
271	STN Infotech Pvt. Ltd	0	175	175
272	Verizon Communications India Pvt. Ltd.	0	170	170
273	Shine Communications Pvt. Ltd.	169	0	169
274	Optisky Fiber Pvt Ltd	0	168	168
275	Kataria Net Solutions Pvt. Ltd.	0	163	163
276	Nanjil Internet Services Pvt. Ltd.	0	158	158
277	AIRMAX INTERNET PVT LTD	153	0	153
278	Sense Connect IT Pvt. Ltd.	0	146	146
279	ERNET India	52	88	140
280	NR DATA SERVICE PVT LTD	0	140	140
281	Global India Tele Infra Pvt. Ltd.	36	100	136
282	Texas Connect Private Limited	112	24	136
283	Achiever Communication and Services Pvt. Ltd.	0	134	134
284	AT&T Global Network Services India Private Limited	0	134	134
285	Shri Vinayagaa Internet Pvt Ltd	0	134	134
286	MLC INTERNET PVT LTD	0	126	126
287	Sri Ram Broadband Services Pvt. Ltd.	0	126	126
288	Mediatesh Communication Pvt. Ltd.	0	125	125
289	Micronova Network Solutions Ltd	4	116	120
290	Royal Wireless Services Pvt Ltd	0	120	120
291	V NET NETWORKS PVT. LTD	0	118	118
292	SHRI RAM BRAOADBAND SERVICES PVT LTD	0	112	112
293	White Stallion Networks Pvt. Ltd.	0	108	108
294	Pronoc Technologies Pvt. Ltd.	0	107	107
295	Telstra Telecommunications Pvt. Ltd.	0	106	106
296	Omkar Net Services Pvt. Ltd.	0	102	102
297	S A Internet Solution Pvt Ltd	0	101	101
298	SATH TECHNOLOGIES PVT LTD	0	99	99
299	Shreepad Communication Pvt. Ltd.	0	98	98
300	AirFiber IT Solutions Pvt. Ltd	0	95	95



<b>S.N.</b>	<b>Name of the Service Provider</b>	<b>Narrowband</b>	<b>Broadband</b>	<b>Total</b>
301	Invensys Networks pvt ltd	0	95	95
302	Cheetah Networks Pvt Ltd	0	94	94
303	Infinity wireless services pvt. Ltd.	0	89	89
304	Airtechzone Services India Pvt Ltd	85	0	85
305	ARP INFONET PVT. LTD.	0	84	84
306	Vidarbha Wi-Fi & Network Services Pvt. Ltd.	84	0	84
307	DRONAGIRI INFOTECH PVT LTD	0	83	83
308	Dream Plus Multi Services Pvt. Ltd.	0	82	82
309	NETWIRE INTERNET SOLUTIONS PVT. LTD.	0	82	82
310	TRIPLE LINK PVT LTD	0	74	74
311	CLASSIC INTERNET AND CABLE SERVICES PVT LTD	73	0	73
312	Malang Solutions Pvt. Ltd.	0	73	73
313	Mtel Networks Pvt. Ltd.	0	73	73
314	Hipath Netcom Services Pvt. Ltd.	0	69	69
315	BSL Technologies Pvt. Ltd.	0	68	68
316	M-TEL Networks (P) Ltd	0	65	65
317	Wireline Solution(India) Pvt. Ltd.	0	65	65
318	KKM Broadband Internet Pvt Ltd	0	64	64
319	Veer Point Pvt. Ltd.	0	60	60
320	Infiber Broadnet Pvt. Ltd.	0	56	56
321	QBC Infotech Pvt. Ltd.	0	53	53
322	City Broadband Pvt. Ltd.	0	52	52
323	Airlink Broadband Pvt Ltd	0	50	50
324	Edge Telecommunications Pvt. Ltd.	0	47	47
325	Divine Broadband Services Pvt Ltd	0	44	44
326	Jai Mata Di Telectronix Pvt Ltd	0	42	42
327	GURU NETCOMM PVT LTD	0	41	41
328	Orange Business Services India Network Pvt. Ltd.	0	38	38
329	Mesh Infranet Pvt Ltd	0	36	36
330	Navariya Satellite Services Pvt.Ltd.	33	0	33
331	Dreamnet Pvt.Ltd.	0	30	30
332	Sanyog Networks Pvt Ltd	0	29	29
333	Prompt infracom Pvt Ltd	0	28	28
334	WE INTERNET LIMITED	0	27	27
335	West Bengal Electronics Industry Development Corp. Ltd.	0	25	25
336	Angrow Netcomm Pvt. Ltd.	24	0	24
337	Pacific Internet India Pvt. Ltd.	0	23	23

<b>S.N.</b>	<b>Name of the Service Provider</b>	<b>Narrowband</b>	<b>Broadband</b>	<b>Total</b>
338	SUN BOARDBAND AND DATA SERVICES PVT LTD	0	21	21
339	Trans Virtual Pvt. Ltd.	2	18	20
340	Tatanet Services Ltd	0	19	19
341	FASTHOOK NETWORKS PVT LTD	0	18	18
342	Hienet Internet Services Pvt Ltd	0	17	17
343	Microtel Internet Network Pvt Ltd	0	15	15
344	Adya Tech One Services Pvt Ltd	0	14	14
345	Marutham Networks Pvt. Ltd.	0	12	12
346	UBERCORE DATA LABS PVT LTD	0	12	12
347	Clear Beam Communication Pvt Ltd	10	0	10
348	Rajdhani Telecom Pvt. Ltd.	2	6	8
349	Essel Shyam Communications Limited	0	7	7
350	Financial Technologies Communications Ltd.	0	7	7
351	Mastek Infosystems OPC Pvt. Ltd.	0	7	7
352	Skynetzone Wifi Services Pvt Ltd	0	7	7
353	A TO Z INFOLINK PVT.LTD.	0	5	5
354	Critel Technologies Pvt. Ltd.	0	5	5
355	Instanet Technologies Private Limited	0	4	4
356	ABT Ltd.	3	0	3
357	Aristo Telenet Pvt Ltd	0	3	3
358	Cloudcast Digital Ltd	0	3	3
359	Novanet India Ltd.	0	2	2
360	Sabse Internet Services Provider Pvt Ltd	0	2	2
	<b>Total</b>	<b>55753300</b>	<b>687440651</b>	<b>743193951</b>

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

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

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

S.No.	DOT Licensed Service Area	Area Served	Service Provider	Subscriber Base	
				31.12.2019	31.03.2020
1	Andhra Pradesh	Hyderabad	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,885	2,771
			QuickCall	848	932
		Vishakhapatnam	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	4,360	4,658
		<b>Total</b>			<b>7,093</b>
2	Delhi	Delhi	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	5,588	8,442
			Procall Ltd.	2,980	2,923
		<b>Total</b>			<b>8,568</b>
3	Gujarat	Ahmedabad	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,267	1,226
		Bharuch	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,539	1,491
		Dahej	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,005	1,005
		Jamnagar	Inative Networks Pvt. Ltd.	360	360
		Kutch	Inative Networks Pvt. Ltd.	205	205
		Surat	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,554	1,750
		Surat	Inative Networks Pvt. Ltd.	895	895
		Vadodara	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,755	1,750
		Vadodara	Inative Networks Pvt. Ltd.	360	360
		<b>Total</b>			<b>8,940</b>
4	Karnataka	Bangalore	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	7,061	7,444
			QuickCall	745	642
		<b>Total</b>			<b>7,806</b>
5	Kerala	Cochin	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	955	
		Ernakulam	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	0	976
		Kerala	Wiwanet Solutions Pvt. Ltd	409	457
		<b>Total</b>			<b>1364</b>
6	Kolkata	Kolkata	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	2,410	2,326
7	Madhya Pradesh	Indore	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,576	1,643
8		Pune	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,840	2,277
			Smartalk Pvt Ltd.	438	525
		<b>Total</b>			<b>6,264</b>
9	Mumbai	Mumbai	Airtalk Solutions & Services Pvt. Ltd.	459	495
			Arya Omnitalk Radio Trunking Services Pvt.Ltd.	8,242	9,647
			Bhilwara Telenet Services Pvt.Ltd.	870	868
			Smartalk Pvt Ltd.	636	668
		<b>Total</b>			<b>10207</b>
10	Rajasthan	Jaipur	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	514	884
			Procall Ltd.	290	326
		<b>Total</b>			<b>804</b>
11	Tamil Nadu	Chennai	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	7,492	8,106
			QuickCall	551	524
		<b>Total</b>			<b>8,043</b>
<b>Grand Total</b>				<b>59,089</b>	<b>66,576</b>

Annexure 2.1: Wireless Revenue Service - Service Area wise Statistics for  
QE March, 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	95.76	109	19	340	339	679
Gujarat	95.60	95	18	327	284	610
Karnataka	93.83	107	23	357	343	700
MH	95.77	105	19	322	311	633
TN (incl. Chennai)	94.70	108	18	327	327	653

**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	97.64	70	11	340	328	667
Kerala	97.43	127	11	265	272	536
MP	98.31	90	18	375	379	754
Punjab	96.30	99	11	344	331	675
Rajasthan	97.85	87	16	361	358	719
UP(E)	98.04	66	13	437	487	924
UP(W)	97.95	72	14	373	381	753
WB	99.43	82	17	384	408	792

**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	97.99	94	30	398	423	821
Bihar	99.09	74	13	493	556	1049
HP	98.71	81	12	320	318	637
J&K	56.99%	92	50	567	548	1115
NE	98.56%	94	34	341	349	690
Odisha	98.77%	83	18	423	462	885

**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	94.49	76	15	339	336	675
Delhi	83.61	86	20	424	380	805
Mumbai	78.78%	99	15	419	334	753

## 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								
		Connecti on Establish ment (Accessibi lity)	Connection Maintenance (Retainability)				POI			Metering and billing				Response time to the customer for assistance		Termination / closure of service	
			TCH, 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 centre/ customer care
		≤ 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	0.16	1.61	1.75	96.71	0	0.19	0.19	0.01	0.00	100.00	100.00	100.00	100.00	89.00	100.00	100.00
	BSNL	1.52	1.60	1.84	98.71	0	1.04	1.00	0.00	0.00	100.00	100.00	100.00	96.00	73.00	100.00	100.00
	RJIL	0.00	0.23	0.33	99.94	0	0.01	0.12	0.00	0.00	100.00	100.00	100.00	97.03	98.64	100.00	100.00
	VIL-Brand	0.20	1.79	2.94	99.51	0	0.02	0.20	0.00	0.00	100.00	100.00	100.00	97.42	98.14	100.00	99.86
	VIL-Brand	0.20	1.79	2.94	99.51	0	0.02	0.20	0.00	0.00	100.00	100.00	100.00	100.00	99.30	100.00	100.00
Assam	Airtel	0.47	1.93	2.29	98.34	0	0.24	0.24	0.01	0.00	100.00	100.00	100.00	100.00	96.00	100.00	100.00
	BSNL	1.73	1.91	2.32	97.13	0	0.00	0.00	0.01	0.00	100.00	100.00	100.00	97.00	97.71	100.00	100.00
	RJIL	0.00	0.43	0.54	99.91	0	0.01	0.18	0.00	0.00	100.00	100.00	100.00	97.55	99.41	100.00	100.00
	VIL-Brand	1.82	1.73	2.55	98.59	0	0.21	0.20	0.00	0.00	100.00	100.00	100.00	100.00	96.73	100.00	100.00
	VIL-Brand	1.82	1.73	2.55	98.59	0	0.21	0.20	0.01	0.00	100.00	100.00	100.00	100.00	98.05	100.00	100.00
Bihar	Airtel	0.83	1.73	1.79	97.92	0	0.10	0.36	0.01	0.00	100.00	100.00	100.00	100.00	97.00	100.00	100.00
	BSNL	0.46	1.82	2.33	98.30	0	0.00	0.00	0.00	0.00	100.00	100.00	100.00	99.00	96.21	100.00	100.00
	RJIL	0.00	0.41	0.50	99.92	0	0.01	0.16	0.00	0.00	100.00	100.00	100.00	97.53	97.46	100.00	100.00
	VIL-Brand	0.35	1.64	1.96	99.66	0	0.01	0.02	0.00	0.00	100.00	100.00	100.00	97.91	97.70	100.00	100.00
	VIL-Brand	0.35	1.64	1.96	99.66	0	0.01	0.02	0.00	0.00	100.00	100.00	100.00	100.00	98.93	100.00	100.00
Delhi	Airtel	0.46	1.96	2.44	95.65	0	0.99	0.29	0.01	0.00	100.00	100.00	100.00	100.00	94.00	100.00	100.00
	MTNL	1.00	1.39	1.61	97.76	0	NA	NA	0.00	0.00	83.33	91.66	100.00	99.92	99.97	100.00	100.00
	RJIL	0.00	0.14	0.23	99.94	0	0.01	0.13	0.00	0.00	100.00	100.00	100.00	97.63	97.51	100.00	100.00
	VIL-Brand	0.29	1.56	2.29	99.57	0	0.39	0.39	0.17	0.00	99.41	100.00	100.00	99.86	97.44	100.00	100.00
	VIL-Brand	0.29	1.56	2.29	99.57	0	0.39	0.39	0.07	0.02	99.89	100.00	100.00	100.00	98.91	100.00	100.00

### Annexure 4.1 (Contd.)

Gujarat	Airtel	0.69	1.78	2.38	95.37	0	0.10	0.19	0.01	0.00	100.00	100.00	100.00	100.00	94.00	100.00	100.00
	BSNL	0.50	1.72	2.79	100.00	0	0.05	0.11	0.00	0.00	100.00	100.00	100.00	99.00	96.10	100.00	100.00
	RJIL	0.00	0.22	0.31	99.93	0	0.01	0.13	0.00	0.00	100.00	100.00	100.00	98.01	99.09	100.00	100.00
	VIL-Brand	0.56	1.41	1.89	98.95	0	0.16	0.17	0.01	0.00	99.93	100.00	100.00	97.65	97.18	99.99	100.00
	VIL-Brand	0.56	1.41	1.89	98.95	0	0.16	0.17	0.01	0.01	99.52	100.00	99.49	97.93	98.53	100.00	99.51
Haryana	Airtel	0.18	0.83	1.22	97.67	0	0.25	0.22	0.01	0.00	100.00	100.00	100.00	100.00	95.00	100.00	100.00
	BSNL	0.17	1.60	1.85	97.82	0	0.14	0.60	0.01	0.00	98.00	100.00	100.00	95.00	94.00	100.00	100.00
	RJIL	0.00	0.34	0.48	99.95	0	0.00	0.09	0.00	0.00	100.00	100.00	100.00	97.71	99.95	100.00	100.00
	VIL-Brand	0.84	1.61	2.48	99.09	0	0.11	0.19	0.05	0.00	100.00	100.00	100.00	99.09	97.84	100.00	98.61
	VIL-Brand	0.84	1.61	2.48	99.09	0	0.11	0.19	0.02	0.01	100.00	100.00	100.00	100.00	98.92	100.00	100.00
Himachal Pradesh	Airtel	0.15	1.46	1.82	95.20	0	0.25	0.34	0.01	0.00	100.00	100.00	100.00	100.00	95.00	100.00	100.00
	BSNL	1.05	1.94	2.07	96.38	0	0.00	0.00	0.01	0.00	99.60	100.00	100.00	96.00	95.10	100.00	100.00
	RJIL	0.00	0.15	0.28	99.97	0	0.00	0.07	0.00	0.00	100.00	100.00	100.00	97.16	99.96	100.00	100.00
	VIL-Brand	0.38	2.44	3.57	98.15	0	0.30	0.44	0.06	0.00	100.00	100.00	100.00	96.93	96.23	100.00	100.00
	VIL-Brand	0.38	2.44	3.57	98.15	0	0.30	0.44	0.05	0.01	100.00	100.00	100.00	100.00	99.14	100.00	100.00
Jammu & Kashmir	Airtel	0.02	1.52	2.98	98.11	0	0.17	0.24	0.00	0.00	100.00	100.00	100.00	100.00	86.00	100.00	100.00
	BSNL	1.45	1.98	2.44	96.25	0	0.00	0.00	0.00	0.00	100.00	100.00	100.00	99.00	73.00	100.00	100.00
	RJIL	0.00	0.19	0.40	99.97	0	0.00	0.07	0.00	0.00	100.00	100.00	100.00	96.41	98.10	100.00	100.00
	VIL-Brand	0.42	4.36	6.67	98.62	0	NA	NA	0.01	0.01	100.00	100.00	100.00	97.57	94.27	100.00	100.00
	VIL-Brand	0.42	4.36	6.67	98.62	0	NA	NA	0.01	0.04	100.00	100.00	100.00	100.00	97.20	100.00	100.00
Karnataka	Airtel	0.14	1.32	1.69	95.27	0	0.24	0.17	0.01	0.00	100.00	100.00	100.00	100.00	92.00	100.00	100.00
	BSNL	0.54	1.69	1.89	97.41	0	0.98	1.16	0.00	0.00	99.77	100.00	100.00	84.00	60.54	100.00	100.00
	RJIL	0.00	0.18	0.28	99.95	0	0.00	0.10	0.00	0.00	100.00	100.00	100.00	96.69	98.27	100.00	100.00
	VIL-Brand	0.79	1.79	2.38	98.97	0	0.16	0.10	0.02	0.00	100.00	100.00	100.00	97.58	99.59	100.00	95.88
	VIL-Brand	0.79	1.79	2.38	98.97	0	0.16	0.10	0.03	0.02	99.97	100.00	100.00	100.00	98.92	100.00	100.00
Kerala	Airtel	0.47	1.96	2.70	98.23	0	0.14	0.36	0.01	0.00	100.00	100.00	100.00	100.00	93.00	100.00	100.00
	BSNL	0.99	1.79	2.22	98.64	0	0.00	0.00	0.00	0.00	98.00	100.00	100.00	95.00	15.67	100.00	100.00
	RJIL	0.00	0.10	0.32	99.95	0	0.00	0.11	0.00	0.00	100.00	100.00	100.00	97.25	98.27	100.00	100.00
	VIL-Brand	0.21	0.83	1.19	98.78	0	0.09	0.36	0.07	0.01	100.00	100.00	100.00	99.19	96.19	100.00	94.36
	VIL-Brand	0.31	0.77	1.04	99.65	0	0.14	0.28	0.05	0.01	100.00	100.00	100.00	100.00	97.66	100.00	99.97
Kolkata	Airtel	0.32	1.52	2.38	98.45	0	0.43	1.15	0.01	0.00	100.00	100.00	100.00	100.00	90.00	100.00	100.00
	BSNL	0.18	1.52	1.69	96.25	0	0.00	0.00	0.01	0.01	100.00	100.00	100.00	95.00	95.83	100.00	100.00
	RJIL	0.00	0.10	0.18	99.96	0	0.00	0.07	0.00	0.00	100.00	100.00	100.00	97.84	96.36	100.00	100.00
	VIL-Brand	0.32	1.19	1.61	98.65	0	0.09	0.14	0.02	0.01	100.00	100.00	100.00	97.69	98.05	100.00	100.00
	VIL-Brand	0.32	1.19	1.61	98.65	0	0.09	0.14	0.04	0.01	100.00	100.00	100.00	100.00	98.27	100.00	100.00

### Annexure 4.1 (Contd.)

Madhya Pradesh	Airtel	0.51	1.96	2.25	95.42	0	0.09	0.18	0.01	0.00	100.00	100.00	100.00	100.00	95.00	100.00	100.00
	RJIL	0.00	0.37	0.47	99.91	0	0.01	0.19	0.00	0.00	100.00	100.00	100.00	97.63	97.55	100.00	100.00
	VIL-Brand	1.77	1.71	2.27	98.38	0	0.27	0.36	0.05	0.02	100.00	100.00	100.00	95.24	97.96	100.00	<b>93.87</b>
	VIL-Brand	1.77	1.71	2.27	98.38	0	0.27	0.36	0.01	0.02	100.00	100.00	100.00	100.00	98.80	100.00	100.00
	BSNL	1.07	1.89	2.25	98.17	0	0.00	0.00	0.00	0.00	100.00	100.00	100.00	99.00	98.89	100.00	100.00
Maharashtra	Airtel	0.26	1.35	1.65	95.47	0	0.12	0.20	0.01	0.00	100.00	100.00	100.00	100.00	<b>94.00</b>	100.00	100.00
	BSNL	1.16	1.96	2.70	96.30	0	0.05	0.07	0.01	0.00	100.00	100.00	100.00	100.00	95.13	100.00	100.00
	RJIL	0.00	0.28	0.37	99.91	0	0.01	0.18	0.00	0.00	100.00	100.00	100.00	97.97	99.09	100.00	100.00
	VIL-Brand	1.78	1.75	2.93	98.52	0	0.46	0.34	0.02	0.01	99.95	100.00	100.00	98.16	96.24	100.00	100.00
	VIL-Brand	1.24	1.92	2.88	98.94	0	0.15	0.51	0.03	0.02	100.00	100.00	100.00	100.00	97.41	100.00	100.00
Mumbai	Airtel	0.52	1.72	1.89	95.42	0	0.19	0.17	0.00	0.00	100.00	100.00	100.00	100.00	<b>93.00</b>	100.00	100.00
	MTNL	0.30	1.85	2.70	98.28	0	NA	NA	0.01	0.00	100.00	100.00	100.00	100.00	99.92	100.00	100.00
	RJIL	0.00	0.13	0.21	99.94	0	0.01	0.13	0.00	0.00	100.00	100.00	100.00	97.68	98.08	100.00	100.00
	VIL-Brand	0.23	1.72	2.53	96.69	0	0.26	0.37	0.00	0.00	100.00	100.00	100.00	96.81	97.85	100.00	<b>96.39</b>
	VIL-Brand	0.85	1.88	2.70	98.82	0	0.21	0.35	0.05	0.04	100.00	100.00	100.00	100.00	99.06	100.00	100.00
North East	Airtel	0.94	1.83	2.21	97.18	0	0.31	0.27	0.02	0.00	100.00	100.00	100.00	100.00	<b>91.00</b>	100.00	100.00
	BSNL	0.44	1.79	1.65	97.00	0	0.00	0.00	0.05	0.05	100.00	100.00	100.00	96.00	95.66	100.00	100.00
	RJIL	0.00	0.57	0.80	99.93	0	0.01	0.15	0.00	0.00	100.00	100.00	100.00	97.47	99.65	100.00	100.00
	VIL-Brand	1.00	1.90	2.34	98.44	0	0.46	0.25	0.00	0.00	100.00	100.00	100.00	100.00	97.89	100.00	100.00
	VIL-Brand	1.00	1.90	2.34	98.44	0	0.46	0.25	0.01	0.00	100.00	100.00	100.00	100.00	98.46	100.00	100.00
Odisha	Airtel	1.07	1.67	1.82	98.25	0	0.11	0.23	0.01	0.00	100.00	100.00	100.00	100.00	96.00	100.00	100.00
	BSNL	0.69	1.92	2.63	96.72	0	0.00	0.00	0.01	0.01	100.00	100.00	100.00	96.00	96.88	100.00	100.00
	RJIL	0.00	0.26	0.36	99.93	0	0.01	0.14	0.00	0.00	100.00	100.00	100.00	97.31	97.85	100.00	100.00
	VIL-Brand	0.49	1.90	2.56	98.75	0	0.21	0.22	0.02	0.00	100.00	100.00	100.00	96.43	96.07	100.00	100.00
	VIL-Brand	0.49	1.90	2.56	98.75	0	0.21	0.22	0.02	0.01	100.00	100.00	100.00	99.54	98.46	100.00	100.00
Punjab	Airtel	0.16	0.52	0.67	98.64	0	0.15	0.41	0.01	0.00	100.00	100.00	100.00	100.00	<b>93.00</b>	100.00	100.00
	BSNL	0.15	1.67	1.85	98.03	0	0.00	0.01	0.00	0.00	100.00	100.00	100.00	99.00	<b>89.06</b>	100.00	100.00
	RJIL	0.00	0.13	0.23	99.96	0	0.00	0.07	0.00	0.00	100.00	100.00	100.00	97.54	97.69	100.00	100.00
	VIL-Brand	0.10	1.01	1.68	99.40	0	0.11	0.38	0.06	0.01	100.00	100.00	100.00	99.88	96.21	100.00	100.00
	VIL-Brand	0.10	1.01	1.68	99.40	0	0.11	0.38	0.00	0.01	100.00	100.00	100.00	100.00	98.39	100.00	100.00
Rajasthan	Airtel	0.38	1.97	2.34	98.48	0	0.24	0.26	0.01	0.00	100.00	100.00	100.00	100.00	96.00	100.00	100.00
	BSNL	1.42	1.61	2.03	98.76	0	0.00	0.00	0.02	0.01	98.00	100.00	100.00	95.00	<b>88.00</b>	100.00	100.00
	RJIL	0.00	0.28	0.37	99.95	0	0.00	0.10	0.00	0.00	100.00	100.00	100.00	97.51	97.79	100.00	100.00
	VIL-Brand	0.84	1.72	2.94	97.28	0	0.19	0.29	0.07	0.00	100.00	100.00	100.00	97.75	96.17	100.00	<b>99.18</b>
	VIL-Brand	0.84	1.72	2.94	97.28	0	0.19	0.29	0.02	0.02	100.00	100.00	100.00	100.00	98.67	100.00	100.00



### Annexure 4.1 (Contd.)

Tamil Nadu	Airtel	0.29	1.04	1.44	96.48	0	0.21	0.18	0.01	0.00	100.00	100.00	100.00	100.00	91.00	100.00	100.00
	BSNL	0.77	1.90	2.96	97.70	0	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	60.92	100.00	100.00
	RJIL	0.00	0.16	0.26	99.95	0	0.00	0.10	0.00	0.00	100.00	100.00	100.00	96.98	98.18	100.00	100.00
	VIL-Brand	0.12	0.89	1.54	99.34	0	0.09	0.14	0.01	0.00	100.00	100.00	100.00	98.40	98.77	100.00	93.78
	VIL-Brand	0.83	1.28	1.85	98.98	0	0.09	0.14	0.05	0.01	100.00	100.00	100.00	100.00	98.45	100.00	100.00
Uttar Pradesh (East)	Airtel	0.75	1.63	2.02	97.33	0	0.51	1.10	0.01	0.00	100.00	100.00	100.00	100.00	95.00	100.00	100.00
	BSNL	0.81	1.76	2.51	98.05	0	0.00	0.00	0.09	0.09	98.14	100.00	100.00	98.00	96.30	100.00	100.00
	RJIL	0.00	0.43	0.53	99.91	0	0.01	0.19	0.00	0.00	100.00	100.00	100.00	97.65	97.35	100.00	100.00
	VIL-Brand	1.96	1.98	2.97	98.31	0	0.12	0.25	0.05	0.00	100.00	100.00	100.00	99.43	95.67	100.00	100.00
	VIL-Brand	1.96	1.98	2.97	98.31	0	0.12	0.25	0.04	0.10	100.00	100.00	100.00	99.99	98.19	100.00	100.00
Uttar Pradesh (West)	Airtel	0.17	1.25	1.71	98.76	0	0.28	0.25	0.01	0.00	100.00	100.00	100.00	100.00	96.00	100.00	100.00
	BSNL	1.12	1.80	2.00	96.85	0	0.00	0.00	0.01	0.00	100.00	100.00	100.00	97.00	86.34	100.00	100.00
	RJIL	0.00	0.41	0.51	99.94	0	0.01	0.13	0.00	0.00	100.00	100.00	100.00	98.20	97.31	100.00	100.00
	VIL-Brand	2.41	2.17	3.85	97.68	0	0.13	0.27	0.02	0.00	99.93	100.00	100.00	99.86	97.41	100.00	97.82
	VIL-Brand	2.41	2.17	3.85	97.68	0	0.13	0.27	0.01	0.03	100.00	100.00	100.00	100.00	98.05	100.00	100.00
West Bengal	Airtel	0.90	1.83	2.90	97.04	0	0.23	0.33	0.01	0.00	100.00	100.00	100.00	100.00	88.00	100.00	100.00
	BSNL	0.90	8.74	9.64	97.09	0	0.09	0.89	0.03	0.01	100.00	100.00	100.00	95.00	96.08	100.00	100.00
	RJIL	0.00	0.51	0.64	99.92	0	0.01	0.16	0.00	0.00	100.00	100.00	100.00	97.83	96.62	100.00	100.00
	VIL-Brand	0.27	1.46	2.50	97.98	0	0.09	0.15	0.04	0.00	100.00	100.00	100.00	96.58	98.52	100.00	100.00
	VIL-Brand	0.27	1.46	2.50	97.98	0	0.09	0.15	0.04	0.01	100.00	100.00	100.00	100.00	98.40	100.00	100.00
Note:	VIL-Brand Idea & VIL-Brand Vodafone (Network related parameters): For circles like Andhra Pradesh, Assam, Bihar, Delhi, Gujarat, Haryana, Himachal Pradesh, Jammu&Kashmir, Kolkata, Karnataka, Madhya Pradesh, North East, Orissa, Punjab, Rajasthan, UPE, UPW and West Bengal, radio level integration has been completed and performance have been reported common both Vodafone & Idea.																
	NA : Not applicable																

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

**Quarterly Performance Monitoring Report (PMR) on QoS of Basic Telephone Service (Wireline) for QE March, 2020**

Sl. No.	Name of Service Area	Name of Service Provider	Faults incidences (No. of faults/ 100 Subs./ month)	Fault Repair				Rent Rebate	Mean Time to Repair (MTTR)	POI	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				Billing and Metering - post paid	Billing and Metering - pre paid	Resolution of billing/charging validity complaints	Period of applying credit/waiver/adjustment to customer's	Accessibility of call centre/customer care	Percentage of calls answered by the operators (voice to voice) within 90	%age requests for Termination / Closure of service completed within 7 days	Time taken for refund of deposits after closures				
																			≤ 7	For urban areas by next working day: ≥ 85%	For urban areas: ≥ 100%	For rural and hilly areas: ≥ 75%
				Benchmarks																		
1	A&N	BSNL	4	85.00%	100.00%	86.00%	100.00%	45	7	0.00%	0.00%	0.00%	98.00%	100.00%	100.00%	100.00%	96.33%	100.00%	100.00%			
2	Andhra Pradesh	Bharti Airtel	0.85	92.02%	100.00%	NA	NA	359	5.08	0.00%	0.01%	NA	100.00%	100.00%	100.00%	100.00%	87.00%	100.00%	100.00%			
3		BSNL	3	96.00%	100.00%	89.00%	100.00%	14	7	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	89.27%	86.43%	100.00%	100.00%			
4		RJIL	0.000	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	96.43%	98.27%	NA	NA			
5		TTSL	4.81	97.62%	100.00%	NA	NA	44	3.37	0.36%	0.00%	NA	100.00%	100.00%	100.00%	99.11%	98.79%	100.00%	100.00%			
6		VIL	0.29	100.00%	100.00%	NA	NA	NA	4.53	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA			
7	Assam	BSNL	3	91.00%	100.00%	90.00%	100.00%	449	5	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	98.02%	98.00%	100.00%	100.00%			
8		RJIL	0.000	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	100.00%	100.00%	NA	NA			
9		VIL	1.69	100.00%	100.00%	NA	NA	NA	8.23	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA			
10	Bihar	BSNL	4	93.00%	100.00%	90.00%	100.00%	0	5	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	98.12%	98.33%	100.00%	100.00%			
11		RJIL	0.000	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	100.00%	100.00%	NA	NA			
12		TTSL	1.02	95.45%	100.00%	NA	NA	0	3.49	0.00%	NA	NA	NA	NA	NA	98.65%	100.00%	100.00%	100.00%			
13		VIL	2.93	100.00%	100.00%	NA	NA	NA	5.37	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA			
14	Chattisgarh	BSNL	3	97.00%	100.00%	94.00%	100.00%	383	6	0.00%	0.01%	0.00%	99.00%	100.00%	100.00%	81.01%	87.05%	100.00%	100.00%			
15	Chennai	BSNL	5	92.00%	100.00%	92.00%	100.00%	459	7	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	89.42%	87.26%	100.00%	100.00%			
16	Delhi	Bharti Airtel	1.11	90.27%	100.00%	NA	NA	671	5.55	0.00%	0.01%	NA	100.00%	100.00%	100.00%	100.00%	86.00%	100.00%	100.00%			
17		MTNL	2.99	54.64%	84.21%	NA	NA	18717	20.55	0.00%	0.01%	0.00%	99.71%	100.00%	100.00%	95.00%	96.63%	100.00	94.48%			
18		RJIL	0.000	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	96.00%	97.03%	NA	NA			
19		TTSL	1.51	94.32%	100.00%	NA	NA	9	5.25	0.20%	0.00%	NA	100.00%	100.00%	100.00%	98.75%	97.16%	100.00%	100.00%			
20		VIL	1.37	100.00%	100.00%	NA	NA	NA	1.4	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA			
21	Gujarat	Bharti Airtel	0.70	91.56%	100.00%	NA	NA	80	5.74	0.00%	0.02%	NA	100.00%	100.00%	100.00%	100.00%	88.00%	100.00%	100.00%			
22		BSNL	4	97.00%	100.00%	93.00%	100.00%	80	5	0.00%	0.01%	0.00%	100.00%	100.00%	100.00%	87.68%	86.98%	100.00%	100.00%			
23		RJIL	0.000	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.04%	0.00%	NA	NA	NA	100.00%	100.00%	NA	NA			
24		TTSL	1.76	94.53%	100.00%	NA	NA	29	5.00	0.00%	0.07%	NA	100.00%	100.00%	100.00%	99.36%	99.68%	100.00%	100.00%			
25		VIL	0.30	100.00%	100.00%	NA	NA	NA	5.44	NA	0.00	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA			
26	Himachal Pradesh	BSNL	5	88.00%	100.00%	95.00%	100.00%	300	6	0.00%	0.09%	0.00%	98.00%	100.00%	100.00%	96.61%	97.33%	100.00%	100.00%			
27		RJIL	0.000	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.05%	0.00%	NA	NA	NA	100.00%	100.00%	NA	NA			
28		VIL	0.00	100.00%	100.00%	NA	NA	NA	0.00	NA	NA	NA	NA	NA	NA	99.00%	100.00%	NA	NA			
29	Haryana	Bharti Airtel	1.94	94.51%	100.00%	NA	NA	11	3.53	0.00%	0.01%	NA	100.00%	100.00%	100.00%	100.00%	86.00%	100.00%	100.00%			
30		BSNL	6	90.00%	100.00%	88.00%	100.00%	231	6	0.00%	0.07%	0.00%	100.00%	100.00%	100.00%	97.24%	98.00%	100.00%	100.00%			
31		RJIL	0.000	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	100.00%	100.00%	NA	NA			
32		TTSL	0.53	100.00%	100.00%	NA	NA	0	15.06	0.00%	NA	NA	NA	NA	NA	100.00%	100.00%	100.00%	100.00%			
33		VIL	5.93	100.00%	100.00%	NA	NA	NA	2.24	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA			

## Annexure 4.2 (Contd.)

34	Jammu & Kashmir	BSNL	7	95.00%	100.00%	97.00%	100.00%	34	7	0.00%	0.01%	0.00%	98.00%	100.00%	100.00%	95.89%	98.00%	100.00%	100.00%
35		RJIL	0.000	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	100.00%	100.00%	NA	NA
37	Jharkhand	BSNL	4	100.00%	100.00%	100.00%	100.00%	59	5	0.00%	0.09%	0.00%	98.00%	100.00%	100.00%	99.03%	98.67%	100.00%	100.00%
38	Kerala	Bharti Airtel	2.23	89.77%	100.00%	NA	NA	193	9.00	0.00%	0.00%	NA	100.00%	100.00%	100.00%	100.00%	<b>91.00%</b>	100.00%	100.00%
39		BSNL	4	92.00%	100.00%	89.00%	100.00%	1528	7	0.00%	0.05%	0.00%	100.00%	100.00%	100.00%	<b>90.29%</b>	<b>89.25%</b>	100.00%	100.00%
40		RJIL	0.000	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	96%	100.00%	NA	NA
41		TTSL	0.07	100.00%	100.00%	NA	NA	0	3.73	0.00%	NA	NA	NA	NA	NA	100.00%	97.37%	100.00%	100.00%
42		VIL	0.50	100.00%	100.00%	NA	NA	NA	7.31	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
43	Kolkata	Bharti Airtel	1.20	87.21%	100.00%	NA	NA	207	9.90	0.00%	0.00%	NA	100.00%	100.00%	100.00%	100.00%	<b>82.00%</b>	100.00%	100.00%
44		BSNL	6	91.00%	100.00%	NA	NA	357	8	0.00%	0.00%	0.00%	98.00%	100.00%	100.00%	99.20%	<b>94.67%</b>	100.00%	100.00%
45		RJIL	0.000	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	97.36%	96.42%	NA	NA
46		VIL	0.49	100.00%	100.00%	NA	NA	NA	4.17	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
47	Karnataka	Bharti Airtel	1.12	85.00%	100.00%	NA	NA	1288	6.06	0.00%	0.00%	NA	100.00%	100.00%	100.00%	100.00%	<b>83.00%</b>	100.00%	100.00%
48		BSNL	4	98.00%	100.00%	97.00%	100.00%	2383	7	0.00%	0.09%	0.00%	98.00%	100.00%	100.00%	<b>87.52%</b>	<b>85.41%</b>	100.00%	100.00%
49		RJIL	0.000	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	100.00%	100.00%	NA	NA
50		TTSL	0.34	94.67%	100.00%	NA	NA	20	5.92	0.40%	NA	NA	NA	NA	NA	98.29%	98.84%	100.00%	100.00%
51		VIL	0.50	100.00%	100.00%	NA	NA	NA	7.31	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
52	Maharashtra	Bharti Airtel	0.59	91.31%	100.00%	NA	NA	104	6.48	0.00%	0.01%	NA	100.00%	100.00%	100.00%	100.00%	<b>78.00%</b>	100.00%	100.00%
53		BSNL	5	89.00%	100.00%	79.00%	100.00%	985	8	0.00%	0.01%	0.00%	100.00%	100.00%	100.00%	<b>85.36%</b>	<b>85.75%</b>	100.00%	100.00%
54		RJIL	0.000	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	100.00%	100.00%	NA	NA
55		TTSL	1.38	94.61%	100.00%	NA	NA	106	4.93	0.12%	0.00%	NA	100.00%	100.00%	100.00%	99.11%	99.00%	100.00%	100.00%
56		VIL	0.88	100.00%	100.00%	NA	NA	NA	6	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
57	Madhya Pradesh	Bharti Airtel	1.78	90.07%	100.00%	NA	NA	360	4.57	0.00%	0.01%	NA	100.00%	100.00%	100.00%	100.00%	<b>88.00%</b>	100.00%	100.00%
58		BSNL	5	89.00%	100.00%	87.00%	100.00%	208	7	0.00%	0.03%	0.00%	100.00%	100.00%	100.00%	<b>88.50%</b>	<b>85.78%</b>	100.00%	100.00%
59		RJIL	0.001	100.00%	100.00%	100.00%	100.00%	0	0.4	0.00%	0.00%	0.00%	NA	NA	NA	100.00%	100.00%	NA	NA
60		TTSL	<b>13.61</b>	100.00%	100.00%	NA	NA	0	1.56	0.00%	NA	NA	NA	NA	NA	100.00%	100.00%	100.00%	100.00%
61		VIL	0.88	100.00%	100.00%	NA	NA	NA	6	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
62	Mumbai	Bharti Airtel	0.61	91.17%	100.00%	NA	NA	370	6.13	0.00%	0.00%	NA	100.00%	100.00%	100.00%	100.00%	<b>87.00%</b>	100.00%	100.00%
63		MTNL	2.3	<b>64.20%</b>	<b>82.30%</b>	NA	NA	53,052	<b>28.70</b>	0.49%	0.07%	NA	99.48%	100.00%	100.00%	99.92%	<b>52.30%</b>	<b>95.99%</b>	<b>0.00%</b>
64		RJIL	0.000	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	95.29%	99.00%	NA	NA
65		TTSL	2.70	92.42%	100.00%	NA	NA	321	6.14	0.23%	0.00%	NA	100.00%	100.00%	100.00%	98.87%	98.09%	100.00%	100.00%
66		VIL	0.61	100.00%	100.00%	NA	NA	NA	4.22	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
67	North East	RJIL	0.000	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	100.00%	100.00%	NA	NA
68		VIL	0.00	100.00%	100.00%	NA	NA	NA	0.00	NA	NA	NA	NA	NA	NA	99.00%	100.00%	NA	NA
69	North East-I	BSNL	5	93.00%	100.00%	81.00%	100.00%	22	7	0.00%	0.01%	0.00%	98.00%	100.00%	100.00%	98.51%	96.00%	100.00%	100.00%
70	North East-II	BSNL	2	97.00%	100.00%	97.00%	100.00%	126	4	0.00%	0.01%	0.00%	100.00%	100.00%	100.00%	97.14%	98.33%	100.00%	100.00%

### Annexure 4.2 (Contd.)

71	Orissa	BSNL	5	94.00%	100.00%	86.00%	100.00%	0	5	0.00%	0.09%	0.00%	99.00%	100.00%	100.00%	98.27%	97.67%	100.00%	100.00%
72		RJIL	0.000	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	100.00%	100.00%	NA	NA
73		TTSL	3.40	100.00%	100.00%	NA	NA	0	1.75	0.00%	NA	NA	NA	NA	NA	100.00%	100.00%	100.00%	100.00%
74		VIL	0.77	100.00%	100.00%	NA	NA	NA	1.24	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
75	Punjab	Bharti Airtel	1.49	86.07%	100.00%	NA	NA	176	5.50	0.00%	0.00%	NA	100.00%	100.00%	100.00%	100.00%	<b>87.00%</b>	100.00%	100.00%
76		BSNL	5	89.00%	100.00%	86.00%	100.00%	191	6	0.00%	0.02%	0.00%	98.00%	100.00%	100.00%	97.25%	97.67%	100.00%	100.00%
77		Quadrant	5	89.00%	100.00%	86.00%	100.00%	191	6	0.00%	0.02%	0.00%	98.00%	100.00%	100.00%	97.25%	97.67%	100.00%	100.00%
78		RJIL	0.000	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	100.00%	100.00%	NA	NA
79		TTSL	2.50	100.00%	100.00%	NA	NA	1	2.12	0.00%	NA	NA	NA	NA	NA	95.71%	100.00%	100.00%	100.00%
80		VIL	0.25	100.00%	100.00%	NA	NA	NA	1.31	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
81	Rajasthan	Bharti Airtel	1.24	86.35%	100.00%	NA	NA	52	5.24	0.00%	0.02%	NA	100.00%	100.00%	100.00%	100.00%	<b>86.00%</b>	100.00%	100.00%
82		BSNL	5	95.00%	100.00%	95.00%	100.00%	305	6	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	96.99%	97.67%	100.00%	100.00%
83		RJIL	0.000	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	100.00%	100.00%	NA	NA
84		TTSL	3.51	100.00%	100.00%	NA	NA	0	2.16	0.00%	NA	NA	NA	NA	NA	<b>94.74%</b>	100.00%	100.00%	100.00%
85		VIL	0.45	100.00%	100.00%	NA	NA	NA	3.53	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
86	Tamilnadu	Bharti Airtel	2.18	90.83%	100.00%	NA	NA	960	9.43	0.00%	0.00%	NA	100.00%	100.00%	100.00%	100.00%	<b>85.00%</b>	100.00%	100.00%
87		BSNL	3	88.00%	100.00%	84.00%	100.00%	1112	7	0.00%	0.05%	0.00%	100.00%	100.00%	100.00%	<b>88.24%</b>	<b>85.32%</b>	100.00%	100.00%
88		RJIL	0.000	100.00%	100.00%	100.00%	100.00%	0	-	0.00%	0.00%	0.00%	NA	NA	NA	96.15%	98.70%	NA	NA
89		TTSL	0.61	90.87%	100.00%	NA	NA	6	6.08	0.00%	NA	NA	NA	NA	NA	98.55%	98.10%	100.00%	100.00%
90		VIL	0.61	100.00%	100.00%	NA	NA	NA	3.7	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
91	UPE	Bharti Airtel	1.28	89.37%	100.00%	NA	NA	64	4.84	0.00%	0.01%	NA	100.00%	100.00%	100.00%	100.00%	<b>87.00%</b>	100.00%	100.00%
92		BSNL	3	91.00%	100.00%	87.00%	100.00%	540	4	0.00%	0.09%	0.00%	100.00%	100.00%	100.00%	97.12%	97.67%	100.00%	100.00%
93		RJIL	0.000	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	100.00%	100.00%	NA	NA
94		TTSL	2.89	100.00%	100.00%	NA	NA	0	1.22	0.00%	NA	NA	NA	NA	NA	100.00%	100.00%	100.00%	100.00%
95		VIL	0.55	100.00%	100.00%	NA	NA	NA	5.15	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
96	UPW	Bharti Airtel	1.41	91.45%	100.00%	NA	NA	22	4.42	0.00%	0.01%	NA	100.00%	100.00%	100.00%	100.00%	<b>88.00%</b>	100.00%	100.00%
97		BSNL	7	90.00%	100.00%	94.00%	100.00%	434	5	0.00%	0.00%	0.00%	98.00%	100.00%	100.00%	95.76%	98.00%	100.00%	100.00%
98		RJIL	0.000	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	100.00%	100.00%	NA	NA
99		TTSL	1.07	100.00%	100.00%	NA	NA	0	1.94	0.00%	NA	NA	NA	NA	NA	100.00%	100.00%	100.00%	100.00%
100		VIL	1.71	100.00%	100.00%	NA	NA	NA	4.22	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
101	Uttaranchal	BSNL	4	96.00%	100.00%	89.00%	100.00%	639	7	0.00%	0.01%	0.00%	100.00%	100.00%	100.00%	97.87%	97.67%	100.00%	100.00%
102	West Bengal	BSNL	4	93.00%	100.00%	95.00%	100.00%	777	5	0.00%	0.01%	0.00%	100.00%	100.00%	100.00%	98.45%	95.33%	100.00%	100.00%
103		RJIL	0.000	100.00%	100.00%	100.00%	100.00%	NA	NA	0.00%	0.00%	0.00%	NA	NA	NA	100.00%	100.00%	NA	NA
104		TTSL	1.47	99.66%	100.00%	NA	NA	0	1.97	0.00%	NA	NA	NA	NA	NA	97.47%	98.89%	100.00%	100.00%
105		VIL	1.11	100.00%	100.00%	NA	NA	NA	0	NA	NA	NA	NA	NA	NA	99.00%	100.00%	NA	NA
Note: NA means Not applicable																			

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

Annexure -I																							
Performance Monitoring Report on Quality of Service of Service Providers providing broadband (wireline) service for Quarter Ending March 2020																							
Sl. No.	Service Provider	Service area	Service Provisioning			Faults Repair			Billing Performance				Response Time to the Customer for		Bandwidth utilisation/throughput				Service availability (for all users) in %age	Packet Loss (for wired broadband access) in %age	Network latency (for wired broadband access)		
			%age of connections provided within 15 days of registration of demand	% of faults repaired by next working day (>90%)	% of faults repaired within 3 working day	Rent Rebate	%age of bills disputed	%age of billing complaints resolved within 4 weeks	%age of cases to whom refund of deposits is made within 60 days of closures	%age of calls answered by operator (Voice to voice) within 60 sec	%age of calls answered by operator (Voice to voice) within 90 sec	No. of Intra network links having Bandwidth utilisation >90% during peak hours (TCBH)	No. of Upstream links for International connectivity having bandwidth utilisation >90% during peak hours (TCBH)	% International bandwidth utilization during peak hours (TCBH) (Enclose MRTG) <90%	Broadband Connection Speed available (download) from ISP node to user	User reference point at POP/ISP Gateway node to International gateway (IGSP/NXI)	User reference point at ISP Gateway node to International nearest NAP port abroad (terrestrial)	User reference point at ISP Gateway node to International nearest NAP port abroad (satellite)					
																					100%	>90%	≥99%
1	<b>Bharat Sanchar Nigam Ltd.(BSNL)</b>	All India (except Delhi & Mumbai)	100.00%	93.44%	99.68%	25480	0.05%	100.00%	100.00%	87.26%	88.01%	NA	0	65.80%	91.88%	99.64%	0.90%	27	166	NA			
2	<b>Mahanagar Telephone Nigam Ltd.</b>	Delhi & Mumbai	86.50%	59.44%	73.08%	20901	0.01%	100.00%	47.24%	72.37%	76.01%	Nil	0	82.68%	89.85%	99.67%	0.52%	46	301	NA			
3	<b>Airlink Communications Pvt. Ltd.</b>	All India	100.00%	91.44%	99.57%	0	NA	100.00%	NA	70.82%	100.00%	0	0	88.04%	98.39%	99.07%	0.51%	120	150	NA			
4	<b>Airnet Cable and Datacom Pvt.Ltd.</b>	Maharashtra Mumbai	100.00%	94.00%	99.34%	0	0	0.00%	0.00%	100.00%	100.00%	0	0	4.24%	100.00%	100.00%	0.45%	5	255	NA			
5	<b>Alliance Broadband Services Pvt. Ltd.</b>	All India	100.00%	94.00%	99.26%	0	0.01%	100.00%	100.00%	89.00%	93.00%	0	0	76.70%	100.00%	99.99%	0.00%	80	280	0			
6	<b>ANI Network Pvt. Ltd.</b>	Delhi	100.00%	99.60%	100.00%	0	0.00%	0.00%	0.00%	99.00%	100.00%	0	0	85.00%	100.00%	99.90%	0.40%	20	288	NA			
7	<b>Asianet Satellite Communications</b>	All India	100.00%	90.38%	99.40%	Nil	1.66%	100.00%	100.00%	60.49%	80.63%	Nil	0	69.85%	90.00%	99.60%	1.00%	50	270	NA			
8	<b>Atria Convergence Technologies Pvt.</b>	All India	100.00%	95.05%	99.34%	26474	0.71%	100.00%	Nil	69.00%	72.00%	0	0	59.99%	90.00%	99.60%	1.00%	25	185	NA			
9	<b>Bharti Airtel Ltd.</b>	Andhra Pradesh	100.00%	93.64%	99.38%	636	0.10%	100.00%	100.00%	79.00%	82.00%	0%	0%	40.00%	100.00%	99.95%	0.00%	36	14	NA			
		Delhi	100.00%	91.17%	99.01%	1164	0.06%	100.00%	100.00%	80.00%	83.00%	0%	0%	67.00%	100.00%	99.98%	0.00%	36	71	NA			
		Gujarat	100.00%	93.92%	99.39%	162	0.03%	100.00%	100.00%	83.00%	86.00%	0%	NA	NA	100.00%	99.97%	0.00%	23	NA	NA			
		Haryana	100.00%	93.77%	99.36%	14	0.02%	100.00%	100.00%	80.00%	84.00%	0%	NA	NA	100.00%	99.97%	0.00%	63	NA	NA			
		Karnataka	100.00%	90.04%	100.00%	2371	0.06%	100.00%	100.00%	79.00%	82.00%	0%	0%	46.00%	100.00%	99.89%	0.00%	39	46	NA			
		Kerala	100.00%	91.67%	99.81%	181	0.02%	100.00%	100.00%	85.00%	88.00%	0%	NA	NA	100.00%	99.94%	0.00%	37	NA	NA			
		Kolkata	100.00%	91.41%	100.00%	303	0.01%	100.00%	100.00%	79.00%	83.00%	0%	0%	47.00%	100.00%	99.97%	0.00%	44	69	NA			
		Madhya Pradesh	100.00%	91.33%	99.06%	586	0.04%	100.00%	100.00%	82.00%	85.00%	0%	0%	57.00%	100.00%	99.93%	0.00%	42	60	NA			
		Maharashtra	100.00%	93.41%	99.18%	192	0.05%	100.00%	100.00%	73.00%	77.00%	0%	NA	NA	100.00%	99.96%	0.00%	16	NA	NA			
		Mumbai	100.00%	93.56%	99.24%	439	0.01%	100.00%	100.00%	83.00%	86.00%	0%	0%	61.00%	100.00%	99.86%	0.00%	38	57	NA			
		Punjab	100.00%	90.19%	99.07%	380	0.01%	100.00%	100.00%	84.00%	86.00%	0%	0%	73.00%	100.00%	99.98%	0.00%	61	80	NA			
		Rajasthan	100.00%	90.23%	99.81%	75	0.06%	100.00%	100.00%	84.00%	86.00%	0%	NA	NA	100.00%	99.98%	0.00%	39	NA	NA			
		Tamilnadu	100.00%	90.33%	99.57%	1361	0.05%	100.00%	100.00%	79.00%	82.00%	0%	0%	46.00%	100.00%	99.94%	0.00%	34	34	NA			
		Uttar Pradesh - East	100.00%	91.47%	99.09%	126	0.01%	100.00%	100.00%	79.00%	83.00%	0%	0%	49.00%	100.00%	99.88%	0.00%	42	75	NA			
		Uttar Pradesh - West	100.00%	91.24%	99.08%	80	0.02%	100.00%	100.00%	81.00%	84.00%	0%	NA	NA	100.00%	99.91%	0.00%	35	NA	NA			
10	<b>City Online Services Ltd.</b>	AP Karnataka	100.00%	98.00%	99.00%	NA	0.00%	100.00%	100.00%	95.00%	97.60%	0%	0%	62.00%	98.00%	98.00%	0.50%	25	280	NA			
11	<b>DEN Broadband Pvt. Ltd.</b>	All India	100.00%	96.70%	99.60%	0	Nil	Nil	Nil	80.32%	83.66%	0	0	73.75%	100.00%	99.22%	0.00%	NA	240	NA			
12	<b>Digital Network Associates Pvt. Ltd</b>	Maharashtra & Goa Mumbai	100.00%	92.15%	99.29%	None	0.09%	100.00%	Nil	61.83%	82.79%	Nil	0	80.00%	80.00%	99.82%	1.00%	4	255	600			
13	<b>Digital Satellite Connect Pvt. Ltd.</b>	Maharashtra	100.00%	93.12%	99.74%	None	0.00%	100.00%	Nil	75.63%	92.23%	Nil	0	80.00%	80.00%	99.82%	1.00%	4	255	600			
		Mumbai	100.00%	91.96%	99.40%	None	0.00%	100.00%	Nil	64.67%	86.18%	Nil	0	80.00%	60.00%	99.82%	1.00%	4	255	600			
14	<b>DNA Infotel Pvt. Ltd.</b>	Maharashtra	100.00%	91.54%	99.42%	None	0.00%	100.00%	Nil	64.37%	86.72%	Nil	0	80.00%	80.00%	99.82%	1.00%	4	255	600			
15	<b>DNA Infotel Pvt. Ltd.</b>	Maharashtra	100.00%	91.41%	99.37%	None	0.07%	100.00%	Nil	61.24%	82.22%	Nil	0	80.00%	80.00%	99.82%	1.00%	4	255	600			
15	<b>D-Vois Communications Pvt.Ltd.</b>	All India	100.00%	94.53%	99.45%	0	0.42%	Nil	Nil	84.50%	90.33%	0	Nil	Nil	90.00%	100.00%	0.10%	24	28	59			
16	<b>ESTO BORADNAD Pvt.Ltd.</b>	All India	100.00%	95.00%	100.00%	0	0.00%	0.00%	0.00%	80.00%	91.00%	0	0	71.00%	90.00%	99.00%	0.00%	40	100	720			
17	<b>Excitel Broadband Pvt.Ltd.</b>	Andhra Pradesh	100.00%	91.00%	99.00%	Nil	NA	NA	NA	73.00%	90.00%	0	Nil	85.00%	90.00%	98.48%	0.00%	12	199	NIL			
		Delhi	100.00%	90.10%	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%	90.30%	99.10%	Nil	NA	NA	NA	60.00%	80.00%	0	Nil	50.90%	98.50%	98.48%	0.00%	12	199	NIL			
		Rajasthan	100.00%	90.30%	99.10%	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%	90.30%	99.10%	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%	93.00%	99.20%	0	0.00%	100.00%	100.00%	84.50%	88.10%	0	0	88.00%	100.00%	100.00%	1.00%	120	350	NA
20	Geocity Network Solutions Pvt.Ltd.	Delhi	100.00%	93.33%	99.63%	0	0.00%	100.00%	100.00%	69.33%	87.00%	0	0	85.33%	94.43%	94.43%	0.40%	30	100	400
21	GTPL Broadband Pvt.Ltd.	All India	100.00%	96.30%	99.20%	372	0.04%	100.00%	100.00%	71.00%	77.00%	NA	0	60.13%	91.00%	99.45%	0.00%	11	300	NA
22	Hathway Cable & Datacom Ltd.	All India	100.00%	92.93%	99.36%	5842	0.24%	100.00%	100.00%	73.96%	87.39%	0	0	82.40%	90.00%	99.76%	0.24%	76	263	NA
23	Honesty Net Solutions (I) Pvt. Ltd.	Mumbai	100.00%	93.00%	100.00%	0	Nil	100.00%	0.00%	68.00%	100.00%	0	NA	NA	95.00%	100.00%	1.00%	NA	66	NA
24	Indinet Service Pvt Ltd	All India	100.00%	91.67%	100.00%	0	0.00%	100.00%	100.00%	73.00%	89.00%	0	0	84.00%	90.00%	99.08%	1.00%	44	251	0
25	Intech Online Pvt.Ltd.	Maharashtra	100.00%	90.25%	99.27%	6	1.04%	100.00%	0.00%	87.64%	92.62%	0	0	84.33%	99.13%	99.13%	1.00%	15	89.33	455
		Mumbai	100.00%	90.77%	99.33%	10	0.59%	100.00%	0.00%	89.93%	90.04%	0	0	61.67%	84.50%	99.13%	1.00%	1	76	455
26	Ishan Netsol Pvt Ltd	Gujarat	100.00%	92.06%	100.00%	0	0.00%	100.00%	100.00%	67.48%	82.35%	0	0	54.44%	91.00%	98.60%	1.00%	100	250	NA
27	Joister Inforserve Pvt. Ltd. (Formerly Syscon Infoway Pvt. Ltd.)	Mumbai	100.00%	94.00%	100.00%	Nil	0.00%	100.00%	0.00%	86.00%	87.00%	0	0	75.00%	99.00%	100.00%	0.00%	1	47	265
		Maharashtra	100.00%	96.00%	100.00%	Nil	0.00%	100.00%	NA	85.00%	86.00%	0	0	77.00%	99.00%	100.00%	1.00%	1	225	265
28	K NET SOLUTIONS PVT. LTD.	Chennai	100.00%	92.90%	99.37%	138	NA	100.00%	100.00%	89.38%	90.64%	0	0	NA	100.00%	99.97%	0.00%	8	221	NA
		Tamilnadu	100.00%	95.93%	99.56%	13	NA	100.00%	100.00%	89.38%	90.64%	0	0	NA	100.00%	99.94%	0.00%	15	242	NA
29	Limras Eronet Broadband Service Pvt.	All India	100.00%	99.00%	100.00%	0	1.00%	100.00%	0.00%	90.00%	100.00%	0	0	0.00%	97.00%	99.00%	1.00%	30	265	0
30	Meghbela Cable & Broadband	All India	100.00%	95.00%	100.00%	0	0.00%	100.00%	100.00%	95.00%	100.00%	Nil	Nil	74.00%	95.00%	99.90%	0.00%	60	150	0
31	Microscan Infocommtech Pvt. Ltd. (Formerly -Microscan Computers Pvt Ltd)	Maharashtra	99.00%	96.90%	99.76%	0	0.00%	0.00%	0.00%	100.00%	100.00%	0	0	5.66%	100.00%	100.00%	0.45%	5	255	NA
		Mumbai	99.00%	96.63%	99.52%	0	0.00%	0.00%	0.00%	100.00%	100.00%	0	0	33.84%	100.00%	100.00%	0.47%	5	255	NA
32	Netplus Broadband Services Pvt. Ltd.	Delhi	100.00%	100.00%	100.00%	0	0.00%	100.00%	100.00%	78.00%	84.00%	0	0	43.74%	95.43%	100.00%	0.10%	93	136	NA
		Haryana	100.00%	90.81%	100.00%	0	0.19%	100.00%	100.00%	Nil	Nil	0	0	75.00%	95.43%	100.00%	0.10%	76	135	NA
		Himachal Pradesh	100.00%	92.00%	100.00%	0	0.09%	100.00%	100.00%	79.00%	85.00%	0	0	77.00%	95.46%	100.00%	0.10%	89	137	NA
		Jammu & Kashmir	100.00%	100.00%	100.00%	0	0.22%	100.00%	100.00%	79.00%	85.00%	0	0	82.61%	95.33%	100.00%	0.10%	96	153	NA
		Punjab	100.00%	92.43%	100.00%	0	0.31%	100.00%	100.00%	79.00%	85.00%	0	0	82.00%	96.40%	100.00%	0.10%	60	81	NA
		Rajasthan	100.00%	100.00%	100.00%	0	0.00%	100.00%	100.00%	79.00%	85.00%	0	0	77.00%	95.56%	100.00%	0.10%	91	143	NA
33	Nextra Teleservices Pvt. Ltd.	UP-West	100.00%	96.00%	100.00%	0	0.00%	100.00%	100.00%	79.00%	85.00%	0	0	70.67%	95.00%	100.00%	0.10%	90	149	NA
		Delhi	100.00%	90.70%	99.10%	1346	1.00%	100.00%	100.00%	70.30%	87.00%	0	0	87.00%	100.00%	100.00%	1.00%	120	350	NA
34	Ortel Communications Ltd.	All India	100.00%	95.20%	99.39%	0	NA	NA	NA	100.00%	100.00%	0	0	59.64%	93.33%	99.77%	0.00%	85	212	NA
35	ONEOTT Intertainment Limited (formerly Planet E-shop Holdings India	All India	100.00%	97.00%	99.00%	8	1.00%	100.00%	100.00%	100.00%	100.00%	0	0	89.33%	100.00%	99.00%	0.50%	64	257	NA
36	Quadrant Televentures Ltd.	Punjab	100.00%	94.00%	99.26%	0	0.01%	100.00%	100.00%	89.00%	93.00%	0	0	76.70%	100.00%	99.99%	0.00%	80	280	0
37	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
38	RailTel Corporation of India Ltd.	All India (Pan India)	100.00%	97.60%	100.00%	Nil	0.00%	Nil	Nil	80.66%	87.66%	0	0	58.76%	100.00%	99.95%	1.00%	120	350	NA
39	Rajesh Digital Datacom Pvt.Ltd.	Mumbai	100.00%	97.00%	100.00%	0	0.00%	100.00%	100.00%	98.00%	98.00%	0	0	88.00%	88.00%	99.99%	0.00%	46	250	500
40	Reliance Jio Infocomm Ltd.	Andhra Pradesh	100.00%	91.00%	100.00%	0	0.00%	0.00%	0.00%	98.20%	98.80%	0%	NA	NA	100.00%	100.00%	NA	NA	NA	NA
		Assam	100.00%	92.00%	100.00%	0	0.00%	0.00%	0.00%	95.20%	96.10%	NA	NA	NA	100.00%	100.00%	NA	NA	NA	NA
		Bihar	100.00%	91.00%	100.00%	0	0.00%	0.00%	0.00%	95.00%	96.10%	NA	NA	NA	100.00%	99.96%	NA	NA	NA	NA
		Delhi	100.00%	93.00%	100.00%	0	0.00%	0.00%	0.00%	93.50%	94.70%	0%	0%	61.00%	100.00%	99.90%	0.00%	1.22%	NA	NA
		Gujarat	100.00%	91.00%	100.00%	0	0.00%	0.00%	0.00%	94.20%	95.40%	0%	NA	NA	100.00%	99.90%	NA	NA	NA	NA
		Haryana	100.00%	91.00%	99.00%	0	0.00%	0.00%	0.00%	94.60%	95.80%	NA	NA	NA	100.00%	100.00%	NA	NA	NA	NA
		Himachal Pradesh	100.00%	100.00%	100.00%	0	0.00%	0.00%	0.00%	96.00%	100.00%	NA	NA	NA	100.00%	100.00%	NA	NA	NA	NA
		Jammu & Kashmir	100.00%	91.00%	100.00%	0	0.00%	0.00%	0.00%	96.00%	96.90%	NA	NA	NA	100.00%	99.90%	NA	NA	NA	NA
		Karnataka	100.00%	92.00%	100.00%	0	0.00%	0.00%	0.00%	96.60%	97.40%	0%	0%	26.00%	100.00%	99.50%	NA	NA	NA	NA
		Kerala	100.00%	91.00%	99.00%	0	0.00%	0.00%	0.00%	98.60%	99.10%	NA	NA	NA	100.00%	100.00%	NA	NA	NA	NA
		Kolkata	100.00%	92.00%	100.00%	0	0.00%	0.00%	0.00%	94.70%	96.00%	0%	NA	NA	100.00%	100.00%	NA	NA	NA	NA
		Madhya Pradesh	100.00%	92.00%	100.00%	0	0.00%	0.00%	0.00%	94.70%	95.90%	NA	NA	NA	100.00%	100.00%	NA	NA	NA	NA
		Maharashtra	100.00%	91.00%	100.00%	0	0.00%	0.00%	0.00%	98.50%	99.10%	0%	NA	NA	100.00%	99.98%	NA	NA	NA	NA
		Mumbai	100.00%	91.00%	100.00%	0	0.00%	0.00%	0.00%	94.80%	95.80%	0%	0%	43.00%	100.00%	99.93%	0.00%	1.62%	104	NA
		North East	100.00%	93.00%	99.00%	0	0.00%	0.00%	0.00%	96.70%	97.40%	NA	NA	NA	100.00%	99.98%	NA	NA	NA	NA
		Orissa	100.00%	92.00%	99.00%	0	0.00%	0.00%	0.00%	94.80%	95.90%	NA	NA	NA	100.00%	100.00%	NA	NA	NA	NA
		Punjab	100.00%	91.00%	100.00%	0	0.00%	0.00%	0.00%	95.00%	96.00%	NA	NA	NA	100.00%	100.00%	NA	NA	NA	NA
		Rajasthan	100.00%	92.00%	100.00%	0	0.00%	0.00%	0.00%	94.30%	95.40%	NA	NA	NA	100.00%	100.00%	NA	NA	NA	NA
		Tamilnadu	100.00%	91.00%	100.00%	0	0.00%	0.00%	0.00%	95.20%	96.50%	0%	0%	38.00%	100.00%	100.00%	0.00%	1.43%	27	NA
		Uttar Pradesh - East	100.00%	92.00%	100.00%	0	0.00%	0.00%	0.00%	94.20%	95.40%	0%	NA	NA	100.00%	100.00%	NA	NA	NA	NA
Uttar Pradesh - West	100.00%	91.00%	100.00%	0	0.00%	0.00%	0.00%	94.30%	95.40%	NA	NA	NA	100.00%	100.00%	NA	NA	NA	NA		
West Bengal	100.00%	93.00%	99.00%	0	0.00%	0.00%	0.00%	96.70%	97.70%	NA	NA	NA	100.00%	99.90%	NA	NA	NA	NA		

### Annexure 4.3 (Contd.)

41	RI Networks Pvt Ltd	All India	99.10%	91.20%	99.20%	1174	NA	NA	NA	82.11%	90.62%	0%	0%	86.00%	100.00%	100.00%	1.00%	120	350	NA
42	Sai Prasad Internet Services Pvt.Ltd.	Maharashtra	100.00%	91.69%	99.16%	0	0.00%	100.00%	Nil	62.27%	88.69%	Nil	0	80.00%	80.00%	99.77%	1.00%	4	255	600
43	Shree Omkar Infocom Pvt. Ltd.	Mumbai	100.00%	98.00%	100.00%	10	0.00%	0.00%	100.00%	90.00%	95.00%	0	0	50.00%	93.00%	99.90%	1.00%	2	123	600
44	Shyam Spectra Pvt. Ltd. (formely Citycom Networks Pvt. Ltd.)	All India	100.00%	95.13%	99.33%	1477	1.37%	100.00%	100.00%	90.70%	92.70%	0	0	20.40%	86.00%	99.90%	0.00%	10	116	NA
45	Sifi Online Pvt. Ltd.	Delhi	100.00%	100.00%	100.00%	NA	2.00%	100.00%	100.00%	70.00%	90.00%	NA	NA	85.00%	90.00%	99.00%	0.00%	1	209	NA
46	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%	80.42%	86.60%	99.50%	1.00%	10	290	400
47	Siti Broadband Services Pvt.Ltd.	All India (Pan India)	100.00%	94.61%	99.08%	52	Nil	Nil	100.00%	96.00%	97.00%	0	0	64.76%	95.00%	99.64%	0.00%	55	131	NA
48	Tata Communications Ltd. (Ceased broadband services, hence NIL report)	All India	NA	Nil	Nil	0	0.00%	0.00%	0.00	Nil	Nil	0	0	0.00%	0.00%	Nil	0.00%	15	253	0
49	Tata Sky Broadband Pvt. Ltd.	All India	100.00%	92.07%	96.20%	NA	NA	NA	NA	79.18%	82.34%	0	0	74.00%	100.00%	99.85%	0.00%	1	NA	NA
50	Tata Tele.Ltd. (TTSL)	All India (except MH)	100.00%	93.20%	97.54%	48	0.02%	100.00%	Nil	97.11%	98.09%	0	0	49.10%	92.70%	99.70%	0.00%	68	65.33	Nil
51	Tata Tele.(Mah) Ltd. (TTML)	Mah. & Mumbai	100.00%	85.33%	95.06%	1	0.05%	100.00%	Nil	95.48%	97.09%	0	0	77.00%	88.00%	99.79%	0.02%	84	243	Nil
52	Vasai Cable Pvt. Ltd.	Maharashtra	100.00%	96.40%	100.00%	None	0.20%	100.00%	Nil	74.10%	84.77%	Nil	0	63.00%	90.00%	100.00%	1.00%	4	255	NA
53	Wan and Lan Internet Pvt. Ltd.	Mumbai	100.00%	100.00%	100.00%	0	0.00%	100.00%	0.00%	90.00%	90.00%	0	0	90.00%	90.00%	99.90%	0.00%	20	40	80
54	Wish Net Pvt. Ltd.	Kolkata	100.00%	98.93%	100.00%	0	0.00%	100.00%	NA	88.48%	99.00%	0	0	44.70%	100.00%	99.96%	1.00%	20	NA	NA
		West Bengal	100.00%	98.92%	100.00%	0	0.00%	100.00%	NA	89.18%	98.53%	0	0	44.70%	100.00%	99.94%	1.00%	20	NA	NA
55	World Phone Internet Services Pvt	All India	100.00%	82.33%	100.00%	0	0.00%	0.00%	0.00%	98.90%	100.00%	0	NA	NA	85.00%	99.83%	1.00%	25	NA	NA
56	Yashash Cable Network Pvt Ltd	Karnataka	100.00%	90.74%	99.16%	33	0.00%	0.00%	0.00%	78.35%	92.55%	0	0	81.10%	80.00%	99.44%	1.00%	30	301	0
57	You Broadband India Pvt. Ltd.	All India	99.07%	89.21%	99.24%	523	0.00%	0.00%	0.00%	89.48%	91.93%	0	0	76.56%	87.22%	99.12%	0.00%	9	277	0
			DNF= Data not as per Format				NR= Data not reported by the Service Provider						NA = Not Applicable			CDNF= 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 31<sup>st</sup> March 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	FY1 TV18	Infotainment	English	SD
		3	FY1 TV18 (HD)	Infotainment	English	HD
		4	Histry TV 18 HD	Infotainment	Hindi	HD
2	Asianet Star Communications Private Limited	5	Vijay TV	GEC	Tamil	SD
		6	Vijay Super	GEC	Tamil	SD
		7	Vijay HD	GEC	Tamil	HD
		8	Asianet	GEC	Malayalam	SD
		9	Asianet Plus	GEC	Malayalam	SD
		10	Asianet Movies	Movies	Malayalam	SD
		11	Suvarna Plus	Movies	Kannada	SD
		12	Star Suvarna HD	GEC	Kannada	HD
		13	Asianet HD	GEC	Malayalam	HD
		14	Star Suvarna	GEC	Kannada	SD
3	Bangla Entertainment Private Limited	15	AATH	GEC	Bangla	SD
		16	SONY Marathi	GEC	Marathi	SD
4	BBC Global News India Private Limited	17	BBC World News	News	English	SD
5	Bennett, Coleman & Company Limited	18	Zoom	GEC	Hindi	SD
		19	Romey Now	Movies	English	SD
		20	MN +	Movies	English	HD
		21	Mirror Now	News	English/Hindi	SD
		22	ET NOW	News	English/Hindi	SD
		23	Times Now	News	English/Hindi	SD
		24	Romey Now HD	Movies	English	HD
		25	Movies Now HD	Movies	English	HD
		26	MNX HD	Movies	English	HD
		27	MNX	Movies	English	SD
		28	Times Now World	News	English	HD



**Annexure 5.1(Contd.)**

<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>
6	Celebrities Management Pvt Limited	29	Travel XP HD	Lifestyle	English	HD
		30	Travel XP Tamil	Lifestyle	Tamil	SD
7	CSL Info Media Private Limited	31	JAN TV PLUS	News	Hindi	SD
8	Direct New Private Limited	32	News X	News	English	SD
9	Discovery Communications India	33	Animal Planet	Infotainment	English/Hindi	SD
		34	Discovery Channel	Infotainment	English/Hindi	SD
		35	DTAMIL	Infotainment	Tamil	SD
		36	Discovery Kids Channel	Kids	English	SD
		37	Discovery Science	Infotainment	English/Hindi	SD
		38	Discovery Turbo	Infotainment	English/Hindi	SD
		39	Investigation Discovery	GEC	Hindi	SD
		40	Discovery HD	Infotainment	English	HD
		41	Animal Planet HD World	Infotainment	English/Hindi	HD
		42	TLC HD	Infotainment	English/Hindi	HD
		43	Investigation Discovery HD	GEC	Hindi	HD
		44	TLC	Infotainment	English/Hindi	SD
		45	EUROSPORT HD (Earlier name "Dsport HD")	Sports	English	HD
		46	EUROSPORT (Earlier name "Dsport")	Sports	English	SD
10	Disney Broadcasting (India) Limited	47	Disney Junior	Kids	English	SD
		48	UTV Movies	Movies	Hindi	SD
		49	Marvel HQ	Kids	English/Hindi	SD
		50	Disney International HD	GEC	English	HD
		51	Hungama TV	Kids	English/Hindi	SD

**Annexure 5.1(Contd.)**

<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>
		52	The Disney Channel	Kids	English/Hindi	SD
		53	UTV HD	Movies	Hindi	HD
		54	UTV Bindass	GEC	Hindi	SD
		55	UTV Action	Movies	Hindi	SD
11	Eenadu Televisoin Private Limited	56	ETV	GEC	Telugu	SD
		57	ETV Andhra Pradesh	News	Telugu	SD
		58	ETV - Telangana	News	Telugu	SD
		59	ETV Cinema	Movies	Telugu	SD
		60	ETV Life	GEC	Telugu	SD
		61	ETV Plus	GEC	Telugu	SD
		62	ETV Abhiruchi	GEC	Telugu	SD
		63	ETV HD	GEC	Telugu	HD
		64	ETV Plus HD	GEC	Telugu	HD
		65	ETV Cinema HD	Movies	Telugu	HD
		66	ETV Abhiruchi HD	GEC	Telugu	HD
		67	ETV Life HD	GEC	Telugu	HD
12	IN 10 Media Private Limited	68	EPIC TV	Infotainment	English/Hindi	SD
13	Fame Media Private Limited	69	4tv News	News	Urdu/Hindi	SD
14	Greycells18 Media Limited	70	Topper TV	Miscellaneous	English	SD
15	IBN Lokmat News Private Ltd	71	News 18 Lokmat	News	Hindi	SD
16	Living Entertainment Enterprises Private Ltd	72	Living Foodz HD	Infotainment	Hindi	HD
		73	Living Travelz	Infotainment	Hindi	SD
17	Lifestyle and Media Broadcasting Limited	74	Good Times	Lifestyle	English	SD
18	Lex Sportel Vision Private Limited	75	1SPORTS	Sports	English	SD

**Annexure 5.1(Contd.)**

<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>
19	Mavis Satcom Limited	76	J Movies	Movies	Tamil	SD
		77	Jaya Max	Music	Tamil	SD
		78	Jaya Plus	News	Tamil	SD
		79	Jaya TV HD	GEC	Tamil	HD
20	MSM World Wide Factual Media Private Limited	80	SONY BBC EARTH	Infotainment	English/Hindi	SD
		81	SONY BBC EARTH HD	Infotainment	English/Hindi	HD
21	Media World Wide Limited	82	Travel XP	Lifestyle	English	SD
22	New Delhi Television Limited	83	NDTV 24*7	News	English	SD
		84	NDTV India	News	Hindi	SD
		85	NDTV Profit	News	English	SD
23	NGC Network (India) Pvt Limited	86	Fox Life	Infotainment	English/Hindi	SD
		87	National Geographic Channel (NGC)	Infotainment	English/Hindi	SD
		88	Fox Life HD	Infotainment	English/Hindi	HD
		89	Nat Geo Wild	Infotainment	English/Hindi	SD
		90	National Geographic HD	Infotainment	English/Hindi	HD
		91	Nat Geo Wild HD	Infotainment	English/Hindi	HD
24	NOIDA Software Technology Park Limited	92	Baby TV HD	Kids	English/Hindi	HD
		93	NHK World Premium (HD Distribution)	Infotainment	Japanese	HD
25	Odisha Television Limited	94	Prarthana	Devotional	Odia	SD
		95	Tarang	GEC	Odia	SD
		96	Tarang Music	Music	Odia	SD
		97	Alankar	Movies	Odia	SD
26	Raj Television Network Limited	98	Raj Digital Plus	Movies	Tamil	SD
		99	Raj Musix	Music	Tamil	SD
		100	Raj News	News	Tamil	SD
		101	Raj TV	GEC	Tamil	SD

**Annexure 5.1(Contd.)**

<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>
27	Silverstar Communications Limited	102	Mega 24	GEC	Tamil	SD
		103	Mega Musiq	Music	Tamil	SD
		104	Mega TV	GEC	Tamil	SD
28	Sony Pictures Networks India Private Limited	105	Sony YAY!	Kids	English	SD
		106	AXN	GEC	English	SD
		107	SET MAX	Movies	Hindi	SD
		108	SAB	GEC	Hindi	SD
		109	SONY ENTERTAINMENT CHANNEL (SET)	GEC	Hindi	SD
		110	PIX	Movies	English	SD
		111	SIX	Sports	English/Hindi	SD
		112	MAX 2	Movies	Hindi	SD
		113	PAL	GEC	Hindi	SD
		114	SET HD	GEC	Hindi	HD
		115	SIX HD	Sports	English/Hindi	HD
		116	PIX HD	Movies	English	HD
		117	MAX HD	Movies	Hindi	HD
		118	Ten 2 HD	Sports	English/Hindi	HD
		119	Ten 3 HD	Sports	English/Hindi	HD
		120	AXN HD	GEC	English	HD
121	Ten 2	Sports	English/Hindi	SD		
122	Ten 1	Sports	English	SD		
123	Ten 3	Sports	English/Hindi	SD		
124	Ten 1 HD	Sports	English	HD		
125	SONY Wah	Movies	Hindi	SD		
126	SAB HD	GEC	Hindi	HD		

**Annexure 5.1(Contd.)**

<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>
29	Star India Private Limited	127	Star Sports 3	Sports	English/Hindi	SD
		128	Star Sports 1 Tamil	Sports	Tamil	SD
		129	Star Sports Select 2	Sports	English/Hindi	SD
		130	Star Bharat	GEC	Hindi	SD
		131	Star Gold 2 (Earlier name "Movies OK)	Movies	Hindi	SD
		132	Star Sports 1 Hindi	Sports	Hindi	SD
		133	Star Gold	Movies	Hindi	SD
		134	Star Jalsha	GEC	Bangla	SD
		135	Star Movies	Movies	English	SD
		136	Star Gold Select	Movies	Hindi	SD
		137	Star Plus	GEC	Hindi	SD
		138	Star Pravah	GEC	Marathi	SD
		139	Star Sports 1	Sports	English/Hindi	SD
		140	Star Sports 2	Sports	English/Hindi	SD
		141	Star World	GEC	English	SD
		142	Jalsha Movies	Movies	Bangla	SD
		143	Star Sports HD 2	Sports	English/Hindi	HD
		144	Star Sports HD 1	Sports	English/Hindi	HD
		145	Star Bharat HD	GEC	Hindi	HD
		146	Star Gold HD	Movies	Hindi	HD
		147	Star Movies HD	Movies	English	HD
		148	Star Plus HD	GEC	Hindi	HD
		149	Star Sports 1 HD Hindi	Sports	Hindi	HD
		150	Star Sports Select 1	Sports	English/Hindi	SD
151	Star Movies Select HD	Movies	English	HD		
152	Star World HD	GEC	English	HD		
153	Star Sports First	Sports	English/Hindi	SD		

**Annexure 5.1(Contd.)**

<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>
		154	MAA Gold	Movies	Telugu	SD
		155	MAA Movies	Movies	Telugu	SD
		156	MAA Music	Music	Telugu	SD
		157	MAA TV	GEC	Telugu	SD
		158	Star Pravah HD	GEC	Marathi	HD
		159	Star Jalsha HD	GEC	Bangla	HD
		160	Jalsha Movies HD	Movies	Bangla	HD
		161	Star Sports Select HD 1	Sports	English/Hindi	HD
		162	Star Sports Select HD 2	Sports	English/Hindi	HD
		163	MAA HD	GEC	Telugu	HD
		164	Star Gold Select HD	Movies	Hindi	HD
		165	MAA Movies HD	Movies	Telugu	HD
		166	National Geographic Tamil	Infotainment	Tamil	SD
		167	National Geographic Telugu	Infotainment	Telugu	SD
		168	Star World Premiere HD	GEC	English	HD
		169	Star Sport 1 Telugu	Sports	Telugu	SD
		170	Star Sport 1 Kannada	Sports	Kannada	SD
		171	Star Sports 1 Bangla	Sports	Bangla	SD
		172	Star Utsav	GEC	Hindi	SD
		173	Star Sports 1 Marathi	Sports	Marathi	SD
		174	Star Utsav Movies	Movies	Hindi	SD
30	SUN TV Network Limited	175	Adithya TV	GEC	Tamil	SD
		176	Chintu TV	Kids	Kannada	SD
		177	Chutti TV	Kids	Tamil	SD
		178	Gemini Comedy	GEC	Telugu	SD

**Annexure 5.1(Contd.)**

<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>
		179	Gemini Life	GEC	Telugu	SD
		180	Gemini Movies	GEC	Telugu	SD
		181	Gemini Music	Music	Telugu	SD
		182	Gemini News	News	Telugu	SD
		183	Gemini TV	GEC	Telugu	SD
		184	KTV	GEC	Tamil	SD
		185	Surya Movies	GEC	Malayalam	SD
		186	Kushi TV	Kids	Telugu	SD
		187	SUN Life	GEC	Tamil	SD
		188	Sun Music	Music	Tamil	SD
		189	Sun News	News	Tamil	SD
		190	Surya Music	Music	Malayalam	SD
		191	SUN TV	GEC	Tamil	SD
		192	Surya Comedy	GEC	Malayalam	SD
		193	Surya TV	GEC	Malayalam	SD
		194	Udaya Comedy	GEC	Kannada	SD
		195	Udaya Movies	GEC	Kannada	SD
		196	Udaya Music	Music	Kannada	SD
		197	Udaya News	News	Kannada	SD
		198	Udaya TV	GEC	Kannada	SD
		199	Kochu TV	Kids	Malayalam	SD
		200	Sun TV HD	GEC	Tamil	HD
		201	KTV HD	GEC	Tamil	HD
		202	Sun Music HD	Music	Tamil	HD
		203	Gemini TV HD	GEC	Telugu	HD
		204	Gemini Music HD	Music	Telugu	HD
		205	Gemini Movies HD	GEC	Telugu	HD
		206	Surya TV HD	GEC	Malayalam	HD
		207	Udaya TV HD	GEC	Kannada	HD

**Annexure 5.1(Contd.)**

<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>
31	Suryansh Broadcasting Private Limited	208	Flowers	GEC	Malayalam	SD
32	Turner International India Pvt Ltd	209	Cartoon Network	Kids	Hindi	SD
		210	CNN International	News	English	SD
		211	HBO	Movies	English	SD
		212	POGO	Kids	Hindi	SD
		213	Cartoon Network HD+	Kids	Hindi	HD
		214	WB	Movies	English	SD
		215	HBO HD	Movies	English	HD
33	TV 18 Broadcast Limited	216	CNN News 18	News	English	SD
		217	CNBC Bazaar	News	Gujarati	SD
		218	CNBC TV 18 Prime HD	News	English	HD
		219	CNBC Awaaz	News	Hindi	SD
		220	News 18 Tamil Nadu	News	Tamil	SD
		221	News 18 Kerala	News	Malayalam	SD
		222	News 18 Assam / North East	News	Assamese	SD
		223	News 18 India	News	Hindi	SD
		224	CNBC TV 18	News	English	SD
		225	News 18 Bihar Jharkhand	News	Hindi	SD
		226	News 18 Madhya Pradesh / Chattisgarh	News	Hindi	SD
		227	News 18 Rajasthan	News	Hindi	SD
		228	News 18 Uttar Pradesh/ Uttaranchal	News	Hindi	SD
		229	News 18 Urdu	News	Urdu	SD
230	News 18 Kannada	News	Kannada	SD		
231	News 18 Bangla	News	Bangla	SD		



**Annexure 5.1(Contd.)**

<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>
		232	News 18 Punjab / Haryana / Himanchal Pradesh	News	Punjabi	SD
		233	News 18 Gujarati	News	Gujarati	SD
		234	News 18 Odia	News	Odia	SD
34	TV Today Network Limited	235	Aaj Tak	News	Hindi	SD
		236	India Today	News	English	SD
		237	AAJ Tak HD	News	Hindi	HD
		238	Aaj Tak Tez	News	Hindi	SD
35	Viacom 18 Media Private Limited	239	Colors	GEC	Hindi	SD
		240	Comedy Central (HD )	GEC	English	HD
		241	MTV	Music	Hindi	SD
		242	NICK	Kids	Hindi	SD
		243	NICK JR	Kids	English	SD
		244	SONIC	Kids	Hindi	SD
		245	VH 1 (HD Distribution)	Music	English	HD
		246	Colors Infinity HD	GEC	English	HD
		247	Colors Infinity	GEC	English	SD
		248	Colors HD	GEC	Hindi	HD
		249	NICKS HD+	Kids	Hindi	HD
		250	Colors Cineplex	Movies	Hindi	SD
		251	MTV Beats	Music	Hindi	SD
		252	Colors Kannada HD	GEC	Kannada	HD
		253	Colors Marathi HD	GEC	Marathi	HD
		254	Colors Bangla HD	GEC	Bangla	HD
		255	Colors Super	GEC	Kannada	SD
		256	Colors Bangla	GEC	Bangla	SD
		257	Colors Gujarati	GEC	Gujarati	SD
		258	Colors Kannada	GEC	Kannada	SD

**Annexure 5.1(Contd.)**

<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>
		259	Colors Marathi	GEC	Marathi	SD
		260	Colors Oriya	GEC	Oriya	SD
		261	MTV Beats HD	Music	Hindi	HD
		262	Colors Tamil	GEC	Tamil	SD
		263	Colors Cineplex HD	Movies	Hindi	HD
		264	VH 1	Music	English	SD
		265	Colors Tamil HD	GEC	Tamil	HD
		266	MTV HD+	Music	Hindi	HD
		267	Colors Rishtey	GEC	Hindi	SD
		268	Colors Kannada Cinema	Movies	Kannada	SD
		269	Colors Gujarati Cinema	Movies	Gujarati	SD
		270	Comedy Central	GEC	English	SD
		271	Colors Bangla Cinema	Movies	Bangla	SD
36	Zee Akaash News Private Limited	272	Zee 24 Ghanta	News	Bangla	SD
37	Zee Entertainment Enterprises Limited	273	Zee Bollywood	Movies	Hindi	SD
		274	Zee Action	Movies	Hindi	SD
		275	Zee Bangla Cinema	Movies	Bangla	SD
		276	Zee Café HD	GEC	English	HD
		277	Zee Café	GEC	English	SD
		278	Zee Cinema	Movies	Hindi	SD
		279	Zee Talkies	Movies	Marathi	SD
		280	Zee TV	GEC	Hindi	SD
		281	Zing	Music	Hindi	SD
		282	& Picture	Movies	Hindi	SD
		283	Zee Bangla	GEC	Bangla	SD
		284	Zee Marathi	GEC	Marathi	SD
		285	Living Foodz	Infotainment	English/Hindi	SD

**Annexure 5.1(Contd.)**

<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>
		286	Zee TV HD	GEC	Hindi	HD
		287	Zee Cinema HD	Movies	Hindi	HD
		288	& TV	GEC	Hindi	SD
		289	& TV HD	GEC	Hindi	HD
		290	Zee Kannada	GEC	Kannada	SD
		291	Zee Telugu	GEC	Telugu	SD
		292	& Pictures HD	Movies	English/Hindi	HD
		293	Zee Cinemalu	Movies	Telugu	SD
		294	Zee Yuva	GEC	Marathi	SD
		295	Zee Marathi HD	GEC	Marathi	HD
		296	& Prive HD	Movies	English	HD
		297	Zee Bangla HD	GEC	Bangla	HD
		298	Zee Tamil HD	GEC	Tamil	HD
		299	Zee Cinemalu HD	Movies	Telugu	HD
		300	Zee Telugu HD	GEC	Telugu	HD
		301	Zee Tamil	GEC	Tamil	SD
		302	Zee Kannada HD	GEC	Kannada	HD
		303	Zee Anmol Cinema	Movies	Hindi	SD
		304	& Flix HD	Movies	English	HD
		305	& Flix	Movies	English	SD
		306	Zee Keralam HD	GEC	Malayalam	HD
		307	Zee Keralam	GEC	Malayalam	SD
		308	Zee ETC	Music	Hindi	SD
		309	Zee Anmol	GEC	Hindi	SD
		310	Big Magic	GEC	Hindi	SD
		311	Big Ganga	GEC	Bhojpuri	SD
		312	Zee Classic	Movies	Hindi	SD
		313	&Xplore HD	Movies	Hindi	HD
		314	ZEE Sarthak	GEC	Odia	SD

**Annexure 5.1(Contd.)**

<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>
		315	Zee Talkies HD	Movies	Marathi	HD
		316	Zee Punjabi	GEC	Punjabi	SD
		317	Zee Thirai	Movies	Tamil	SD
		318	Zee Picchar	Movies	Kannada	SD
		319	Zee Biskope	Movies	Bhojpuri	SD
38	Zee Media Corporation Limited	320	Zee 24 Taas	News	Marathi	SD
		321	Zee Odisha	News	Odia	SD
		322	Zee Business	News	Hindi	SD
		323	Zee Punjab Haryana Himachal	News	Hindi	SD
		324	Zee Madhya Pradesh Chattisgarh	News	Hindi	SD
		325	Zee Salaam	News	Urdu	SD
		326	Zee 24 Kalak	News	Hindi	SD
		327	WION	News	Hindi	SD
		328	Zee Uttar Pradesh Uttrakhand	News	Hindi	SD
		329	Zee Hindustan	News	Hindi	SD
		330	Zee Bihar Jharkhand	News	Hindi	SD
		331	Zee News	News	Hindi	SD
		332	Zee Rajasthan News	News	Hindi	SD
39	Zoom Entertainment Network Limited	333	Movies Now	Movies	English	SD

## **Annexure 5.2 : List of pay DTH Operators**

### **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)
  
- 2. M/s Dish TV India Ltd.**  
FC-19, Sector-16A, Film City,  
Noida-201301  
Tel: 91-120-2467005 / 2467000  
Fax: 91-120-4357082  
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)
  
- 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)

**Annexure 5.3: List of 105 existing cities with operational FM Radio Channels in India as on 31<sup>st</sup> March, 2019**

<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	Bareilly	C	4
16	Bengaluru	A	8
17	Bharuch	D	1
18	Bhavangar	C	1
19	Bhopal	B	4
20	Bhubaneshwar	C	4
21	Bikaner	C	4
22	Bilaspur	C	3
23	Chandigarh	C	4
24	Chennai	A+	8
25	Cochin	B	4
26	Coimbatore	B	4
27	Dehradun	C	1
28	Delhi	A+	9
29	Dhule	C	3
30	Durg-Bhillaina	D	1
31	Dhubri	Others	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 5.3 (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 5.3 (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
			<b>368</b>

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



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