



The
**Indian
Telecom
Services**
Performance
Indicators
October – December, 2019



Telecom Regulatory Authority of India
Government of India



Telecom Regulatory Authority of India
(IS/ISO 9001-2008 Certified Organisation)

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Mahanagar Doorsanchar Bhawan,
Jawahar Lal Nehru Marg, New Delhi-110002
Website: www.trai.gov.in



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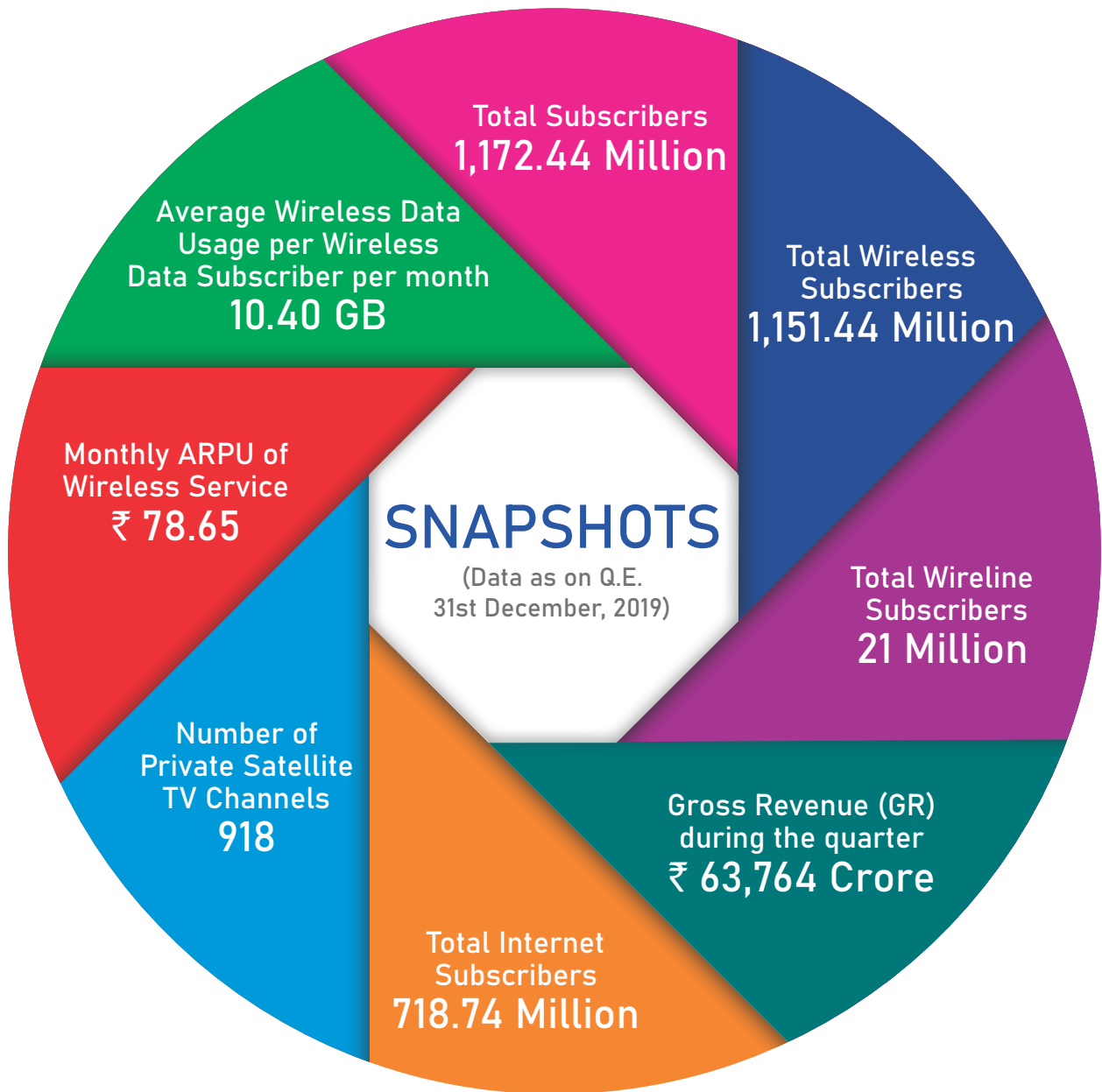
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The Information and Statistics contained in this report are derived from a variety of sources, but are mainly reliant on data obtained from Service Providers. This report does not constitute any commercial or other advice. No warranty, representation or undertaking of any kind, expressed or implied, is given in relation to the information and statistics contained in this report.



TELECOM SUBSCRIBERS (WIRELESS+WIRELINE)

Total Subscribers	1,172.44 Million
% change over the previous quarter	-1.91%
Urban Subscribers	662.45 Million
Rural Subscribers	509.99 Million
Market Share of Private Operators	88.55%
Market Share of PSU Operators	11.45%
Tele-density	88.56
Urban Tele-density	156.26
Rural Tele-density	56.67





WIRELESS SUBSCRIBERS

Total Wireless Subscribers	1,151.44 Million
% change over the previous quarter	-1.90%
Urban Subscribers	643.97 Million
Rural Subscribers	507.46 Million
Market Share of Private Operators	89.45%
Market Share of PSU Operators	10.55%
Tele-density	86.98
Urban Tele-density	151.90
Rural Tele-density	56.39
Total Wireless Data Usage during the quarter	21,402 Million GB
Number of Public Mobile Radio Trunk Services (PMRTS)	59,089
Number of Very Small Aperture Terminals (VSAT)	2,98,464

WIRESUBSCRIBERS

Total Wireline Subscribers	21 Million
% change over the previous quarter	-2.26%
Urban Subscribers	18.47 Million
Rural Subscribers	2.53 Million
Market Share of Private Operators	39.53%
Market Share of PSU Operators	60.47%
Tele-density	1.59
Urban Tele-density	4.36
Rural Tele-density	0.28
No. of Village Public Telephones (VPTs)	68,784
No. of Public Call Offices (PCOs)	1,93,794



TELECOM FINANCIAL DATA

Gross Revenue (GR) during the quarter	₹63,764 Crore
% change in GR over the previous quarter	6.29%
Adjusted Gross Revenue (AGR) during the quarter	₹40,877 Crore
% change in AGR over the previous quarter	9.48%
Share of Public Sector Undertakings in Access AGR	8%
Monthly Average Revenue Per User (ARPU) for Access Services	₹85.07



INTERNET/BROADBAND SUBSCRIBERS

Total Internet Subscribers	718.74 Million
% change over the previous quarter	4.53%
Narrowband Subscribers	56.806 Million
Broadband Subscribers	661.938 Million
Wired Internet Subscribers	22.386 Million
Wireless Internet Subscribers	696.36 Million
Urban Internet Subscribers	450.31 Million
Rural Internet Subscribers	268.43 Million
Total Internet Subscribers per 100 population	54.29
Urban Internet Subscribers per 100 population	106.22
Rural Internet Subscribers per 100 population	29.83



BROADCASTING & CABLE SERVICES



Number of private Satellite TV Channels permitted by the Ministry of I&B for uplinking only/downlinking only/both uplinking and downlinking	918
Number of Pay TV Channels as reported by Broadcasters	332
Number of private FM Radio Stations (excluding All India Radio)	368
Number of total active Subscribers with Pay DTH Operators	69.98 Million
Number of Operational Community Radio Stations	278
Number of Pay DTH Operators	4

REVENUE & USAGE PARAMETERS

Monthly ARPU of Wireless Services (GSM including LTE)	78.65*
Minutes of Usage (MOU) per Subscriber per month - Wireless Services (GSM including LTE)	712 Minutes
Total Outgoing Minutes of Usage for Internet Telephony	181.34 Million



WIRELESS DATA USAGE



Average Wireless Data Usage per Wireless Data Subscriber per month	10.40 GB
Average revenue realization per Subscriber per GB Wireless Data during the quarter	8.45

* For ARPU explanation please refer to footnote on Page 50

Executive Summary

1. The number of telephone subscribers in India decreased from 1,195.24 million at the end of Sept-19 to 1,172.44 million at the end of Dec-19, registering a growth rate of -1.91% over the previous quarter. This reflects Year-On-Year (Y-O-Y)

growth rate of -2.12% over the same quarter of the last year. The overall Tele-density¹ in India decreased from 90.52 as in QE Sep-19 to 88.56 as in QE Dec-19.

Trends in Telephone Subscribers and Tele-density in India



2. Telephone subscribers in Urban areas decreased from 677.95 million at the end of Sep-19 to 662.45 million at the end of

Dec-19 and Urban Tele-density also declined from 160.63 to 156.26 during the same period.

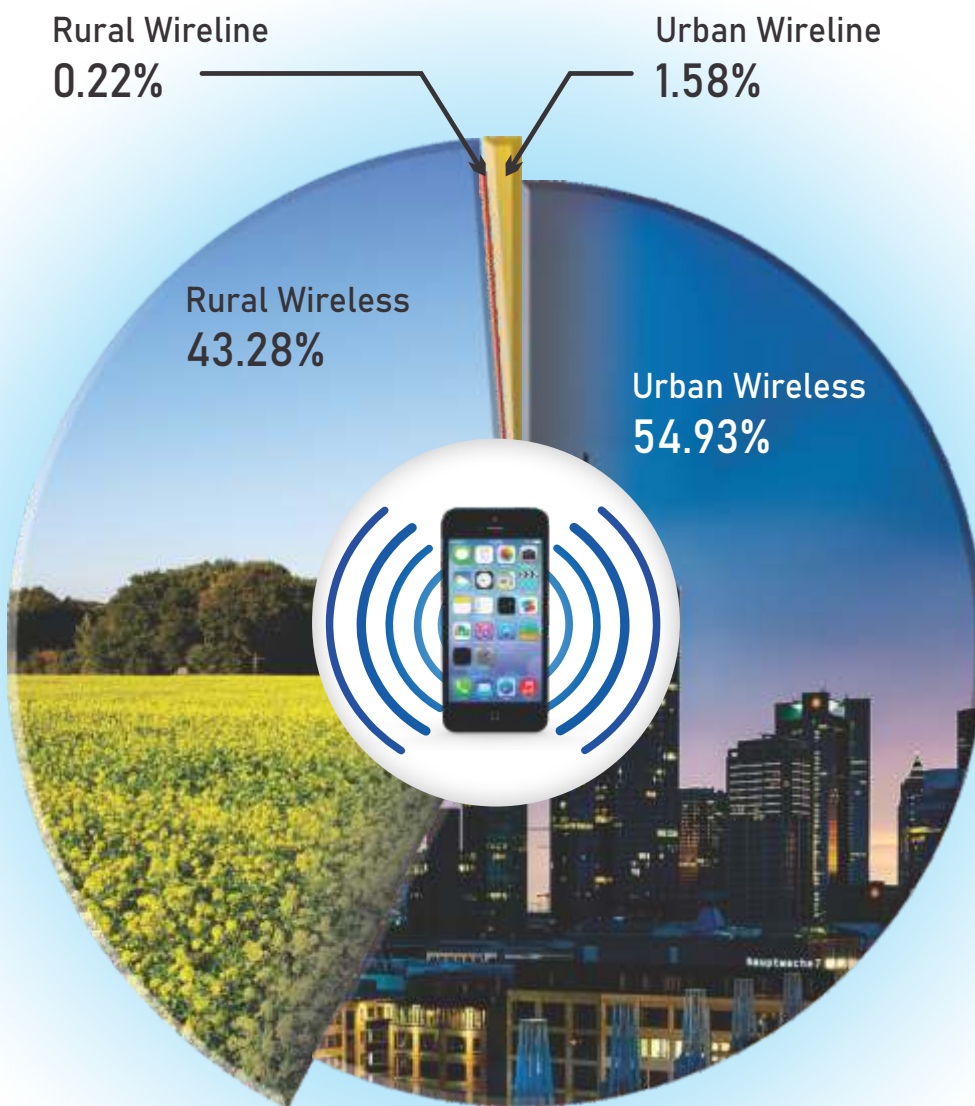
¹ Tele-density – Number of telephone connections (fixed lines and mobile phone subscribers) per 100 inhabitants within a geographical area.

(Source-ITU)

3. Rural telephone subscribers decreased from 517.29 million at the end of Sep-19 to 509.99 million at the end of Dec-19 and Rural Tele-density also decreased from 57.59 at the end of Sep-19 to 56.67 at the end of Dec-19 during the same period.

4. Out of the total subscriptions, the share of Rural subscriptions increased from 43.28% at the end of Sep-19 to 43.50% at the end of Dec-19.

Composition of Telephone Subscribers



5. With a net addition of -22.31 million subscribers during the quarter, the total wireless subscriber base decreased from 1,173.75 million at the end of Sep-19 to 1,151.44 million at the end of Dec-19, registering a growth rate of -1.90% over the previous quarter. Wireless subscriptions decreased Y-O-Y at the rate of 2.09% during the quarter.

the end of Dec-19 with a quarterly growth rate of -2.16%.

6. Wireless Tele-density declined from 88.90 at the end of Sep-19 to 86.98 at

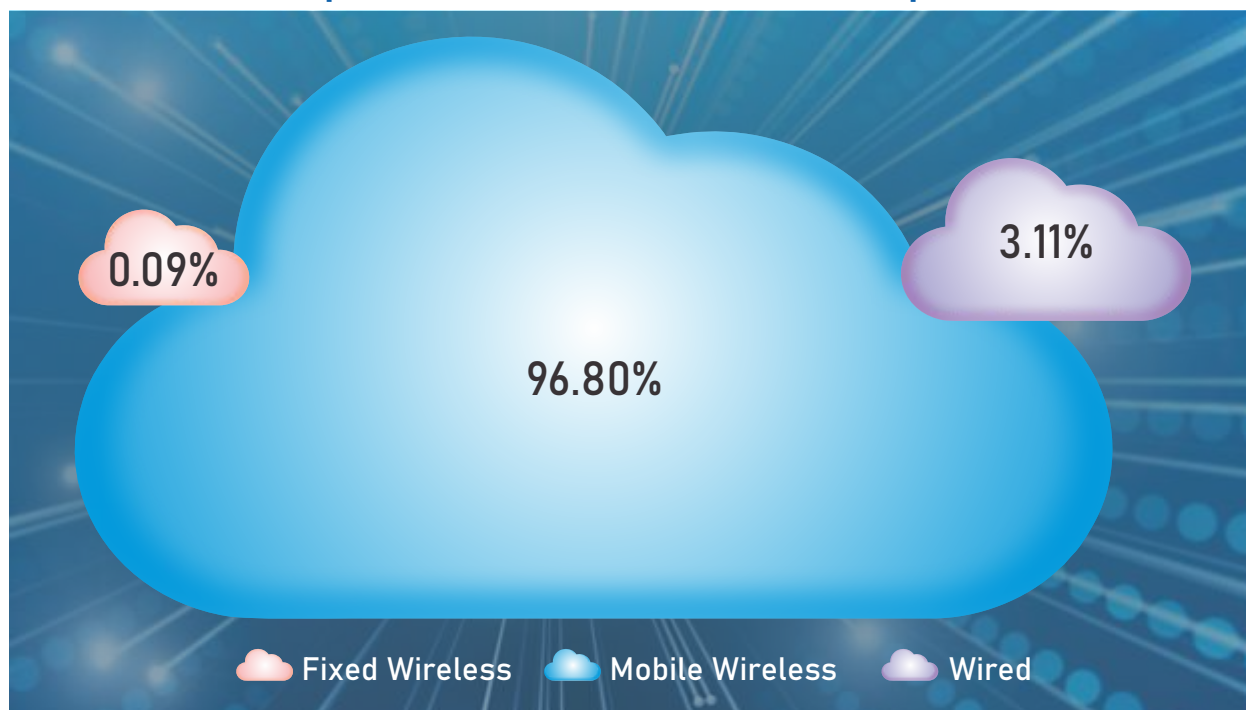
7. Wireline subscribers decreased from 21.49 million at the end of Sep-19 to 21 million at the end of Dec-19 with a quarterly growth rate of -2.26% and on a Y-O-Y basis, wireline subscriptions also declined by 3.95% in QE Dec-19.

8. Wireline Tele-density decreased from 1.63 at the end of Sep-19 to 1.59 at the end of Dec-19.

9. Total number of Internet² subscribers increased from 687.62 million at the end of Sept-19 to 718.74 million at the end of Dec-19, registering a quarterly growth rate of 4.53%. Out of 718.74 million

internet subscribers, the number of Wired Internet subscribers are 22.39 million and the number of Wireless Internet subscribers are 696.36 million.

Composition of Internet Subscriptions



10. The Internet subscriber base comprised Broadband³ Internet subscriber base of 661.94 million and Narrowband⁴ Internet subscriber base of 56.81 million.
11. The broadband Internet subscriber base increased by 5.84% from 625.42 million at the end of Sep-19 to 661.94 million at the end of Dec-19. However, the narrowband Internet subscriber base declined by 8.67% from 62.20 million at the end of Sep-19 to 56.81 million at the end of Dec-19.
12. Monthly Average Revenue per User (ARPU)⁵ for wireless services increased by 5.74%, from 74.38 in QE Sep-19 to 78.65 in QE Dec-19. On a Y-O-Y basis, monthly ARPU for wireless services increased by 12.15% in this quarter.
13. Pre-paid ARPU per month increased from 67 in QE Sep-19 to 70 in QE Dec-19 and Post-paid ARPU per month also increased from 247 in QE Sep-19 to 262 in QE Dec-19.
14. On an all India basis, the overall average Minutes of Usage (MOU)⁶ per subscriber per month for wireless services increased by 10.71% from 691 for QE Sep-19 to 712 in QE Dec-19.
15. Pre-paid MOU per subscriber per month increased from 694 in QE Sep-19 to 716 in QE Dec-19. Post-paid MOU per subscriber per month also increased from 617 in QE Sep-19 to 632 in QE Dec-19.

² Internet : Interconnected global networks that use the internet protocol.

³ Broadband : Internet access with a minimum capacity of greater or equal to 512 Kbit/s in one or both directions.

⁴ Narrowband : Internet access with a capacity of less than 512 Kbit/s in one or both directions.

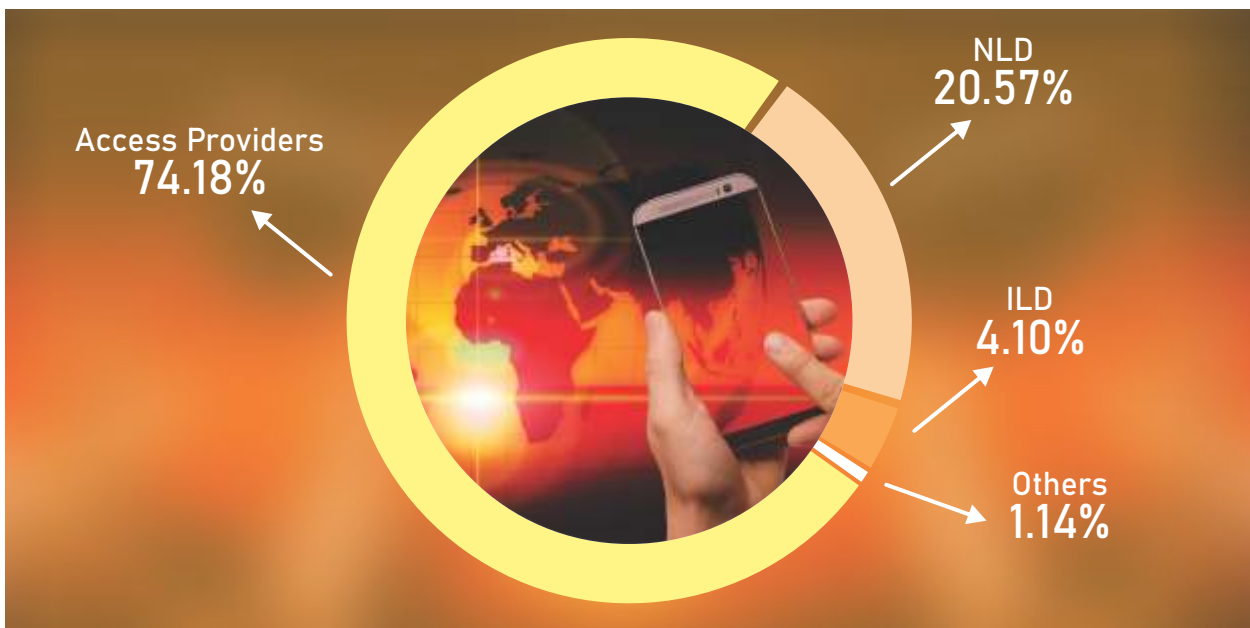
(Source-ITU)

⁵ ARPU per month is calculated by dividing net subscribers' revenue by the average number of subscribers.

⁶ MOU per subscriber per month is calculated by dividing the total minutes of usage (incoming & outgoing) by the average number of subscribers.

16. Gross Revenue⁷ (GR) and Adjusted Gross Revenue⁸ (AGR) of the Telecom Services Sector for the Q.E. Dec-19 has been ₹63,764 Crore and ₹40,877 Crore respectively. GR and AGR increased by 6.29% and 9.48% respectively in Q.E. Dec-19 as compared to the previous quarter.
17. The Y-O-Y growth in GR and AGR in Q.E. Dec-19 over the same quarter of the last year has been 8.09% and 13.38% respectively.
18. Pass-through⁹ charges increased from ₹22,654 Crore in QE Sep-19 to ₹22,887 Crore in QE Dec-19 with a quarterly growth rate of 1.03%. The Y-O-Y growth rate of -0.22% has been recorded in pass-through charges for QE Dec-19.
19. The Licence Fee¹⁰ increased from ₹2,989 Crore for QE Sep-19 to ₹3,270 Crore for QE Dec-19. The quarterly and the Y-O-Y growth rates of licence fee are 9.41% and 13.15% respectively in this quarter.
20. Access services contributed 74.18% to the total Adjusted Gross Revenue of telecom services. In Access services, Gross Revenue (GR), Adjusted Gross Revenue (AGR), Licence Fee and Spectrum Usage Charges (SUC)¹¹ increased by 5.47%, 8.60%, 8.51% and 12.58% respectively in QE Dec-19. However, Pass Through Charges declined quarterly by 0.18% during the same period.

Composition of Adjusted Gross Revenue in Access Services



⁷ 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 items of expense etc.

⁸ 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 was included as a component of Sales Tax and Service Tax

⁹ Pass through charges mean the charges excluded from gross revenue to arrive at adjusted gross revenue for the purpose of levying licence fee.

¹⁰ Licence Fee means a fee payable by Licencee at prescribed intervals and rates for the period of the Licence.

¹¹ Spectrum Usage Charges are payable by the licencees providing mobile access services, as a percentage of their Adjusted Gross Revenue (AGR).

21. Monthly Average Revenue per User (ARPU) for Access Services based on AGR, increased from 78.17 in QE Sep-19 to 85.07 in QE Dec-19.

Parameters showing improvement in QoS

- ▶ Fault incidences : Mean Time To Repair (MTTR).
- ▶ Response time to the customer for Assistance : %age of calls answered by the operators (Voice-to-Voice) within 90 seconds.
- ▶ Termination/Closure of service : %age of requests for termination / closure of service complied within 7 days.

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 :

Parameters showing deterioration in QoS

- ▶ Fault incidences : No. of faults per 100 subs/month.
- ▶ Response time to the customer for Assistance
- ▶ Accessibility of call centre/ customer care.

23. The performance of Cellular Mobile service providers in terms of Quality of Service (QoS) during the quarter

vis-à-vis that in the previous quarter is given as below :

Parameters showing improvement in QoS

- ▶ BS Accumulated down-time (not available for service)
- ▶ Worst affected BSs due to down-time
- ▶ SDCCH/ Paging Channel Congestion/ RRC Congestion
- ▶ Metering and billing credibility - post-paid
- ▶ Period of applying credit/ waiver/ adjustment to customer's account from the date of resolution of complaints

Parameters showing deterioration in QoS

- ▶ Network QoS DCR Spatial Distribution Measure [Network_ QSD (90,90)]
- ▶ Network QoS DCR Temporal Distribution Measure [Network_ QTD (97,90)]
- ▶ Accessibility of call centre/ customer care
- ▶ %age of calls answered by the operators (Voice-to-Voice) within 90 sec

24. A total number of 918 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 31st December, 2019.
25. As per the reporting to TRAI done by broadcasters in pursuance of the Tariff Order (Broadcasting & Cable) dated 3rd March 2017, there are 332 pay channels as on 31st December, 2019, which include 234 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 31st December, 2019, there were 4 Pay DTH service providers in the country.
27. Pay DTH has attained a total active subscriber base of around 69.98 million in QE 31st December, 2019. This is in addition to 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 31st December, 2019, there are 368 operational private FM Radio Stations in 105 cities of 33 broadcasters as compared to 367 private FM Radio Stations in 104 cities of 33 broadcasters in the previous quarter.
29. The reported advertisement revenue for the QE 31st December, 2019 in respect of 367 private FM Radio Stations is ₹509.28 crore as against ₹466.70 crore in respect of 366 private FM Radio Stations for the previous quarter.
30. As per data received from MIB, as on 31st December, 2019, 278 Community Radio Stations are operational in the country.



Trends at a Glance

A. Access Services (Wireline + Wireless)

	QE Dec 2018	QE Mar 2019	QE Jun 2019	QE Sep 2019	QE Dec 2019	%age change over Dec-2018	%age change over Mar-2019	%age change over Jun-2019	%age change over Sep-2019
						(12 months)	(9 months)	(6 months)	(3 months)
1) Subscriber Base (in million)									
Wireline	21.87	21.70	21.17	21.49	21.00	-3.95%	-3.19%	-0.78%	-2.26%
Wireless	1176.00	1161.81	1165.46	1173.75	1151.44	-2.09%	-0.89%	-1.20%	-1.90%
Total	1197.87	1183.51	1186.63	1195.24	1172.44	-2.12%	-0.94%	-1.20%	-1.91%
Rural	531.59	514.35	511.05	517.29	509.99	-4.06%	-0.85%	-0.21%	-1.41%
Urban	666.28	669.16	675.58	677.95	662.45	-0.57%	-1.00%	-1.94%	-2.29%
2) Tele-density									
Wireline	1.67	1.65	1.61	1.63	1.59	-4.96%	-3.95%	-1.30%	-2.52%
Wireless	89.78	88.46	88.50	88.90	86.98	-3.12%	-1.67%	-1.72%	-2.16%
Total	91.45	90.11	90.11	90.52	88.56	-3.15%	-1.72%	-1.71%	-2.17%
Rural	59.50	57.47	56.99	57.59	56.67	-4.76%	-1.38%	-0.57%	-1.59%
Urban	159.98	159.96	160.78	160.63	156.26	-2.33%	-2.31%	-2.81%	-2.72%
3) Service Provider-wise Subscriber Base (in Million) (Wireless + Wireline)									
Bharti Airtel	344.30	329.36	324.65	329.88	331.61	-3.69%	0.68%	2.14%	0.52%
Vodafone Idea	419.03	395.17	383.77	372.86	333.01	-20.53%	-15.73%	-13.23%	-10.69%
Reliance Jio	280.12	306.72	331.26	356.08	371.07	32.47%	20.98%	12.02%	4.21%
BSNL	125.81	126.91	126.86	127.19	127.70	1.50%	0.62%	0.66%	0.40%
MTNL	6.74	6.70	6.63	6.57	6.50	-3.57%	-2.95%	-1.95%	-1.13%
Tata Tele.	20.86	17.68	12.56	1.82	1.79	-91.43%	-89.89%	-85.76%	-1.59%
Reliance Com.	0.78	0.75	0.68	0.63	0.57	-26.56%	-23.73%	-16.49%	-9.18%
Quadrant	0.23	0.22	0.22	0.21	0.20	-12.89%	-10.81%	-9.68%	-5.37%
Total	1197.87	1183.51	1186.63	1195.24	1172.44	-2.12%	-0.94%	-1.20%	-1.91%

B. Internet Services

	QE Dec 2018	QE Mar 2019	QE Jun 2019	QE Sep 2019	QE Dec 2019	%age change over Dec-2018	%age change over Mar-2019	%age change over Jun-2019	%age change over Sep-2019
						(12 months)	(9 months)	(6 months)	(3 months)
1) Subscriber Base (in million)									
A. Wired Internet Subscribers	21.42	21.68	21.67	22.26	22.39	4.49%	3.26%	3.33%	0.58%
B. Wireless Internet Subscribers	582.79	615.05	643.64	665.37	696.36	19.49%	13.22%	8.19%	4.66%
i. Mobile Wireless (Mobile & Dongle)	582.35	613.75	643.09	664.79	695.74	19.47%	13.36%	8.19%	4.66%
ii. Fixed Wireless (Wi-Fi, Wi-Max, Point-to-Point Radio & VSAT)	0.44	1.31	0.55	0.58	0.62	41.37%	-52.74%	11.38%	6.26%
Total Internet Subscribers	604.21	636.73	665.31	687.62	718.74	18.95%	12.88%	8.03%	4.53%
2) No. of Internet Subs per 100 Population	46.13	48.48	50.52	52.08	54.29	17.70%	11.99%	7.46%	4.25%

C. Usage and Revenue for Wireless Services

Traffic(MOU) (Minutes of Usage/Subscriber/month)	667	692	701	691	712	6.68%	2.91%	1.57%	3.11%
ARPU (Rs./sub/month)	70	71	74	74	79	12.14%	10.16%	5.86%	5.74%

D. Telecom Financial Data

	QE Dec 2018	QE Mar 2019	QE Jun 2019	QE Sep 2019	QE Dec 2019	%age change over Dec-2018	%age change over Mar-2019	%age change over Jun-2019	%age change over Sep-2019
						(12 months)	(9 months)	(6 months)	(3 months)
1. Telecom Sector									
i) Gross Revenue (₹ in Crores)	58990.60	58414.36	61534.81	59992.13	63764.14	8.09%	9.16%	3.62%	6.29%
ii) Adjusted Gross Revenue (₹ in Crores)	36054.13	35932.44	39123.92	37338.49	40877.46	13.38%	13.76%	4.48%	9.48%
2. Access Services									
Adjusted Gross Revenue (₹ in Crores)	26070.72	26095.71	28650.28	27921.03	30323.29	16.31%	16.20%	5.84%	8.60%
ARPU per month (AGR/Average Subscribers/3)	72.82	72.49	80.66	78.17	85.07	-13.04%	-12.65%	-21.50%	-18.99%



INTRODUCTION

This Report presents the Key Parameters and growth trends of the Telecom Services in India for the quarter ending 31st December, 2019. It provides a broad perspective to serve as a reference document for various stakeholders, research agencies and analysts.

Chapter-1 depicts the growth pattern, in terms of the 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.

Chapter-5 gives information relating to Cable TV, DTH & Radio Broadcast services.

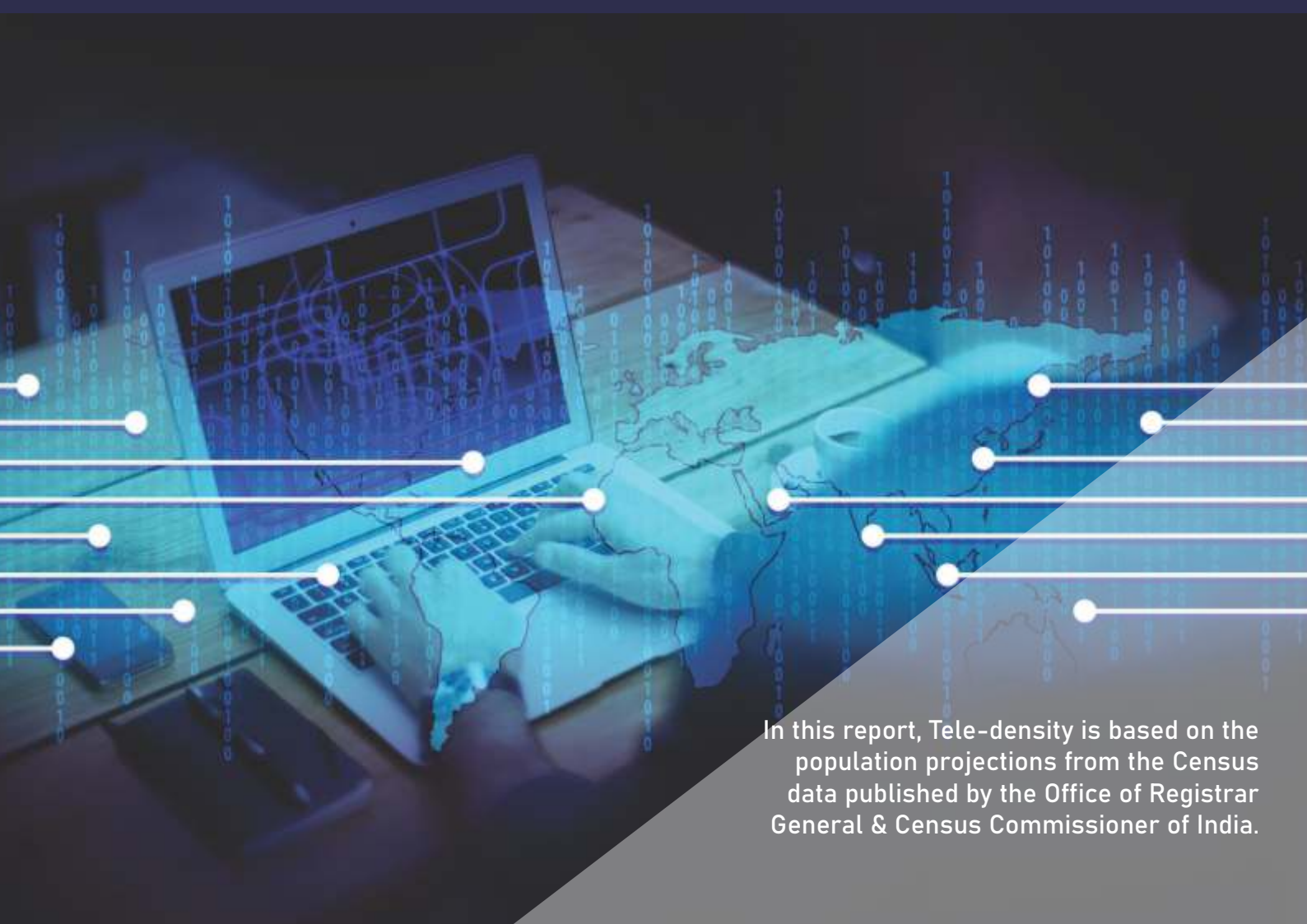
2. The Report has been prepared based on the information furnished by the Service Providers. It is also available on TRAI's website (www.trai.gov.in under the link <http://www.trai.gov.in/release-publication/reports/performance-indicators-reports>).

For suggestions or clarifications 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.



Chapter 1 :

SUBSCRIPTION DATA



In this report, Tele-density is based on the population projections from the Census data published by the Office of Registrar General & Census Commissioner of India.

Section A : Access Services - An Overview

1.1 The number of telephone subscribers in India decreased from 1,195.24 million at the end of Sep-19 to 1,172.44 million at the end of Dec-19, registering a growth rate of -1.91% over the previous quarter. This reflects Y-O-Y growth rate of

-2.12% over the same quarter of the last year. The overall Tele-density in India decreased from 90.52 as on 30th Sep, 2019 to 88.56 as on 31st December, 2019 with a quarterly growth rate of -2.17%.

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

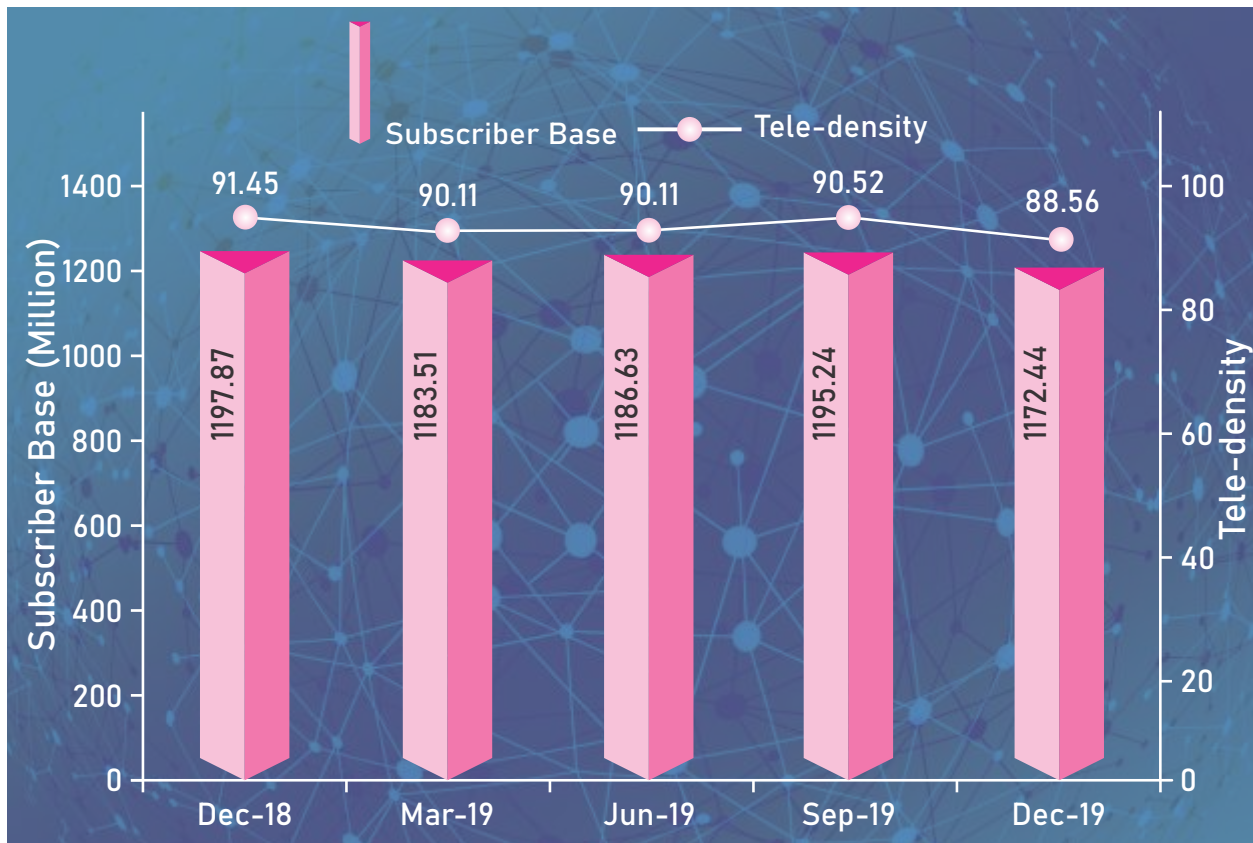


Table 1.1: Subscriber Base & Tele-density - Rural & Urban

Quarter ending	Subscriber Base (million)		Tele-density	
	Rural	Urban	Rural	Urban
Dec-18	531.59	666.28	59.50	159.98
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

1.2 Telephone subscriptions in Urban areas decreased from 677.95 million at the end of Sep-19 to 662.45 million at the end

of Dec-19 and Urban Tele-density also declined from 160.63 to 156.26 at the end of the quarter.

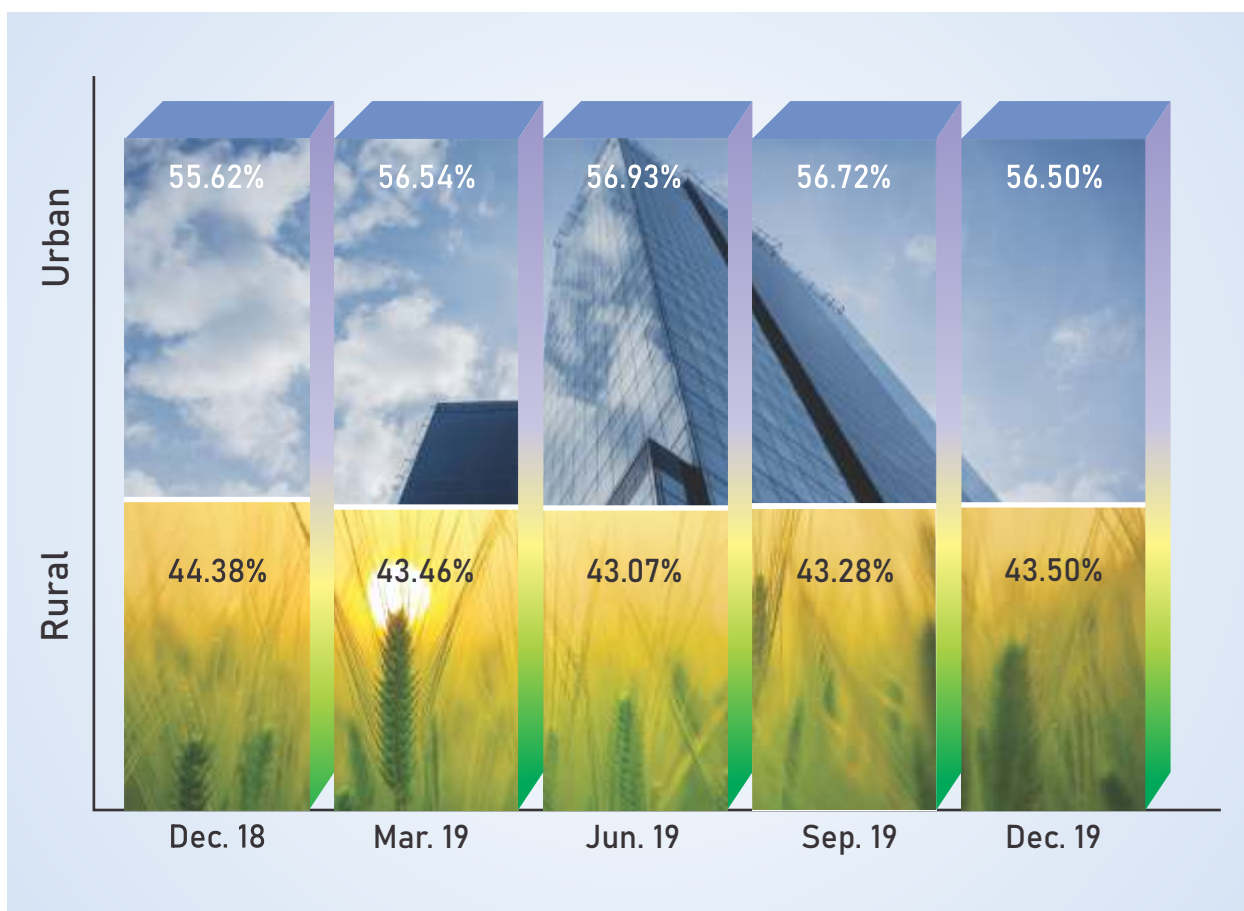
1.3 Rural telephone subscriptions decreased from 517.29 million at the end of Sep-19 to 509.99 million at the end of Dec-19

and Rural Tele-density also decreased from 57.59 at the end of Sep-19 to 56.67 at the end of Dec-19.

1.4 The Y-O-Y growth rates of Urban and Rural telephone subscriptions from Dec-18 to Dec-19 are -0.57% and -4.06% respectively.

The Y-O-Y growth rates of Urban and Rural Tele-density from Dec-18 to Dec-19 are -2.33% and -4.76% respectively.

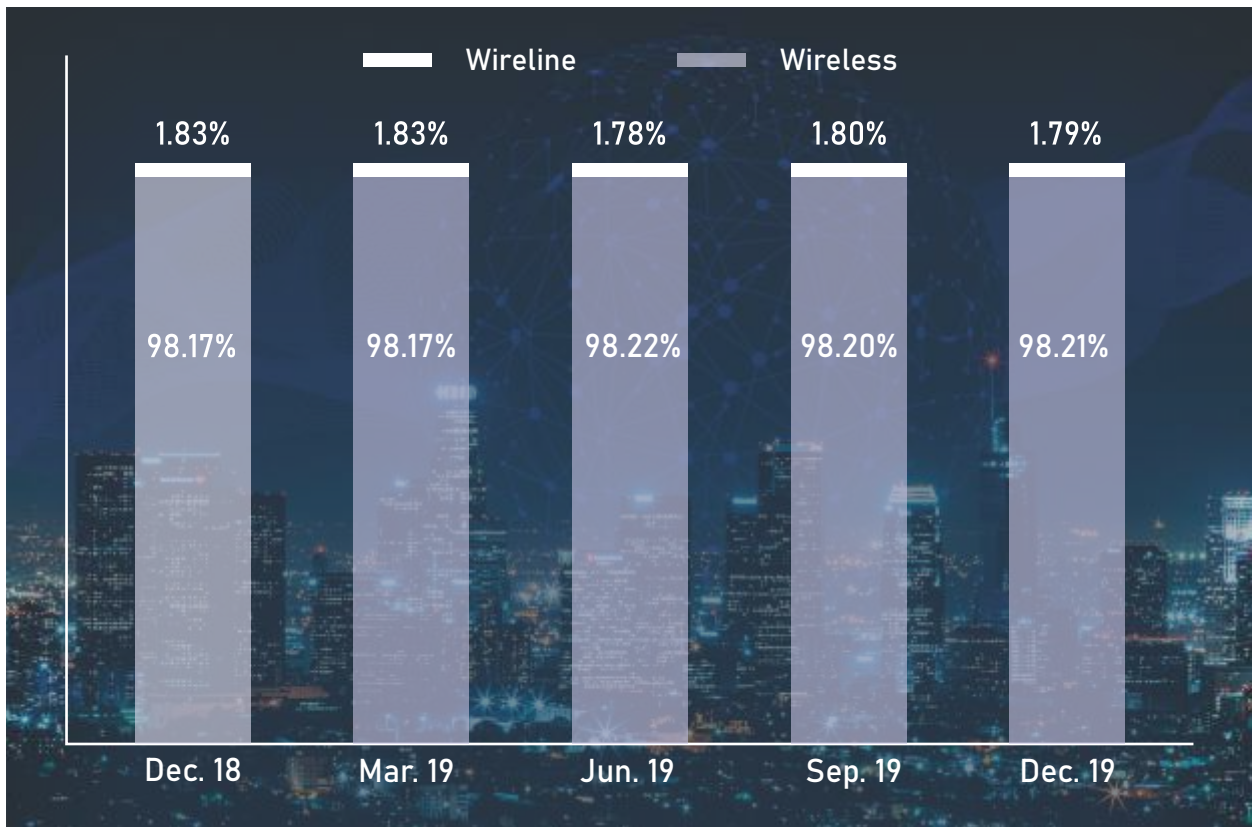
Chart 1.2: Market Share - Rural & Urban Subscribers



1.5 Share of subscriptions of rural areas in the total telephone subscriptions

increased from 43.28% at the end of Sep-19 to 43.50% at the end of Dec-19.

Chart 1.3: Composition of Access Subscriptions - Wireline & Wireless



1.6 Share of wireline subscriptions in the total telephone subscriptions decreased

from 1.80% at the end of Sep-19 to 1.79% at the end of Dec-19.

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

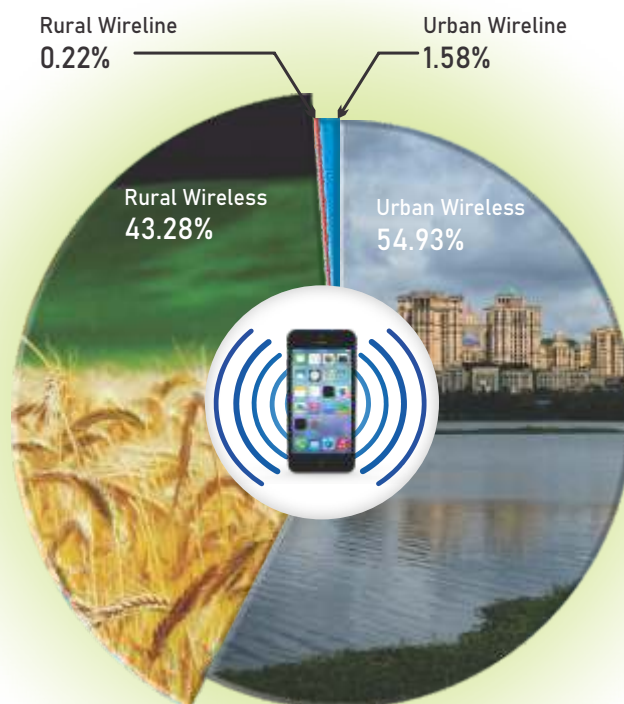


Table 1.2: Service Area-wise Access (Wireless + Wireline) Subscriber Base

Service Area	Subscribers (million)			
	Sep-19	Dec-19	Net Additions	Rate of Growth (%)
Andhra Pradesh	88.97	88.38	-0.59	-0.67%
Assam	24.15	23.72	-0.43	-1.79%
Bihar	85.42	84.50	-0.92	-1.08%
Delhi	57.01	56.22	-0.79	-1.39%
Gujarat	69.95	68.64	-1.31	-1.88%
Haryana	28.52	28.07	-0.45	-1.58%
Himachal Pradesh	10.87	10.70	-0.17	-1.59%
Jammu & Kashmir	11.45	10.45	-1.00	-8.74%
Karnataka	71.26	69.51	-1.75	-2.45%
Kerala	46.71	45.23	-1.49	-3.18%
Madhya Pradesh	76.36	75.74	-0.62	-0.81%
Maharashtra	95.13	94.01	-1.11	-1.17%
Mumbai	41.88	41.17	-0.71	-1.69%
North East	12.40	12.21	-0.19	-1.50%
Odisha	33.10	33.23	0.13	0.39%
Punjab	40.82	39.83	-0.99	-2.42%
Rajasthan	66.20	65.84	-0.35	-0.53%
T.N. (incl. Chennai)	84.88	83.87	-1.01	-1.19%
U.P. (E)	100.77	96.12	-4.65	-4.62%
U.P. (W)	65.39	63.22	-2.18	-3.33%
Kolkata	27.09	26.32	-0.77	-2.85%
West Bengal	56.91	55.46	-1.45	-2.55%
All India	1,195.24	1,172.44	-22.80	-1.91%

1.7 All service areas except Odisha registered a decline in their subscriber base during the quarter ending Dec-19. J&K

service area had the maximum decline of 8.74%. However, Odisha service area registered a growth rate of 0.39% during the quarter.

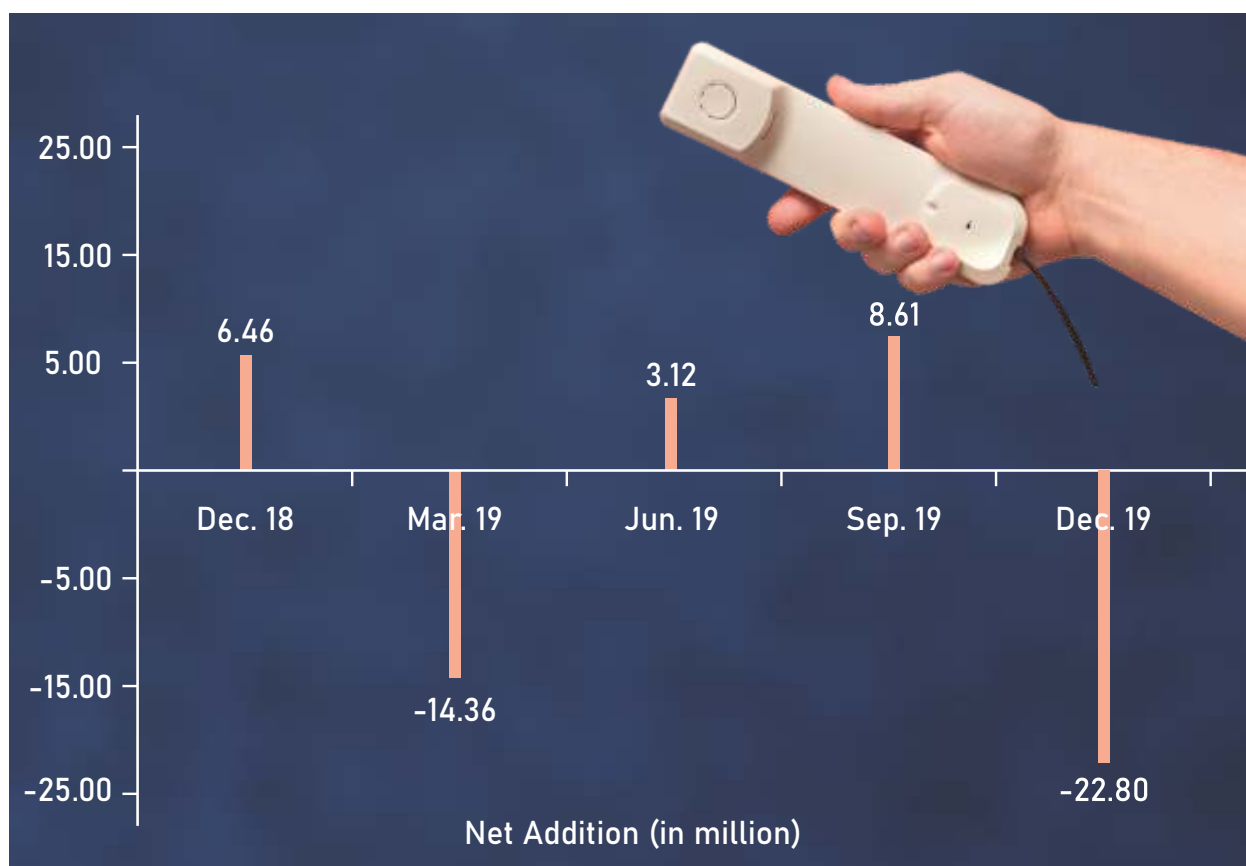
Table 1.3: Service Area-wise Rural-Urban Subscribers at QE Dec-19

Service Area	Number of Subscribers (in million)			
	Total	Rural	Urban	% of Rural Subscribers
Andhra Pradesh	88.38	41.77	46.61	47.26%
Assam	23.72	13.64	10.08	57.52%
Bihar	84.50	52.80	31.71	62.48%
Delhi	56.22	1.57	54.64	2.80%
Gujarat	68.64	26.80	41.84	39.04%
Haryana	28.07	12.71	15.35	45.30%
Himachal Pradesh	10.70	7.02	3.68	65.58%
Jammu & Kashmir	10.45	4.55	5.90	43.57%
Karnataka	69.51	27.50	42.01	39.56%
Kerala	45.23	20.84	24.38	46.09%
Madhya Pradesh	75.74	33.79	41.95	44.61%
Maharashtra	94.01	43.14	50.87	45.89%
Mumbai	41.17	1.83	39.33	4.46%
North East	12.21	5.82	6.39	47.70%
Odisha	33.23	21.73	11.49	65.41%
Punjab	39.83	13.57	26.26	34.07%
Rajasthan	65.84	34.86	30.98	52.95%
T.N. (incl. Chennai)	83.87	26.55	57.33	31.65%
U.P. (E)	96.12	54.24	41.88	56.43%
U.P. (W)	63.22	28.76	34.45	45.50%
Kolkata	26.32	1.95	24.37	7.41%
West Bengal	55.46	34.53	20.93	62.26%
All India	1,172.44	509.99	662.45	43.50%

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 the maximum share of rural subscribers (65.58%) in its total telephone subscribers.

Chart 1.5: Trend of Net Addition/Decline in Telephone Subscriptions



1.9 The net addition in telephone subscriptions is -22.80 million during QE

Dec-19 as compared to the net addition of 8.61 million subscribers during QE Sep-19.

Table 1.4 : Service Area-wise Tele-density

Service Area/ States	As on 30th September, 2019			As on 31st December, 2019		
	Rural Tele-density	Urban Tele-density	Total Tele-density	Rural Tele-density	Urban Tele-density	Total Tele-density
Andhra Pradesh	63.86	185.83	98.10	63.94	182.67	97.28
Assam	44.46	205.05	71.64	48.63	175.49	70.18
Bihar	43.97	157.10	59.72	42.77	158.71	58.92
Delhi	-	-	242.13	-	-	237.11
Gujarat	73.03	149.17	105.78	71.03	146.45	103.54
Haryana	73.31	140.60	98.85	70.97	139.27	96.99
Himachal Pradesh	113.77	403.32	149.16	109.51	411.44	146.53
J&K	53.33	178.58	89.19	49.62	159.81	81.22
Karnataka	68.74	174.22	110.97	71.38	162.78	108.05

Service Area/ States	As on 30th September, 2019			As on 31st December, 2019		
	Rural Tele-density	Urban Tele-density	Total Tele-density	Rural Tele-density	Urban Tele-density	Total Tele-density
Kerala	79.55	272.99	128.25	76.38	265.70	124.02
Madhya Pradesh	43.64	138.61	70.28	43.12	137.04	69.50
Maharashtra (incl. Mumbai)*	71.02	144.50	107.64	70.38	141.53	105.91
North East	45.98	199.10	85.72	54.32	169.34	84.24
Odisha	59.67	147.55	75.86	60.99	142.36	76.02
Punjab	80.79	182.07	127.22	78.10	177.56	123.83
Rajasthan	58.86	173.08	86.68	60.18	165.96	85.95
Tamil Nadu (incl. Chennai)	89.62	133.22	117.21	100.40	124.46	115.68
Uttar Pradesh (incl. UPE & UPW)	49.22	133.55	68.91	44.76	134.95	65.84
West Bengal (incl. Kolkata)*	54.57	163.50	86.09	52.51	160.07	83.64
All India	57.59	160.63	90.52	56.67	156.26	88.56

*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, published by the Office of the Registrar General & Census Commissioner, India.
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 Chhattisgarh, 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 Himachal Pradesh service area has the highest Rural Tele-density of 109.51 followed by Tamil Nadu service area (100.40).

Bihar service area has the lowest Rural Tele-density of 42.77 followed by Madhya Pradesh service area with a rural tele-density of 43.12 in QE Dec-19.

**Table 1.5 : State/UT-wise Subscriber Base
(Wireline + Wireless)**

Sl. No.	States/UT	Total Telephone Subscriptions (million)		
		Total	Rural	Urban
1	Andhra Pradesh	45.06	24.64	20.43
2	Arunachal Pradesh	1.41	0.77	0.64
3	Assam	23.71	13.64	10.07
4	Bihar	61.77	41.33	20.44
5	Chhattisgarh	20.20	9.76	10.43
6	Goa	3.06	1.21	1.85
7	Gujarat	67.80	26.57	41.22
8	Haryana	33.80	12.79	21.01
9	Himachal Pradesh	10.70	7.02	3.68
10	Jammu & Kashmir	10.45	4.55	5.89
11	Jharkhand	22.49	11.46	11.03
12	Karnataka	69.51	27.50	42.02
13	Kerala	45.07	20.76	24.31
14	Madhya Pradesh	55.22	24.02	31.20
15	Maharashtra Incl. Mumbai	132.25	43.77	88.48
16	Manipur	2.25	0.89	1.37
17	Meghalaya	2.47	1.35	1.13
18	Mizoram	1.29	0.49	0.79
19	Nagaland	1.62	0.81	0.81
20	Odisha	33.22	21.73	11.49
21	Punjab	37.65	13.50	24.15
22	Rajasthan	65.81	34.86	30.94
23	Sikkim	0.68	0.38	0.30
24	Tamil Nadu (incl. Chennai)	82.63	26.19	56.43
25	Telangana	43.07	17.13	25.93
26	Tripura	3.17	1.52	1.65
27	Uttar Pradesh (UPE + UPW)	155.14	76.72	78.42
28	Uttarakhand	13.11	6.32	6.80
29	West Bengal Incl. Kolkata	80.66	35.92	44.74
Union Territories				
1	Andaman & Nicobar Islands	0.39	0.18	0.21
2	Chandigarh	2.09	0.07	2.03
3	Dadar & Nagar Haweli	0.45	0.17	0.27
4	Daman & Diu	0.30	0.05	0.25
5	Delhi	42.60	1.47	41.13
6	Lakshdweep	0.09	0.08	0.003
7	Puduchery	1.25	0.35	0.90
	Total	1172.44	509.99	662.45

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

Sl. No.	States/UT	Total Tele-density		
		Total	Rural	Urban
1	Andhra Pradesh	49.60	63.94	181.70
2	Arunachal Pradesh	103.32	100.39	107.03
3	Assam	70.15	48.63	175.31
4	Bihar	57.10	42.72	178.72
5	Chhattisgarh	74.76	48.83	148.64
6	Goa	141.50	164.40	129.68
7	Gujarat	103.63	71.28	146.47
8	Haryana	116.81	71.40	190.60
9	Himachal Pradesh	146.48	109.51	411.11
10	Jammu & Kashmir	81.18	49.62	159.67
11	Jharkhand	63.87	42.98	129.14
12	Karnataka	108.06	71.38	162.80
13	Kerala	123.88	76.25	265.51
14	Madhya Pradesh	67.37	41.16	132.22
15	Maharashtra Incl. Mumbai	105.40	69.29	142.00
16	Manipur	83.66	43.78	204.02
17	Meghalaya	85.82	59.64	180.87
18	Mizoram	116.48	102.38	127.43
19	Nagaland	65.45	39.73	187.96
20	Odisha	76.00	60.99	142.27
21	Punjab	125.24	78.66	187.23
22	Rajasthan	85.90	60.18	165.75
23	Sikkim	101.11	67.25	280.89
24	Tamil Nadu (incl. Chennai)	117.08	101.20	126.28
25	Tripura	79.68	48.18	199.62
26	Uttar Pradesh (UPE + UPW)	67.20	43.16	147.60
27	Uttarakhand	118.04	82.26	198.16
28	West Bengal Incl. Kolkata	83.58	52.37	160.23
Union Territories				
1	Andaman & Nicobar Islands	65.92	55.67	78.29
2	Chandigarh	99.37	31.83	106.99
3	Dadar & Nagar Haweli	92.41	130.33	78.00
4	Daman & Diu	78.00	16.08	333.04
5	Delhi	179.67	194.41	179.18
6	Lakshdweep	102.70	132.37	12.50
7	Puduchery	64.80	63.39	65.38
	Total	88.56	56.67	156.26

*Data of Telengana is included in A.P. State as the separate projected population data of Telengana is not available.

Table 1.7 : Service Provider-wise Growth/Decline in Subscriber Base

Service Provider	Subscriber Base (millions)			Rate of Growth (%)	Market Share in QE Sep-19 (%)	Market Share in QE Dec-19 (%)
	Sep-19	Dec-19	Net Additions			
Reliance Jio	356.08	371.07	14.99	4.21%	29.79%	31.65%
Vodafone Idea Ltd	372.86	333.01	-39.85	-10.69%	31.20%	28.40%
Bharti Airtel	329.88	331.61	1.73	0.52%	27.60%	28.28%
BSNL	127.19	127.70	0.51	0.40%	10.64%	10.89%
MTNL	6.57	6.50	-0.07	-1.13%	0.55%	0.55%
Tata Teleservices	1.82	1.79	-0.03	-1.59%	0.15%	0.15%
Reliance Com.	0.63	0.57	-0.06	-9.18%	0.05%	0.05%
Quadrant	0.21	0.20	-0.011	-5.37%	0.02%	0.02%
Total	1,195.24	1,172.44	-22.80	-1.91%	100%	100%

Note: 1. M/s Bharti Airtel Ltd has reported wireless subscribers including the subscribers of M/s Tata Teleservices Ltd. However, DoT has not yet approved the merger of these two.
2. M/s BSNL includes number of subscribers of its Virtual Network Operator (VNO).

1.11 M/s Reliance Jio Infocomm Ltd has become the market leader with 31.65% in the access segment in terms of number of

subscribers with 371.07 million subscribers at the end of Dec-19 followed by M/s Vodafone Idea Ltd with 333.01 million subscribers.

1.12 In terms of net additions, Reliance Jio Infocomm Ltd became the biggest gainer

with a net addition of 14.99 million telephone subscribers during the QE Dec-19.

Table 1.8 : Market Share of the Service providers in the total Rural Subscriber Base

Service Provider	No. of Total Subscribers (in millions)	No. of Rural Subscribers (in millions)	Percentage of Rural Subscribers	Market Share of Rural Subscribers (%)
Reliance Jio	371.07	152.14	41.00	29.83
Vodafone Idea Ltd	333.01	172.44	51.78	33.81
Bharti Airtel	331.61	145.48	43.87	28.53
BSNL	127.70	39.79	31.16	7.80
MTNL	6.50	0.05	0.70	0.01
Tata Teleservices	1.79	0.05	2.62	0.01
Reliance Com.	0.57	0.001	0.18	0.00
Quadrant	0.20	0.04	19.49	0.01
Total	1,172.44	509.99	43.50	100

1.13 M/s Vodafone Idea Ltd is the telecom service provider with the highest proportion of rural telephone subscribers (51.78%)

followed by Bharti Airtel (43.87%) in their total telephone subscribers at the end of Dec-19.

Section B : Wireless Services

Table 1.9: List of Cellular Mobile (GSM, LTE & CDMA) Service Providers currently providing services
[As on 31st December, 2019]

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

Source : DoT website

UL Access Services Licencees Virtual Network Operators (VNOs) who are providing services
[As on 31st December, 2019]

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

Source : As reported by telecom service providers

1.14 Number of total Wireless (2G + 3G + 4G) subscribers decreased from 1,173.75 million at the end of Sep-19 to 1,151.44 million

at the end of Dec-19, thereby showing a quarterly negative growth rate of 1.90%. During the quarter, net loss of 22.31 million wireless subscribers has been recorded.

1.15 The total wireless subscriber base recorded a Y-O-Y negative growth rate of

2.09% in QE Dec-19 over the same quarter in the previous year.

1.16 Wireless Tele-density in the country decreased from 88.90 at the end of Sep-19 to

86.98 at the end of Dec-19.

Chart 1.6: Wireless Subscriber Base and Tele-density

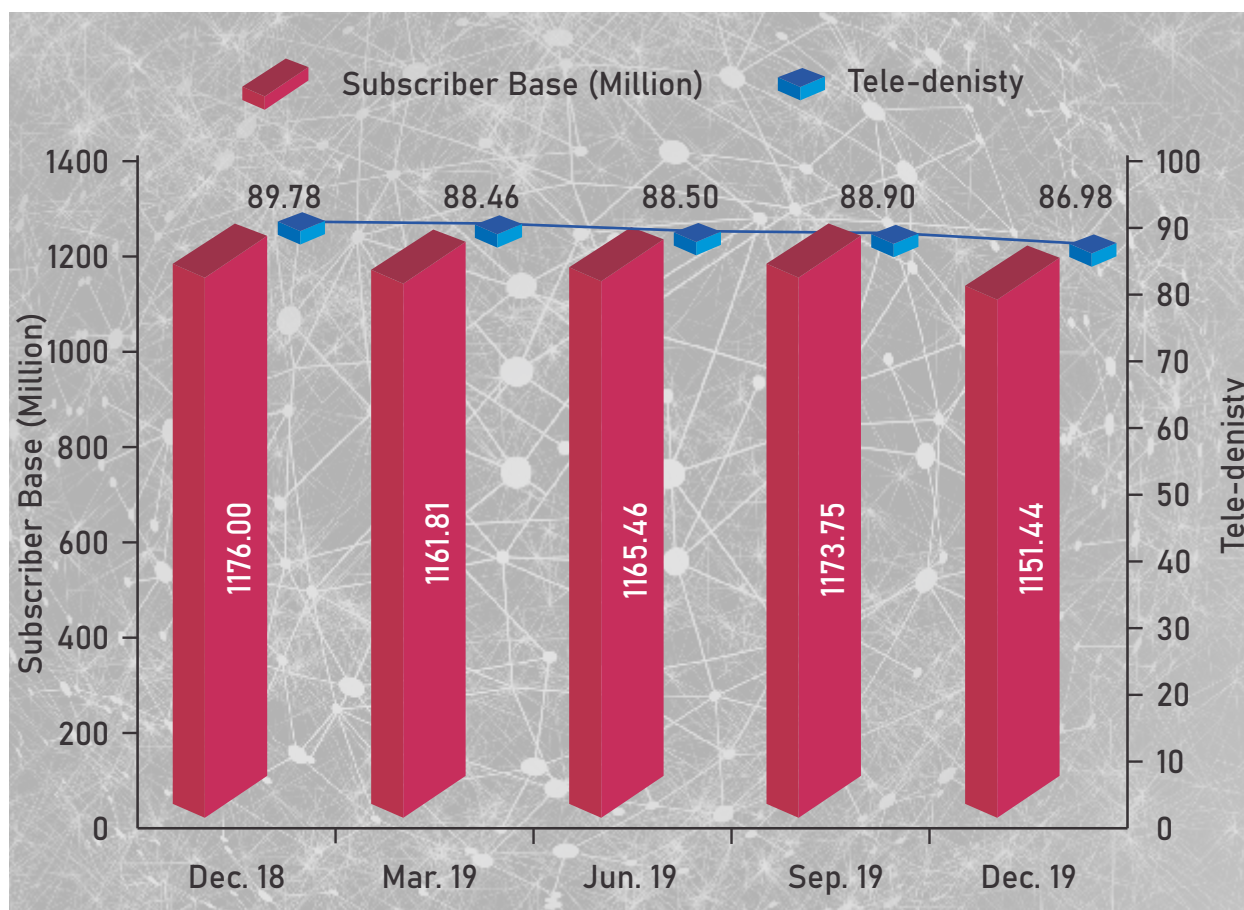


Table 1.10: Wireless Subscriber Base & Tele-density - Rural & Urban

Quarter ending	Subscriber Base (million)		Tele-density	
	Rural	Urban	Rural	Urban
Dec-18	528.48	647.52	59.15	155.48
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

1.17 Number of Rural Wireless subscribers decreased from 514.56 million at the end of Sep-19 to 507.46 million at the end of Dec-19, and the number of urban wireless subscribers also decreased from

659.18 million to 643.97 million during the quarter. Quarterly Growth rates of Rural and Urban wireless subscriptions are -1.38% and -2.31% respectively during QE Dec-19.

1.18 The share of rural wireless subscriptions increased from 43.84% to

44.07% in the total wireless subscriptions in this quarter.

Chart 1.7: Wireless Market Share - Rural & Urban

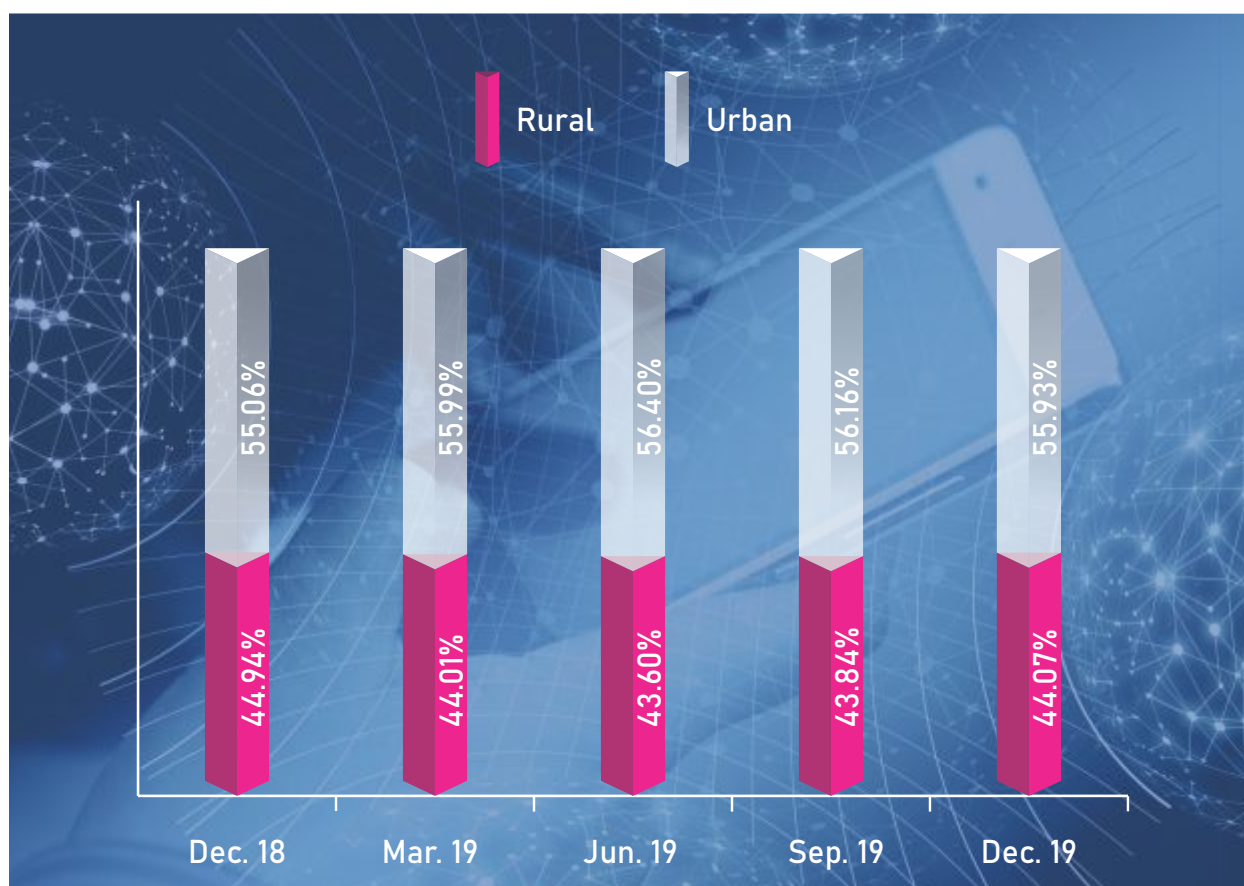


Table 1.11: Growth in Wireless Subscriber Base

Service Provider	Subscriber Base (millions)			Rate of Growth (%)	Market Share Sep-19 (%)	Market Share Dec-19 (%)
	Sep-19	Dec-19	Net Additions			
Reliance Jio	355.22	370.02	14.79	4.16%	30.26%	32.14%
Vodafone Idea Ltd	372.49	332.61	(39.87)	-10.70%	31.73%	28.89%
Bharti Airtel*	325.57	327.30	1.73	0.53%	27.74%	28.43%
Tata Teleservices*	-	-	-	-	0.00%	0.00%
Reliance Com.	0.02	0.02	0.00	0.06%	0.002%	0.002%
BSNL	117.06	118.12	1.06	0.90%	9.97%	10.26%
MTNL	3.39	3.38	(0.02)	-0.50%	0.29%	0.29%
Total	1,173.75	1,151.44	(22.31)	-1.90%	100.00%	100.00%

* M/s Bharti Airtel Ltd has reported wireless subscribers by including the subscribers of M/s Tata Teleservices Ltd for QE December, 2019. However, DoT has not yet approved the merger of these two.

1.19 M/s RJIL Limited becomes the market leader with a wireless subscriber base of 370.02 million which translates into a market share of 32.14% w.r.t the total

wireless subscriber base. M/s Vodafone Idea is at the 2nd position with a total subscriber base of 332.61 million and a market share of 28.89%. M/s RJIL has reported the highest net additions of 14.79 Million.

1.20 In terms of net additions during QE Dec-19, except for M/s Vodafone and MTNL,

all service providers have registered positive growth in their wireless subscribers.

Table 1.12: Service Area-wise Wireless Subscriber Base

Service Area	Subscriber Base (in million)			
	Sep-19	Dec-19	Net Additions	Rate of change (%)
Andhra Pradesh	87.59	87.02	-0.57	-0.65%
Assam	24.04	23.61	-0.43	-1.80%
Bihar	85.24	84.32	-0.92	-1.07%
Delhi	53.66	52.95	-0.71	-1.33%
Gujarat	68.74	67.45	-1.30	-1.89%
Haryana	28.26	27.80	-0.46	-1.63%
Himachal Pradesh	10.77	10.60	-0.17	-1.57%
Jammu & Kashmir	11.34	10.32	-1.02	-8.96%
Karnataka	69.11	67.39	-1.72	-2.49%
Kerala	44.89	43.50	-1.39	-3.09%
Madhya Pradesh	75.42	74.88	-0.54	-0.72%
Maharashtra	93.69	92.62	-1.07	-1.14%
Mumbai	38.80	38.10	-0.70	-1.81%
North East	12.30	12.11	-0.18	-1.50%
Odisha	32.87	33.01	0.14	0.43%
Punjab	40.07	39.10	-0.96	-2.40%
Rajasthan	65.67	65.33	-0.34	-0.51%
T.N. (incl. Chennai)	82.74	81.80	-0.94	-1.14%
U.P. (E)	100.34	95.69	-4.65	-4.63%
U.P. (W)	65.10	62.90	-2.21	-3.39%
Kolkata	26.39	25.65	-0.74	-2.81%
West Bengal	56.72	55.28	-1.44	-2.54%
All India	1,173.75	1,151.44	-22.31	-1.90%

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	87.02	41.61	45.41	47.82%
Assam	23.61	13.63	9.98	57.73%
Bihar	84.32	52.77	31.55	62.59%
Delhi	52.95	1.57	51.37	2.97%
Gujarat	67.45	26.66	40.79	39.52%
Haryana	27.80	12.67	15.13	45.58%
Himachal Pradesh	10.60	6.96	3.64	65.68%
Jammu & Kashmir	10.32	4.54	5.78	43.99%
Karnataka	67.39	27.39	40.00	40.64%
Kerala	43.50	19.83	23.67	45.59%
Madhya Pradesh	74.88	33.71	41.17	45.02%
Maharashtra	92.62	42.94	49.69	46.36%
Mumbai	38.10	1.83	36.26	4.81%
North East	12.11	5.81	6.30	47.96%
Odisha	33.01	21.69	11.32	65.71%
Punjab	39.10	13.43	25.67	34.35%
Rajasthan	65.33	34.81	30.52	53.29%
T.N. (incl. Chennai)	81.80	26.27	55.53	32.11%
U.P. (E)	95.69	54.18	41.51	56.62%
U.P. (W)	62.90	28.74	34.16	45.69%
Kolkata	25.65	1.95	23.70	7.60%
West Bengal	55.28	34.46	20.82	62.34%
All India	1,151.44	507.46	643.97	44.07%

1.21 A detailed table of 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 30th September, 2019			As on 31st December, 2019		
	Rural Tele-density	Urban Tele-density	Total Tele-density	Rural Tele-density	Urban Tele-density	Total Tele-density
A.P.	63.60	181.09	96.59	63.70	177.97	95.79
Assam	44.40	203.36	71.31	48.57	173.81	69.85
Bihar	43.95	156.29	59.59	42.76	157.92	58.80
Delhi	-	-	227.90	-	-	223.32
Gujarat	72.65	145.43	103.96	70.66	142.77	101.74
Haryana	73.04	138.65	97.95	70.71	137.22	96.04
H.P.	112.87	397.91	147.71	108.65	406.29	145.13
J&K	53.19	175.73	88.27	49.47	156.60	80.19
Karnataka	68.41	166.35	107.62	71.09	154.99	104.75
Kerala	75.58	264.89	123.24	72.67	257.95	119.29
M.P.	43.52	135.86	69.42	43.02	134.46	68.71
Maharashtra (incl. Mumbai)*	70.67	137.73	104.09	70.06	134.85	102.41
North East	45.82	196.86	85.03	54.16	167.15	83.56
Odisha	59.54	145.31	75.34	60.87	140.22	75.53
Punjab	79.95	177.95	124.87	77.30	173.56	121.56
Rajasthan	58.74	170.57	85.98	60.09	163.47	85.28
Tamil Nadu (incl. Chennai)	88.53	129.19	114.26	99.35	120.56	112.83
Uttar Pradesh (incl. UPE & UPW)*	49.18	132.43	68.61	44.72	133.78	65.54
West Bengal (incl. Kolkata)*	54.47	160.61	85.18	52.41	157.31	82.77
All India	57.28	156.18	88.90	56.39	151.90	86.98

*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, published by the Office of the Registrar General & Census Commissioner, India.
2. Delhi service area, apart from the State of Delhi, includes 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 Chhattisgarh, 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	44.32	24.51	19.81
2	Arunachal Pradesh	1.39	0.76	0.63
3	Assam	23.60	13.63	9.97
4	Bihar	61.68	41.32	20.36
5	Chhattisgarh	20.02	9.75	10.27
6	Goa	2.97	1.18	1.78
7	Gujarat	66.61	26.44	40.18
8	Haryana	33.50	12.75	20.76
9	Himachal Pradesh	10.60	6.96	3.63
10	Jammu & Kashmir	10.32	4.54	5.78
11	Jharkhand	22.41	11.46	10.95
12	Karnataka	67.39	27.39	40.01
13	Kerala	43.35	19.75	23.60
14	Madhya Pradesh	54.54	23.96	30.57
15	Maharashtra	127.88	43.59	84.29
16	Manipur	2.23	0.88	1.35
17	Meghalaya	2.46	1.35	1.11
18	Mizoram	1.27	0.49	0.78
19	Nagaland	1.61	0.81	0.80
20	Odisha	33.01	21.69	11.31
21	Punjab	37.10	13.37	23.73
22	Rajasthan	65.29	34.81	30.48
23	Sikkim	0.67	0.38	0.29
24	Tamil Nadu	80.60	25.92	54.68
25	Telangana	42.45	17.10	25.35
26	Tripura	3.15	1.52	1.63
27	Uttar Pradesh	154.47	76.65	77.82
28	Uttarakhand	13.03	6.31	6.72
29	West Bengal	79.83	35.85	43.98
Union Territories				
1	Andaman & Nicobar Islands	0.38	0.18	0.20
2	Chandigarh	1.92	0.07	1.85
3	Dadar & Nagar Haweli	0.44	0.17	0.27
4	Daman & Diu	0.30	0.05	0.25
5	Delhi	39.38	1.47	37.91
6	Lakshdweep	0.08	0.08	0.00
7	Puduchery	1.20	0.35	0.86
	Total	1151.44	507.46	643.97

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

Sl.No.	States/UT	Wireless Tele-density		
		Total	Rural	Urban
1	Andhra Pradesh*	95.52	63.70	177.00
2	Arunachal Pradesh	101.57	99.52	104.17
3	Assam	69.82	48.57	173.64
4	Bihar	57.01	42.70	178.00
5	Chhattisgarh	74.09	48.74	146.34
6	Goa	137.33	160.72	125.24
7	Gujarat	101.82	70.92	142.74
8	Haryana	115.76	71.14	188.28
9	Himachal Pradesh	145.09	108.65	405.96
10	Jammu & Kashmir	80.15	49.47	156.45
11	Jharkhand	63.63	42.95	128.25
12	Karnataka	104.76	71.09	155.01
13	Kerala	119.15	72.54	257.77
14	Madhya Pradesh	66.54	41.06	129.56
15	Maharashtra	101.91	69.00	135.27
16	Manipur	82.90	43.55	201.69
17	Meghalaya	85.23	59.56	178.44
18	Mizoram	115.41	102.22	125.67
19	Nagaland	65.18	39.71	186.48
20	Odisha	75.51	60.87	140.13
21	Punjab	123.41	77.87	184.01
22	Rajasthan	85.23	60.09	163.27
23	Sikkim	100.28	67.21	275.92
24	Tamil Nadu	114.21	100.15	122.36
25	Tripura	79.20	48.12	197.52
26	Uttar Pradesh	66.90	43.12	146.47
27	Uttarakhand	117.26	82.17	195.82
28	West Bengal	82.72	52.28	157.49
Union Territories				
1	Andaman & Nicobar Islands	63.15	53.72	74.54
2	Chandigarh	90.92	31.14	97.67
3	Dadar & Nagar Haweli	91.82	129.47	77.51
4	Daman & Diu	76.79	15.51	329.18
5	Delhi	166.09	194.41	165.16
6	Lakshdweep	97.47	129.54	0.00
7	Puduchery	62.31	62.17	62.37
All India Tele-density		86.98	56.39	151.90

*Data of Telengana is included in A.P. State as the separate projected population data of Telengana is not available.

Table 1.17 : Rural Wireless Subscriber Base and Market Share

[As on 31.12.2019]

Service Provider	Total number of Wireless Subscribers (in millions)	Rural Subscribers (in millions)	% of Rural Subscribers in total	Market Share of Rural Subscribers (%)
Vodafone Idea Ltd	332.61	172.44	51.85	33.98
Reliance Jio	370.02	152.14	41.12	29.98
Bharti Airtel	327.30	145.48	44.45	28.67
BSNL	118.12	37.35	31.62	7.36
MTNL	3.38	0.05	1.35	0.01
Reliance Com.	0.02	-	-	-
Total	1151.44	507.46	44.07	100

- Note:
1. M/s Reliance Com. has not reported the 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 wireless subscribers including the subscribers of M/s Tata Teleservices Ltd for QE December, 2019. However, DoT has not yet approved the merger of these two.

Wireless Data Usage

1.22 Volume of total wireless data usage increased from 19,838,886 terabytes during Q.E. Sept-19 to 20,899,931 during Q.E. Dec-19 with a quarterly growth rate of 5.55%. Out of

the total wireless data usage, 2G data usage was 148,124 terabytes, 3G data usage was 934,401 terabytes and 4G data usage was 19,817,406 terabytes during the quarter.

1.23 The total number of wireless data subscribers increased from 664.80 million

at the end of Sep-19 to 695.75 million at the end of Dec-19.

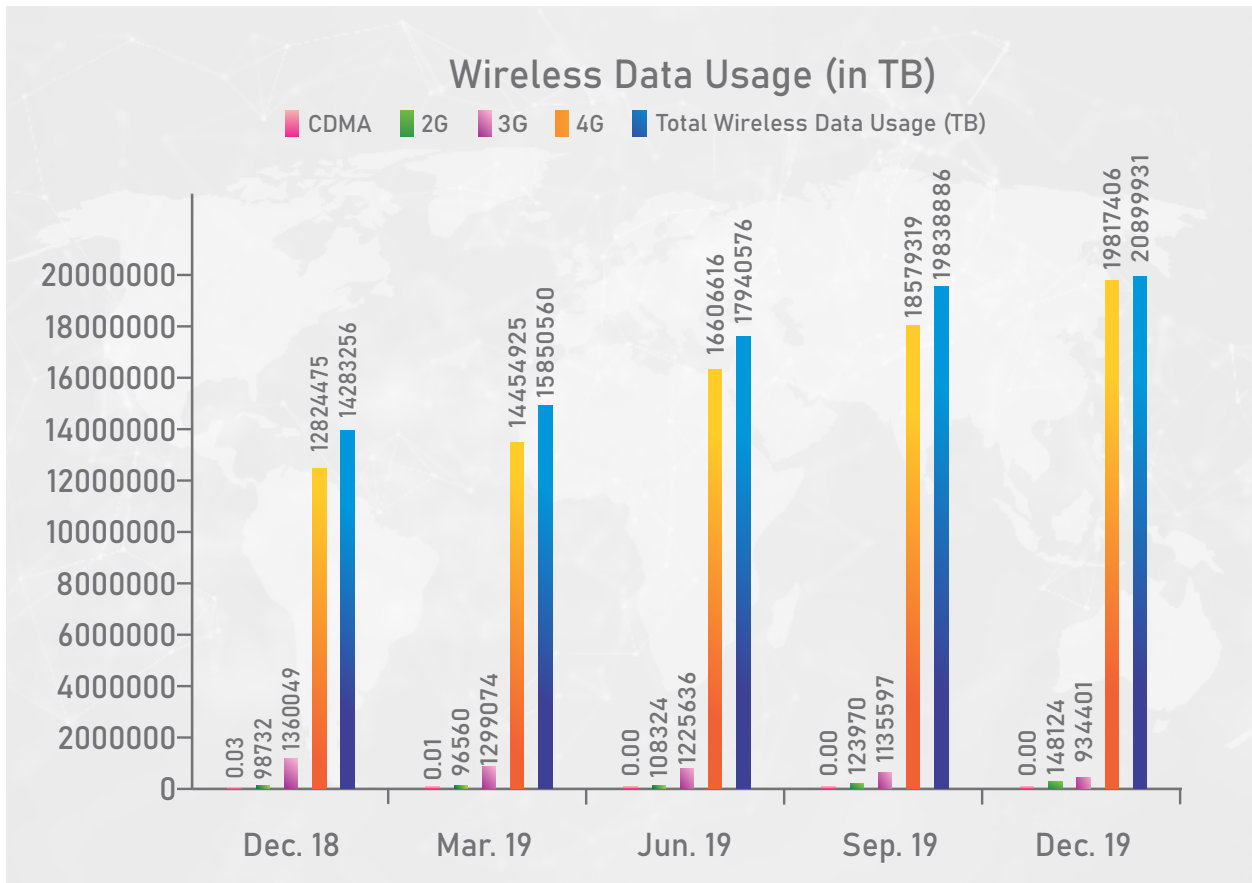
1.24 The contributions of 3G and 4G data usage in the total volume of wireless data usage are about 4.47% and 94.82%

respectively during the QE Dec-19. The share of 2G data usage remained 0.71% during the quarter.

1.25 Technology-wise trend of growth in volume of wireless data usage is depicted in

the chart on the following page.

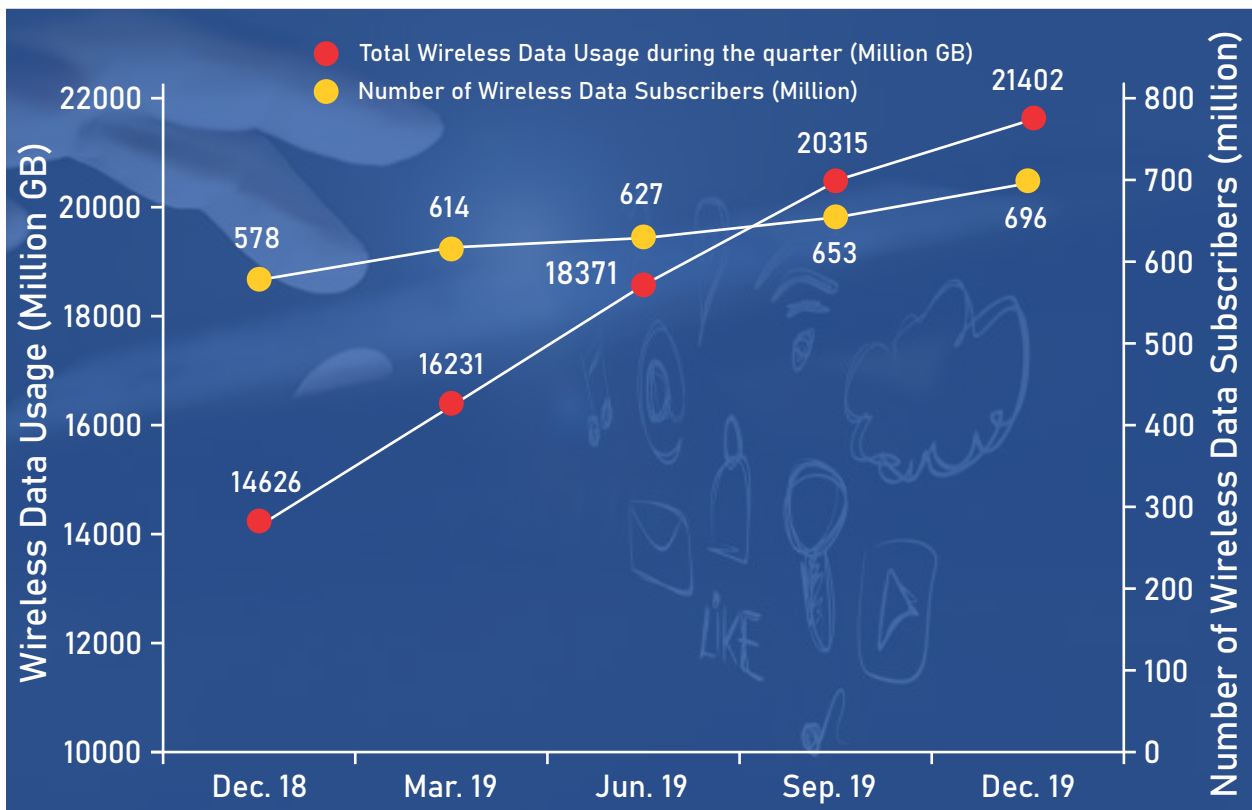
Chart 1.8: Trend of Technology-wise Wireless Data Usage (in TB)



1.26 The following chart depicts the trend of number of wireless data subscribers

and the volume of wireless data usage in QE Dec-19.

Chart 1.9: Trend of Wireless Data Subscribers (million) and volume of Wireless Data Usage (million GB)



Section C : Wireline Services

Table 1.18 : Service Providers providing Wireline Services
[As on 31st December, 2019]

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, Tamil Nadu (excluding Chennai), Chennai, UP-East and UP-West (excluding Uttarakhand).
2	BSNL	All India except Delhi & Mumbai
3	MTNL	Delhi & Mumbai
4	Quadrant Televentures Ltd.	Punjab
5	Reliance Communications Ltd.	Andhra Pradesh (excluding Telangana), Telangana, Bihar (excluding Jharkhand), Jharkhand, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh (excluding Chhattisgarh), Chhattisgarh, Maharashtra (excluding Mumbai & Goa), Goa, Mumbai, Odisha, Punjab, Rajasthan, Tamil Nadu (excluding Chennai), Chennai, UP-East, UP-West (excluding Uttarakhand), Uttarakhand and West Bengal (excluding Andaman & Nicobar and Sikkim)
6	Tata Teleservices (Maharashtra) Ltd.	Maharashtra & Goa, Mumbai
	Tata Teleservices Ltd.	Andhra Pradesh (excluding Telangana), Telangana, Bihar (excluding Jharkhand), Jharkhand, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Maharashtra (excluding Mumbai & Goa), Goa, Mumbai, Madhya Pradesh (excluding Chhattisgarh), Chhattisgarh, Odisha, Punjab, Rajasthan, Tamil Nadu (excluding Chennai), Chennai, UP-East, UP-West (excluding Uttarakhand), Uttarakhand and West Bengal (excluding Andaman & Nicobar and Sikkim)
7	Vodafone Idea Ltd	Andhra Pradesh (excluding Telangana), Telangana, Assam, Bihar (excluding Jharkhand), Jharkhand, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh (excluding Chhattisgarh), Chhattisgarh, Maharashtra (excluding Mumbai & Goa), Goa, Mumbai, Meghalaya, Odisha, Punjab, Rajasthan, Tamil Nadu (excluding Chennai), UP-East, UP-West (excluding Uttarakhand), Uttarakhand and West Bengal (excluding Andaman & Nicobar and Sikkim)
8	Reliance Jio	Andhra Pradesh (excluding Telangana), Telangana, Assam, Bihar (excluding Jharkhand), Jharkhand, Delhi, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Kolkata, Madhya Pradesh (excluding Chhattisgarh), Chhattisgarh, Maharashtra (excluding Mumbai), Mumbai, Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Punjab, Rajasthan, Tamil Nadu (excluding Chennai), Chennai, UP-East, UP-West (excluding Uttarakhand), Uttarakhand and West Bengal (excluding Andaman & Nicobar and Sikkim)

1.27 The total number of Wireline subscribers decreased from 21.49 million at the end of Sep-19 to 21 million at the end of

Dec-19 with a quarterly decline rate of 2.26%. Overall Wireline Tele-density also decreased from 1.63 at the end of Sep-19 to 1.59 at the end of Dec-19.

1.28 Urban Wireline subscriber base declined by 1.56%, from 18.77 Million at the end of Sep-19 to 18.47 Million at the end of

Dec-19. Rural Wireline subscriptions also declined by 7.07%, from 2.72 million to 2.53 million during the same period.

Chart 1.10: Wireline Subscriber Base and Tele-density

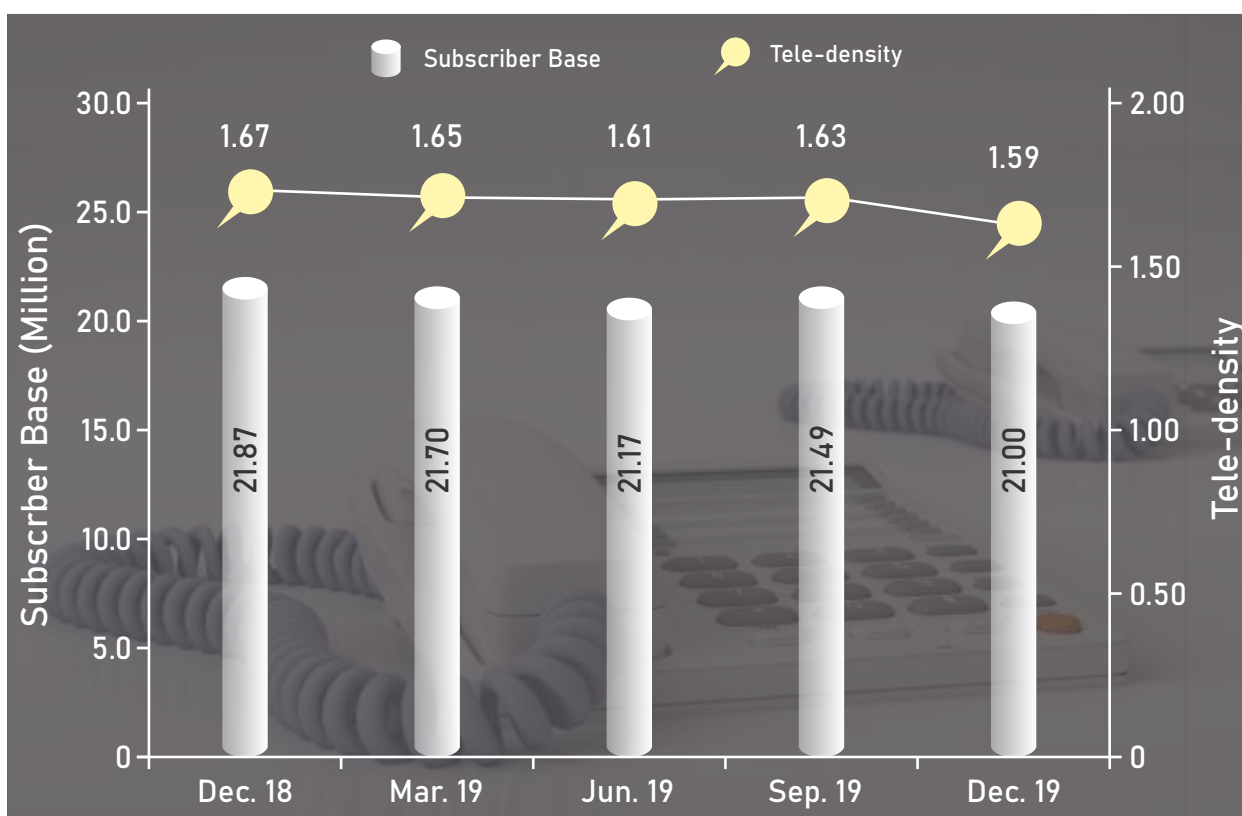


Table 1.19 : Wireline Subscriber Base & Tele-density - Rural & Urban

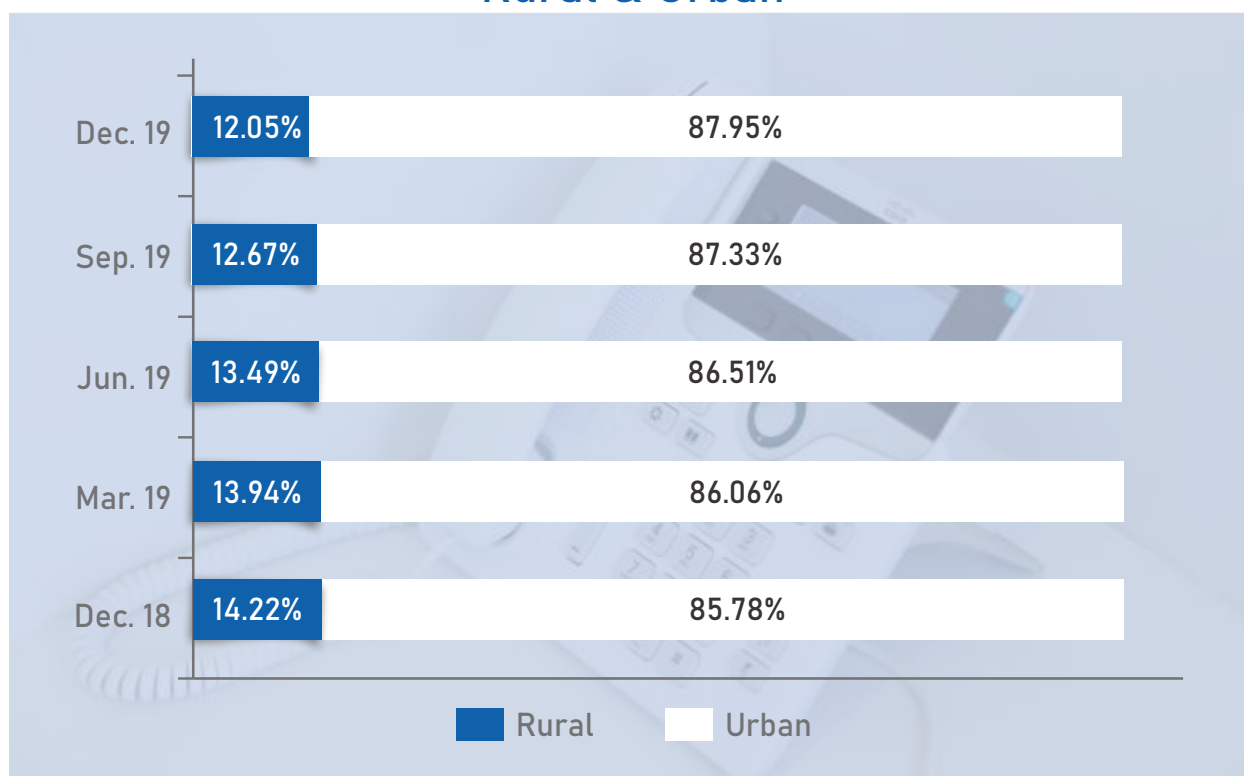
Quarter ending	Subscriber Base (million)		Tele-density (%)	
	Rural	Urban	Rural	Urban
Dec-18	3.11	18.76	0.35	4.50
Mar-19	3.02	18.67	0.34	4.46
Jun-19	2.85	18.31	0.32	4.36
Sep-19	2.72	18.77	0.30	4.45
Dec-19	2.53	18.47	0.28	4.36

Table 1.20 : Service Provider-wise Subscriber Base – Rural - Urban
[As on 31.12.2019]

Service Provider	Subscriber Base (million)			Share of Rural Subscriptions (%)
	Rural	Urban	Total	
BSNL	2.44	7.14	9.58	25.48%
Bharti	0.00	4.31	4.31	--
MTNL	0.00	3.12	3.12	--
Tata Tele.	0.05	1.74	1.79	2.62%
Reliance Com.	0.00	0.55	0.55	0.18%
Quadrant	0.04	0.16	0.20	19.49%
Vodafone Idea	0.00	0.40	0.40	--
Reliance Jio	0.00	1.05	1.05	0.28%
Total	2.53	18.47	21.00	12.05%

1.29 A 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 The Market Share of Rural wireline subscriptions declined from 12.67% in QE

Sep-19 to 12.05% in QE Dec-19.

Table 1.21 : Service Provider-wise growth in Wireline Subscriber Base

Service Provider	Subscriber Base (million)			Rate of change (%)	Market Share-Sep-19(%)	Market Share-Dec-19(%)
	Sep-19	Dec-19	Net Addition			
BSNL	10.13	9.58	-0.550	-5.43%	47.13	45.61
Bharti	4.31	4.31	-0.001	-0.02%	20.06	20.52
MTNL	3.18	3.12	-0.057	-1.80%	14.80	14.87
Tata Tele.	1.82	1.79	-0.029	-1.59%	8.46	8.51
Reliance Com	0.61	0.55	-0.058	-9.45%	2.85	2.64
Quadrant	0.21	0.20	-0.011	-5.37%	0.97	0.94
Vodafone	0.37	0.40	0.027	7.21%	1.74	1.91
Reliance Jio	0.86	1.05	0.193	22.54%	3.99	5.00
Total	21.49	21.00	-0.486	-2.26%	100.00	100.00

Table 1.22: Service Area-wise Wireline Subscriber Base & Net Additions (in million)

Service Area	Sep-19	Dec-19	Net Additions	Rate of Change (%)
Andhra Pradesh	1.38	1.36	-0.021	-1.55
Assam	0.11	0.11	-0.001	-0.76
Bihar	0.18	0.18	-0.004	-2.36
Delhi	3.35	3.27	-0.082	-2.44
Gujarat	1.21	1.19	-0.016	-1.33
Haryana	0.26	0.27	0.011	4.33
Himachal Pradesh	0.11	0.10	-0.004	-3.75
Jammu & Kashmir	0.12	0.13	0.015	12.96
Karnataka	2.15	2.12	-0.028	-1.29
Kerala	1.83	1.72	-0.102	-5.59
Madhya Pradesh	0.94	0.86	-0.071	-7.59
Maharashtra	1.44	1.39	-0.048	-3.31
Mumbai	3.08	3.07	-0.002	-0.08
North East	0.10	0.10	-0.002	-1.71
Odisha	0.23	0.21	-0.011	-4.97
Punjab	0.75	0.73	-0.024	-3.20
Rajasthan	0.53	0.51	-0.016	-3.08
T.N. (incl. Chennai)	2.14	2.07	-0.066	-3.08
U.P. (E)	0.43	0.42	-0.004	-0.95
U.P. (W)	0.29	0.32	0.028	9.62
Kolkata	0.70	0.67	-0.028	-4.04
West Bengal	0.19	0.18	-0.010	-5.25
All India	21.49	21.00	-0.486	-2.26

1.31 J&K service area registered the maximum growth of 12.96% and Madhya Pradesh service area the maximum decline

of 7.59% in their wireline subscriber base during the quarter ending Dec-19.

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

Service Area	Total Subscribers	Rural Subscribers	Urban Subscribers	% of Rural Subscribers
Andhra Pradesh	1.36	0.16	1.20	11.58
Assam	0.11	0.02	0.10	14.62
Bihar	0.18	0.02	0.16	11.93
Delhi	3.27	0.00	3.27	0.00
Gujarat	1.19	0.14	1.05	11.62
Haryana	0.27	0.05	0.23	17.12
Himachal Pradesh	0.10	0.06	0.05	54.63
Jammu & Kashmir	0.13	0.01	0.12	10.70
Karnataka	2.12	0.11	2.01	5.21
Kerala	1.72	1.01	0.71	58.77
Madhya Pradesh	0.86	0.08	0.79	8.87
Maharashtra	1.39	0.21	1.18	14.90
Mumbai	3.07	0.00	3.07	0.00
North East	0.10	0.02	0.08	16.35
Odisha	0.21	0.04	0.17	19.65
Punjab	0.73	0.14	0.59	18.88
Rajasthan	0.51	0.05	0.46	10.00
T.N. (incl. Chennai)	2.07	0.28	1.80	13.35
U.P. (E)	0.42	0.06	0.37	13.26
U.P. (W)	0.32	0.02	0.29	7.79
Kolkata	0.67	0.00	0.67	0.10
West Bengal	0.18	0.07	0.11	37.76
All India	21.00	2.53	18.47	12.05

1.32 Kerala service area has the maximum share (58.77%) of rural wireline

subscribers in its total wireline subscriber base at the end of Dec-19.

Table 1.24: Service Area-wise Wireline Tele-density

Service Area	As on 30th September, 2019			As on 31st December, 2019		
	Rural Tele-density	Urban Tele-density	Total Tele-density	Rural Tele-density	Urban Tele-density	Total Tele-density
Andhra Pradesh	0.26	4.74	1.52	0.24	4.70	1.49
Assam	0.06	1.69	0.34	0.06	1.67	0.33
Bihar	0.02	0.80	0.13	0.02	0.79	0.12
Delhi	-	-	14.23	-	-	13.79
Gujarat	0.39	3.73	1.83	0.37	3.69	1.80
Haryana	0.26	1.95	0.90	0.26	2.05	0.94
Himachal Pradesh	0.90	5.40	1.45	0.87	5.15	1.39
Jammu & Kashmir	0.14	2.85	0.91	0.15	3.21	1.03
Karnataka	0.33	7.87	3.35	0.29	7.79	3.30
Kerala	3.97	8.10	5.01	3.71	7.75	4.73
Madhya Pradesh	0.13	2.74	0.86	0.10	2.57	0.79
Maharashtra (incl. Mumbai)*	0.34	6.77	3.55	0.32	6.68	3.50
North East	0.15	2.24	0.69	0.15	2.19	0.68
Odisha	0.13	2.24	0.52	0.12	2.14	0.49
Punjab	0.84	4.13	2.35	0.79	4.00	2.27
Rajasthan	0.11	2.51	0.70	0.09	2.48	0.67
Tamil Nadu (incl. Chennai)	1.10	4.03	2.95	1.05	3.90	2.86
Uttar Pradesh (incl. UPE & UPW)	0.05	1.12	0.30	0.04	1.16	0.31
West Bengal (incl. Kolkata)*	0.11	2.88	0.91	0.10	2.76	0.87
All India	0.30	4.45	1.63	0.28	4.36	1.59

* 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, published by the Office of the Registrar General & Census Commissioner, India.
2. Data/information for Andhra Pradesh includes Telengana, Madhya Pradesh includes Chhattisgarh, 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	0.74	0.12	0.62
2	Arunachal Pradesh	0.02	0.01	0.02
3	Assam	0.11	0.02	0.10
4	Bihar	0.10	0.01	0.08
5	Chhattisgarh	0.18	0.02	0.16
6	Goa	0.09	0.03	0.06
7	Gujarat	1.18	0.14	1.05
8	Haryana	0.30	0.05	0.26
9	Himachal Pradesh	0.10	0.06	0.05
10	Jammu & Kashmir	0.13	0.01	0.12
11	Jharkhand	0.08	0.01	0.08
12	Karnataka	2.12	0.11	2.01
13	Kerala	1.72	1.01	0.71
14	Madhya Pradesh	0.68	0.06	0.63
15	Maharashtra Incl. Mumbai	4.37	0.18	4.19
16	Manipur	0.02	0.00	0.02
17	Meghalaya	0.02	0.002	0.02
18	Mizoram	0.01	0.001	0.01
19	Nagaland	0.01	0.000	0.01
20	Odisha	0.21	0.04	0.17
21	Punjab	0.55	0.14	0.41
22	Rajasthan	0.51	0.05	0.46
23	Sikkim	0.01	0.00	0.01
24	Tamil Nadu (incl. Chennai)	2.02	0.27	1.75
25	Telangana	0.61	0.03	0.58
26	Tripura	0.02	0.00	0.02
27	Uttar Pradesh (UPE + UPW)	0.67	0.07	0.60
28	Uttarakhand	0.09	0.01	0.08
29	West Bengal Incl. Kolkata	0.83	0.06	0.76
Union Territories				
1	Andaman & Nicobar Islands	0.02	0.01	0.01
2	Chandigarh	0.18	0.001	0.18
3	Dadar & Nagar Haweli	0.003	0.0011	0.002
4	Daman & Diu	0.00	0.002	0.003
5	Delhi	3.22	0.00	3.22
6	Lakshdweep	0.004	0.002	0.003
7	Puduchery	0.05	0.01	0.04
	Total	21.00	2.53	18.47

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

Sl.No.	States/UT	Wireline Tele-density		
		Total	Rural	Urban
1	Andhra Pradesh	1.49	0.24	4.70
2	Arunachal Pradesh	1.75	0.87	2.87
3	Assam	0.33	0.06	1.67
4	Bihar	0.09	0.02	0.72
5	Chhattisgarh	0.66	0.09	2.30
6	Goa	4.17	3.68	4.43
7	Gujarat	1.81	0.36	3.73
8	Haryana	1.04	0.26	2.32
9	Himachal Pradesh	1.39	0.87	5.15
10	Jammu & Kashmir	1.03	0.15	3.21
11	Jharkhand	0.23	0.02	0.89
12	Karnataka	3.30	0.29	7.79
13	Kerala	4.73	3.71	7.73
14	Madhya Pradesh	0.84	0.10	2.65
15	Maharashtra Incl. Mumbai	3.49	0.29	6.73
16	Manipur	0.75	0.23	2.33
17	Meghalaya	0.59	0.08	2.43
18	Mizoram	1.06	0.17	1.76
19	Nagaland	0.27	0.02	1.47
20	Odisha	0.49	0.12	2.14
21	Punjab	1.83	0.79	3.22
22	Rajasthan	0.67	0.09	2.48
23	Sikkim	0.82	0.04	4.96
24	Tamil Nadu (incl. Chennai)	2.87	1.04	3.92
25	Tripura	0.48	0.06	2.10
26	Uttar Pradesh (UPE + UPW)	0.29	0.04	1.12
27	Uttarakhand	0.78	0.09	2.34
28	West Bengal incl. Kolkata	0.86	0.09	2.74
Union Territories				
1	Andaman & Nicobar Islands	2.77	1.95	3.76
2	Chandigarh	8.45	0.70	9.33
3	Dadar & Nagar Haweli	0.59	0.86	0.49
4	Daman & Diu	1.21	0.57	3.87
5	Delhi	13.58	0.00	13.58
6	Lakshdweep	5.22	2.83	12.50
7	Puduchery	2.49	1.22	3.00
	Total	1.59	0.28	4.36

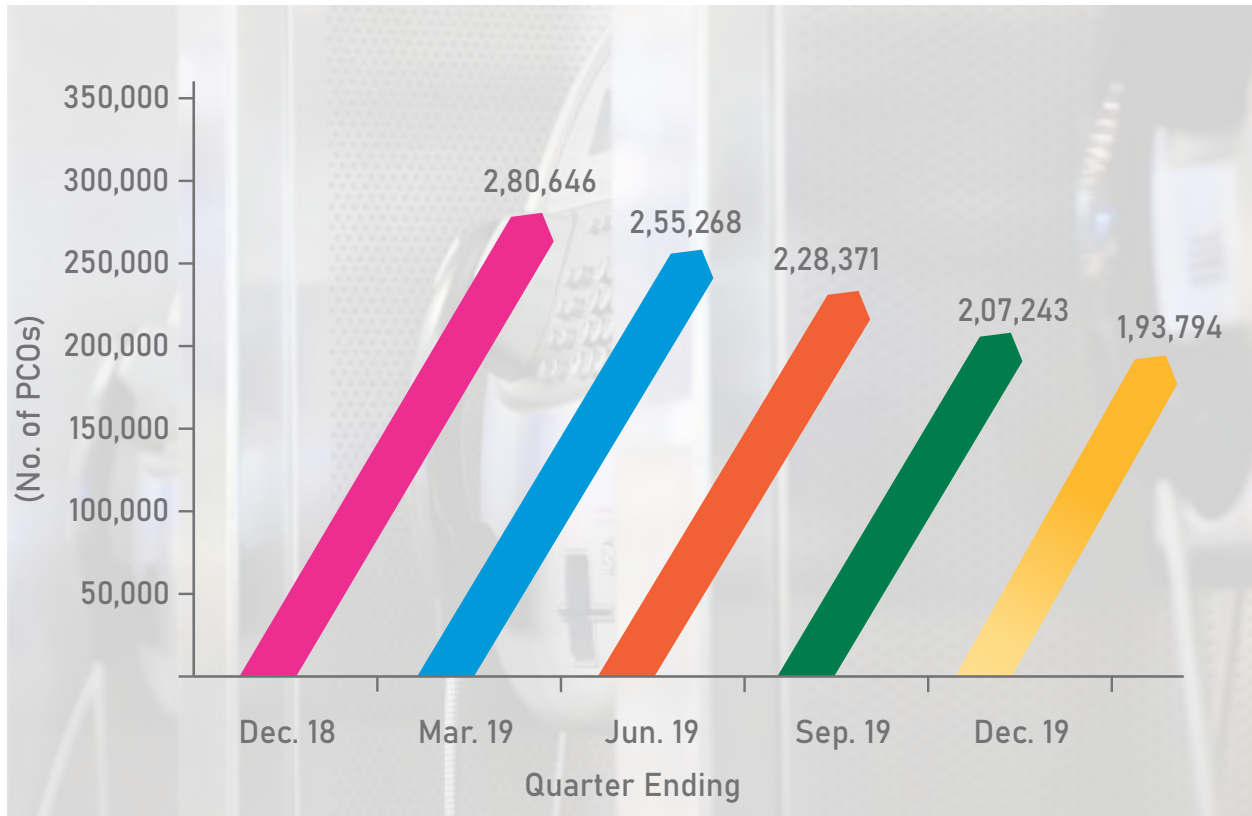
*Data of Telengana is included in A.P. State as separate projected population data of Telengana is not available.

Public Call Offices (PCOs)

1.33 Total number of PCOs in the country declined from 2,07,243 at the end of Sep-19 to 1,93,794 at the end of Dec-19. A 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 to show a declining trend over the year. It has

recorded an overall quarterly decline rate of 6.49% and the Y-O-Y decline rate of 30.95% at the QE Dec-19.

Table 1.27 : Rate of change & Market Share of PCOs

Service Provider	Sep-19	Dec-19	Rate of change (%)	Market Share (%) (Dec-19)
BSNL	1,29,129	1,17,534	-8.98%	60.65%
MTNL	67,428	65,881	-2.29%	34.00%
Bharti	9,884	9,629	-2.58%	4.97%
Quadrant	802	750	-6.48%	0.39%
Total	207243	193794	-6.49%	100.00%

Village Public Telephones (VPTs)

1.35 There are 5,93,731 inhabited villages in India as per Census 2001. During the Q.E.

1.36 Number of VPTs declined from 70,834 at the end of Sep-19 to 68,784 at the end of Dec-19 with a quarterly decline rate

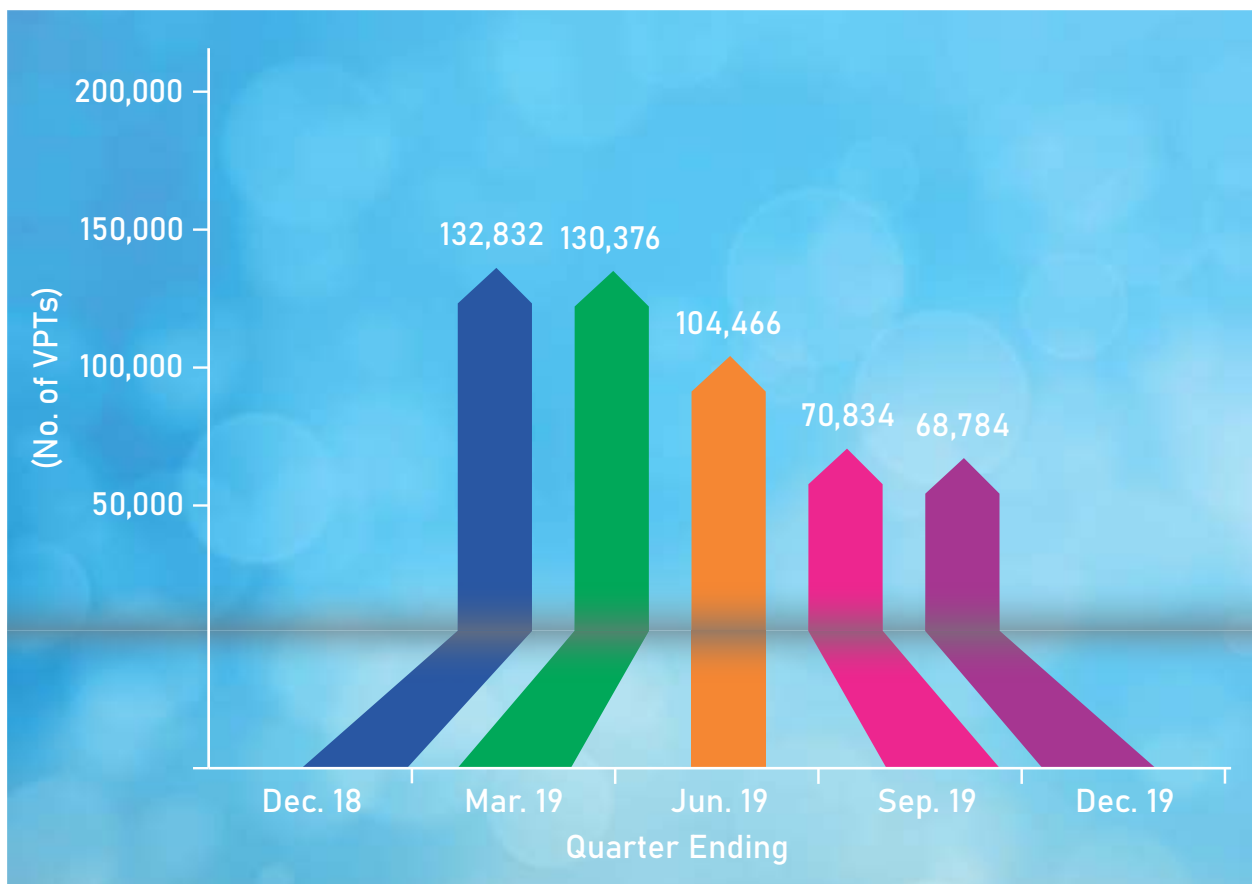
1.37 As per the information received in TRAI, at the end of Dec-19, only M/s BSNL was

Dec-19, there were 68,784 villages having Village Public Telephones (VPTs).

of 2.89%. It registered a yearly decline of 48.22% in QE Dec-19 over the same quarter in the previous year.

providing VPTs in the country. Service area-wise detailed table of VPTs is available at Annexure -1.4.

Chart 1.13 : Trend of number of VPTs



Section D: Internet Services

1.38 This section summarizes information submitted by internet service providers for the quarter ending Dec-19.

Part-I consists of information of Internet services (narrowband + broadband), Part-II consists of broadband services and Part-III covers narrowband services.

Part-I : Internet Services (Broadband + Narrowband)

1.39 As per reports received from 358 operators (as compared to 353 operators in the last quarter) the total number of internet subscribers increased from 687.63 million at the end of Sep-19 to 718.74 million

at the end of Dec-19 with a quarterly growth rate of 4.53%. Out of the total 718.74 million internet subscribers, 661.94 million were broadband and 56.81 million were narrowband.

1.40 Wired Internet subscribers increased from 22.26 million at the end of Sep-19 to 22.39 million at the end of Dec-19 with a quarterly growth rate of 0.58%.

Wireless Internet subscribers increased from 665.37 million at the end of Sep-19 to 696.36 million at the end of Dec-19 with a quarterly growth rate of 4.66%.

1.41 The number of Broadband subscribers increased from 625.42 million at the end of Sep-19 to 661.94 million at the end of Dec-19 with a quarterly growth rate of 5.84%. However, the number of

Narrowband subscribers declined from 62.20 million at the end of Sep-19 to 56.80 million at the end of Dec-19 with a quarterly decline rate of 8.67%.

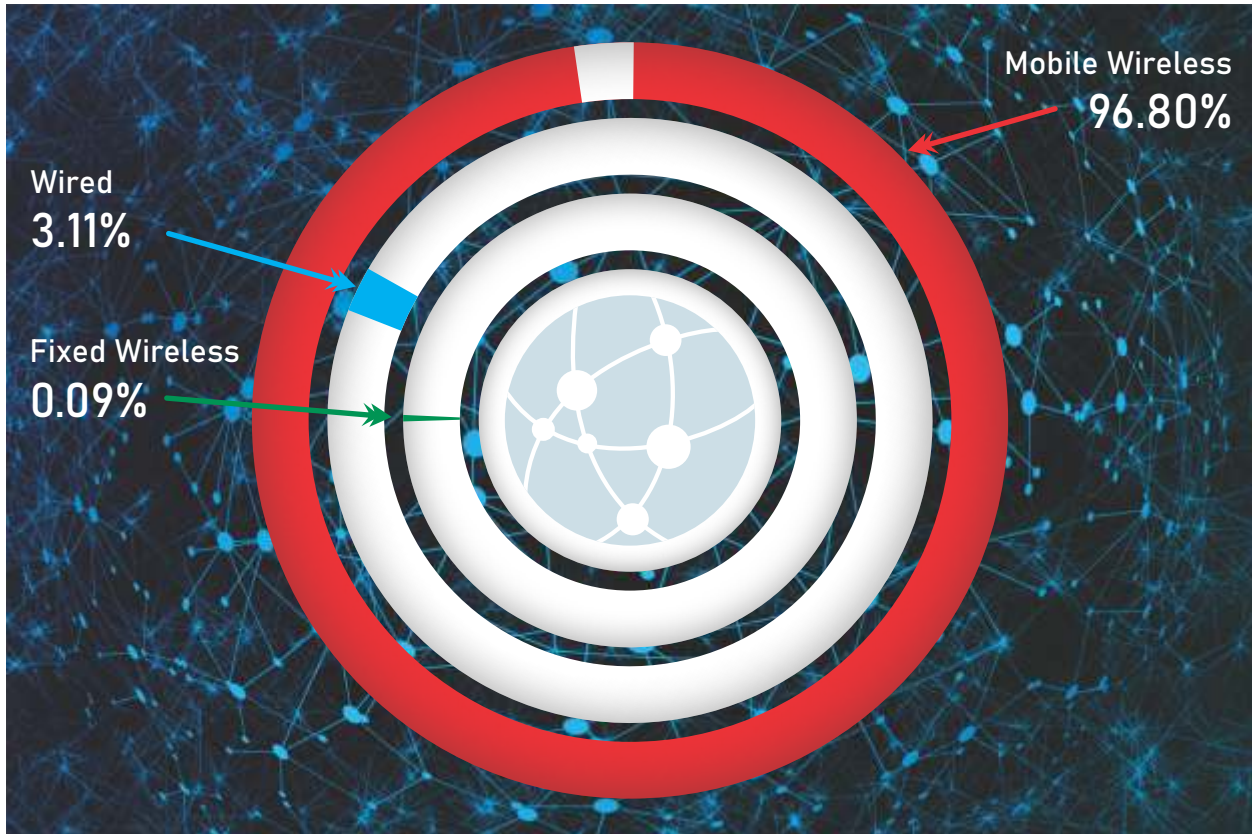
Table 1.28: Trend of Internet Subscriber Base

Segment	Mode of Access								Total Subscribers (in million)	
	Wireless Subscribers (in million)									
	Wired Subscribers (in million)		Fixed Wireless (Wi-Fi, Wi-Max, Radio & VSAT)		Mobile Wireless (Phone + Dongle)		Total Wireless		Sep-19	Dec-19
	Sep-19	Dec-19	Sep-19	Dec-19	Sep-19	Dec-19	Sep-19	Dec-19	Sep-19	Dec-19
Broadband	19.01	19.14	0.57	0.61	605.84	642.19	606.41	642.80	625.42	661.94
Narrowband	3.25	3.25	0.01	0.01	58.95	53.55	58.96	53.56	62.20	56.31
Total	22.26	22.39	0.58	0.62	664.79	695.74	665.37	696.36	687.62	718.74

1.42 The following charts present the composition of Internet Subscribers by mode of access and composition of

Broadband & Narrowband subscriptions as on 31st December, 2019.

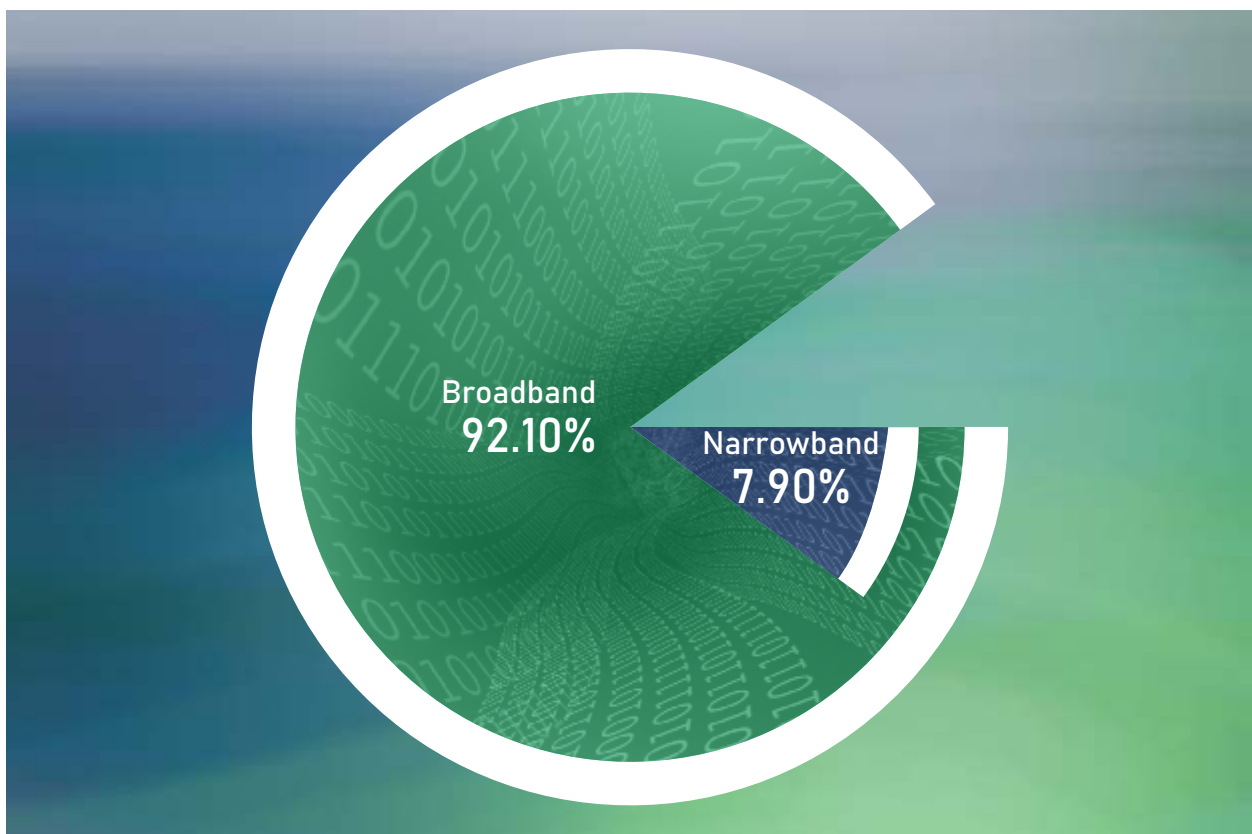
Chart 1.14 : Composition of Internet Subscriptions



1.43 Out of the total internet subscribers, 96.80% subscribers are using Mobile devices for access to internet services.

Wired internet subscribers are only 3.11% of the total internet subscribers at the end of Dec-19.

Chart 1.15 : Composition of Broadband & Narrowband Subscriptions



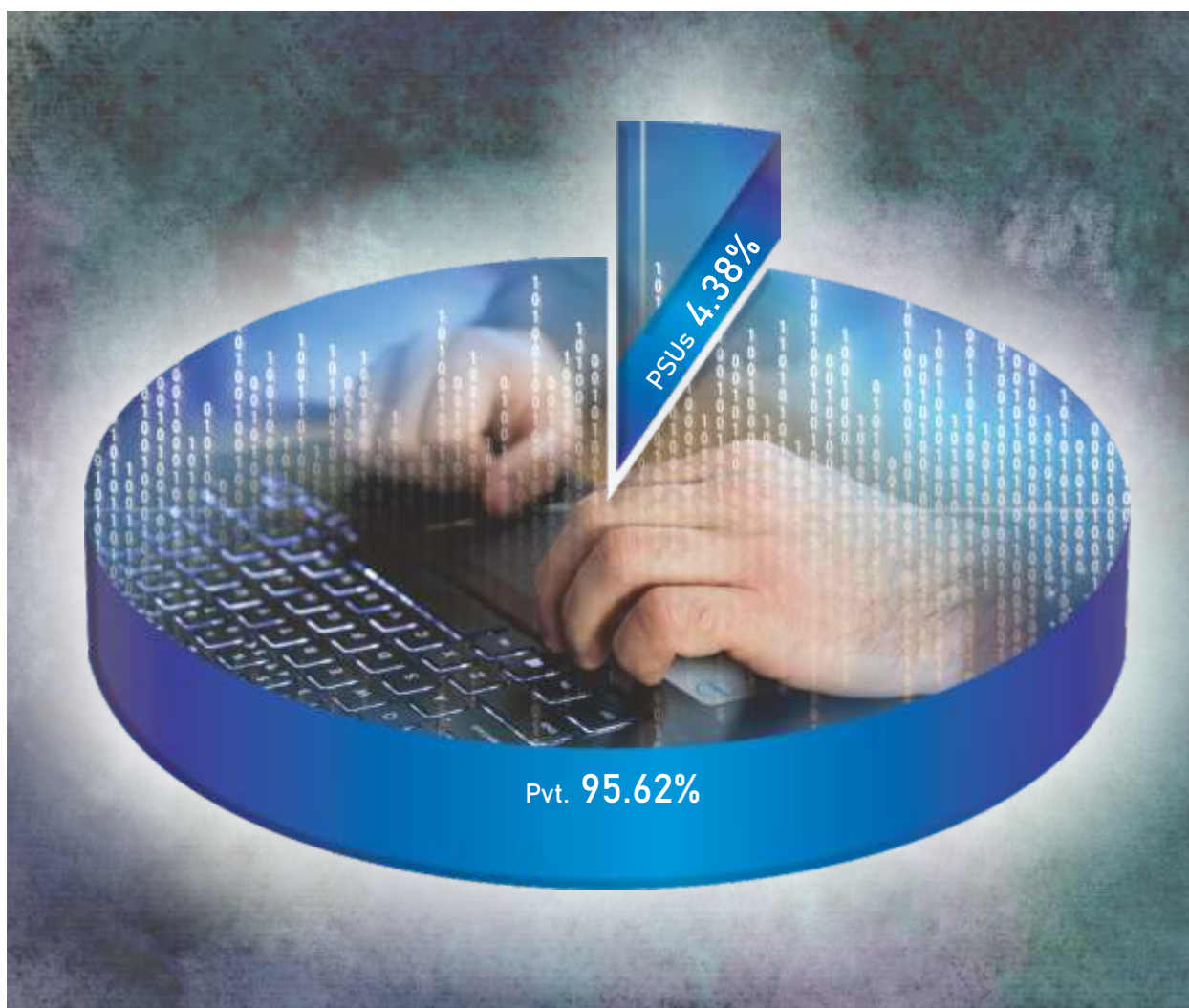
1.44 Out of the total internet subscribers, 92.10% subscribers are using broadband

1.45 Share of private internet service providers in the total internet subscriber base decreased from 95.71% at QE Sep-19 to

for access to internet.

95.62% at QE Dec-19. The following chart present the composition of market share of PSUs and Private Internet service providers.

Chart 1.16 : Market Share of PSUs and Private Internet Service Providers



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

following page.

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	2.11	1.99	21.82	30.81	23.93	32.80
Assam	0.58	0.38	7.12	5.42	7.71	5.80
Bihar	3.22	1.34	23.55	18.41	26.78	19.75
Delhi	0.19	2.61	0.56	36.60	0.75	39.21
Gujarat	1.05	1.40	11.99	29.89	13.04	31.28
Haryana	0.48	0.55	6.10	9.75	6.58	10.30
Himachal Pradesh	0.22	0.16	3.52	2.00	3.74	2.16
Jammu & Kashmir	0.01	0.03	1.51	2.91	1.52	2.94
Karnataka	1.66	1.90	14.03	27.31	15.69	29.20
Kerala	0.73	1.03	9.91	14.75	10.64	15.79
Kolkata	0.06	1.28	1.31	14.45	1.38	15.73
Madhya Pradesh	2.27	2.05	16.44	26.47	18.71	28.52
Maharashtra	2.38	2.68	21.70	34.66	24.09	37.33
Mumbai	0.09	2.54	1.34	26.18	1.43	28.72
North East	0.31	0.22	3.54	3.58	3.85	3.81
Odisha	1.24	0.41	10.50	6.49	11.74	6.90
Punjab	0.70	0.96	7.55	16.34	8.25	17.30
Rajasthan	1.77	1.33	17.34	20.73	19.11	22.06
Tamil Nadu	1.47	2.21	11.87	34.88	13.33	37.09
Uttar Pradesh (East)	3.61	1.56	23.36	23.29	26.97	24.85
Uttar Pradesh (West)	1.40	1.49	11.77	21.41	13.16	22.90
West Bengal	2.11	0.98	13.92	14.87	16.03	15.86
Total	27.69	29.12	240.75	421.19	268.43	450.31
Total	56.81		661.94		718.74	

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

S.No	ISP	No. of Subscribers	Share (%)
1	Reliance Jio Infocomm Ltd	370872755	51.60%
2	Bharti Airtel Ltd.	167027305	23.24%
3	Vodafone Idea Limited	142068179	19.77%
4	Bharat Sanchar Nigam Ltd.	30262689	4.21%
5	Atria Convergence Technologies Pvt. Ltd.	1518853	0.21%
6	Mahanagar Telephone Nigam Ltd.	1092201	0.15%
7	Hathway Cable & Datacom Pvt. Ltd.	898834	0.13%
8	You Broadband India Pvt. Ltd.	785284	0.11%
9	GTPL Broadband Pvt. Ltd.	325927	0.05%
10	Excitel Broadband Private Limited	319323	0.04%
Total of Top 10 ISPs		715171350	99.50%
Others		3572151	0.50%
Grand Total		718743501	100.00%

1.47 Reliance Jio holds the top position with 51.60% market share of internet subscribers followed by Bharti Airtel Ltd with

23.24% at the QE Dec-19. M/s Vodafone Idea Ltd held the third position in internet subscribers with a market share of 19.77%.

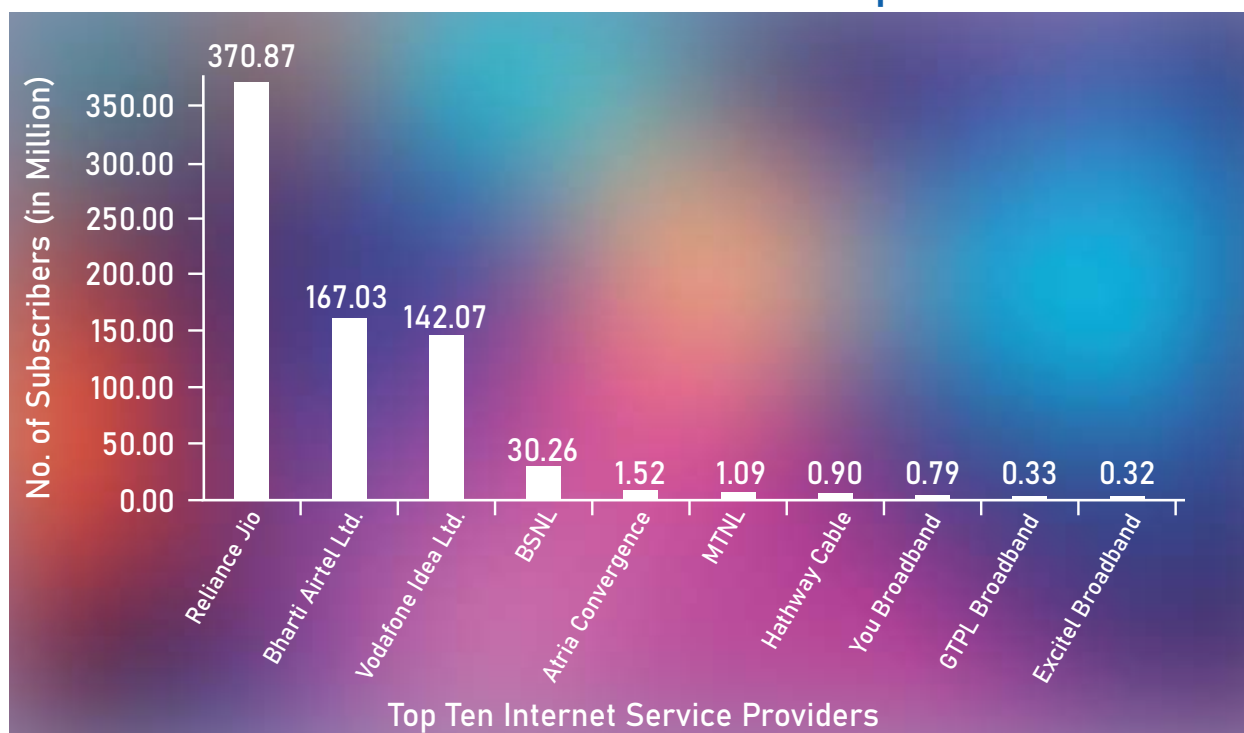
1.48 Out of the total 358 internet service providers, top 10 service providers together hold 99.50% of the total internet subscriber

base at the QE Dec-19. A detailed table of number of internet subscribers (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) at the QE Dec-19.

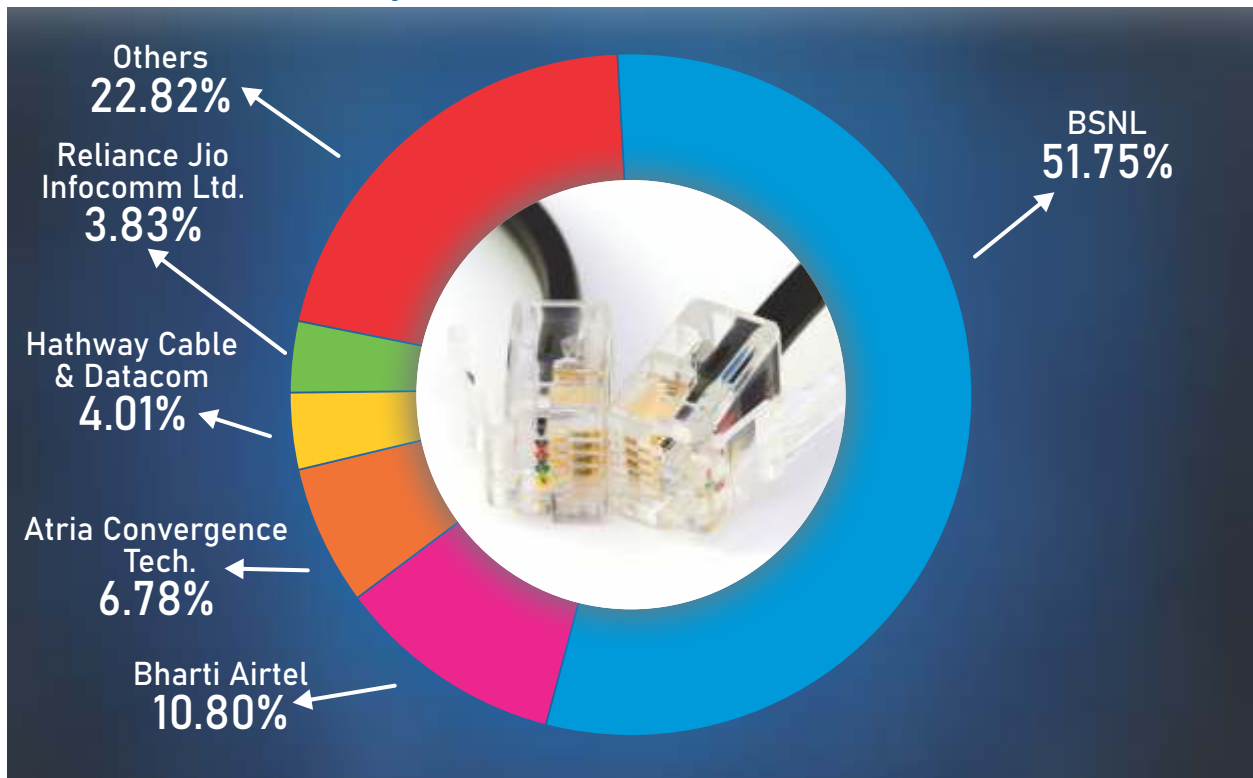
Chart 1.17 : Subscriber Base of Top Ten ISPs



1.50 Among the total 22.39 million wired internet subscribers, BSNL holds 51.75%

market share with 11.59 million subscribers, followed by Bharti with 2.42 million subscribers.

Chart 1.18 : Composition of Wired Internet Subscribers



1.51 In the wireless internet segment, Reliance Jio holds 53.14% market share with 370.02 million subscribers followed by

Bharti Airtel Ltd with 23.64% of wireless internet subscribers at the QE Dec-19.

Chart 1.19 : Composition of Wireless Internet Subscriptions

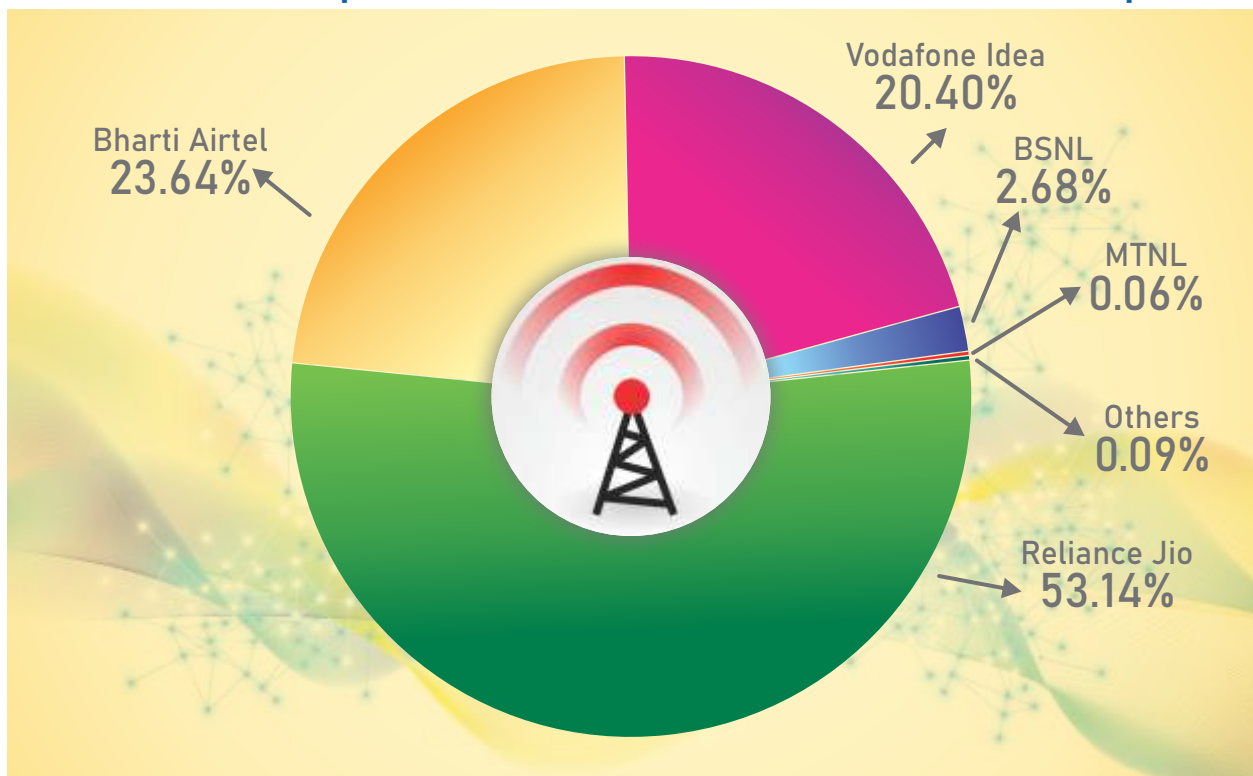


Chart 1.20 : Technology trend for Wireless Internet Access

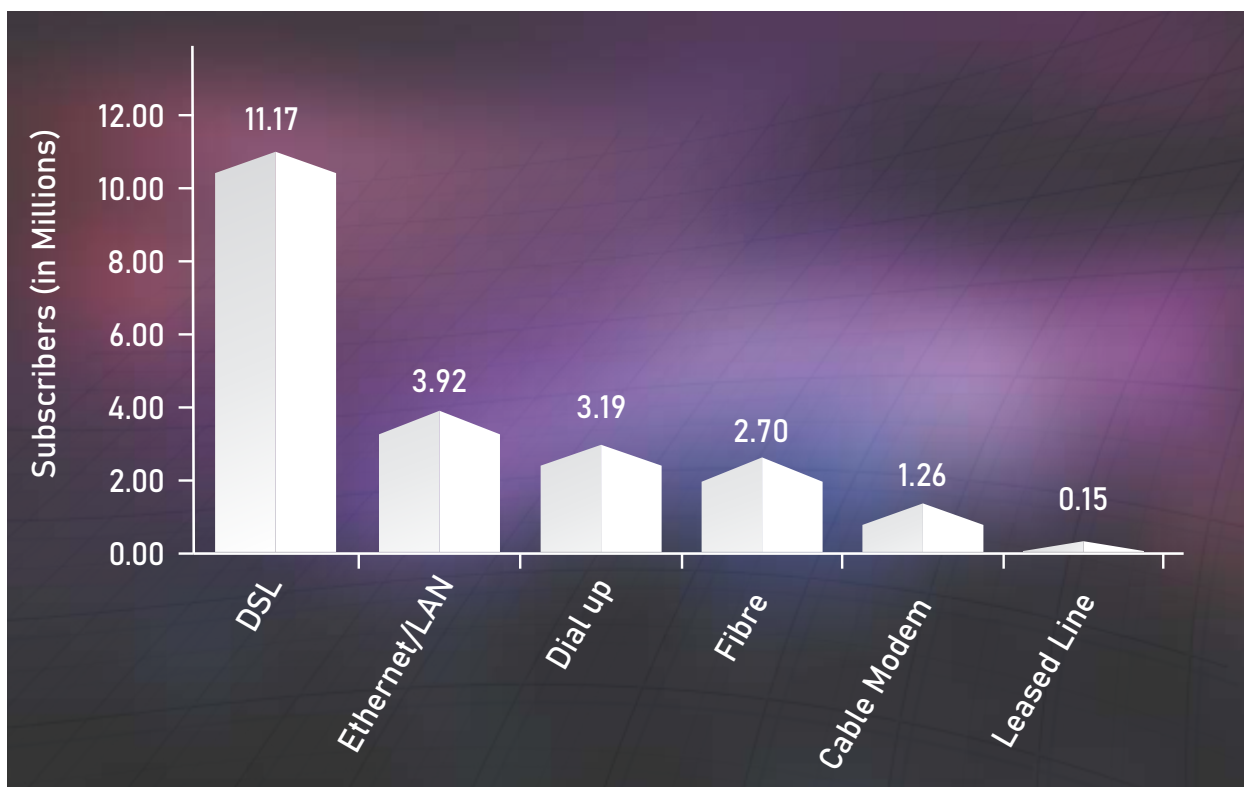
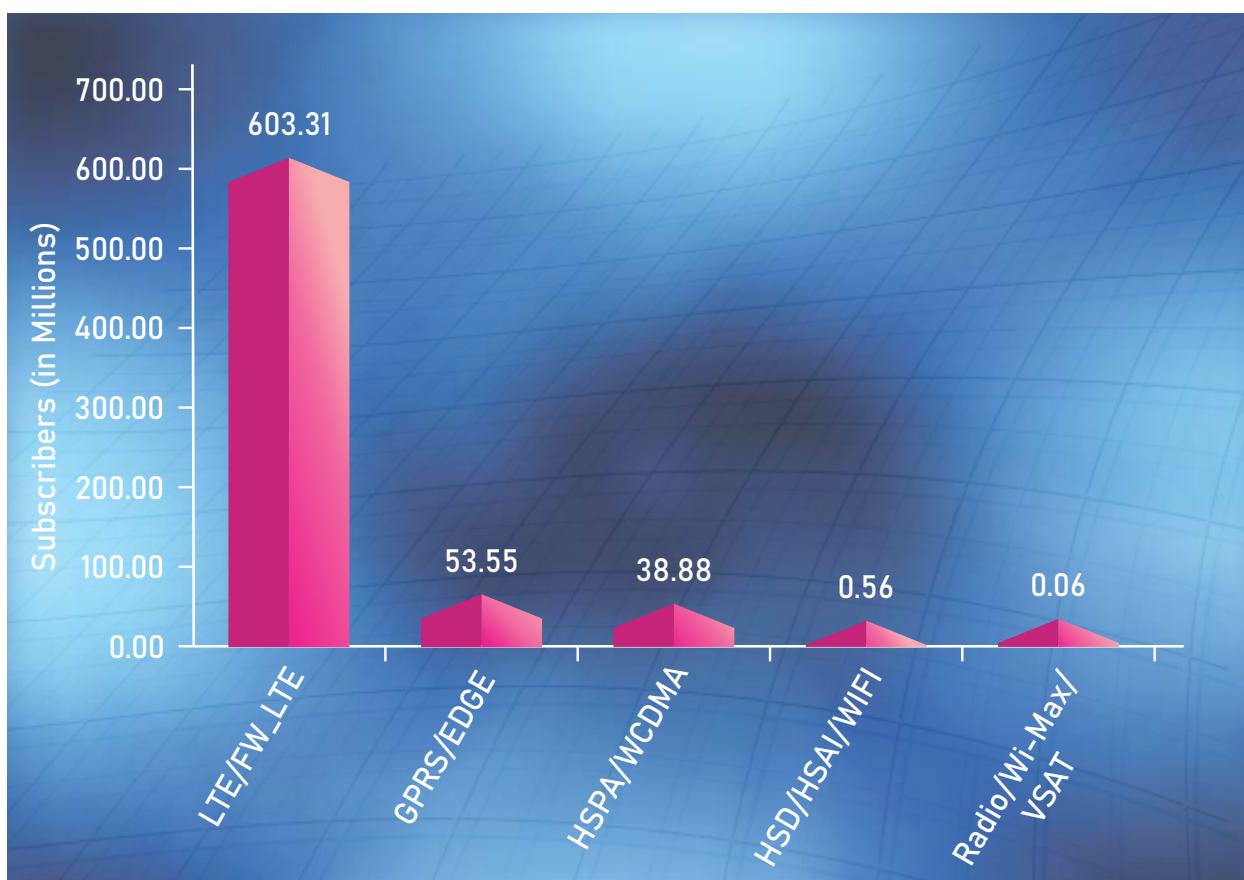


Chart 1.21 : Technology trend for Wired Internet Access



1.52 Top five service areas in terms of internet subscriptions (wired + wireless) are Maharashtra (61.42 million), Andhra Pradesh including Telengana (56.74 million),

U.P. (East) (51.82 million), Tamil Nadu including Chennai (50.42 million) and Madhya Pradesh including Chhattisgarh (47.24 million).

Table 1.31 : Service Area-wise number of Internet Subscribers per 100 population at the end of Dec-19

Service Area	Internet Subscribers (in million)			No. of Internet Subscribers per 100 population		
	Rural	Urban	Total	Rural	Urban	Total
Andhra Pradesh	23.93	32.80	56.74	36.63	128.57	62.45
Assam	7.71	5.80	13.51	27.47	100.97	39.96
Bihar	26.78	19.75	46.53	21.69	98.88	32.45
Delhi	0.75	39.21	39.96	98.97	170.81	168.53
Gujarat	13.04	31.28	44.32	34.56	109.49	66.85
Haryana	6.58	10.30	16.89	36.75	93.45	58.35
Himachal Pradesh	3.74	2.16	5.90	58.29	241.68	80.78
Jammu & Kashmir	1.52	2.94	4.46	16.58	79.69	34.68
Karnataka	15.69	29.20	44.90	40.74	113.14	69.79
Kerala	10.64	15.79	26.43	39.00	172.05	72.48
Madhya Pradesh	18.71	28.52	47.24	23.88	93.16	43.34
Maharashtra	24.09	37.33	61.42	39.93	103.63	71.74
Mumbai	1.43	28.72	30.15			
North East	3.85	3.81	7.66	35.94	100.92	52.84
Odisha	11.74	6.90	18.64	32.94	85.47	42.64
Punjab	8.25	17.30	25.55	47.49	116.96	79.43
Rajasthan	19.11	22.06	41.17	32.99	118.15	53.74
Tamil Nadu	13.33	37.09	50.42	50.42	80.53	69.55
UP (East)	26.97	24.85	51.82	21.64	84.42	36.32
UP (West)	13.16	22.90	36.07			
Kolkata	1.38	15.73	17.11	25.05	111.61	50.10
West Bengal	16.03	15.86	31.88			
Total	268.43	450.31	718.74	29.83	106.22	54.29

* 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, published by the Office of the Registrar General & Census Commissioner, India.
2. Data/information for Andhra Pradesh includes Telengana, Madhya Pradesh includes Chhattisgarh, 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 15,526 Gbps during the quarter

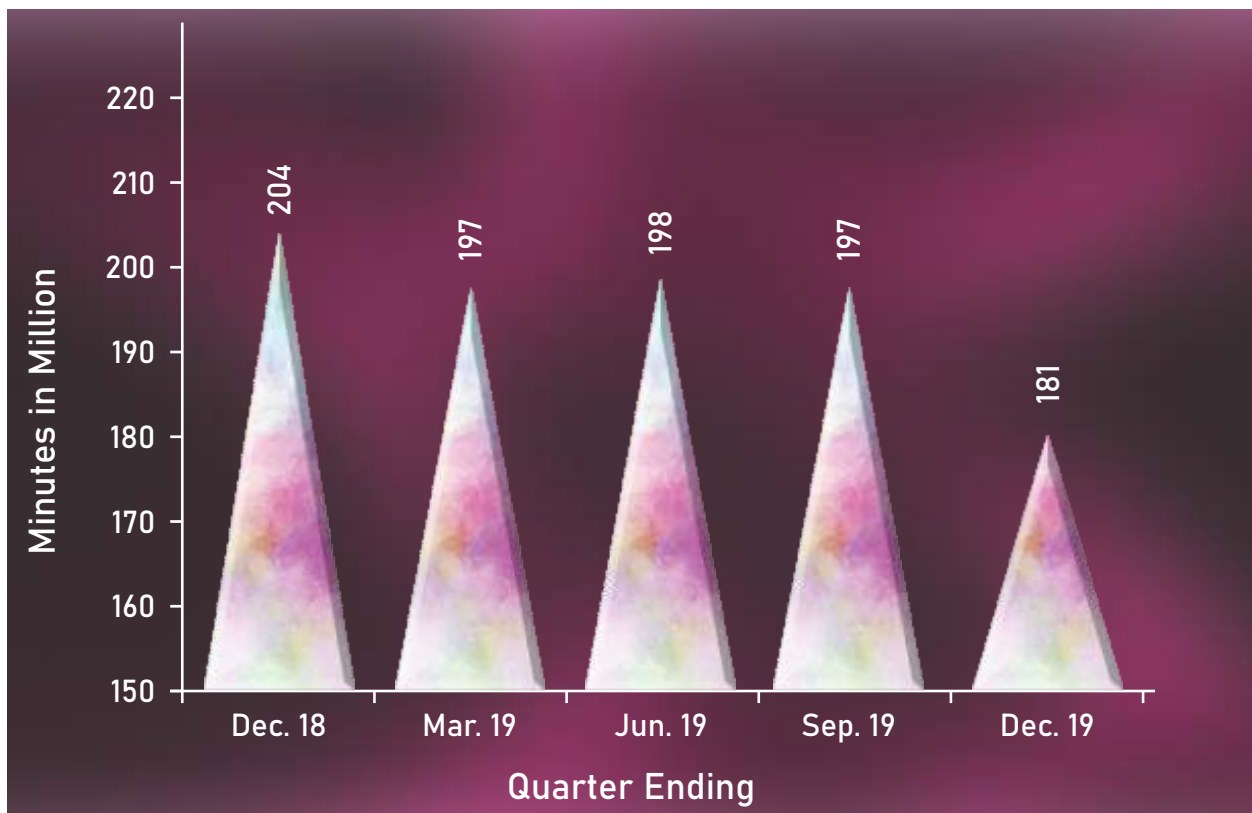
ending Dec-19 as compared to 12,328 Gbps during the previous quarter.

Internet Telephony

1.54 As per the reports received from 15 service providers, giving Internet Telephony services, the total outgoing minutes of usage for internet telephony is

181.34 million during the Q.E. Dec-19 as compared to 197.09 million in the 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 Services (Download Speed \geq 512 Kbps)

1.55 The total number of broadband subscribers increased from 625.42 million at the end of Sep-19 to 661.94 million at the

end of Dec-19. Out of which, the number of wired broadband subscribers are 19.14 million and wireless broadband subscribers are 642.80 million.

1.56 The top five broadband (wired+ wireless) service providers in terms of subscribers are Reliance Jio (370.87 million),

Bharti Airtel (140.40 million), Vodafone Idea Ltd (118.45 million), BSNL (23.96 million) and Atria Convergence (1.52 million).

1.57 In the wired broadband segment, BSNL holds 42.31% market share with 8.39

million subscribers followed by Bharti with 2.42 million subscribers at QE Dec-19.

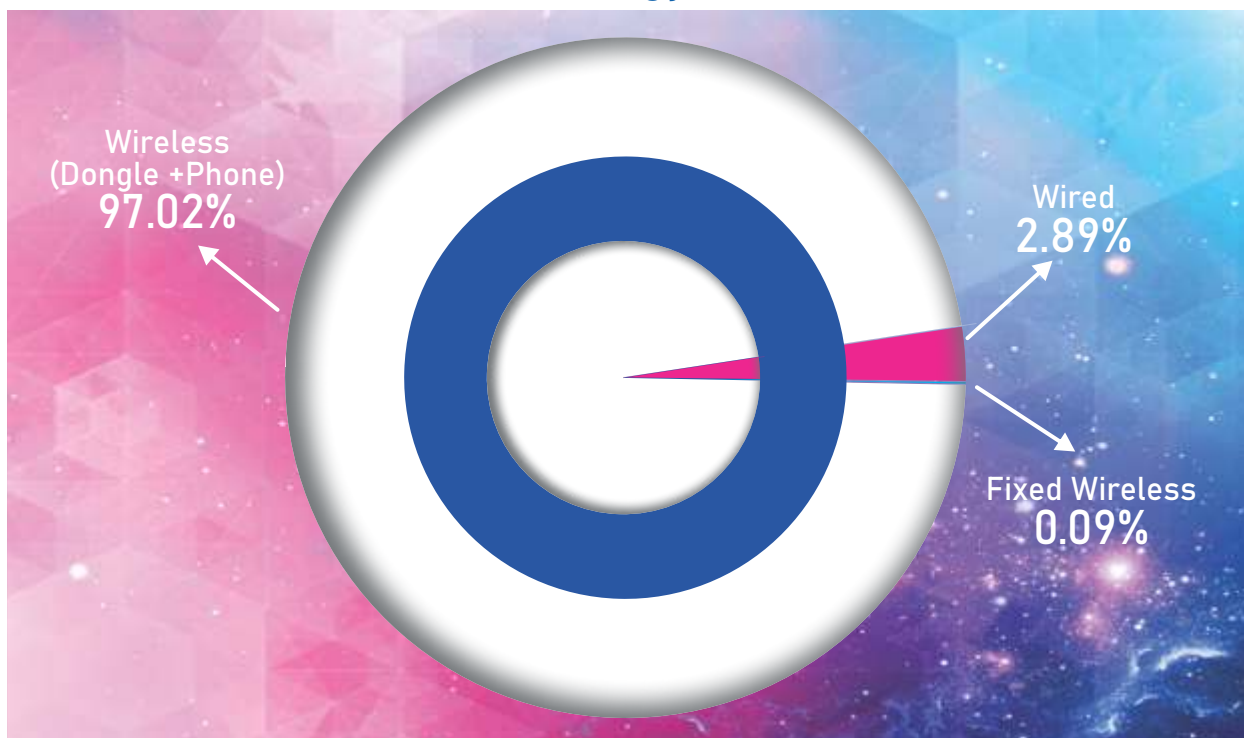
1.58 In wireless broadband segment, Reliance Jio holds 57.56% market share with 370.02 million subscribers followed by Bharti

Airtel Ltd (21.47%) with 137.98 million subscribers at QE Dec-19.

1.59 The top five service areas in respect of broadband subscriptions at Q.E. Dec-19 are Maharashtra (56.36 million), Andhra

Pradesh including Telengana (52.63 million), Tamil Nadu including Chennai (46.74 million), U.P.-East (46.65 million) and Madhya Pradesh (42.91 million).

Chart 1.23 : Composition of Broadband Subscriptions – Technology-wise



1.60 Mobile Device Users (dongle + phone) constitute 97.02% of the total

broadband subscribers at the end of Dec-19.

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

1.61 The total number of narrowband subscribers declined from 62.20 million at the end of Sep-19 to 56.81 million at the end of Dec-19 with a quarterly decline rate of 8.67%.

Out of 56.81 million narrowband subscribers, Wired Narrowband subscribers are 3.25 million and Wireless Narrowband subscribers are 53.55 million.

1.62 The top five narrowband (wired + wireless) service providers in terms of subscriber base are Bharti Airtel (26.63

million), Vodafone Idea Ltd (23.61 million), BSNL (6.30 million), MTNL (0.20 million) and You Broadband (0.01 million) at the end of Dec-19.

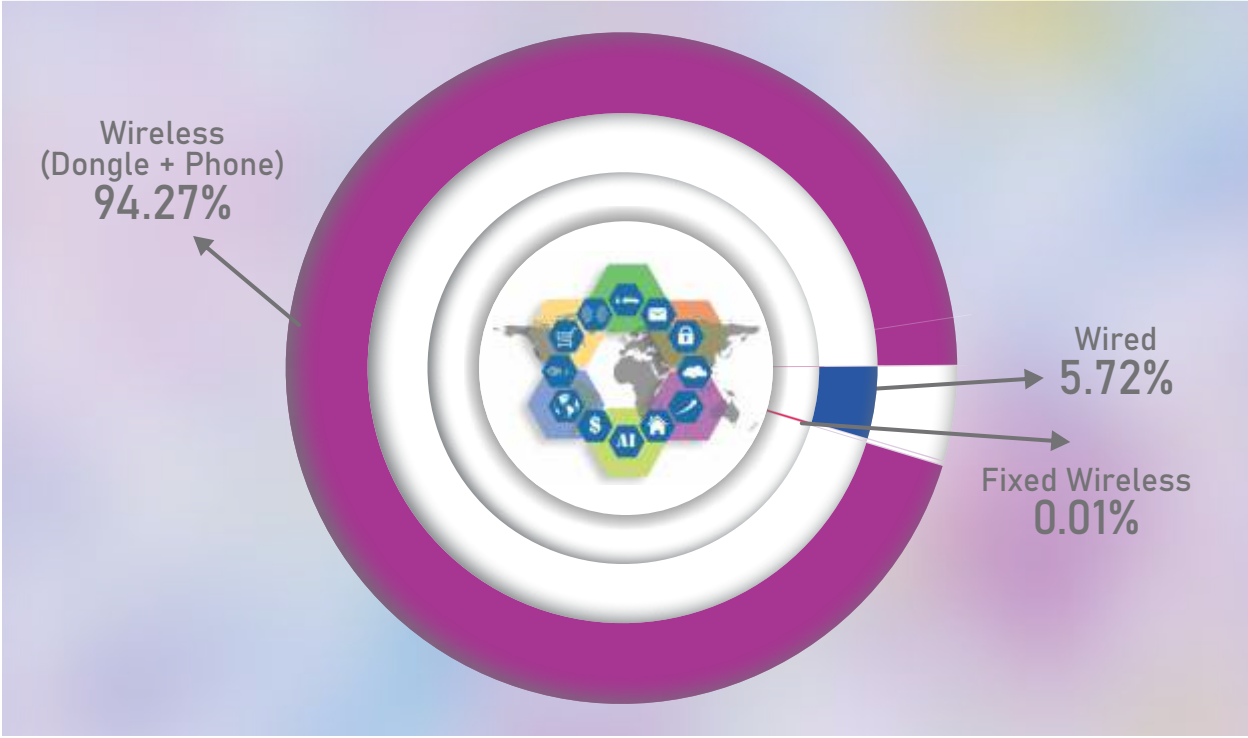
1.63 In the wired narrowband segment, BSNL holds 98.37% market share with

3.195 million subscribers followed by You Broadband India Pvt Ltd with 0.015 million.

1.64 In the wireless narrowband segment, Bharti Airtel holds 49.73% market share

with 26.63 million subscribers followed by Vodafone Idea Ltd with 23.61 million subscribers.

Chart 1.24 : Composition of Narrowband Subscriptions – Technology-wise



Section E : Other Value Added Services - PMRTS & VSAT

Public Mobile Radio Trunk Services (PMRTS)

1.65 The subscriber base of PMRTS decreased from 59,118 at the end of Sep-19 to

59,089 at the end of Dec-19 with a quarterly growth rate of -0.05%.

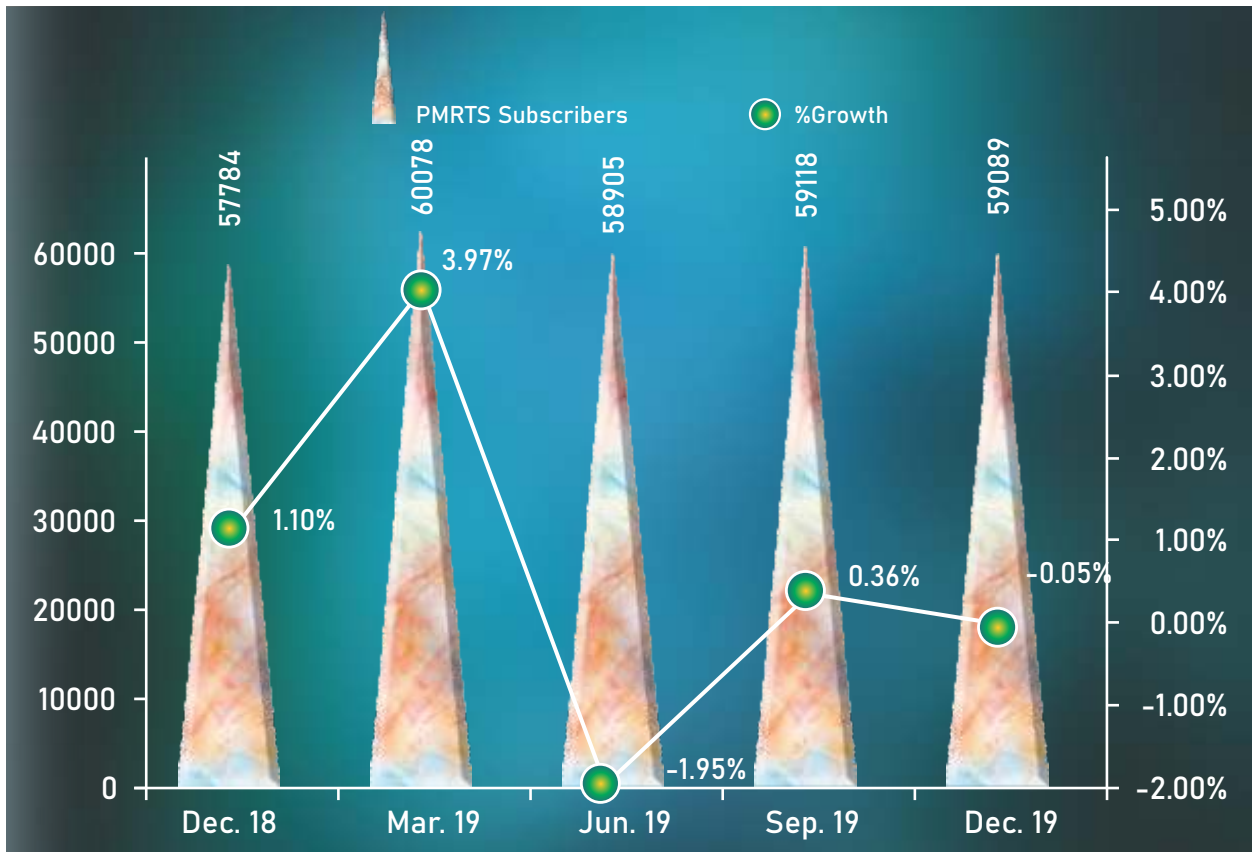
Table 1.32 : PMRTS Subscriber Base - Service Provider-wise

Sl. No	Name of the Service Provider	Subscriber Base as on 30.09.2019	Subscriber Base as on 31.12.2019	Growth in Subscribers	%Growth in Subscribers in QE Dec-19
1	Arya Omnitalk Radio Trunking Services Pvt. Ltd.	48961	49043	82	0.17
2	Procall Ltd.	3277	3270	-7	-0.21
3	Quick Call	2159	2144	-15	-0.69
4	Inative Networks Pvt Ltd	1820	1820	0	0.00
5	Smartlink Pvt Ltd	1072	1074	2	0.19
6	Bhilwara Telenet Services Pvt Ltd	891	870	-21	-2.36
7	Wiwonet Solutions Pvt Ltd	457	409	-48	-10.50
8	Airtalk Solutions & Services Pvt Ltd	481	459	-22	-4.57
	Total	59118	59089	-29	-0.05

1.66 A detailed table on Service Area-wise subscriber base of PMRTS as on

31 December, 2019 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 2,97,047 at the

end of Sep-19 to 2,98,464 at the end of Dec-19. Net addition during the quarter has been 1,417 at the growth rate of 0.48%.

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

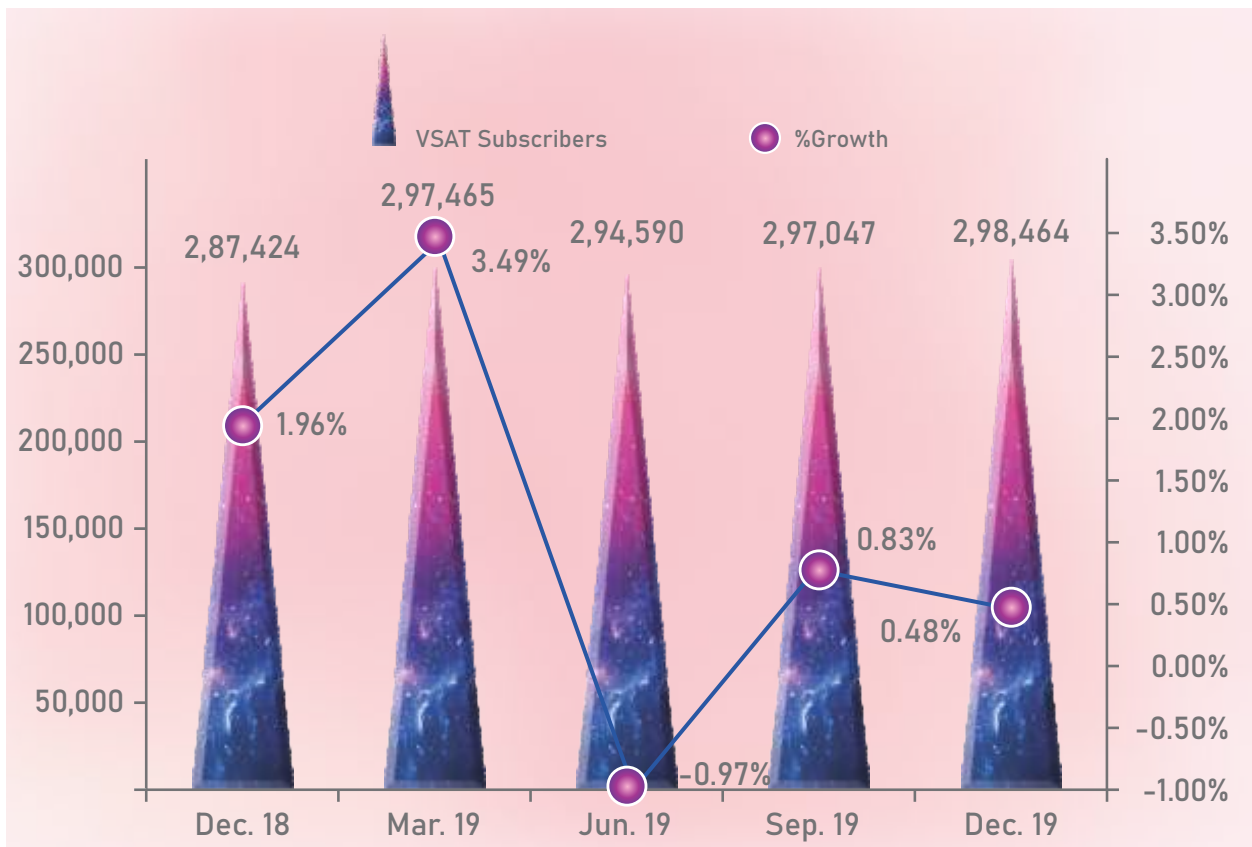


Table 1.33 : VSAT Service Providers currently providing Services & their Subscriber Base

Sr. No.	Name of Service Provider	Subscriber Base at the Quarter ending		Net Additions	%age Growth	Market Share (%) Dec-19
		Sep-19	Dec-19			
1	Hughes Communications Ltd.	115738	119292	3554	3.07	39.97
2	Bharti Airtel Limited	81454	80857	-597	-0.73	27.09
3	Tatanet Services	66847	66367	-480	-0.72	22.24
4	HCL Comnet	17004	16442	-562	-3.31	5.51
5	BSNL	13357	12869	-488	-3.65	4.31
6	Infotel Satcom	2597	2587	-10	-0.39	0.87
7	Cloudcast Digital Ltd (erstwhile Planetcast Media Services Ltd)	50	50	0	0.00	0.02
Total		297047	298464	1417	0.48	100.00

1.68 Hughes Communications Limited continues to be the market leader with 39.97% share in VSAT with a subscriber base

of 1,19,292 followed by Bharti Airtel Ltd (80,857) at the end of Dec-19.

1.69 In terms of net additions, M/s Hughes Communications Ltd added the maximum number of VSAT subscribers (3,554 subscribers) during the QE Dec-19. Bharti

Airtel Limited, Tatanet Services, BSNL, HCL Comnet and Infotel Satcom have lost their VSAT subscribers during the quarter.

Chapter 2 :

REVENUE AND USAGE Wireless Services



- For all the parameters, Metros indicate data for Delhi, Mumbai & Kolkata. Data for Chennai service area has been included in Circle A, as part of TN.
- ARPU arrived at after adjusting interconnect usage charges and roaming settlement charges.
- The data contained in this section covers the licencees, who have been providing services during the entire period from 1st September, 2019 to 31st December, 2019 in various service areas.

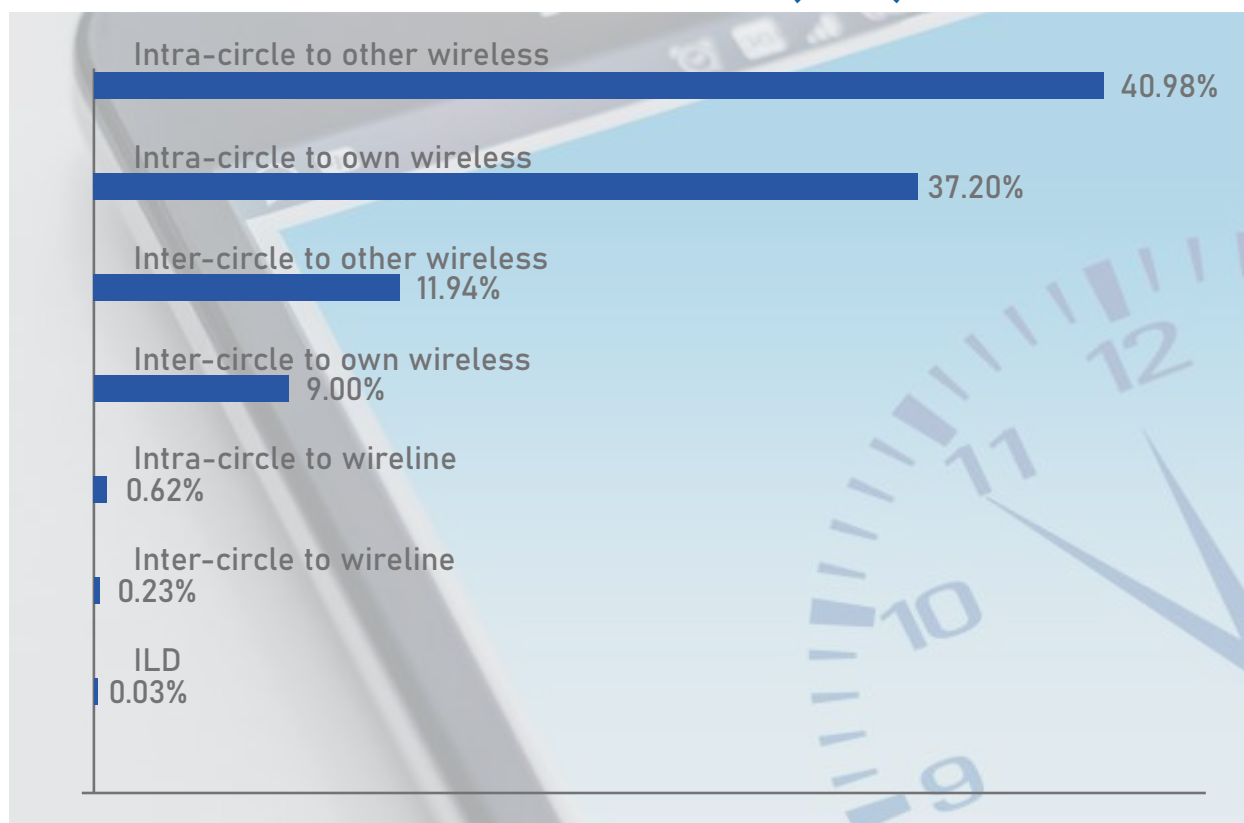
**Table 2.1 : Key Indicators – Wireless Services
(GSM including LTE)**

Parameter	Dec-19	Sep-19	Dec-18	QoQ %age change	YoY %age change
Subscriber Base* (million)	1148.19	1174.39	1177.49	-2.23%	-2.49%
Share of Pre-paid (%)	95.46%	95.74%	95.81%	-0.29%	-0.36%
Incoming MOU per Subscriber per month	355.00	344.85	329.58	2.94%	7.71%
Outgoing MOU per Subscriber per month	357.18	345.67	337.85	3.33%	5.72%
No. of Outgoing SMS per Subscriber per month	17.86	17.67	16.15	1.05%	10.53%
Average Revenue Per User (ARPU)** per month (₹)	78.65	74.38	70.13	5.74%	12.15%

* Subscriber figures are closing figures as on the last day of the quarter

2.1 The following chart presents % Service Area (HSA) in the QE Dec-19. break-up of outgoing minutes from Home

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

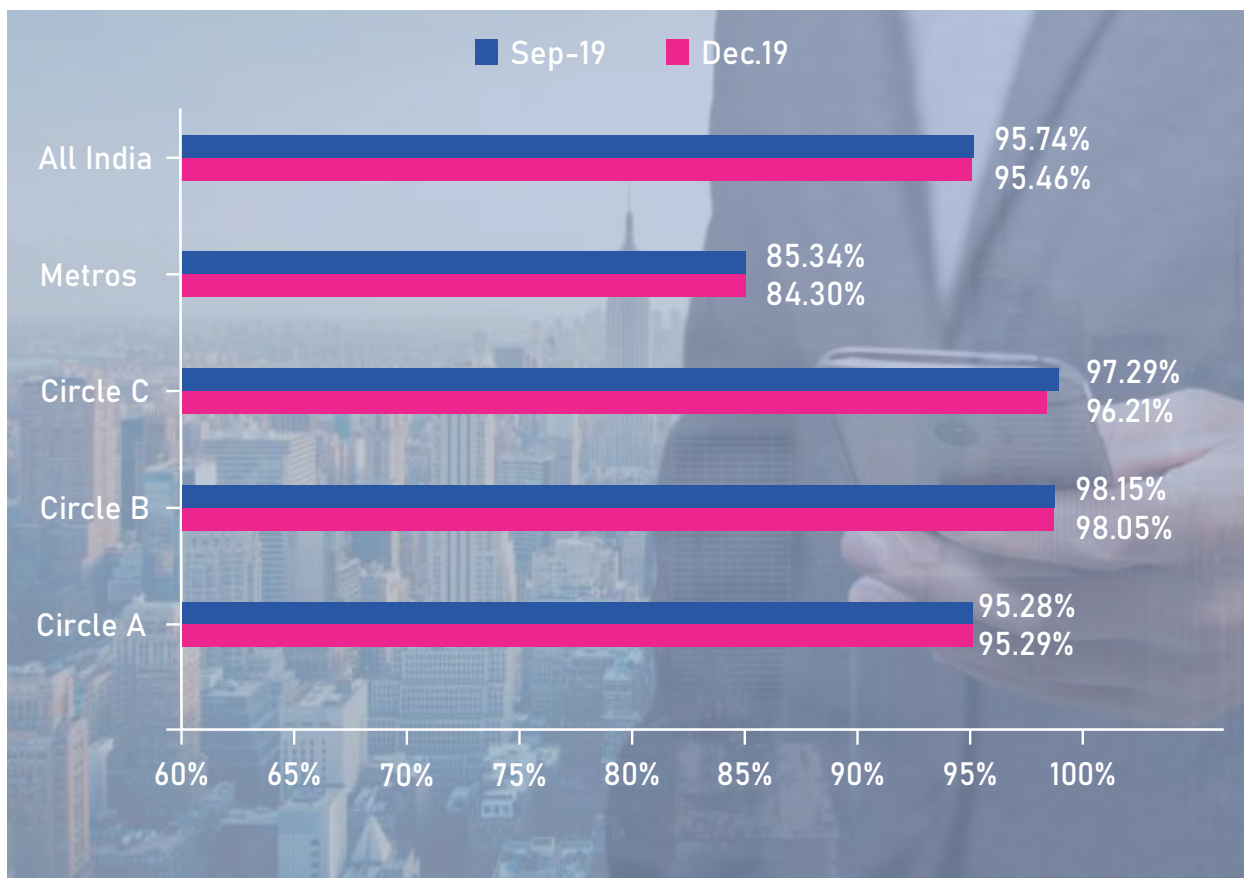


** For ARPU explanation please refer to footnote on Page 50

2.2 The following chart depicts pre-paid subscribers as a % of total wireless 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 Market share of prepaid wireless subscribers decreased from 95.74% at the

end of Sep-19 to 95.46% at the end of Dec-19.

2.4 The Average Revenue Per User (ARPU) per month (all India, blended) increased from 74.38 in Q.E. Sep-19 to 78.65

in Q.E. Dec-19 with a quarterly growth rate of 5.74%. On Y-O-Y basis, ARPU per month increased by 12.14% in this quarter.

2.5 The ARPU per month for pre-paid segment is ₹70 and ARPU per month for

post-paid segment is 262 at QE Dec-19.

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	299	81	91
Circle B	257	67	71
Circle C	190	67	70
Metros	247	51	81
All India	262	70	78.65
All Private SPs	264	74	83.08
BSNL/MTNL	217	35	38.73

2.7 The following table presents the composition of ARPU per month for QE Dec-19.

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	Usage from Home Service Area		
1.1.	Rental Revenue	24.31	26.3%
1.2.	Revenue from calls	9.16	9.9%
1.3.	Revenue from SMS	0.89	1.0%
1.4.	Revenue from data usage	51.83	56.1%
1.5.	Revenue from other VAS	1.54	1.7%
1.6.	Other revenue	3.27	3.5%
2	Usage outside Home Service Area		
2.1.	Revenue from outroamers	1.38	1.5%
3	Total revenue from Subscribers (1+2)	92.38	100%
4	Net inter-operator settlement charges receivable *	-13.73	
5	Net Revenue (ARPU) per month (3+4)	78.65	

* includes Interconnect Usages Charges and roaming settlement charges

2.8 From the above table, it may be seen that the net inter-operator settlement charges payable (13.73) accounts for 14.86% of the total revenue from subscribers.

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.

2.9 On an all India average, the overall Minutes of Usage (MOU) per subscriber per

month increased from 691 in QE Sep-19 to 712 in QE Dec-19 with a quarterly growth rate of 10.71%.

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.

Table 2.4: MOU per Subscriber per month - QE Dec-19

Circle category	MOU per Subscriber per month								
	Post-paid			Pre-paid			Blended		
	Outgoing MOU	Incoming MOU	Total MOU	Outgoing MOU	Incoming MOU	Total MOU	Outgoing MOU	Incoming MOU	Total MOU
Circle A	328	295	623	321	307	628	321	307	628
Circle B	343	320	663	352	362	713	351	361	713
Circle C	489	519	1008	422	454	876	424	456	880
Metro	281	222	502	426	366	792	404	344	748
All India	332	299	632	358	358	716	357	355	712

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

2.11 The overall ratio of incoming and

outgoing MOUs for the QE Dec-19 is 50.2:49.8.

2.12 The number of outgoing SMS per subscriber per month remains the same as in the previous quarter i.e. 18 in QE Dec-19. 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.

Table 2.5: No. of Outgoing SMS per Subscriber per month during QE Dec-19

Circle Category	Outgoing SMS per Subscriber per month		
	Post-paid	Pre-paid	Blended
Circle A	53	19	20
Circle B	41	14	15
Circle C	24	19	20
Metro	38	15	19
All India	43	17	18

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

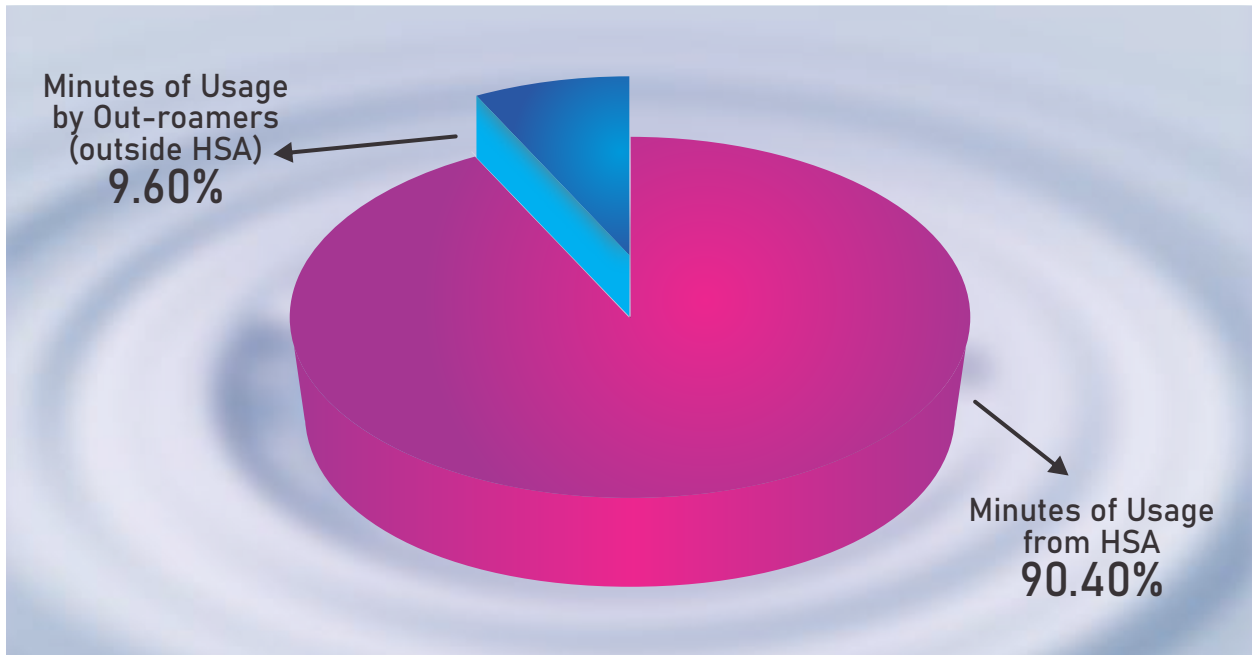
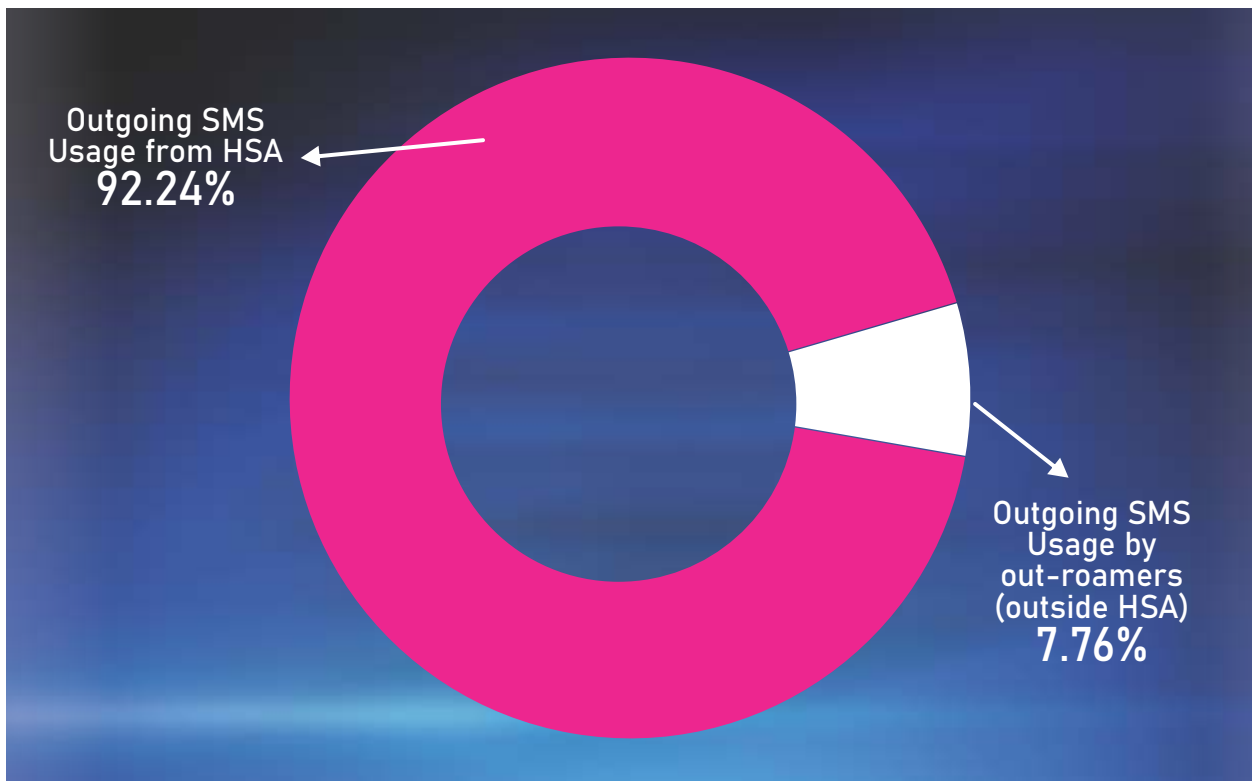


Chart 2.4: Outgoing SMS Usage by Out-roamers as a % of Total No. of Outgoing SMS Usage



2.13 The table on the following page presents the percentage break-up of outgoing minutes of usage from Home

Service Area between various categories of termination networks.

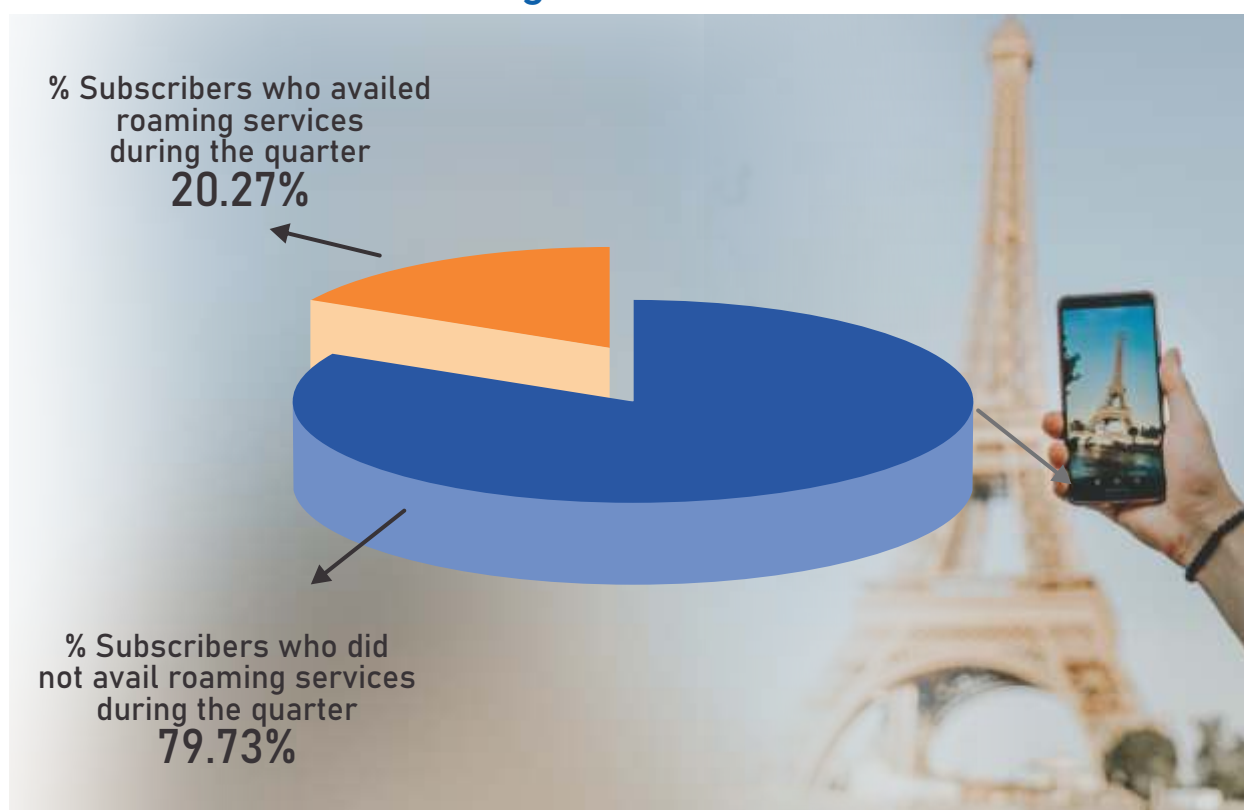
Table 2.6: % Break-up of Outgoing minutes from Home Service Area (HSA)

Circle Category	% Intra-circle to wireline	% Intra-circle to own wireless	% Intra-circle to other wireless	% Inter-circle to wireline	% Inter-circle to own wireless	% Inter-circle to other wireless	% ILD
Circle A	0.75%	38.49%	45.44%	0.24%	6.45%	8.60%	0.03%
Circle B	0.49%	37.86%	41.50%	0.21%	8.39%	11.52%	0.02%
Circle C	0.29%	40.28%	36.38%	0.19%	10.59%	12.26%	0.01%
Metros	1.28%	25.66%	33.05%	0.38%	16.38%	23.15%	0.09%
All India	0.62%	37.20%	40.97%	0.23%	9.00%	11.94%	0.03%

2.14 The following chart presents the percentage of subscribers who availed

roaming services (out-roamers) during the quarter ending Dec-19.

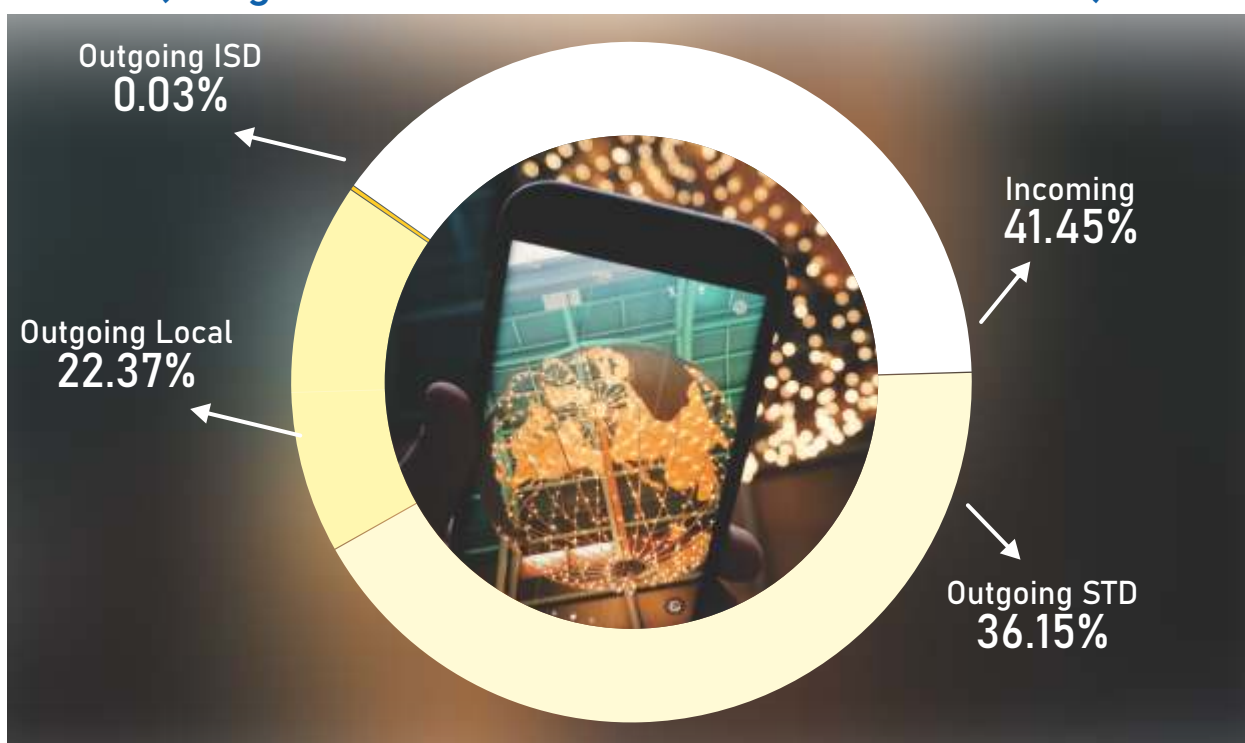
Chart 2.5: % Subscribers who availed Roaming Services during the QE Dec-19



2.15 The usage pattern of out-roamers i.e. usage from outside the Home Service Area shows that incoming minutes account for 41.45% of the total minutes of usage by out-

roamers in QE Dec-19 as compared to 42.42% in the previous quarter. The chart on the following page presents the break-up of minutes of usage of out-roamers during the QE Dec-19.

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 the average tariff.

$$\text{*Average Outgo per Outgoing Minute for usage from HSA} = \frac{\text{Rental revenue} + \text{revenue from outgoing calls from HSA}}{\text{No. of outgoing minutes from HSA}}$$

Table 2.7: Average outgo per outgoing minute from HSA in QE Dec-19

(₹ per minute)

Circle Category	Post-paid	Pre-paid	Blended
Circle A	0.45	0.10	0.12
Circle B	0.34	0.09	0.10
Circle C	0.23	0.09	0.10
Metros	0.42	0.09	0.12
All India	0.39	0.09	0.11

2.17 The all India average outgo per outgoing minute decreased to 0.11 in the

Q.E. Dec-19 as compared to 0.13 in the previous quarter.

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

Parameter	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19
1. ARPU (₹ Per month)	70	71	74	74	79
2. Average Revenue Realization per Subscriber per GB wireless data (in ₹)	10.51	7.95	7.70	6.99	8.45
3. MOU per Subscriber per month	667	692	702	691	712
4. Outgoing MOU per subscriber per month					
4.1 Local (Intra-circle)	248	248	261	254	265
4.2 NLD (Inter-circle)	90	100	91	92	92
4.3 ILD	0.15	0.17	0.15	0.16	0.11
5. Average no. of Outgoing SMS per Subscriber per month	16	16	17	18	18
6. Average Outgo (Voice) per outgoing minute from HSA (in ₹)	0.11	0.13	0.13	0.13	0.11

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



Chapter 3 :

FINANCIAL DATA OF TELECOM SERVICES SECTOR



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

Particulars	QE Dec-18 (₹ in Crore)	QE Sep-19 (₹ in Crore)	QE Dec-19 (₹ in Crore)	Q-O-Q % Change	Y-O-Y % Change
Gross Revenue (GR)	58,991	59,992	63,764	6.29	8.09
Adjusted Gross Revenue (AGR)	36,054	37,338	40,877	9.48	13.38
Pass Through Charges (GR-AGR)	22,936	22,654	22,887	1.03	-0.22
Licence Fee	2,890	2,989	3,270	9.41	13.15
Spectrum Usage Charges	1,064	1,115	1,256	12.67	17.99

3.1 Gross Revenue (GR) and Adjusted Gross Revenue (AGR) increased quarterly by 6.29% and 9.48% respectively in QE Dec-19.

Also, GR and AGR increased yearly by 8.09% and 13.38% respectively in QE Dec-19.

3.2 Pass through charges increased quarterly by 1.03%. However, yearly charges

declined by 0.21% in the QE Dec-19.

3.3 Pass-through charges as a percentage of Gross Revenue are 35.90% in

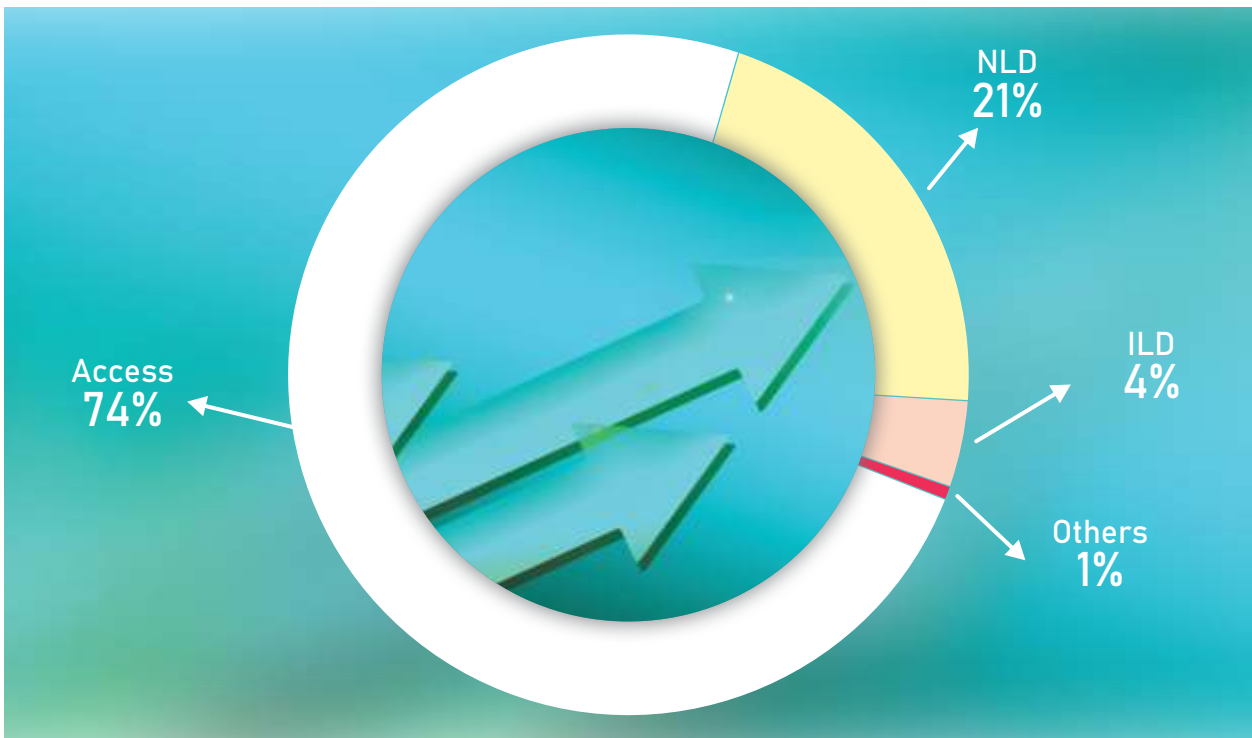
QE Dec-19 as against 37.76% in the previous quarter.

Table 3.2: Service-wise Gross Revenue, Adjusted Gross Revenue, Licence Fee and Spectrum Charges for QE Dec-19

(in ₹ crore)

Service	GR	AGR	LF	Spectrum Usage Charges
Access Providers	45,791	30,323	2,428	1,250
NLD	10,501	8,409	673	-
ILD	3,249	1,677	134	-
Others	4,223	467	35	6
Total	63,764	40,877	3,270	1,256

Chart 3.1: Composition of Adjusted Gross Revenue



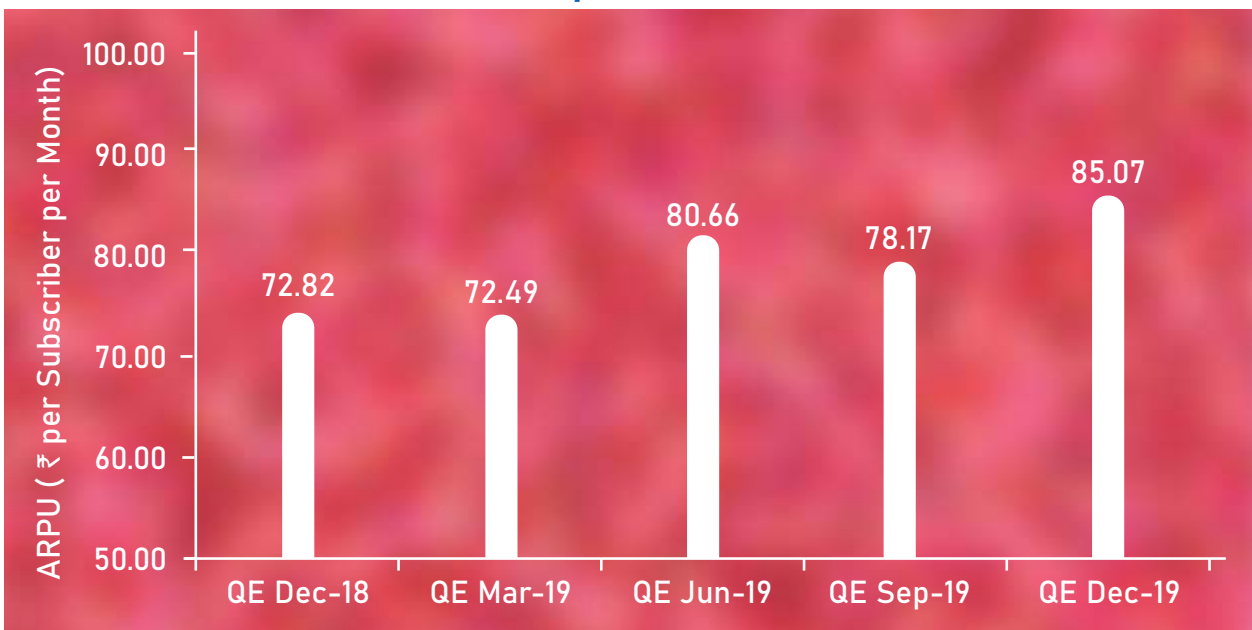
3.4 Access services contributed 74.18% to the total Adjusted Gross Revenue of telecom services. In Access services, Gross Revenue (GR), Adjusted Gross Revenue

(AGR), Licence Fee and Spectrum Usage Charges (SUC)*** increased by 5.47%, 8.60%, 8.51% and 12.58% respectively in QE Dec-19. However, Pass Through Charges declined quarterly by 0.18% during the same period.

3.5 Monthly Average Revenue per User (ARPU) for Access Services based on AGR increased from 78.17 in QE Sep-19 to 85.07

in QE Dec-19. The 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



***Spectrum Usage Charge is payable by the licencees providing mobile access services, as a percentage of their Adjusted Gross Revenue (AGR).

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

(in ₹ Crore)

Service Provider	QE Dec-19	QE Sep-19	% Change
Reliance Jio	12631.95	11528.95	9.57
Bharti Airtel	8143.48	7295.03	11.63
Vodafone Idea	6510.97	6260.22	4.01
BSNL	1950.62	1811.96	7.65
Tata Tele.	499.61	540.49	-7.56
MTNL	476.14	387.86	22.76
Reliance Com.	107.22	95.56	12.20
Quadrant	1.98	0.95	108.11
Grand Total (Access)	30323.29	27921.03	8.60

3.6 Public Sector Undertakings' share in the Access AGR of telecom services is 8% in the QE Dec-19.

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

Category	AGR of Access Services for QE Dec-19 (in crore)	%age share of AGR
Metro	3,789.33	12.50
A	11,919.47	39.31
B	10,765.16	35.50
C	3,849.33	12.69
Total	30,323.29	100

Notes :

1. Source: Figures are un-audited and as submitted by the Operators.
2. The figures have been regrouped wherever considered necessary for the purpose of analysis.
3. The Spectrum usage charges (mostly) are now reported on "Payment for the current Quarter" basis. However, some operators are reporting on payment basis or on estimated basis on the projected AGR for the next quarter.
4. Metro area includes Delhi, Mumbai and Kolkata only. Chennai is clubbed with Tamil Nadu.

Chapter 4 :

Q U A L I T Y O F S E R V I C E (Q o S)



Section A: Quality of Service Performance of Wireless Service Providers

Table 4.1: QoS Summary - Wireless Services

Sl. No.	Parameters	Benchmark	Performance in respect of UASL/CMTS Licencees for the Parameters and Benchmarks			
			For Q. E. September, 2019		For Q. E. December, 2019	
			Out of 110 (Nos.)	Out of 110 (%)	Out of 110 (Nos.)	Out of 110 (%)
I. Network Related Parameters						
1	Network Availability					
(i)	BS Accumulated down-time (not available for service) (%age)	$\leq 2\%$	2	1.82%	0	0%
(ii)	Worst affected BSs due to down-time (%age)	$\leq 2\%$	3	2.73%	0	0%
2	Connection Establishment (Accessibility)					
(i)	Call Set-up Success Rate and Session Establishment Success Rate for Circuit Switched Voice or VoLTE as applicable (within licensee's own network)	$\geq 95\%$	0	0%	0	0%
(ii)	SDCCH/ Paging Channel Congestion/ RRC Congestion (%age)	$\leq 1\%$	2	1.82%	0	0%
(iii)	TCH, RAB and E-RAB Congestion (%age)	$\leq 2\%$	1	0.91%	1	0.91%
3	Connection Maintenance (Retainability)					
(i)	Network QoS DCR Spatial Distribution Measure [Network_ QSD(90,90)]	$\leq 2\%$	1	0.91%	4	3.64%
(ii)	Network QoS DCR Temporal Distribution Measure [Network_ QTD(97,90)]	$\leq 3\%$	3	2.73%	4	3.64%
4	Connections with good voice quality, Circuit Switched Voice Quality and VoLTE quality					
		$\geq 95\%$	0	0%	0	0%

Sl. No.	Parameters	Benchmark	Performance in respect of UASL/CMTS Licencees for the Parameters and Benchmarks			
			For Q. E. September, 2019		For Q. E. December, 2019	
			Out of 110 (Nos.)	Out of 110 (%)	Out of 110 (Nos.)	Out of 110 (%)
5.	Point of Interconnection (POI) Congestion (No. of POIs not meeting the benchmark) (Averaged over a period of quarter)	≤ 0.5%	0	0%	0	0%
6*	Down Link (DL) Packet Drop Rate or DL-PDR	≤ 2%	0	0%	0	0%
7*	Up Link (UL) Packet Drop Rate or UL-PDR	≤ 2%	0	0%	0	0%
II. Customer Service Quality Parameters						
6	Metering and Billing					
(i)	Metering and billing credibility - post-paid	≤ 0.1%	1	0.91%	0	0%
(ii)	Metering and billing credibility - pre-paid	≤ 0.1%	0	0%	0	0%
(iii)	Resolution of billing/ charging/ validity complaints	98% within 4 weeks	0	0%	0	0%
	Resolution of billing/ charging/ validity complaints	100% within 6 weeks	0	0%	0	0%
(iv)	Period of applying credit/ waiver / adjustment to customer's account from the date of resolution of complaints	within 1 week of resolution of complaint	2	1.82%	0	0%
7	Response time to the customer for assistance					
(i)	Accessibility of call centre/ customer care	≥ 95%	0	0%	3	2.73%
(ii)	%age of calls answered by the operators (Voice-to-Voice) within 90 seconds	≥ 95%	29	26.36%	52	47.27%
8	Termination / closure of service					
(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%	2	1.82%

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

- BS Accumulated down-time (not available for service)
- Worst affected BSs due to down-time

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

- Network QoS DCR Spatial Distribution Measure [Network_ QSD (90,90)]

- SDCCH/ Paging Channel Congestion/ RRC Congestion
- Metering and billing credibility - post-paid
- Period of applying credit/ waiver/ adjustment to customer's account from the date of resolution of complaints.

- Network QoS DCR Temporal Distribution Measure [Network_ QTD (97,90)]
- Accessibility of call centre/ customer care
- %age of calls answered by the operators (Voice-to-Voice) within 90 sec.

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	UP (W)	2.56
Network QoS DCR Spatial Distribution Measure [Network_ QSD(90,90)]	≤ 2%	BSNL	West Bengal	8.45
		VIL-Brand Idea	Himachal Pradesh	2.74
			UP (W)	2.34
		VIL-Brand Vodafone	Himachal Pradesh	2.74
Network QoS DCR Temporal Distribution Measure [Network_ QTD(97,90)]	≤ 3%	BSNL	West Bengal	10.20
		VIL-Brand Idea	Himachal Pradesh	4.62
			UP (W)	3.57
		VIL-Brand Vodafone	Himachal Pradesh	4.62
Accessibility of call centre/ customer care	≥ 95%	BSNL	Karnataka	0.00
			West Bengal	0.00
		VIL-Brand Idea	Madhya Pradesh	94.52
Percentage of calls answered by the operators Voice-to-Voice) within 90 seconds	≥ 95%	Airtel	Andhra Pradesh	74.00
			Assam	44.00
			Bihar	67.00
			Delhi	68.00
			Gujarat	77.00
			Haryana	64.00
			Himachal Pradesh	59.00
			Jammu and Kashmir	67.00
			Karnataka	83.00
			Kerala	74.00
			Kolkata	68.00
			Madhya Pradesh	60.00
			Maharashtra	64.00
			Mumbai	66.00
			North East	49.00

Parameter	Benchmark	Service Provider	Service Area	Performance
Percentage of calls answered by the operators (Voice-to-Voice) Within 90 seconds	≥ 95%	Airtel	Odisha	73.00
			Punjab	69.00
			Rajasthan	61.00
			Tamil Nadu	83.00
			Uttar Pradesh (East)	60.00
			Uttar Pradesh (West)	57.00
			West Bengal	64.00
		BSNL	Haryana	52.31
			Jammu And Kashmir	39.00
			Karnataka	0.00
			Rajasthan	64.00
		RJio	West Bengal	0.00
			Bihar	82.38
			Rajasthan	82.61
			Uttar Pradesh (East)	83.12
		VIL-Brand Idea	Uttar Pradesh (West)	82.35
			Karnataka	78.09
			Mumbai	94.73
		VIL-Brand Vodafone	UP (W)	83.56
			Andhra Pradesh	78.02
			Assam	85.90
			Delhi	88.88
			Gujarat	83.72
			Haryana	89.28
			Jammu and Kashmir	92.65
			Karnataka	85.69
			Kerala	90.67
			Kolkata	79.90
			Maharashtra	89.68
			Mumbai	90.33
North East	89.31			
Punjab	90.72			
Rajasthan	94.11			
Tamil Nadu	91.51			
UP (E)	88.19			
UP (W)	83.17			
West Bengal	84.16			
%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	VIL-Brand Vodafone	Odisha	99.87
Time taken for refund of deposits after closures	100% within 60 days	VIL-Brand Idea	Gujarat	98.60
			Madhya Pradesh	99.71

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 Services

Sl.	Parameters	Benchmark	No. of Licence Areas where operators not meeting the Benchmarks			
			September, 2019		December, 2019	
			Out of 104 in Nos.	Out of 104 in %age	Out of 104 in Nos.	Out of 104 in %age
(i)	Fault incidences (No. of faults per 100 subs/month)	≤ 7	0	0.00%	1	0.96
(ii)	%age Fault repaired by next working day (for urban areas)	$\geq 85\%$	2	1.92%	2	1.92%
	%age Fault repaired within 5 days (for urban areas)	$\geq 100\%$	2	1.92%	2	1.92%
(iii)	%age Fault repaired by next working day (for rural and hilly areas)	$\geq 75\%$	0	0.00%	0	0.00%
	%age Fault repaired within 7 days (for rural and hilly areas)	$\geq 100\%$	0	0.00%	0	0.00%
(iv)	Mean Time to Repair (MTTR)	$\leq 10\text{Hs}$	3	2.88%	2	1.92%
(v)	Point of Interconnection (POI) Congestion (No. of Pols not meeting benchmark)	$\leq 0.5\%$	0	0.00%	0	0.00%
(vi)	Metering and Billing credibility - post-paid	$\leq 0.1\%$	0	0.00%	0	0.00%
	Metering and Billing credibility - pre-paid	$\leq 0.1\%$	0	0.00%	0	0.00%
(vii)	Resolution of billing/charging/Credit & validity complaints	98% within 4 weeks	0	0.00%	0	0.00%
	Resolution of billing/charging/ Credit & validity complaints	100% within 6 weeks	0	0.00%	0	0.00%
(viii)	Period of applying credit / waiver/adjustment to customer's account	1 week of resolution of complaint	0	0.00%	0	0.00%
(ix)	Accessibility of call centre/ customer care	$\geq 95\%$	0	0.00%	9	8.65%
	%age of calls answered by operators (Voice-to-Voice) within 90 seconds	$\geq 95\%$	15	14.42%	0	0.00%
(x)	%age of requests for termination / closure of service complied within 7 days	100% within 7 days	4	3.85%	1	0.96%
(xi)	Time taken for refund of deposits after closures	100% within 60 days	0	0.00%	0	0.00%

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 (Wireline) service.

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

a. Fault incidences (No. of faults per 100 subs/month) and Mean Time to Repair (MTTR)

b. Response time to the customer for Assistance - %age of calls answered by the operators (Voice-to-Voice) within 90 seconds.

c. Termination/Closure of service - %age of requests for termination / closure of service complied within 7 days.

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

a. Fault incidences (No. of faults per 100 subs/month)

b. Response time to the customer for assistance - accessibility of call centre/ customer care.

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

Parameters	Benchmark	Service Provider	Service areas	Parameters not met
"Fault Repair" %age of faults repaired by next working day (for urban areas)	≥ 85%	TATA	HR	80%
			KL	80%
"Fault Repair" % age of faults repaired within 5 days (for urban areas)	≥ 100%	MTNL	DEL	99.00%
			MUM	99.10%
Mean Time to Repair (MTTR)	≤ 10 Hrs	TATA	HR	16.89
			KL	13.89
Response time to the customer for assistance - Percentage of calls answered by the operators (Voice-to-Voice) within 90 seconds	≥ 95%	BSNL	PB	86.85%
			RAJ	92.09%
			UPE	91.53%
			UPW	90.54%
			UT	91.39%
			WB	91.23%
			HP	92.64%
			HR	90.10%
Termination / closure of service %age of requests for termination / closure of service complied within 7 days	100% within 7 days	MTNL	MUM	99.97%

4.6 A 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) Services

4.7 There are 298 Internet Service Providers (ISPs) providing broadband (wireline) services at the end of December, 2019. Out of these 298 ISPs, 55 Service Providers are having a broadband subscriber base >10,000 and the market

share of these 55 SPs is 98.16% of the total broadband subscriber base. This report covers performance of 55 Broadband Service Providers vis-à-vis the QoS benchmarks prescribed by TRAI, for the QE December, 2019.

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

Sl.	Parameters	Benchmark	September, 2019		December, 2019	
			Out of 101	Out of 101	Out of 101	Out of 101
1	Service Provisioning	100% in = <15 working days				
1.2	%age of connections provided within 15 days of registration of demand	100%	4	3.96%	2	1.87%
2	Faults Repair					
2.2	%age of faults repaired by next working day (>90%)	>90%	4	3.96%	3	2.80%
2.3	%age of faults repaired within 3 working days	=>99%	5	4.95%	4	3.74%
3	Billing Performance					
3.3	%age of bills disputed	<2%	0	0.00%	0	0.00%
3.4	%age of billing complaints resolved within 4 weeks	100% within 4 weeks	0	0.00%	0	0.00%
3.5	%age of cases to whom refund of deposits is made within 60 days of closure	100% within 60 days	0	0.00%	0	0.00%
4	Response Time to the Customer for assistance					
4.2	%age of calls answered by operator (Voice-to-Voice) within 60 sec	>60%	1	0.99%	1	0.93%
4.3	%age of calls answered by operator (Voice-to-Voice) within 90 sec	>80%	2	1.98%	1	0.93%

Sl.	Parameters	Benchmark	September, 2019		December, 2019	
			Out of 101	Out of 101	Out of 101	Out of 101
5	Bandwidth utilisation/ throughput					
5.2	No. of Intra network links having Bandwidth utilisation >90% during peak hours (TCBH)	0	0	0.00%	0	0.00%
5.4	No. of Upstream links for International connectivity having bandwidth utilisation >90% during peak hours (TCBH)	0	0	0.00%	0	0.00%
5.7	%age International bandwidth utilization during peak hours (TCBH) (Enclose MRTG) <90%	<90%	0	0.00%	0	0.00%
5.8	Broadband Connection Speed available (download) from ISP node to user	>80%	0	0.00%	0	0.00%
6	Service availability /uptime (for all users) in %age					
6.3	Service availability /uptime (for all users) in %age	>98%	0	0.00%	0	0.00%
7	Packet loss (for wired broadband access) in %age					
7	Packet loss (for wired broadband access) in %age	<1%	0	0.00%	0	0.00%
8	Network latency (for wired broadband access)					
8.1	User reference point at POP/ISP Gateway node to IGSP/NIXI	<120 ms	0	0.00%	0	0.00%
8.2	User reference point at ISP Gateway node to International nearest NAP port abroad (terrestrial)	<350 ms	0	0.00%	0	0.00%
8.3	User reference point at ISP Gateway node to International nearest NAP port abroad (satellite)	<800 ms	0	0.00%	0	0.00%

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

Parameters	Benchmark	Name of the Service Provider not meeting the Benchmark
Service Provisioning		
%age of connections provided within 15 days of registration of demand	100%	MTNL - Delhi & Mumbai (99.73%), United Telecoms Ltd.- Mah.(93.00%)
Faults Repair		
%age of faults repaired by next working day (>90%)	>90%	Atria Convergence - All India (89.36%), TATA (TTML) - Mah. & Goa (87.19%), United Telecoms- Mah. (89.00%)
%age of faults repaired within 3 working days	=>99%	MTNL - Delhi & Mumbai (98.32%), Atria Convergence - All India (98.59%), TATA (TTML) - Mah. & Goa (95.95%), United Telecoms- Mah. (98.00%)
Response Time to the Customer for assistance		
%age of calls answered by operator (Voice-to-Voice) within 60 sec	>60%	Atria Convergence - All India (60.00%)
%age of calls answered by operator (Voice-to-Voice) within 90 sec	>80%	Atria Convergence - All India (63.00%)

4.8 A detailed table containing QoS parameters for all the Broadband Service

Providers is given in Annexure-4.3.

Chapter 5 :

P E R F O R M A N C E
O F C A B L E T V ,
D T H A N D R A D I O
B R O A D C A S T I N G
S E R V I C E S



Table 5.1: Key Parameters - Broadcasting & Cable TV Services

S.No	Parameter	QE Sep-19	QE Dec-19
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	910	918
2	Number of Pay TV Channels as reported by Broadcasters	330	332
3	Number of FM Radio Stations (excluding All India Radio)	367	368
4	Number of Pay DTH Operators	4	4
5	Number of Operational Community Radio Stations	275	278

A. Satellite TV Channels

5.1 A total of 918 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 31st January, 2019. The quarter-wise figures of the total number of TV channels is depicted in the chart given below.

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 Tariff Order 2017, Interconnection Regulations 2017 and Quality of Service & Consumer Protection Regulations 2017. The

5.3 As per the Telecommunication (Broadcasting and Cable) Services (Eighth) (Addressable Systems) Tariff Order, 2017 dated 3rd March 2017, every broadcaster has to offer all its channels on an a-la-carte basis to all distributors of television channels and declare the maximum retail

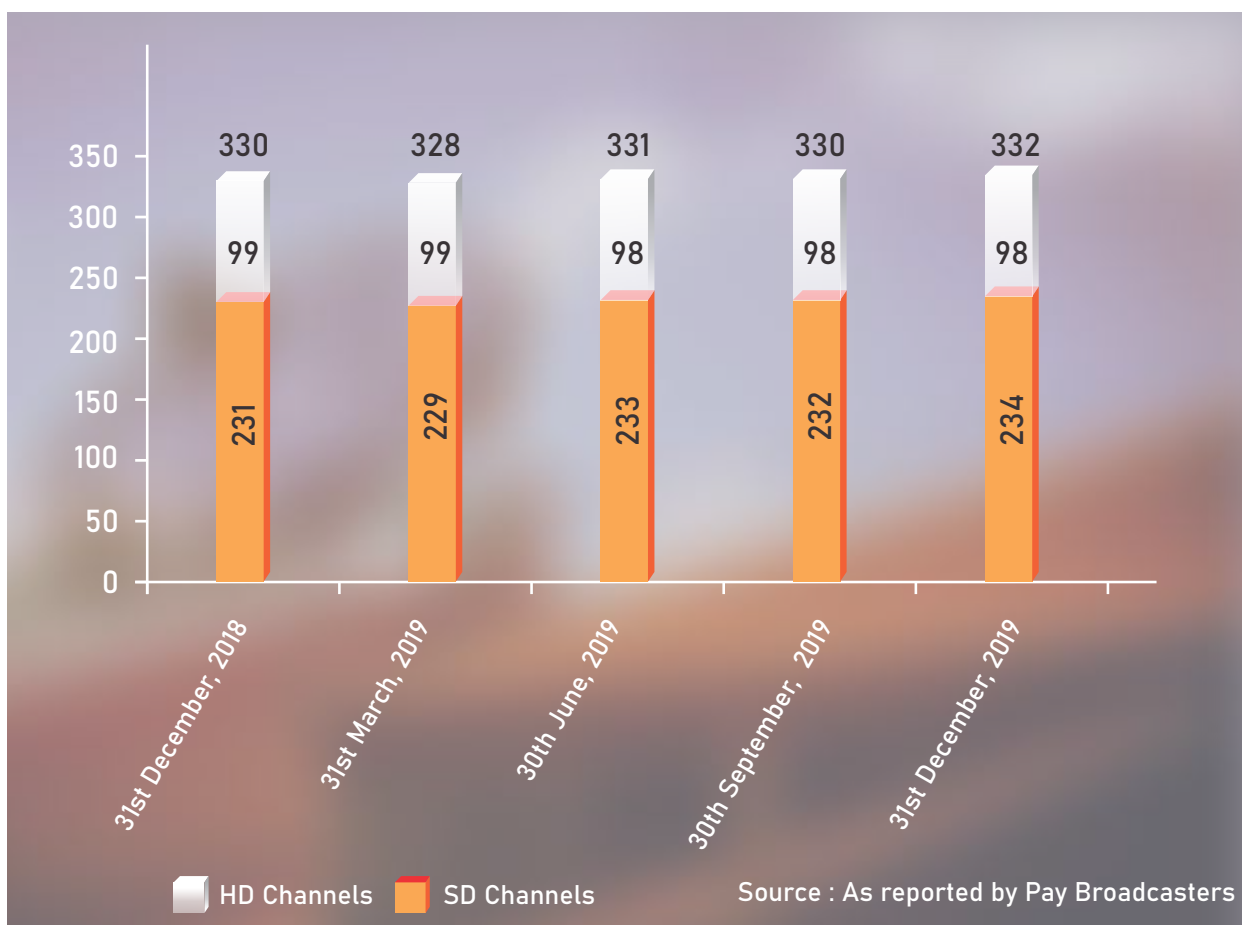
5.4 As per the reporting done by broadcasters, in pursuance of the Tariff Order dated 3rd March 2017, there are 332 pay channels as on 31st December 2019

framework was duly notified vide press release no.71/2018 dated 3rd July 2018 with revised timelines for implementation. All the timelines prescribed in the above-mentioned framework commenced from 3rd July 2018. The new regulatory framework came into effect on 29th December, 2018.

price, per month, payable by a subscriber for each of its pay channels offered on an a-la-carte basis. Further, it is also permissible for a broadcaster to offer its pay channels in the form of bouquets and declare the maximum retail price, per month, of such bouquets payable by a subscriber.

which include 234 SD Pay TV channels and 98 HD Pay TV channels. A list of the Maximum Retail Prices (MRP) of pay 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

5.6 As on 31st December 2019, there are 1613 MSOs registered with the Ministry of Information & Broadcasting (MIB). Further, as per the data reported by MSOs / HITS operators, there are 13 MSOs & 1 HITS

the only large country where 100% digital cable has been achieved through mandatory regulations.

operator who have a subscriber base of more than one million. Details of the total active subscribers of these 13 MSOs and 1 HITS operator are given in the following table 5.2.

Table 5.2: Subscriber Base of major MSOs/HITS Operators at the end of December, 2019 (more than one million Subscribers)

Sl. No.	Name of the Operator	Total Active Subscriber Base (includes subscribers who have been inactive or temporarily suspended for not more than last 90 days)
1.	Siti Networks	9,211,351
2.	GTPL Hathway	7,554,713
3.	Hathway Digital	5,256,930
4.	Den Networks	4,175,528
5.	Tamil Nadu Arasu Cable TV	2,878,911
6.	Kerala Communicators Cable Ltd (KCCL)	2,731,885
7.	Fastway Transmissions Pvt Ltd	2,441,575
8.	TCCL	2,426,267
9.	IndusInd Media and Communication Ltd (HITS)	1,940,496
10.	KAL Cables	1,907,901
11.	VK Digital	1,499,548
12.	IndusInd Media and Communication Ltd (CATV)	1,431,079
13.	Asianet Digital Network	1,328,564
14.	E-Digital	1,217,643

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 31st December, 2019, there were 4 pay DTH service providers in India.

5.8 Pay DTH has attained a total active subscriber base of around 69.98 million at the end of December, 2019. 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 69.30 million in QE September, 2019 to 69.98 million in QE December, 2019.

5.9 It is important to note that till March 2019, the subscription figure of the total active subscribers included inactive and temporarily suspended subscribers for not more than the last 120 days. However, as per new regulatory framework of Broadcasting and Cable TV Services, the total active subscribers are now counted to include

only those subscribers who are inactive/ temporarily suspended for not more than the last 90 days. This point has been duly clarified by the TRAI in its Press Release No. 86/2019 dated 8th October, 2019 (https://main.trai.gov.in/sites/default/files/PR_No.86of2019.pdf).

5.10 The quarterly growth in the DTH sector in terms of the total active subscribers and the market share of DTH

operators in terms of the percentage of total active subscribers during the quarter ending December 2019 are depicted in the following charts.

Chart 5.3 : Quarterly growth in total Active Subscribers (in million) of Pay DTH Sector

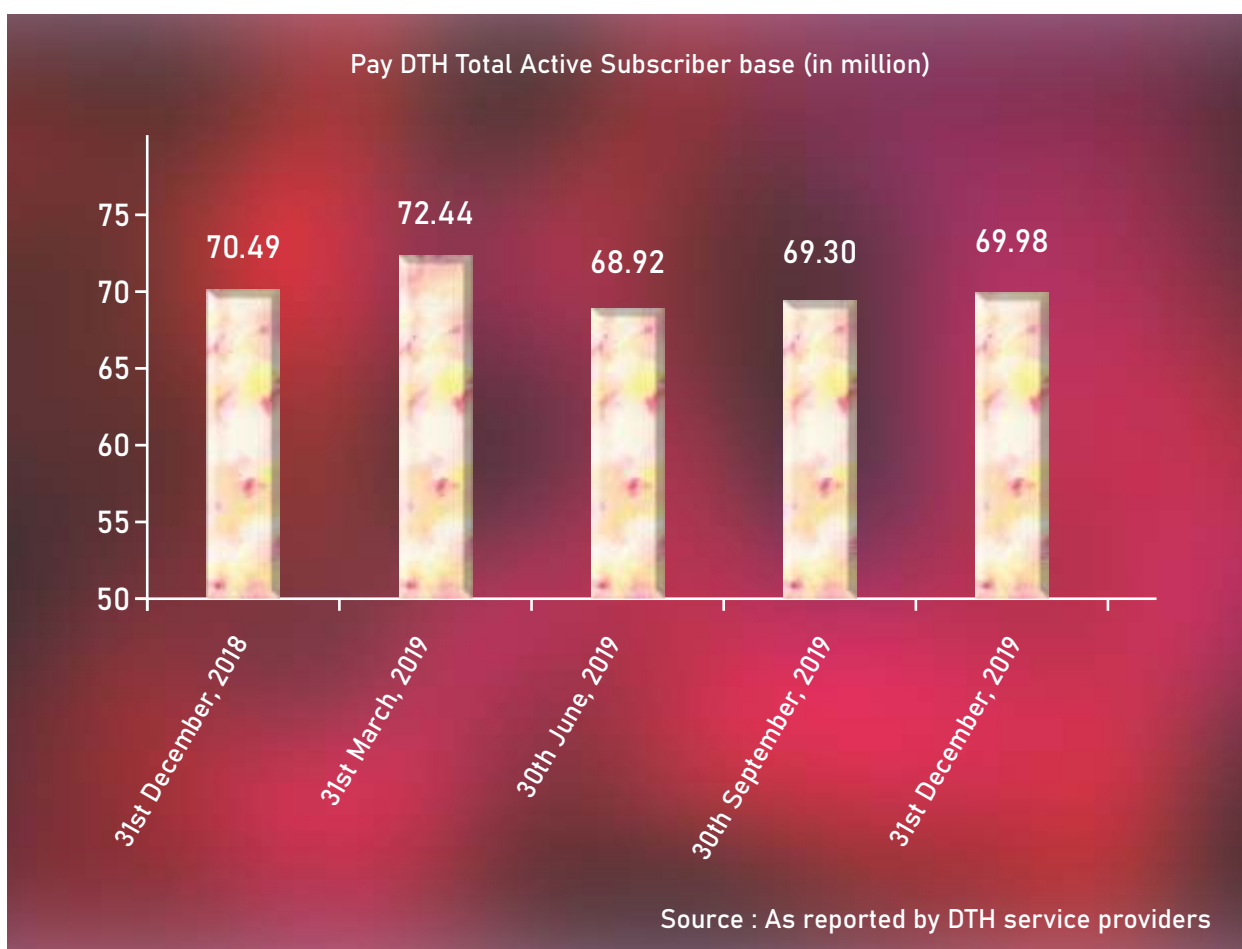
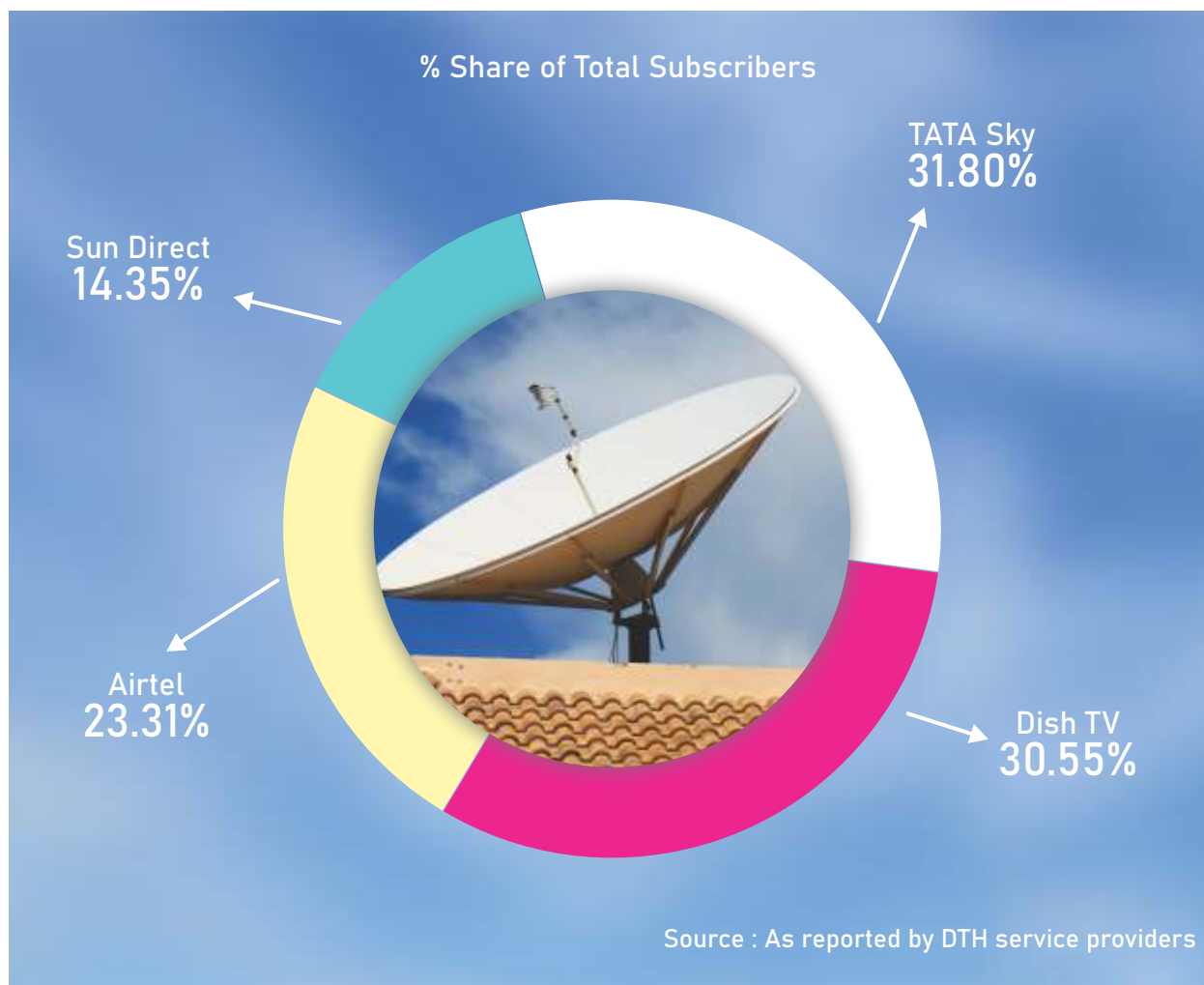


Chart 5.4 : Market Share of DTH Operators



E. FM Radio Services

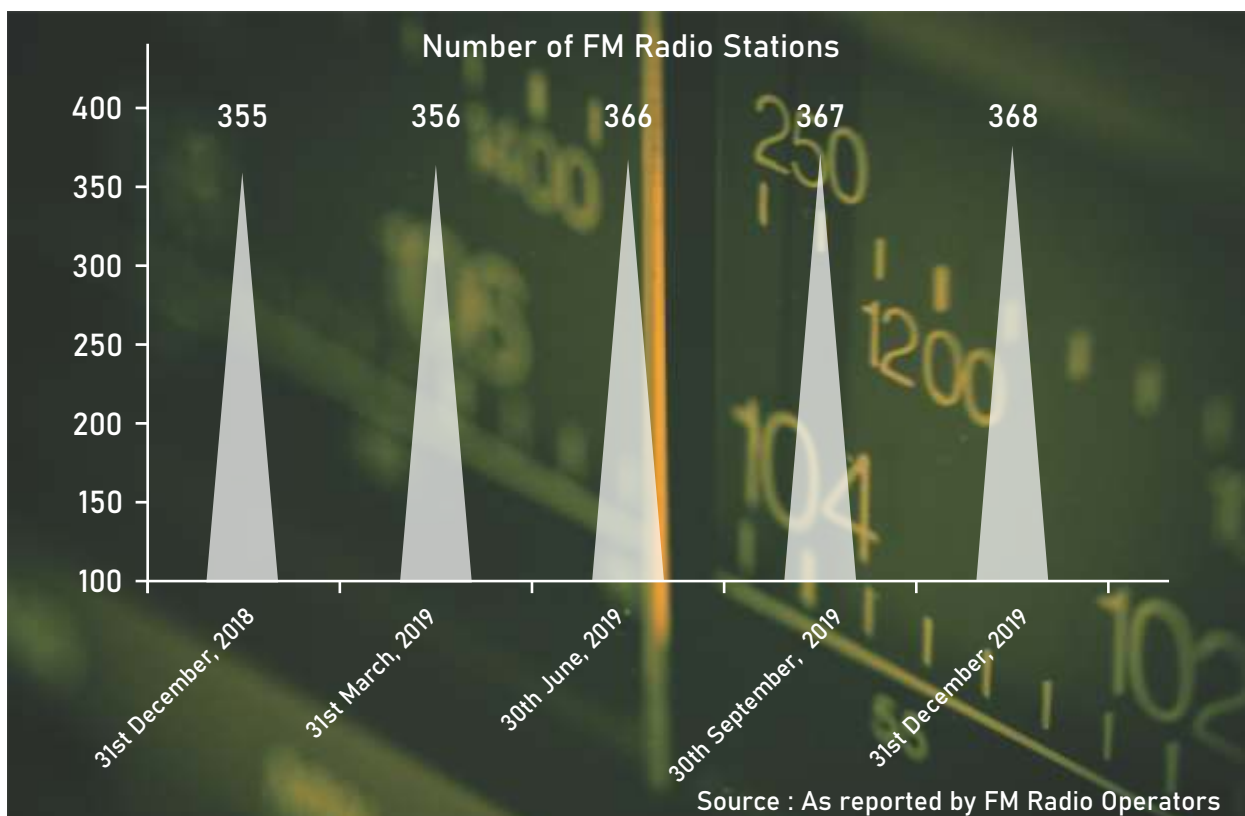
5.11 Apart from the radio stations operated by All India Radio (the public broadcaster) as on 31st December 2019, there are 368 operational private FM Radio Stations in 105 cities run by 33 Private FM Radio broadcasters as compared to 367

5.12 During the quarter ended 31st December 2019, One new private FM Radio Station has become operational which is operated by Purvy Broadcasts Private

limited in Dhubri (New City). The Chart 5.5 on the following page depicts the quarterly growth in private FM Radio stations.

limited in Dhubri (New City). The Chart 5.5 on the following page depicts the quarterly growth in private FM Radio stations.

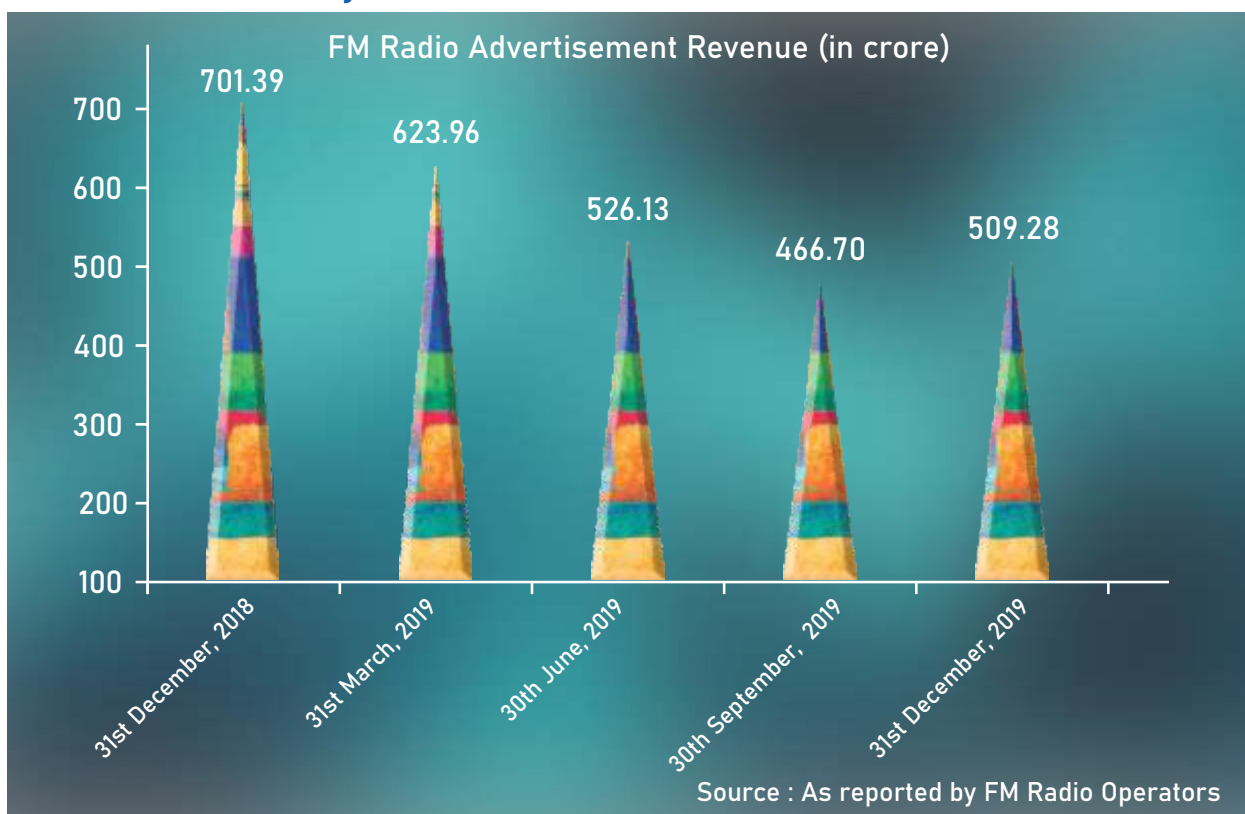
Chart 5.5 : Quarterly growth in private FM Radio Stations



5.13 The reported advertisement revenue during the quarter ending 31st December 2019 in respect of 367 private FM Radio stations is ₹509.28 crore as against ₹466.70 crore of 366 private FM Radio Stations

for the previous quarter ending 30th September 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

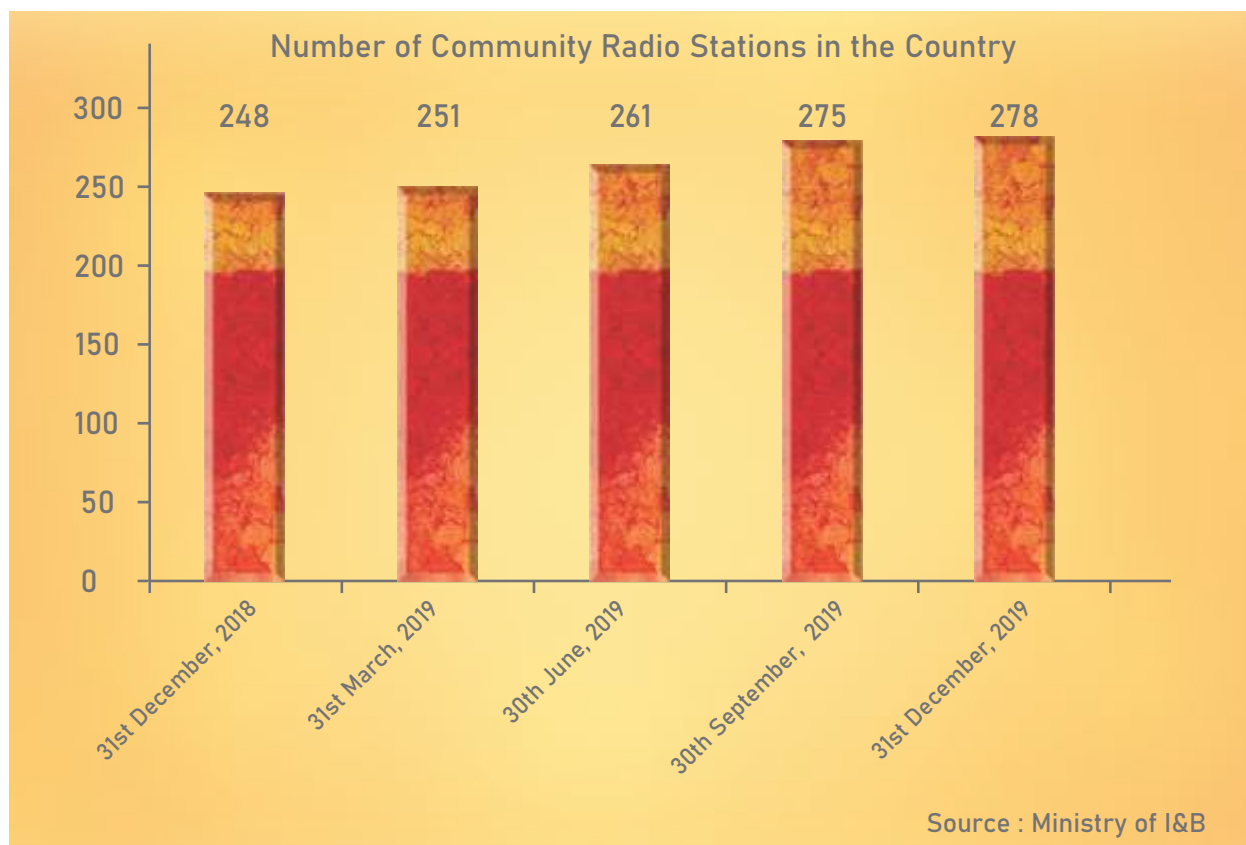


F. Community Radio

5.14 As on 31st December, 2019, there are 278 operational Community Radio Stations. The quarterly growth in the number of

operational Community Radio Stations during the last one year is depicted in the following chart 5.7.

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



ANNEXURES



Annexure 1.1: Wireless Subscriber Base

Service Area	Vodafone Idea		Bharti Airtel (including Tata Teleservices)		Reliance Com.		BSNL		MTNL		Reliance Jio		Total		Net Additions
	Sep-19	Dec-19	Sep-19	Dec-19	Sep-19	Dec-19	Sep-19	Dec-19	Sep-19	Dec-19	Sep-19	Dec-19	Sep-19	Dec-19	
Andhra Pradesh	2,07,85,936	1,88,85,514	2,85,82,688	2,88,73,882	1,996	2,176	1,00,01,515	99,14,603			2,82,22,163	2,93,46,713	8,75,94,298	8,70,22,888	-5,71,410
Assam	55,52,003	46,33,250	82,80,541	83,58,529			26,83,040	27,43,312			75,24,695	78,72,608	2,40,40,279	2,36,07,699	-4,32,580
Bihar	1,80,01,497	1,54,31,406	3,58,17,828	3,54,56,281	228	383	49,72,729	53,10,328			2,64,44,863	2,81,23,388	8,52,37,145	8,43,21,786	-9,15,359
Delhi	1,90,08,494	1,77,01,405	1,51,93,043	1,55,72,477	1,955	1,729	-		21,93,766	21,86,235	1,72,62,657	1,74,85,005	5,36,59,915	5,29,46,851	-7,13,064
Gujarat	2,96,09,720	2,75,06,873	1,09,01,828	1,09,62,911	584	577	60,63,321	60,85,008			2,21,69,402	2,28,93,405	6,87,44,855	6,74,48,774	-12,96,081
Haryana	1,01,40,755	91,56,703	43,45,929	44,79,975	181	140	49,91,794	49,55,027			87,77,374	92,03,509	2,82,56,033	2,77,95,354	-4,60,679
Himachal Pradesh	11,76,326	9,34,451	33,96,705	34,24,834	72	105	29,16,101	27,67,116			32,77,717	34,71,715	1,07,66,921	1,05,98,221	-1,68,700
Jammu & Kashmir	10,66,457	5,61,433	54,01,003	45,44,784			12,27,142	12,64,988			36,42,212	39,49,544	1,13,36,814	1,03,20,749	-10,16,065
Karnataka	1,40,24,742	1,20,07,384	2,83,48,715	2,86,30,803	1,366	1,550	73,18,899	73,24,448			1,94,12,784	1,94,23,779	6,91,06,506	6,73,87,964	-17,18,542
Kerala	2,00,80,491	1,84,71,237	54,68,854	55,31,696	513	625	1,09,22,639	1,09,36,754			84,15,339	85,61,983	4,48,87,836	4,35,02,295	-13,85,541
Madhya Pradesh	2,73,81,561	2,49,26,265	1,48,73,699	1,47,69,663	911	738	63,76,813	63,15,355			2,67,89,375	2,88,65,775	7,54,22,359	7,48,77,796	-5,44,563
Maharashtra	4,32,58,812	3,96,76,542	1,54,57,252	1,59,70,302	872	1,082	71,14,912	70,89,469			2,78,55,424	2,98,84,843	9,36,87,272	9,26,22,238	-10,65,034
Mumbai	1,46,95,907	1,34,68,986	95,87,377	98,00,346	3,362	2,420	-		11,99,522	11,90,068	1,33,13,741	1,36,34,278	3,87,99,909	3,80,96,098	-7,03,811
North East	22,99,987	19,26,024	52,04,449	52,27,184		0	14,70,027	14,66,782			33,21,927	34,92,349	1,22,96,390	1,21,12,339	-1,84,051
Odisha	40,78,824	34,30,621	1,19,58,328	1,17,56,381	339	368	57,73,415	60,23,748			1,10,61,289	1,18,02,088	3,28,72,195	3,30,13,206	1,41,011
Punjab	1,12,55,026	97,12,824	1,02,44,140	1,03,42,217	297	279	55,80,919	57,23,473			1,29,85,842	1,33,25,697	4,00,66,224	3,91,04,490	-9,61,734
Rajasthan	1,55,43,253	1,39,58,201	2,12,28,489	2,13,34,295	447	333	60,89,184	61,39,102			2,28,04,110	2,38,97,943	6,56,65,483	6,53,29,874	-3,35,609
Tamil Nadu (incl. Chennai)	2,32,30,608	2,11,64,029	2,53,08,215	2,56,04,916	2,849	3,200	1,22,94,633	1,24,61,401			2,19,07,077	2,25,68,898	8,27,43,382	8,18,02,444	-9,40,938
UP (E)	3,27,48,382	2,66,65,805	3,04,08,251	3,08,64,257	871	856	1,15,94,150	1,16,54,121			2,55,90,939	2,65,09,498	10,03,42,593	9,56,94,537	-46,48,056
UP (W)	2,77,40,350	2,46,79,320	1,31,72,868	1,35,45,301	62	306	58,82,986	59,41,889			1,83,07,439	1,87,31,325	6,51,03,705	6,28,98,141	-22,05,564
Kolkata	85,42,813	76,79,355	63,75,036	63,54,972	33	36	17,25,876	18,56,520			97,49,967	97,60,191	2,63,93,725	2,56,51,074	-7,42,651
West Bengal	2,22,64,844	2,00,35,243	1,60,12,386	1,58,91,719	769	814	20,59,221	21,42,879			1,63,86,914	17,211,626	5,67,24,134	5,52,82,281	-14,41,853
Total	37,24,86,788	33,26,12,871	32,55,67,624	32,72,97,725	17,707	17,717	11,70,59,316	11,81,16,323	33,93,288	33,76,303	35,52,23,250	37,00,16,160	1,17,37,47,973	1,15,14,37,099	-2,23,10,874

Annexure 1.2: Wireline Subscriber Base

Service Area	Bharti Airtel		Reliance Com.		Quadrant		Tata Tele.		MTNL		BSNL		Vodafone Idea		Reliance Jio		Total		Net Additions
	Sep-19	Dec-19	Sep-19	Dec-19	Sep-19	Dec-19	Sep-19	Dec-19	Sep-19	Dec-19	Sep-19	Dec-19	Sep-19	Dec-19	Sep-19	Dec-19	Sep-19	Dec-19	
Andhra Pradesh	2,13,024	2,15,233	36,093	32,460		1,71,926					8,25,255	7,89,437	45,400	46,465	82,615	1,00,155	13,77,076	13,55,676	-21,400
Assam											1,01,798	97,819	3,330	3,390	8,164	11,219	1,13,292	1,12,428	-864
Bihar			2,455	2,203		8,334		8,316			1,59,224	1,51,311	1,920	1,920	11,492	15,319	1,83,407	1,79,087	-4,320
Delhi	15,03,158	14,84,992	88,482	75,735		1,46,623	14,10,426	1,52,806	1,46,623				66,535	69,085	90,098	81,880	33,50,553	32,68,741	-81,812
Gujarat	97,626	97,525	14,983	11,058		86,137		87,974			8,53,515	8,26,150	31,386	31,785	1,22,230	1,39,023	12,07,714	11,91,678	-16,036
Haryana	22,751	21,975	2,130	1,815		39,029		38,745			1,92,571	1,85,133	270	330	4,531	24,024	2,60,998	2,72,306	11,308
Himachal Pradesh			1,684	1,343		1,957		1,902			1,01,583	97,819	60	60	259	355	1,05,488	1,01,534	-3,954
Jammu & Kashmir			0			-					1,13,382	1,23,459		-	4,128	9,284	1,17,510	1,32,743	15,233
Karnataka	7,16,038	7,26,529	1,10,456	1,03,570		2,75,474		2,74,740			9,47,721	9,00,147	53,007	58,047	46,582	57,051	21,48,544	21,20,818	-27,726
Kerala	62,538	63,134	13,402	11,847		19,586		19,714			17,16,430	16,10,709	4,500	5,640	9,380	12,900	18,25,964	17,23,816	-1,02,148
Madhya Pradesh	2,42,992	2,40,471	6,186	5,316		13,635		15,215			6,29,848	5,53,213	1,230	1,980	39,713	49,614	9,35,184	8,64,229	-70,955
Maharashtra	1,04,364	1,07,293	42,071	38,805		2,66,368		2,66,368			9,69,251	9,20,456	25,753	26,480	31,824	36,998	14,39,631	13,92,034	-47,597
Mumbai	3,83,002	3,90,886	1,59,114	1,49,162		5,42,573	17,12,597	5,49,234	5,42,573			0	67,487	71,215	1,85,523	2,06,351	30,75,132	30,72,784	-2,348
North East											97,145	93,865	240	240	3,115	4,675	1,00,500	98,780	-1,720
Odisha			1,944	1,771		8,588		8,221			2,05,227	1,91,530	5,430	5,730	5,244	7,218	2,26,066	2,14,837	-11,229
Punjab	1,37,774	1,38,041	10,515	10,165	2,09,109	1,97,881		12,214	12,093		3,49,295	3,31,049	1,860	3,000	32,417	36,878	7,53,184	7,29,107	-24,077
Rajasthan	58,353	57,267	16,928	13,830		11,569		11,598			3,97,932	3,77,178	12,990	13,590	33,213	41,247	5,31,014	5,14,681	-16,333
Tamil Nadu (incl. Chennai)	5,47,608	5,47,511	60,323	52,922		1,22,882		1,25,959	1,22,882		13,08,841	12,38,419	23,940	25,660	70,900	84,261	21,37,571	20,71,655	-65,916
U.P. (E)	63,977	62,411	4,474	3,213		8,297		8,333			3,10,533	2,94,482	12,440	19,740	26,238	33,807	4,25,995	4,21,950	-4,045
U.P. (W)	24,144	24,538	2,469	2,276		4,792		4,773			2,38,018	2,22,530	5,430	5,490	14,358	57,397	2,89,192	3,17,023	27,831
Kolkata	1,33,472	1,31,949	36,288	34,760		50,247		53,862			4,32,700	4,07,553	11,470	11,840	29,775	33,036	6,97,567	6,69,385	-28,182
West Bengal			1,654	1,615		2,477		2,511			1,79,223	1,67,020	120	120	5,662	8,010	1,89,170	1,79,242	-9,928
Total	43,10,821	43,09,755	6,11,651	5,53,866	2,09,109	1,97,881	31,80,246	18,17,174	17,88,221	31,23,023	95,79,279	95,79,279	3,74,798	4,01,807	8,57,461	10,50,702	2,14,90,752	2,10,04,534	-4,86,218

Annexure 1.3: Service Area and Operator-wise details of PCOs

Name of Telecom Service Area	Service Provider	Number of PCOs as on 30.09.2019	Number of PCOs as on 31.12.2019	Net PCO increase/decrease as on 31.12.2019
Andhra Pradesh (Excluding Telangana)	Bharat Sanchar Nigam Ltd.	2,226	4,912	2,686
	Bharti Airtel	182	184	2
Telangana	Bharat Sanchar Nigam Ltd.	4,218	0	-4,218
Assam	Bharat Sanchar Nigam Ltd.	949	915	-34
Bihar (Excluding Jharkhand)	Bharat Sanchar Nigam Ltd.	822	822	0
Jharkhand	Bharat Sanchar Nigam Ltd.	2,441	2,441	0
Delhi	Bharti Airtel	330	330	0
	MTNL	46,042	45,694	-348
Gujarat	Bharat Sanchar Nigam Ltd.	9,529	7,509	-2,020
	Bharti Airtel	14	14	0
Haryana	Bharat Sanchar Nigam Ltd.	788	789	1
	Bharti Airtel	139	138	-1
Himachal Pradesh	Bharat Sanchar Nigam Ltd.	772	730	-42
Jammu & Kashmir	Bharat Sanchar Nigam Ltd.	1,004	973	-31
Karnataka	Bharat Sanchar Nigam Ltd.	14,305	13,348	-957
	Bharti Airtel	3,090	3,036	-54
Kerala	Bharat Sanchar Nigam Ltd.	13,425	12,585	-840
	Bharti Airtel	402	397	-5
Kolkata	Bharat Sanchar Nigam Ltd.	2,555	2,189	-366
	Bharti Airtel	36	37	1
Madhya Pradesh (Excluding Chhattisgarh)	Bharat Sanchar Nigam Ltd.	11,649	8,865	-2,784
	Bharti Airtel	1,377	1,338	-39
Chhattisgarh	Bharat Sanchar Nigam Ltd.	965	925	-40
Maharashtra (Excluding Mumbai & Goa)	Bharat Sanchar Nigam Ltd.	16,371	15,620	-751

Annexure 1.3 (contd.)

Name of Telecom Service Area	Service Provider	Number of PCOs as on 30.09.2019	Number of PCOs as on 31.12.2019	Net PCO increase/ decrease as on 31.12.2019
Mumbai	Bharti Airtel	50	50	0
	MTNL	21,386	20,187	-1,199
Arunachal Pradesh	Bharat Sanchar Nigam Ltd.	627	589	-38
Manipur	Bharat Sanchar Nigam Ltd.	1,352	1,352	0
Meghalaya	Bharat Sanchar Nigam Ltd.	772	772	0
Mizoram	Bharat Sanchar Nigam Ltd.	118	115	-3
Nagaland	Bharat Sanchar Nigam Ltd.	10	0	-10
Tripura	Bharat Sanchar Nigam Ltd.	483	483	0
Odisha	Bharat Sanchar Nigam Ltd.	1,304	1,283	-21
Punjab	Bharat Sanchar Nigam Ltd.	1,554	1,455	-99
	Bharti Airtel	10	9	-1
	Quadrant	802	750	-52
Rajasthan	Bharat Sanchar Nigam Ltd.	2,246	2,064	-182
	Bharti Airtel	209	209	0
Tamil Nadu (Excluding Chennai)	Bharat Sanchar Nigam Ltd.	20,461	18,639	-1,822
	Bharti Airtel	3,972	3,814	-158
Chennai	Bharat Sanchar Nigam Ltd.	7,344	7,239	-105
Uttar Pradesh East	Bharat Sanchar Nigam Ltd.	6,741	7,225	484
	Bharti Airtel	73	73	0
Uttar Pradesh West (Excluding Uttarakhand)	Bharat Sanchar Nigam Ltd.	1,509	1,448	-61
Uttarakhand	Bharat Sanchar Nigam Ltd.	557	500	-57
West Bengal (Excl. Andaman & Nicobar and Sikkim)	Bharat Sanchar Nigam Ltd.	1,735	1,453	-282
Andaman & Nicobar	Bharat Sanchar Nigam Ltd.	39	39	0
Sikkim	Bharat Sanchar Nigam Ltd.	0	0	0
	Total	2,07,243	1,93,794	-13,449

Annexure 1.4: Service Area & Operator-wise details of Village Public Telephones

Sl.No	Name of Telecom Service Area	Service Provider	Number of VPTs as on 30.09.2019	Number of VPTs as on 31.12.2019	Net VPTs increase/decrease as on 31.12.2019
1	Andhra Pradesh (Excl. Telangana)	Bharat Sanchar Nigam Ltd	2098	2098	0
2	Telangana	Bharat Sanchar Nigam Ltd	1073	844	-229
3	Assam	Bharat Sanchar Nigam Ltd	105	105	0
4	Bihar (Excl. Jharkhand)	Bharat Sanchar Nigam Ltd	5893	5893	0
5	Jharkhand	Bharat Sanchar Nigam Ltd	472	221	-251
6	Gujarat	Bharat Sanchar Nigam Ltd	5278	5278	0
7	Haryana	Bharat Sanchar Nigam Ltd	651	462	-189
8	Himachal Pradesh	Bharat Sanchar Nigam Ltd	1891	1875	-16
9	Jammu & Kashmir	Bharat Sanchar Nigam Ltd	810	810	0
10	Karnataka	Bharat Sanchar Nigam Ltd	3962	3656	-306
11	Kerala	Bharat Sanchar Nigam Ltd	332	331	-1
12	Kolkata	Bharat Sanchar Nigam Ltd	130	130	0
13	Madhya Pradesh (Excl. Chhattisgarh)	Bharat Sanchar Nigam Ltd	9907	9907	0
14	Chhattisgarh	Bharat Sanchar Nigam Ltd	210	193	-17
15	Maharashtra (Excl. Mumbai & Goa)	Bharat Sanchar Nigam Ltd	7739	7615	-124
16	Goa	Bharat Sanchar Nigam Ltd	239	231	-8
17	Arunachal Pradesh	Bharat Sanchar Nigam Ltd	623	623	0
18	Manipur	Bharat Sanchar Nigam Ltd	93	93	0
19	Meghalaya	Bharat Sanchar Nigam Ltd	207	207	0

Annexure 1.4 (contd.)

Sl.No	Name of Telecom Service Area	Service Provider	Number of VPTs as on 30.09.2019	Number of VPTs as on 31.12.2019	Net VPTs increase/ decrease as on 31.12.2019
20	Mizoram	Bharat Sanchar Nigam Ltd	12	12	0
21	Nagaland	Bharat Sanchar Nigam Ltd	25	25	0
22	Tripura	Bharat Sanchar Nigam Ltd	222	222	0
23	Odisha	Bharat Sanchar Nigam Ltd	1554	1554	0
24	Punjab	Bharat Sanchar Nigam Ltd	4915	4625	-290
25	Rajasthan	Bharat Sanchar Nigam Ltd	346	0	-346
26	Tamil Nadu (Excl. Chennai)	Bharat Sanchar Nigam Ltd	5751	5478	-273
27	Uttar Pradesh East	Bharat Sanchar Nigam Ltd	568	568	0
28	Uttar Pradesh West (Excl. Uttarakhand)	Bharat Sanchar Nigam Ltd	1637	1637	0
29	Uttarakhand	Bharat Sanchar Nigam Ltd	2121	2121	0
30	West Bengal (Excl. Andaman & Nicobar and Sikkim)	Bharat Sanchar Nigam Ltd	11557	11557	0
31	Andaman & Nicobar	Bharat Sanchar Nigam Ltd	93	93	0
32	Sikkim	Bharat Sanchar Nigam Ltd	320	320	0
		Total	70,834	68,784	-2050

Annexure 1.5 : Internet Service Provider (ISP)-wise Internet Subscriber Base [As on 31.12.2019]

S.No.	Name of Service Provider	Narrowband	Broadband	Total
1	Reliance Jio Infocomm Ltd	0	370872755	370872755
2	Bharti Airtel Ltd.	26632137	140395168	167027305
3	Vodafone Idea Limited	23614475	118453704	142068179
4	Bharat Sanchar Nigam Ltd.	6299248	23963441	30262689
5	Atria Convergence Technologies Pvt. Ltd.	0	1518853	1518853
6	Mahanagar Telephone Nigam Ltd.	201088	891113	1092201
7	Hathway Cable & Datacom Pvt. Ltd.	0	898834	898834
8	You Broadband India Pvt. Ltd.	14675	770609	785284
9	GTPL Broadband Pvt. Ltd.	0	325927	325927
10	Excitel Broadband Private Limited	0	319323	319323
11	Tikona Infinet Ltd. (HCL Infinet Ltd.)	0	256944	256944
12	Planet E-Shop Holdings India Ltd.	0	247193	247193
13	D-Vois Broadband Private Limited	0	230035	230035
14	Asianet Satellite Communications Ltd.	0	216927	216927
15	Alliance Broadband Services Pvt. Ltd.	0	213906	213906
16	Quadrant Televentures Ltd. (HFCL Infotel Ltd.)	102	194696	194798
17	INTECH ONLINE PVT LTD	0	193855	193855
18	Joister Infoserve Pvt. Ltd.	0	151975	151975
19	Indinet Service Pvt Ltd	0	126278	126278
20	DEN Broadband Private Limited	0	119912	119912
21	RailTel Corporation of India Ltd.	0	117347	117347
22	Tata Teleservices Limited	385	78992	79377
23	ANI Network Pvt Ltd	0	61910	61910
24	Wish Net Pvt. Ltd.	0	61769	61769
25	Five Network Solution (India) Ltd.	0	56716	56716
26	Airlink Communications Pvt. Ltd	0	56621	56621
27	Nextra Teleservices Pvt. Ltd.	0	55462	55462
28	Tata Sky Broadband Private Limited	0	51742	51742
29	Honesty Net Solutions (I) Pvt Ltd	94	42809	42903
30	Fusionnet Web Services Pvt. Ltd.	0	38765	38765

Annexure 1.5 (contd.)

S.No.	Name of Service Provider	Narrowband	Broadband	Total
31	AIRNET CABLE AND DATACOM PVT LTD	0	38243	38243
32	Citycom Networks Pvt. Ltd.	0	35366	35366
33	CSC e-Governance Services India Ltd.	0	32751	32751
34	Limras Eronet Broadband Service Pvt Ltd	5406	27054	32460
35	Ishan Netsol Pvt Ltd	0	32356	32356
36	Wan and Lan Internet Pvt. Ltd.	0	30869	30869
37	K NET SOLUTIONS PVT LTD	0	27992	27992
38	Digital Satellite Connect Pvt. Ltd.	0	24267	24267
39	Vasai Cable Pvt. Ltd.	0	21884	21884
40	Hi Reach Broadband Pvt. Ltd.	0	21825	21825
41	City Online Services Ltd	0	21354	21354
42	DNA Infotel Pvt Ltd	0	21344	21344
43	MICROSCAN COMPUTERS PVT LTD	7230	13262	20492
44	SITI Broadband Services Pvt. Ltd.	0	19458	19458
45	Ortel Communication Ltd.	0	18534	18534
46	RAJESH DIGITAL DATACOM PVT LTD	21	17221	17242
47	Sikka Broadband (P) Ltd.	0	15525	15525
48	IKF Technologies Ltd	0	15350	15350
49	Digital Network Associates Pvt. Ltd	0	15172	15172
50	Tata Communications Limited	214	14570	14784
51	Netplus Broadband Services Pvt. Ltd	0	14532	14532
52	Quest Consultancy Pvt. Ltd.	0	14375	14375
53	Meghbela Cable & Broadband Services (P) Ltd	0	13781	13781
54	Geocity Network Solutions Pvt. Ltd.	0	12187	12187
55	Sifi Online Pvt. Ltd.	0	11646	11646
56	World Phone Internet Services Pvt Ltd	0	11641	11641
57	United Telecoms Ltd.	0	10090	10090
58	Sai Prasad Internet Pvt Ltd	0	10062	10062
59	Pioneerelabs Pvt Ltd	351	9643	9994
60	RI Networks Pvt Ltd	0	9945	9945

Annexure 1.5 (contd.)

S.No.	Name of Service Provider	Narrowband	Broadband	Total
61	North East Data Network Pvt Ltd.	0	9754	9754
62	Shree Omkar Infocom Pvt. Ltd.	0	9541	9541
63	Yashash Cable Network Pvt Ltd	0	9395	9395
64	Tachyon Communications Pvt. Ltd.	0	8848	8848
65	CANDOR INFOSOLUTION PVT LTD	8496	0	8496
66	Net 9 Online Hathway Private Limited	0	8429	8429
67	Intermedia Cable Communication Pvt Ltd	0	8185	8185
68	Cityzone Infonet Pvt. Ltd	0	7612	7612
69	Jetway Broadband India Pvt. Ltd.	0	7567	7567
70	FOXTEL TELECOMMUNICATIONS PVT LTD	7325	0	7325
71	DL GTPL BROADBAND PVT LTD	0	7304	7304
72	Readylink Internet Services Pvt Ltd	28	7204	7232
73	WOW SOLUTIONS & SYSTEM PVT LTD	0	7063	7063
74	Apna Telelink Ltd.	0	6984	6984
75	Shree Balaji Infoway Pvt Ltd	0	6680	6680
76	Kappa Internet Services Pvt Ltd.	0	6611	6611
77	Limerick Technologies Pvt Ltd	0	6363	6363
78	Bittel Telecom Pvt. Ltd	0	6329	6329
79	Reliance Communications Limited	157	6037	6194
80	SSCN PVT LTD	0	6079	6079
81	Broadband Pacenet (I) Pvt. Ltd.	0	6038	6038
82	Swiftmail Communications Ltd.	200	5650	5850
83	L S Fibernet Pvt. Ltd.	0	5427	5427
84	Spiderlink Networks Pvt. Ltd.	0	5139	5139
85	Swiftnet Broadband Pvt Ltd	0	4816	4816
86	IAXN Telecom Pvt. Ltd.	0	4766	4766
87	Siliguri Internet & Cable TV Pvt. Ltd.	0	4553	4553
88	Multicraft Digital Technologies Private Limited	0	4538	4538
89	Mukand Infotel Pvt. Ltd.	4415	0	4415
90	GBPS Networks Pvt. Ltd.	0	4344	4344

Annexure 1.5 (contd.)

S.No.	Name of Service Provider	Narrowband	Broadband	Total
91	Blazenet Ltd.	0	4017	4017
92	Multinet (Udaipur) Pvt. Ltd.	0	4002	4002
93	SUPER SONIC BROADBAND PVT LTD	0	3850	3850
94	FIVE NET SERVICE PROVIDER PVT LTD	0	3848	3848
95	CHANNEL III INTERNET PVT LTD	0	3637	3637
96	Zoram Business Enterprise Private Limited	0	3624	3624
97	Vision Smartlink Networking Pvt. Ltd.	0	3616	3616
98	SONALI INTERNET SERVICES PVT LTD	0	3583	3583
99	GIGATEL NETWORKS PVT LTD	0	3442	3442
100	Powernet Communication Pvt Ltd	3381	0	3381
101	LM ENERGY & SOFTWARE PVT LTD	0	3345	3345
102	GETWAY BROADBAND PVT LTD	0	3214	3214
103	Juweriyah Networks Pvt Ltd	0	3208	3208
104	Rainbow Internet Teleservices Pvt Ltd	16	3184	3200
105	Spacenet Internet Services Pvt Ltd	0	3144	3144
106	Star Broadband Services (I) Pvt Ltd	0	3076	3076
107	Airgenie Communications Pvt. Ltd.	0	2877	2877
108	WSNS PVT LTD	0	2763	2763
109	S.S. Netcom Pvt Ltd	0	2704	2704
110	Angel Air Network Solutions Private Limited	0	2698	2698
111	TGN NETWORKS PVT LTD	0	2679	2679
112	Kaizen Infonet Pvt Ltd	0	2526	2526
113	Chandra Net Pvt. Limited	0	2435	2435
114	Pink Broadband Services Pvt. Ltd.	1711	720	2431
115	NISS INTERNET SERVICES PVT. LTD.	0	2391	2391
116	Blu Ultraband Internet Services Private Limited	0	2293	2293
117	Transmedia Technologies (Ap) Pvt Ltd	0	2183	2183
118	F/X Wireless Technology Services Pvt. Ltd.	0	2016	2016
119	SMARTLINK SOLUTIONS PVT. LTD.	0	1965	1965
120	Symbois Creations Pvt. Ltd.	0	1919	1919

Annexure 1.5 (contd.)

S.No.	Name of Service Provider	Narrowband	Broadband	Total
121	Aerocast Networks Pvt Ltd.	0	1877	1877
122	Speed Online.net Pvt. Ltd.	0	1872	1872
123	GALAXYNET CONNECTIONS PVT LTD	0	1835	1835
124	Capture Network Systems Pvt. Ltd.	288	1517	1805
125	Jetspot Networks Pvt. Ltd.	0	1792	1792
126	INET FIBER INDIA PVT LTD	0	1767	1767
127	Assistive Networks & Technologies Pvt Ltd	0	1701	1701
128	Ultranet Infotech Solution Private Limited	0	1600	1600
129	Nettlinx Ltd.	0	1591	1591
130	SCUD COMMUNICATION PVT LTD	0	1576	1576
131	Touch Net India Pvt. Ltd.	0	1570	1570
132	Elyzium Technologies Pvt. Ltd.	0	1532	1532
133	Southern Online Bio Technologies Ltd.	1	1527	1528
134	Sphier Infotech Pvt. Ltd.	0	1515	1515
135	Wnet Telecom Private Limited	0	1501	1501
136	delDSL Internet Pvt Ltd	0	1437	1437
137	Netfirre Communications Pvt Ltd	0	1408	1408
138	Bakcom Networks India Pvt Ltd	0	1398	1398
139	Prompt Infracom Pvt Ltd	0	1387	1387
140	Imperium Digital Network Pvt. Ltd.	0	1322	1322
141	Rajesh Patel Net Services Pvt. Ltd.	13	1299	1312
142	Fiberzone Communications Pvt. Ltd.	0	1310	1310
143	Skylink Fibernet Pvt. Ltd.	0	1307	1307
144	Hardwork Cable & Internet Services Pvt Ltd	0	1306	1306
145	MAKS COMMUNICATIONS PVT. LTD.	0	1248	1248
146	Hughes Communications India Ltd.	125	1052	1177
147	Aeroway Networks Pvt Ltd.	0	1162	1162
148	GIGACAST NETWORK PVT LTD	0	1151	1151
149	Smart Net India Pvt Ltd	0	1128	1128
150	CJ Online Pvt. Ltd.	0	1127	1127

Annexure 1.5 (contd.)

S.No.	Name of Service Provider	Narrowband	Broadband	Total
151	Click4Net Internet Services Private Limited	0	1127	1127
152	ACN Fiber Pvt. Ltd.	0	1107	1107
153	Craze IT Solutions Pvt Ltd	0	1100	1100
154	DA Smartzone Pvt Ltd	0	1037	1037
155	SS Fiber Net Optical Communication Pvt. Ltd	0	1014	1014
156	Amar Broadband Private Limited	0	973	973
157	AHM Digital Network Pvt Ltd	0	970	970
158	Sanchit Infocomm Pvt Ltd	0	968	968
159	Touchnet Broadband Services Pvt. Ltd.	0	956	956
160	Karunay Internet Private Limited	0	947	947
161	Grace Teleinfra Pvt Ltd	0	927	927
162	Deenet Services Pvt Ltd	0	907	907
163	Correl IT Services Pvt. Ltd.	0	893	893
164	Ficus Telecom Pvt. Ltd.	0	873	873
165	Varesha Air World Networks Pvt Ltd	433	433	866
166	SKY ONLINE TECHNOSYSTEM PVT LTD	0	863	863
167	Japra Tele Link Pvt. Ltd.	0	859	859
168	NetMagic Solutions (P) Ltd.	0	855	855
169	DREAMLINK TECHNOLOGIES PVT LTD	0	848	848
170	FASTNET COMMUNICATION PVT LTD	211	632	843
171	NGC Broadband Pvt. Ltd.	833	0	833
172	ESTO BORADNAD PVT LTD./ESTO INTERNET PVT LTD	0	824	824
173	SVD DIGITAL NETWORKS PVT LTD	0	781	781
174	Ani Broadband Service Pvt. Ltd.	0	763	763
175	Datawave IT Solutions Pvt. Ltd.	0	761	761
176	Daksh Broadband Services Pvt Ltd	0	732	732
177	Light Air Transmission Pvt. Ltd.	363	363	726
178	CLOUDNET COMMUNICATIONS PVT LTD	0	714	714
179	Spirenet Digital Communication Pvt Ltd	0	704	704
180	Unitel Media Pvt Ltd	0	697	697

Annexure 1.5 (contd.)

S.No.	Name of Service Provider	Narrowband	Broadband	Total
181	HOSTAXIS NETWORKS PVT LTD	0	695	695
182	Acegen Broadband Pvt. Ltd	0	678	678
183	HPS DIGITAL BROADBAND PVT LTD	0	672	672
184	Telosy Telecom Pvt. Ltd.	0	662	662
185	DATAMAX TECHNOLOGY PVT LTD	64	582	646
186	SEFARO NETWORKS PRIVATE LTD	0	642	642
187	Darer Internet Services Pvt. Ltd.	0	636	636
188	Speedmaxx Digital Networks Pvt Ltd	0	633	633
189	Primenet Global Ltd.	0	623	623
190	Wi-Link Network Pvt. Ltd	0	614	614
191	NETVISION AWADH NETWORKS PVT LTD	137	474	611
192	Packenet Solutions Pvt. Ltd.	0	602	602
193	LAIRONET COMMUNICATION PVT LTD	0	599	599
194	STN Communication & Advertising Pvt Ltd.	1	593	594
195	WEBRIDERS INTERNET PVT LTD	0	594	594
196	ADRI INFOCOM PVT. LTD.	0	578	578
197	Alphanet Broadband Pvt Ltd	0	571	571
198	Reticule Infotech Pvt. Ltd.	0	560	560
199	Alegra Communication Pvt Ltd	0	552	552
200	Digital2Virtual ISP Pvt. Ltd.	0	549	549
201	VIVA Communications Pvt Ltd	0	542	542
202	Rida Communication Pvt. Ltd.	0	526	526
203	Data Ingenious Global Ltd	4	514	518
204	Sify Technologies Ltd.	264	238	502
205	Power Grid Corporation of India Ltd.	0	490	490
206	Elecon Information Technology Ltd	0	483	483
207	HELM CONSULTANTS PVT LTD	193	274	467
208	Oasis Cable Pvt Ltd.	0	445	445
209	Tamana Winet Pvt. Ltd.	0	418	418
210	Shree Manoranjan Broadband Pvt Ltd	0	410	410

Annexure 1.5 (contd.)

S.No.	Name of Service Provider	Narrowband	Broadband	Total
211	Spider Broadband and Cable Pvt Ltd	0	409	409
212	Oistel Telecom Pvt. Ltd.	203	203	406
213	VRD Web Services Pvt Ltd	0	404	404
214	REVOLUTION BROADBAND PVT LTD	0	397	397
215	CNS INFOTEL SERVICES PVT LTD	0	392	392
216	Pulse Telesystems Pvt. Ltd.	0	391	391
217	SmartLink Broadband Services	0	385	385
218	WINDSOR INTERNET PVT LTD	0	374	374
219	Panav Network and Communications Pvt Limited	0	368	368
220	Kartik Network Pvt. Ltd.	0	364	364
221	Gorakhpur Net Services Pvt. Ltd.	0	363	363
222	Gleam Worldwide Services Pvt. Ltd.	0	341	341
223	BASS JOKERNET PRIVATE LIMITED	0	338	338
224	Bass Networks Pvt Ltd	0	338	338
225	Sai Akshay Internet Services Pvt Ltd.	0	332	332
226	CATLA IT & ENGG. CO. PVT LTD.	0	327	327
227	Moradabad Internet Services Pvt Ltd	0	327	327
228	ALWAR ONLINE PVT LTD	0	325	325
229	Twincity Communication Private Limited	0	325	325
230	Development Logics Solutions Pvt Ltd	0	307	307
231	Bhiwani Communications Pvt. Ltd.	73	233	306
232	Panchsheel Broadband Services Pvt Ltd.	0	305	305
233	NR DATA SERVICE PVT LTD	0	302	302
234	AUSPICE INFRATAL PVT LTD	166	129	295
235	Citylink Broadband Services Pvt. Ltd.	0	293	293
236	Harisree CableNet Pvt. Ltd.	0	289	289
237	Lotus Broadband Pvt Ltd	0	289	289
238	Dhanam Internet Services India Pvt. Ltd.	0	289	289
239	Goodwill Smartlink Pvt. Ltd.	0	277	277
240	NEXTGEN COMPUSOFT PVT LTD	0	272	272

Annexure 1.5 (contd.)

S.No.	Name of Service Provider	Narrowband	Broadband	Total
241	Singh Internet Services Pvt. Ltd.	0	260	260
242	Quick Link Broadband And Services Pvt. Ltd	0	255	255
243	WAVETREE NETWORKS PVT LTD	0	255	255
244	Antariksh Broadband & Wireless Solutions Pvt Ltd	254	0	254
245	Cityline Networks Pvt Ltd	0	251	251
246	Airmesh Communications Limited	0	246	246
247	ANUSHREE DIGITAL NETWORK PVT LTD	0	246	246
248	Faconet Internet Pvt Ltd	0	245	245
249	SOUTHNET BROADBAND PVT LTD	0	243	243
250	Khetan Cable Network (P) Ltd	0	228	228
251	Barani Data Solutions Private Limited	227	0	227
252	VISPUTES INTERNET PRIVATE LIMITED	0	227	227
253	VM0 BROADBAND PVT LTD	225	0	225
254	ACEBROWSE PVT LTD	0	219	219
255	Smart Wi5 Pvt. Ltd.	0	218	218
256	CIT SOLUTIONS PVT. LTD.	0	217	217
257	Srinagar Technology Consultants Ltd	213	0	213
258	Wi5 Internet Services P Limited	0	212	212
259	Microsense Pvt. Ltd.	0	209	209
260	Saibaba Broadband Pvt. Ltd.	0	206	206
261	Shineplus Networks Pvt Ltd	0	202	202
262	Fastx Broadband Private Limited	0	199	199
263	CERALINK COMMUNICATION PVT LTD	0	196	196
264	Suncity Broadband Pvt Ltd.	0	190	190
265	Satpar Infotech Pvt Ltd	0	175	175
266	STN Infotech Pvt. Ltd	0	175	175
267	Gazillio Technologies Pvt. Ltd.	0	172	172
268	Kataria Net Solutions Pvt. Ltd.	0	170	170
269	Optisky Fiber Pvt Ltd	0	168	168
270	PROLINE DATATECH SERVICES PVT LTD	0	161	161

Annexure 1.5 (contd.)

S.No.	Name of Service Provider	Narrowband	Broadband	Total
271	Verizon Communications India Pvt. Ltd.	0	160	160
272	AIRMAX INTERNET PVT LTD	0	158	158
273	Nanjil Internet Services Pvt. Ltd.	0	158	158
274	NETTECH INFOVISION PVT LTD	0	158	158
275	PMG NETWORK PVT LTD	0	153	153
276	Pimoonny Broadband Services Pvt Ltd	0	152	152
277	Sense Connect IT Pvt. Ltd.	0	146	146
278	ERNET India	52	89	141
279	Achiever Communication and Services Pvt. Ltd.	0	141	141
280	Global India Tele Infra Pvt. Ltd.	36	100	136
281	Texas Connect Private Limited	112	24	136
282	AT&T Global Network Services India Private Ltd	0	128	128
283	MLC INTERNET PVT LTD	0	126	126
284	Mediatech Communication Pvt. Ltd.	0	125	125
285	Sri Ram Broadband Services Pvt. Ltd.	0	125	125
286	ROYAL WIRELESS SERVICES PVT LTD	0	120	120
287	Shri Vinayagaa Internet Pvt Ltd	0	119	119
288	V NET NETWORKS PVT. LTD	0	118	118
289	Micronova Network Solutions Ltd	4	111	115
290	AirFiber IT Solutions Pvt. Ltd	0	112	112
291	Shri Ram Broadband Services Pvt Ltd	0	112	112
292	White Stallion Networks Pvt. Ltd.	0	108	108
293	Pronoc Technologies Pvt. Ltd.	0	107	107
294	Telstra Telecommunications Pvt. Ltd.	0	105	105
295	Omkar Net Services Pvt. Ltd.	0	102	102
296	Shreepad Communication Pvt. Ltd.	0	100	100
297	SATH TECHNOLOGIES PVT LTD	0	99	99
298	S A INTERNET SOLUTION PVT LTD	0	98	98
299	Cheetah Networks Pvt Ltd	0	94	94
300	Invensys Networks Pvt Ltd	0	91	91

Annexure 1.5 (contd.)

S.No.	Name of Service Provider	Narrowband	Broadband	Total
301	Radinet Info Solutions Pvt Ltd	0	91	91
302	INFINITY WIRELESS SERVICES PVT. LTD.	0	89	89
303	NETWIRE INTERNET SOLUTIONS 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	Dream Plus Multi Services Pvt. Ltd.	0	82	82
308	DRONAGIRI INFOTECH PVT LTD	0	81	81
309	TRIPLE LINK PVT LTD	0	75	75
310	Malang Solutions Pvt. Ltd.	0	73	73
311	Mtel Networks Pvt. Ltd.	0	73	73
312	BSL Technologies Pvt. Ltd.	0	67	67
313	M-TEL Networks (P) Ltd	0	65	65
314	Wireline Solution (India) Pvt. Ltd.	0	65	65
315	Veer Point Pvt. Ltd.	0	60	60
316	Airlink Broadband Pvt Ltd	0	56	56
317	Infiber Broadnet Pvt. Ltd.	0	56	56
318	QBC Infotech Pvt. Ltd.	0	54	54
319	City Broadband Pvt. Ltd.	0	52	52
320	Edge Telecommunications Pvt. Ltd.	0	50	50
321	Divine Broadband Services Pvt Ltd	0	44	44
322	GURU NETCOMM PVT LTD	0	41	41
323	CLASSIC INTERNET AND CABLE SERVICES PVT LTD	40	0	40
324	KKM Broadband Internet Pvt Ltd	0	36	36
325	JAI MATA DI TELETRONIX PVT LTD	0	34	34
326	Navariya Satellite Services Pvt. Ltd.	33	0	33
327	Mesh Infranet Pvt Ltd	0	32	32
328	Dreamnet Pvt. Ltd.	0	30	30
329	Sanyog Networks Pvt Ltd	0	29	29
330	SUN BROADBAND AND DATA SERVICES PVT LTD	0	28	28

Annexure 1.5 (contd.)

S.No.	Name of Service Provider	Narrowband	Broadband	Total
331	WE INTERNET LIMITED	0	27	27
332	West Bengal Electronics Industry Development Corp. Ltd.	0	25	25
333	Pacific Internet India Pvt. Ltd.	0	23	23
334	Orange Business Services India Network Pvt. Ltd.	0	22	22
335	Trans Virtual Pvt. Ltd.	2	18	20
336	Angrow Netcomm Pvt. Ltd.	20	0	20
337	FASTHOOK NETWORKS PVT LTD	0	18	18
338	Hienet Internet Services Pvt Ltd	0	18	18
339	Microtel Internet Network Pvt Ltd	0	15	15
340	Adya Tech One Services Pvt Ltd	0	14	14
341	UBERCORE DATA LABS PVT LTD	0	13	13
342	Clear Beam Communication Pvt Ltd	10	0	10
343	Marutham Networks Pvt. Ltd.	0	10	10
344	Rajdhani Telecom Pvt. Ltd.	2	6	8
345	Mastek Infosystems OPC Pvt. Ltd.	0	8	8
346	Essel Shyam Communications Limited	0	7	7
347	Financial Technologies Communications Ltd.	7	0	7
348	A TO Z INFOLINK PVT. LTD.	0	7	7
349	SHEEN TELECOM CONSULTANTS PVT LTD	3	4	7
350	SKYNETZONE WIFI SERVICES PVT LTD	0	7	7
351	Tatanet Services Ltd	0	5	5
352	Critel Technologies Pvt. Ltd.	0	5	5
353	Cloudcast Digital Ltd	0	4	4
354	INSTANET TECHNOLOGIES PRIVATE LIMITED	0	4	4
355	ABT Ltd.	3	0	3
356	Aristo Telenet Pvt Ltd	0	3	3
357	Novanet India Ltd.	0	2	2
358	Sabse Internet Services Provider Pvt Ltd	0	2	2
	Total	56805939	661937562	718743501

Note: Some wireless service providers exclude incidental data users from their subscriber base, based on minimum usage decided by them.

Annexure 1.6: List of Service Providers which reported IP Telephony Minutes for Q.E. Dec-19

S. No.	Name of Service Providers who reported IP Telephony Minutes
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

Sl. No.	Operative Area	Service Provider	Subscriber Base	
			30.09.2019	31.12.2019
1	Delhi (Faridabad/ Gurgaon)	Arya Omnitalk Radio Trunking Services Pvt. Ltd.	5848	5588
		Procall (Delhi)	2989	2980
		Procall (Faridabad)		
		Procall (Gurgaon)		
		Total	8837	8568
2	Mumbai (Navi Mumbai)	Arya Omnitalk Radio Trunking Services Pvt. Ltd.	8455	8242
		Smartalk (Mumbai)	626	636
		Bhilwara Telenet (Mumbai)	891	870
		Airtalk Solutions & Services Pvt. Ltd.	481	459
		Total	10453	10207
3	Kolkata	Arya Omnitalk Radio Trunking Services Pvt. Ltd.	2369	2410
		Total	2369	2410
4	TN (Chennai)	Arya Omnitalk Radio Trunking Services Pvt. Ltd.	7330	7492
		Quick Calls	566	551
		Total	7896	8043
5	Karnataka (Bangalore)	Arya Omnitalk Radio Trunking Services Pvt. Ltd.	7097	7061
		Quick Calls	744	745
		Total	7841	7806
6	Andhra Pradesh (Vishakhapatnam & Hyderabad)	Arya Omnitalk Radio Trunking Services Pvt. Ltd.	1832	1885
		Quick Calls (Hyderabad Urban)	849	848
		Total	2681	2733
7	Madhya Pradesh (Indore)	Arya Omnitalk Radio Trunking Services Pvt. Ltd.	1553	1576

Annexure 1.7: (contd.)

Sl. No.	Operative Area	Service Provider	Subscriber Base	
			30.09.2019	31.12.2019
8	Rajasthan (Jaipur)	Procall	288	290
		Arya Omnitalk Radio Trunking Services Pvt. Ltd.	542	514
		Total	830	804
9	Gujarat (Ahmedabad/ Surat/Vadodara/ Bharuch/Dahej/ Kutch/Amrela / Jamnagar)	Arya Omnitalk Radio Trunking Services Pvt. Ltd. (Ahmedabad/Surat/ Vadodara/ Bharuch/Dahej)	7012	7120
		Inative Network Pvt. Ltd. (Ahmedabad/Surat/ Vadodara/ Bharuch/ Kutch/Amrela / Jamnagar)	1820	1820
		Total	8832	8940
10	Maharashtra (Pune)	Arya Omnitalk Radio Trunking Services Pvt. Ltd.	1693	1840
		Smartalk	446	438
		Total	2139	2270
11	Kerala (Cochin City & Quilon)	Wiwonet Solutions Pvt. Ltd.	457	409
		Arya Omnitalk Radio Trunking Services Pvt. Ltd.	898	955
		Total	1355	1364
		Grand Total	59,118	59,089

Annexure 2.1: Wireless Revenue Service - Service Area-wise Statistics for QE December, 2019

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	95.98	96	21	333	329	662
Gujarat	95.66	80	18	312	270	583
Karnataka	93.93	92	25	344	328	672
MH	95.75	88	20	303	289	592
TN (incl. Chennai)	94.87	97	19	317	315	632

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	97.82	58	12	332	315	647
Kerala	97.45	98	12	259	266	524
MP	98.30	74	19	346	345	691
Punjab	96.31	84	12	329	312	641
Rajasthan	97.87	76	16	354	346	700
UP (E)	98.16	57	13	401	445	846
UP (W)	98.15	62	15	355	362	718
WB	99.44	70	18	364	385	749

Key Parameters for Service Areas of Category-C

Service Area	% of Pre-paid in total Subscribers	ARPU (₹ per month)	Total usage (from & outside HSA) per Subscriber per month			
			Outgoing SMS	Outgoing MOU	Incoming MOU	Total MOU
Assam	98.00	82	36	386	409	795
Bihar	99.08	63	13	458	508	966
HP	98.75	73	12	319	309	628
J&K	55.06	78	28	508	481	989
NE	98.55	83	35	334	339	672
Odisha	98.80	73	18	408	438	846

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	94.48	69	15	324	317	642
Delhi	83.51	76	22	437	372	809
Mumbai	78.29	95	16	415	325	740

Annexure 4.1: Performance of QoS Parameters for Cellular Mobile Services

Name of Service Area	Name of Service Provider	Network Related Parameters										Customer Service Quality Parameters								
		Network Availability			Connection Establishment (Accessibility)			Connection Maintenance (Retainability)				POI			Metering and Billing			Response time to the customer for assistance		
		BS Accumulated down-time (age)	Worst affected BSs due to down-time (age)	Call Set-up Success Rate and Session Establishment Success Rate for Circuit Switched Voice or VoLTE as applicable (within licensee's own network)	SDCCH/Paging Channel Congestion/RRC Congestion (age)	TCH, RAB and E-RAB Congestion (age)	Network QoS DCR Spatial [Network_GSD(90,90)]	Network QoS DCR Temporal [Network_GTD(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	Percentage of calls answered by the operators (Voice-to-Voice) within 90 seconds	%age requests for Termination / Closure of service completed within 7 days	Time taken for refund of deposits after closure of service
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	0.10	0.34	98.95	0.15	0.23	1.60	1.78	96.54	0	0.18	0.20	0.01	0.00	100.00	100.00	100.00	74.00	100.00	100.00
	BSNL	1.10	1.90	97.95	0.62	1.05	1.70	2.00	98.50	0	0.65	0.75	0.00	0.00	100.00	100.00	97.00	96.00	100.00	100.00
	RJio	0.04	0.03	99.71	0.00	0.00	0.28	0.39	99.94	0	0.01	0.13	0.00	0.00	100.00	100.00	96.59	96.83	100.00	100.00
	VIL-Brand Idea	0.28	1.14	99.47	0.80	0.50	1.85	2.53	99.37	0	0.01	0.11	0.01	0.00	99.76	100.00	97.62	96.59	100.00	100.00
Assam	VIL-Brand Vodafone	0.28	1.14	99.47	0.80	0.50	1.85	2.53	99.37	0	0.01	0.11	0.00	0.00	100.00	100.00	100.00	78.02	100.00	100.00
	Airtel	0.45	1.58	97.68	0.48	0.39	1.96	2.23	98.34	0	0.22	0.32	0.00	0.00	100.00	100.00	100.00	44.00	100.00	100.00
	BSNL	1.98	1.95	98.21	0.88	1.79	1.92	2.10	96.88	0	NA	NA	0.01	0.00	100.00	100.00	97.00	97.80	100.00	100.00
	RJio	0.39	1.61	99.66	0.01	0.00	0.48	0.60	99.91	0	0.01	0.18	0.00	0.00	100.00	100.00	98.00	99.32	100.00	100.00
Bihar	VIL-Brand Idea	0.13	0.60	98.32	0.80	1.61	1.74	2.79	98.51	0	0.21	0.22	0.01	0.01	100.00	100.00	100.00	99.10	100.00	100.00
	VIL-Brand Vodafone	0.13	0.60	98.32	0.80	1.61	1.74	2.79	98.51	0	0.21	0.22	0.01	0.01	100.00	100.00	100.00	85.90	100.00	100.00
	Airtel	0.10	0.83	97.88	0.46	0.91	1.74	1.82	97.78	0	0.10	0.35	0.00	0.00	100.00	100.00	100.00	67.00	100.00	100.00
	BSNL	1.90	1.90	95.58	0.31	0.47	1.74	2.32	98.30	0	0.00	0.00	0.00	0.00	100.00	100.00	98.00	96.31	100.00	100.00
Delhi	RJio	0.29	0.79	99.52	0.00	0.00	0.46	0.57	99.92	0	0.01	0.16	0.00	0.00	100.00	100.00	97.71	82.38	100.00	100.00
	VIL-Brand Idea	1.65	0.08	99.11	0.37	0.57	1.53	2.11	99.61	0	0.01	0.02	0.00	0.00	100.00	100.00	97.94	99.91	100.00	100.00
	VIL-Brand Vodafone	1.65	0.08	99.11	0.37	0.57	1.53	2.11	99.61	0	0.01	0.02	0.00	0.04	100.00	100.00	100.00	97.66	100.00	100.00
	Airtel	0.10	0.00	99.10	0.23	0.34	1.72	2.38	99.52	0	1.03	0.31	0.01	0.00	100.00	100.00	100.00	68.00	100.00	100.00
Delhi	MTNL	0.05	0.10	97.48	0.06	0.97	1.46	1.66	97.81	0	NA	NA	0.00	0.00	100.00	100.00	99.58	100.00	100.00	100.00
	RJio	0.05	0.02	99.65	0.01	0.00	0.16	0.26	99.94	0	0.01	0.12	0.00	0.00	100.00	100.00	97.65	97.27	100.00	100.00
	VIL-Brand Idea	0.21	0.38	99.25	0.20	0.18	1.94	2.99	98.83	0	NA	NA	0.01	0.01	99.43	100.00	99.52	96.79	100.00	100.00
	VIL-Brand Vodafone	0.10	0.21	99.44	0.10	0.41	1.68	2.23	98.73	0	0.73	0.35	0.09	0.05	99.54	100.00	100.00	88.88	100.00	100.00

Annexure 4.1 (contd.)

Gujarat	Airtel	0.07	0.14	99.62	0.33	0.21	1.75	2.25	95.54	0	0.09	0.16	0.00	0.00	100.00	100.00	100.00	100.00	100.00	100.00	77.00	100.00	100.00
	BSNL	1.33	1.10	98.09	0.03	0.42	1.74	2.68	100.00	0	0.04	0.12	0.01	0.00	100.00	100.00	100.00	100.00	100.00	100.00	96.28	100.00	100.00
	RJio	0.12	0.12	99.62	0.00	0.00	0.29	0.43	99.93	0	0.01	0.14	0.00	0.00	100.00	100.00	100.00	100.00	100.00	100.00	98.29	100.00	100.00
	VIL-Brand Idea	0.08	0.29	98.59	0.59	0.73	1.89	2.51	98.39	0	0.36	0.26	0.02	0.01	99.96	100.00	100.00	100.00	100.00	100.00	99.84	100.00	98.60
Haryana	VIL-Brand Vodafone	0.12	0.58	99.47	0.18	0.43	1.32	1.68	99.12	0	0.13	0.16	0.01	0.02	99.88	100.00	100.00	100.00	100.00	100.00	83.72	100.00	100.00
	Airtel	0.07	0.22	99.80	0.11	0.13	1.15	1.38	97.51	0	0.26	0.37	0.01	0.00	100.00	100.00	100.00	100.00	100.00	100.00	64.00	100.00	100.00
	BSNL	0.57	0.12	98.82	0.11	0.19	1.59	2.54	97.80	0	0.07	0.12	0.00	0.00	98.67	100.00	100.00	100.00	100.00	100.00	52.31	100.00	100.00
	RJio	0.09	0.25	99.58	0.00	0.00	0.37	0.51	99.96	0	0.00	0.08	0.00	0.00	100.00	100.00	100.00	100.00	100.00	100.00	99.54	100.00	100.00
Himachal Pradesh	VIL-Brand Idea	0.75	0.16	99.30	0.73	0.58	1.64	2.44	99.15	0	0.11	0.16	0.05	0.00	100.00	100.00	100.00	100.00	100.00	100.00	98.55	100.00	100.00
	VIL-Brand Vodafone	0.75	0.16	99.30	0.73	0.58	1.64	2.44	99.15	0	0.11	0.16	0.03	0.02	100.00	100.00	100.00	100.00	100.00	100.00	89.28	100.00	100.00
	Airtel	0.10	0.32	98.99	0.18	0.34	1.56	1.95	95.23	0	0.27	0.25	0.01	0.00	100.00	100.00	100.00	100.00	100.00	100.00	59.00	100.00	100.00
	BSNL	1.64	1.95	98.45	0.68	1.23	1.94	2.08	96.17	0	0.00	0.00	0.01	0.00	100.00	100.00	100.00	100.00	100.00	100.00	99.91	100.00	100.00
Jammu & Kashmir	RJio	0.05	0.03	99.65	0.00	0.00	0.21	0.33	99.96	0	0.00	0.08	0.00	0.00	100.00	100.00	100.00	100.00	100.00	100.00	99.54	100.00	100.00
	VIL-Brand Idea	0.17	0.57	99.41	0.14	0.24	2.74	4.62	98.19	0	0.49	0.33	0.04	0.00	100.00	100.00	100.00	100.00	100.00	100.00	97.86	100.00	100.00
	VIL-Brand Vodafone	0.17	0.57	99.41	0.14	0.24	2.74	4.62	98.19	0	0.49	0.33	0.03	0.01	100.00	100.00	100.00	100.00	100.00	100.00	97.88	100.00	100.00
	Airtel	0.20	0.24	98.03	0.60	0.04	1.12	2.86	98.64	0	0.13	0.21	0.00	0.00	100.00	100.00	100.00	100.00	100.00	100.00	67.00	100.00	100.00
Karnataka	BSNL	1.63	1.74	98.25	0.63	1.45	1.97	2.15	96.42	0	NA	NA	0.00	0.00	100.00	100.00	100.00	100.00	100.00	100.00	39.00	100.00	100.00
	RJio	0.15	0.33	99.75	0.00	0.00	0.23	0.47	99.96	0	0.00	0.08	0.00	0.00	100.00	100.00	100.00	100.00	100.00	100.00	95.10	100.00	100.00
	VIL-Brand Idea*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.02	0.00	100.00	100.00	100.00	100.00	100.00	100.00	96.58	100.00	100.00
	VIL-Brand Vodafone*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.01	0.02	100.00	100.00	100.00	100.00	100.00	100.00	92.65	100.00	100.00
Kerala	Airtel	0.26	1.40	99.64	0.30	0.12	1.64	2.22	95.94	0	0.27	0.20	0.01	0.00	100.00	100.00	100.00	100.00	100.00	100.00	83.00	100.00	100.00
	BSNL	1.34	1.74	98.15	0.35	0.43	1.70	1.86	97.27	0	0.99	1.17	0.00	0.00	99.75	100.00	100.00	100.00	100.00	100.00	0.00	100.00	100.00
	RJio	0.08	0.03	99.71	0.00	0.00	0.25	0.41	99.94	0	0.00	0.12	0.00	0.00	100.00	100.00	100.00	100.00	100.00	100.00	97.04	100.00	100.00
	VIL-Brand Idea	1.20	1.45	99.46	0.48	0.38	1.83	2.50	99.46	0	0.19	0.49	0.03	0.00	100.00	100.00	100.00	100.00	100.00	100.00	78.09	100.00	100.00
Kerala	VIL-Brand Vodafone	1.20	1.45	99.46	0.48	0.38	1.83	2.50	99.46	0	0.19	0.49	0.06	0.03	99.97	100.00	100.00	100.00	100.00	100.00	85.69	100.00	100.00
	Airtel	0.10	0.24	99.33	0.18	0.24	1.94	2.88	97.68	0	0.14	0.44	0.00	0.00	100.00	100.00	100.00	100.00	100.00	100.00	74.00	100.00	100.00
	BSNL	0.63	1.48	98.93	0.38	0.89	1.82	2.23	98.43	0	0.00	0.00	0.00	0.00	98.00	100.00	100.00	100.00	100.00	100.00	98.14	100.00	100.00
	RJio	0.09	0.19	99.72	0.00	0.00	0.24	0.49	99.93	0	0.00	0.14	0.00	0.00	100.00	100.00	100.00	100.00	100.00	100.00	97.59	100.00	100.00
Kerala	VIL-Brand Idea	1.07	0.08	99.30	0.43	0.55	0.97	1.39	97.65	0	0.08	0.37	0.08	0.01	99.97	100.00	100.00	100.00	100.00	100.00	98.09	100.00	100.00
	VIL-Brand Vodafone	1.08	0.09	99.65	0.31	0.42	1.23	1.59	99.63	0	0.10	0.20	0.07	0.01	100.00	100.00	100.00	100.00	100.00	100.00	90.67	100.00	100.00

Annexure 4.1 (contd.)

Kolkata	Airtel	0.02	0.00	99.81	0.36	0.41	1.53	2.35	97.67	0	0.47	1.05	0.01	0.00	100.00	100.00	100.00	100.00	68.00	100.00	100.00
	BSNL	1.09	1.79	99.06	0.47	0.21	1.64	1.92	96.77	0	0.00	0.00	0.01	0.00	100.00	100.00	100.00	100.00	96.52	100.00	100.00
	RJio	0.01	0.00	99.71	0.01	0.00	0.15	0.26	99.95	0	0.00	0.09	0.00	0.00	100.00	100.00	100.00	100.00	97.85	100.00	100.00
	VIL-Brand Idea	0.28	1.64	99.41	0.32	0.53	1.30	1.95	98.53	0	0.09	0.13	0.03	0.01	100.00	100.00	100.00	100.00	97.02	98.82	100.00
Madhya Pradesh	VIL-Brand Vodafone	0.28	1.64	99.41	0.32	0.53	1.30	1.95	98.53	0	0.09	0.13	0.05	0.02	100.00	100.00	100.00	100.00	79.90	100.00	100.00
	Airtel	0.07	0.15	99.20	0.17	0.22	1.82	2.00	95.02	0	0.09	0.16	0.00	0.00	100.00	100.00	100.00	100.00	60.00	100.00	100.00
	BSNL	1.24	1.44	98.90	0.35	1.09	1.88	2.10	98.30	0	NA	NA	0.00	0.00	100.00	100.00	100.00	100.00	98.88	100.00	100.00
	RJio	0.19	0.65	99.67	0.00	0.00	0.40	0.53	99.91	0	0.01	0.18	0.00	0.00	100.00	100.00	100.00	100.00	97.75	97.53	100.00
Maharashtra	VIL-Brand Idea	0.26	1.50	97.59	0.79	1.79	1.83	2.52	98.19	0	0.30	0.43	0.04	0.01	100.00	100.00	100.00	100.00	94.52	99.88	100.00
	VIL-Brand Vodafone	0.26	1.50	97.59	0.79	1.79	1.83	2.52	98.19	0	0.30	0.43	0.01	0.03	100.00	100.00	100.00	100.00	97.39	100.00	100.00
	Airtel	0.04	0.07	99.30	0.18	0.23	1.39	1.74	95.33	0	0.19	0.11	0.00	0.00	100.00	100.00	100.00	100.00	64.00	100.00	100.00
	BSNL	1.56	1.91	97.56	0.70	1.04	1.87	2.74	96.15	0	0.06	0.09	0.01	0.01	100.00	100.00	100.00	100.00	95.45	100.00	100.00
Mumbai	RJio	0.26	1.12	99.64	0.00	0.00	0.33	0.43	99.90	0	0.01	0.19	0.00	0.00	100.00	100.00	100.00	100.00	97.94	97.58	100.00
	VIL-Brand Idea	0.43	1.82	98.82	0.76	0.73	1.87	2.91	98.80	0	0.45	0.39	0.04	0.01	99.87	100.00	100.00	100.00	97.93	99.88	100.00
	VIL-Brand Vodafone	0.31	0.54	98.95	0.97	0.93	1.91	2.67	98.93	0	0.15	0.34	0.07	0.02	100.00	100.00	100.00	100.00	89.68	100.00	100.00
	Airtel	0.28	0.79	99.30	0.30	0.39	1.85	2.56	96.42	0	0.16	0.20	0.00	0.00	100.00	100.00	100.00	100.00	66.00	100.00	100.00
North East	MTNL	0.47	1.00	97.53	0.46	0.43	1.82	2.94	98.20	0	NA	NA	0.03	0.03	100.00	100.00	100.00	100.00	99.38	100.00	100.00
	RJio	0.11	0.27	99.64	0.01	0.00	0.15	0.23	99.93	0	0.01	0.14	0.00	0.00	100.00	100.00	100.00	100.00	97.62	97.26	100.00
	VIL-Brand Idea	0.11	0.26	99.49	0.46	0.16	1.67	2.35	96.31	0	0.29	0.41	0.00	0.00	100.00	100.00	100.00	100.00	94.73	100.00	100.00
	VIL-Brand Vodafone	0.16	0.94	98.85	0.62	0.90	1.85	2.71	98.74	0	0.21	0.31	0.06	0.05	100.00	100.00	100.00	100.00	90.33	100.00	100.00
North East	Airtel	0.76	1.94	97.28	0.41	0.31	1.82	2.08	98.05	0	0.29	0.35	0.01	0.00	100.00	100.00	100.00	100.00	49.00	100.00	100.00
	BSNL	1.86	1.95	98.23	0.97	1.91	1.88	2.21	98.00	0	0.00	0.00	0.05	0.05	100.00	100.00	100.00	100.00	95.70	100.00	100.00
	RJio	0.78	1.68	99.61	0.01	0.00	0.62	0.85	99.91	0	0.01	0.17	0.00	0.00	100.00	100.00	100.00	100.00	97.78	99.28	100.00
	VIL-Brand Idea	0.16	0.62	98.94	0.51	0.93	1.85	2.25	98.43	0	0.50	0.28	0.04	0.00	100.00	100.00	100.00	100.00	99.99	100.00	100.00
VIL-Brand Vodafone	0.16	0.62	98.94	0.51	0.93	1.85	2.25	98.43	0	0.50	0.28	0.01	0.00	100.00	100.00	100.00	100.00	89.31	100.00	100.00	

Annexure 4.1 (contd.)

Odisha	Airtel	0.18	0.12	98.92	0.21	0.60	1.64	1.85	98.34	0	0.11	0.20	0.00	0.00	100.00	100.00	100.00	73.00	100.00	100.00
	BSNL	0.70	1.94	96.61	0.61	0.69	1.95	2.97	95.71	0	0.00	0.00	0.00	0.00	100.00	100.00	100.00	97.43	100.00	100.00
	RJio	0.09	0.09	99.65	0.02	0.00	0.32	0.41	99.93	0	0.01	0.14	0.00	0.00	100.00	100.00	100.00	97.16	100.00	100.00
	VIL-Brand Idea	0.46	1.58	99.43	0.27	0.55	1.74	2.40	98.60	0	0.23	0.26	0.01	0.02	100.00	100.00	100.00	99.99	100.00	100.00
Punjab	VIL-Brand Vodafone	0.46	1.58	99.43	0.27	0.55	1.74	2.40	98.60	0	0.23	0.26	0.03	0.03	100.00	100.00	100.00	96.73	99.87	100.00
	Airtel	0.04	0.12	99.58	0.11	0.14	0.80	1.31	98.66	0	0.15	0.42	0.01	0.00	100.00	100.00	100.00	69.00	100.00	100.00
	BSNL	0.38	1.52	98.45	0.22	0.13	1.66	1.81	98.05	0	0.00	0.00	0.00	0.00	100.00	100.00	100.00	95.40	100.00	100.00
	RJio	0.08	0.21	99.61	0.00	0.00	0.16	0.27	99.96	0	0.00	0.08	0.00	0.00	100.00	100.00	100.00	98.52	100.00	100.00
Rajasthan	VIL-Brand Idea	0.15	0.92	99.62	0.38	0.08	0.95	1.45	99.36	0	0.13	0.44	0.07	0.02	100.00	100.00	100.00	97.45	100.00	100.00
	VIL-Brand Vodafone	0.15	0.92	99.62	0.38	0.08	0.95	1.45	99.36	0	0.13	0.44	0.01	0.01	100.00	100.00	100.00	90.72	100.00	100.00
	Airtel	0.16	0.64	95.95	0.27	0.54	1.92	2.38	98.44	0	0.30	0.32	0.01	0.00	100.00	100.00	100.00	61.00	100.00	100.00
	BSNL	1.10	1.56	98.47	0.73	1.53	1.60	2.04	98.54	0	0.00	0.00	0.02	0.01	100.00	100.00	100.00	64.00	100.00	100.00
Tamil Nadu	RJio	0.10	0.14	99.62	0.00	0.00	0.36	0.49	99.95	0	0.00	0.10	0.00	0.00	100.00	100.00	100.00	82.61	100.00	100.00
	VIL-Brand Idea	0.29	1.62	98.56	0.38	0.96	1.82	2.90	98.93	0	0.21	0.28	0.08	0.01	100.00	100.00	100.00	97.96	100.00	100.00
	VIL-Brand Vodafone	0.29	1.62	98.56	0.38	0.96	1.82	2.90	98.93	0	0.21	0.28	0.02	0.04	100.00	100.00	100.00	94.11	100.00	100.00
	Airtel	0.04	0.09	99.31	0.16	0.20	1.22	1.56	95.36	0	0.27	0.21	0.00	0.00	100.00	100.00	100.00	83.00	100.00	100.00
Uttar Pradesh (East)	BSNL	0.69	1.56	99.08	0.23	0.57	1.90	2.98	97.53	0	0.00	0.00	0.00	0.00	100.00	100.00	100.00	95.20	100.00	100.00
	RJio	0.02	0.01	99.69	0.00	0.00	0.22	0.33	99.95	0	0.00	0.11	0.00	0.00	100.00	100.00	100.00	96.82	100.00	100.00
	VIL-Brand Idea	0.10	0.32	99.95	0.04	0.05	0.85	1.39	99.27	0	0.10	0.15	0.01	0.00	100.00	100.00	100.00	97.71	100.00	100.00
	VIL-Brand Vodafone	0.16	0.71	98.92	0.58	0.96	1.28	1.79	98.90	0	0.09	0.13	0.08	0.02	100.00	100.00	100.00	91.51	100.00	100.00
Uttar Pradesh (West)	Airtel	0.40	1.03	97.19	0.28	0.68	1.65	2.18	97.44	0	0.50	1.38	0.01	0.00	100.00	100.00	100.00	60.00	100.00	100.00
	BSNL	1.83	1.90	96.75	0.92	1.40	1.82	2.37	97.79	0	NA	NA	0.09	0.08	100.00	100.00	100.00	95.22	100.00	100.00
	RJio	0.39	1.75	99.45	0.00	0.00	0.46	0.60	99.91	0	0.01	0.18	0.00	0.00	100.00	100.00	100.00	83.12	100.00	100.00
	VIL-Brand Idea	0.42	1.58	99.04	0.98	0.89	1.93	2.95	98.54	0	0.06	0.24	0.04	0.00	100.00	100.00	100.00	99.10	100.00	100.00
West Bengal	VIL-Brand Vodafone	0.29	1.20	96.48	0.96	1.93	1.84	2.88	98.23	0	0.13	0.23	0.04	0.03	100.00	100.00	100.00	88.19	100.00	100.00
	Airtel	0.46	0.80	99.59	0.21	0.12	1.67	2.33	99.45	0	0.25	0.21	0.00	0.00	100.00	100.00	100.00	57.00	100.00	100.00
	BSNL	1.77	1.85	97.57	0.75	1.12	1.80	2.03	96.89	0	NA	NA	0.00	0.00	100.00	100.00	100.00	95.34	100.00	100.00
	RJio	0.12	0.44	99.51	0.00	0.00	0.43	0.53	99.94	0	0.01	0.12	0.00	0.00	100.00	100.00	100.00	82.35	100.00	100.00
West Bengal	VIL-Brand Idea	0.20	1.19	95.35	0.96	2.56	2.34	3.57	97.59	0	0.13	0.29	0.06	0.00	100.00	100.00	100.00	83.56	100.00	100.00
	VIL-Brand Vodafone	0.37	1.98	96.52	0.81	1.86	1.71	2.70	96.55	0	0.42	0.33	0.03	0.05	100.00	100.00	100.00	83.17	100.00	100.00
	Airtel	0.48	0.08	99.24	0.48	0.67	1.77	2.89	96.97	0	0.17	0.30	0.00	0.00	100.00	100.00	100.00	64.00	100.00	100.00
	BSNL	0.23	0.50	98.59	0.91	1.38	8.45	10.20	97.28	0	0.14	0.73	0.02	0.01	100.00	100.00	100.00	0.00	100.00	100.00
West Bengal	RJio	0.12	0.19	99.65	0.00	0.00	0.54	0.66	99.91	0	0.01	0.19	0.00	0.00	100.00	100.00	100.00	97.95	100.00	100.00
	VIL-Brand Idea	0.07	0.14	99.57	0.19	0.34	1.45	2.17	98.09	0	0.07	0.13	0.05	0.01	100.00	100.00	100.00	95.98	100.00	100.00
	VIL-Brand Vodafone	0.07	0.14	99.57	0.19	0.34	1.45	2.17	98.09	0	0.07	0.13	0.05	0.02	100.00	100.00	100.00	84.16	100.00	100.00
	VIL-Brand Vodafone	0.07	0.14	99.57	0.19	0.34	1.45	2.17	98.09	0	0.07	0.13	0.05	0.02	100.00	100.00	100.00	84.16	100.00	100.00

Note: VIL-Brand Idea* & VIL-Brand Vodafone* "NA" due to Force Majeure conditions (for network related parameters) in J&K.
NA= Not applicable

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

Sl. No.	Name of Service Area	Name of Service Provider	Quarterly Performance Monitoring Report (PMR) on QoS of Basic Telephone Services (Wireline) for QE December, 2019										Termination / Closure of service				
			Faults incidences (No. of faults/100 Subs./month)	Fault Repair				Mean Time to Repair (MTTR)	POI (No. of POIs not meeting the benchmark)	Metering and Billing			Accessibility of customer care / call centre/ customer care	Percentage of calls answered by the operators (Voice-to-Voice) within 90 seconds	%age requests for Termination / Closure of service completed within 7 days	Time taken for refund of deposits after closures	
Benchmarks																	
			≤ 7	For urban areas by next working day: ≥ 85%	For urban areas: ≥ 100%	For rural and hilly areas: ≤ 75%	For rural and hilly areas: ≥ 100%	≤ 10 Hrs	≤ 0.5%	Metering and Billing credibility - post-paid	Metering and Billing credibility - pre-paid	Resolution of billing/charging/ validity complaints	Period of applying credit/ waiver/ adjustment from the account from the date of resolution of complaints	≥ 95%	≥ 95%	100% within 7 days	100% within 60 days
1	A&N	BSNL	6.00	85.00%	100.00%	85.00%	100%	7.00	0.00	0.00%	0.00	98.00%	100.00%	96.23%	99.67%	100.00%	100.00%
2	AP	Bharti	1.48	90.32%	100.00%	NA	NA	5.26	0.00	0.01%	NA	100.00%	100.00%	100.00%	98.00%	100.00%	100.00%
3		BSNL	4.00	94.00%	100.00%	88.00%	100%	7.00	0.00	0.05%	0.00	100.00%	100.00%	96.73%	96.15%	100.00%	100.00%
4		RJIL	0.01	87.00%	100.00%	87.00%	100%	6.10	0.00	0.00%	0.00	NA	NA	100.00%	100.00%	NA	NA
5		TTSL	4.93	96.59%	100.00%	NA	NA	4.09	0.30	0.00%	NA	100.00%	100.00%	95.00%	99.68%	100.00%	100.00%
6		VIL	0.17	100.00%	100.00%	NA	NA	2.51	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
7	Assam	BSNL	3.00	94.00%	100.00%	77.00%	100%	5.00	0.00	0.00%	0.00	100.00%	100.00%	98.00%	99.67%	100.00%	100.00%
8		RJIL	0.00	NA	NA	NA	NA	NA	0.00	0.00	0.00	NA	NA	100.00%	100.00%	NA	NA
9		VIL	2.07	100.00%	100.00%	NA	NA	6.59	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
10	Bihar	BSNL	4.00	92.00%	100.00%	88.00%	100%	5.00	0.00	0.00%	0.00	100.00%	100.00%	98.41%	100.00%	100.00%	100.00%
11		RJIL	0.01	100.00%	100.00%	100.00%	100.00%	2.20	0.00	0.00	0.00	NA	NA	100.00%	100.00%	NA	NA
12		TTSL	4.32	100.00%	100.00%	NA	NA	1.62	0.00	NA	NA	NA	NA	95.00%	99.31%	NA	NA
13		VIL	3.11	100.00%	100.00%	NA	NA	7.21	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
14	Chattisgarh	BSNL	3.00	97.00%	100.00%	97.00%	100%	6.00	0.00	0.01%	0.00	99.00%	100.00%	97.66%	97.31%	100.00%	100.00%
15	Chennai	BSNL	4.00	93.00%	100.00%	93.00%	100%	8.00	0.00	0.00%	0.00	100.00%	100.00%	98.19%	98.16%	100.00%	100.00%
16	Delhi	Bharti	1.57	90.61%	100.00%	NA	NA	5.48	0.00	0.01%	0.00	100.00%	100.00%	100.00%	98.00%	100.00%	100.00%
17		MTNL	2.90	86.21%	99.00%	NA	NA	5.08	0.00	0.01%	0.00	99.71%	100.00%	95.00%	95.00%	100.00%	100.00%
18		RJIL	0.01	88.00%	100.00%	88.00%	100.00%	5.40	0.00	0.00	0.00	NA	NA	100.00%	100.00%	NA	NA
19		TTSL	1.34	97.28%	100.00%	NA	NA	3.61	0.00	0.00%	NA	100.00%	100.00%	95.00%	99.42%	NA	100.00%
20		VIL	0.63	100.00%	100.00%	NA	NA	2.12	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
21	Gujarat	Bharti	1.17	93.54%	100.00%	NA	NA	5.31	0.00	0.02%	NA	100.00%	100.00%	100.00%	99.00%	100.00%	100.00%
22		BSNL	4.00	97.00%	100.00%	94.00%	100%	5.00	0.00	0.00%	0.00	100.00%	100.00%	97.33%	97.26%	100.00%	100.00%
23		RJIL	0.00	100.00%	100.00%	100.00%	100.00%	3.40	0.00	0.00	0.00	NA	NA	100.00%	100.00%	NA	NA
24		TTSL	1.92	88.83%	100.00%	NA	NA	7.56	0.00	0.00%	NA	100.00%	100.00%	95.00%	99.83%	NA	100.00%
25		VIL	0.19	100.00%	100.00%	NA	NA	5.23	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
26	HP	BSNL	4.00	90.00%	100.00%	94.00%	100%	6.00	0.00	0.04%	0.00	98.00%	100.00%	92.64%	98.67%	100.00%	100.00%
27		RJIL	0.03	100.00%	100.00%	100.00%	100.00%	9.20	0.00	0.00	0.00	NA	NA	100.00%	100.00%	NA	NA
28		VIL	0.00	100.00%	100.00%	NA	NA	0.00	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
29	HR	Bharti	2.29	96.55%	100.00%	NA	NA	3.26	0.00	0.03%	NA	100.00%	100.00%	100.00%	98.00%	100.00%	100.00%
30		BSNL	6.00	89.00%	100.00%	90.00%	100%	6.00	0.00	0.06%	0.00	100.00%	100.00%	90.10%	98.33%	100.00%	100.00%
31		RJIL	0.19	100.00%	100.00%	100.00%	100.00%	2.30	0.00	0.00	0.00	NA	NA	100.00%	100.00%	NA	NA
32		TTSL	2.42	80.00%	100.00%	NA	NA	16.89	0.00	NA	NA	NA	NA	100.00%	100.00%	NA	NA
33		VIL	5.05	100.00%	100.00%	NA	NA	6.56	NA	NA	NA	NA	NA	99.00%	100.00%	NA	NA

Annexure 4.2 (contd.)

34	J&K	BSNL	5.00	97.00%	100.00%	95.00%	100%	47	7.00	0.00	0.01%	0.00	98.00%	100.00%	100.00%	90.53%	98.67%	100.00%	100.00%
35		RJIL	0.00	NA	NA	NA	NA	NA	NA	0.00	0.00	0.00	NA	NA	NA	100.00%	100.00%	NA	100.00%
36	Jhar	BSNL	4.00	100.00%	100.00%	100.00%	100%	72	5.00	0.00	0.09%	0.00	98.00%	100.00%	100.00%	97.54%	99.67%	100.00%	100.00%
37	Kerala	Bharti	3.11	89.18%	100.00%	NA	NA	506	9.33	0.00	0.01%	0.00	100.00%	100.00%	100.00%	100.00%	99.00%	100.00%	100.00%
38		BSNL	4.00	93.00%	100.00%	88.00%	100%	1267	7.00	0.00	0.05%	0.00	100.00%	100.00%	100.00%	97.38%	97.40%	100.00%	100.00%
39		RJIL	0.04	88.00%	100.00%	88.00%	100%	0	6.10	0.00	0.00	0.00	NA	NA	NA	100.00%	100.00%	NA	NA
40		TTSL	0.07	80.00%	100.00%	NA	NA	NA	13.89	0.00	NA	0.00	NA	NA	NA	95.00%	100.00%	NA	NA
41		VIL	0.69	100.00%	100.00%	NA	NA	NA	7.48	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
42	KOL	Bharti	1.88	88.54%	100.00%	NA	NA	894	9.84	0.00	0.00%	0.00	100.00%	100.00%	100.00%	100.00%	96.00%	100.00%	100.00%
43		BSNL	7.00	89.00%	100.00%	NA	NA	390	8.00	0.00	0.00%	0.00	98.00%	100.00%	100.00%	97.63%	99.67%	100.00%	100.00%
44		RJIL	0.01	90.00%	100.00%	90.00%	100.00%	0	7.30	0.00	0.00	0.00	NA	NA	NA	100.00%	100.00%	NA	NA
45		VIL	0.66	100.00%	100.00%	NA	NA	NA	6.16	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
46	KTK	Bharti	1.96	85.00%	100.00%	NA	NA	2299	6.02	0.00	0.02%	0.00	100.00%	100.00%	100.00%	100.00%	97.00%	100.00%	100.00%
47		BSNL	4.00	93.00%	100.00%	94.00%	100%	2807	7.00	0.00	0.09%	0.00	98.00%	100.00%	100.00%	97.13%	96.84%	100.00%	100.00%
48		RJIL	0.00	100.00%	100.00%	100.00%	100.00%	0	6.20	0.00	0.00	0.00	NA	NA	NA	100.00%	100.00%	NA	NA
49		TTSL	0.39	87%	100.00%	NA	NA	NA	9.06	0.10	0.00%	0.00	100.00%	100.00%	100.00%	95.00%	99.54%	NA	NA
50		VIL	0.54	100.00%	100.00%	NA	NA	NA	7.20	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
51	MH	Bharti	0.83	92.25%	100.00%	NA	NA	138	6	0.00	0.02%	0.00	100.00%	100.00%	100.00%	100.00%	96.00%	100.00%	100.00%
52		BSNL	6.00	88.00%	100.00%	81.00%	100%	1285	6.00	0.00	0.01%	0.00	100.00%	100.00%	100.00%	96.52%	96.51%	100.00%	100.00%
53		RJIL	0.00	100.00%	100.00%	100.00%	100.00%	0	4.40	0.00	0.00	0.00	NA	NA	NA	100.00%	100.00%	NA	NA
54		TTSL	1.42	91.99%	100.00%	NA	NA	2	5.92	0.00	0.00%	0.00	100.00%	100.00%	100.00%	95.00%	99.63%	100.00%	100.00%
55		VIL	0.53	100.00%	100.00%	NA	NA	NA	5.26	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
56	MP	Bharti	3.26	89.69%	100.00%	NA	NA	796	5.07	0.00	0.02%	0.00	100.00%	100.00%	100.00%	100.00%	99.00%	100.00%	100.00%
57		BSNL	4.00	93.00%	100.00%	88.00%	100%	229	4.00	0.00	0.03%	0.00	100.00%	100.00%	100.00%	97.63%	96.88%	100.00%	100.00%
58		RJIL	0.02	89.00%	100.00%	89.00%	100.00%	0.00	0.50	0.00	0.00	0.00	NA	NA	NA	100.00%	100.00%	NA	NA
59		TTSL	13.77	100.00%	100.00%	NA	NA	NA	1.50	0.00	NA	0.00	NA	NA	NA	95.00%	100.00%	NA	NA
60		VIL	0.82	100.00%	100.00%	NA	NA	NA	3.38	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
61	MUM	Bharti	0.73	92.51%	100.00%	NA	NA	468	5.69	0.00	0.00%	0.00	100.00%	100.00%	100.00%	100.00%	98.00%	100.00%	100.00%
62		MTNL	3.30	91.25%	99.10%	NA	NA	30119	8.17	0.12	0.02%	0.00	99.47%	100.00%	100.00%	99.06%	99.00%	99.97%	100.00%
63		RJIL	0.00	89.00%	100.00%	89.00%	100.00%	0	4.1	0.00	0.00	0.00	NA	NA	NA	100.00%	100.00%	NA	NA
64		TTSL	3.57	93.50%	100.00%	NA	NA	21	5.68	0.10	0.00%	0.00	100.00%	100.00%	100.00%	95.00%	99.72%	100.00%	100.00%
65		VIL	0.49	100.00%	100.00%	NA	NA	NA	4.42	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
66	NE	RJIL	0.00	NA	NA	NA	NA	NA	NA	0.00	0.00	0.00	NA	NA	NA	100.00%	100.00%	NA	NA
67		VIL	0.00	100.00%	100.00%	NA	NA	NA	0.00	NA	NA	NA	NA	NA	NA	99.00%	100.00%	NA	NA
68	NE-I	BSNL	6.00	93.00%	100.00%	83.00%	100%	72	7.00	0.00	0.06%	0.00	98.00%	100.00%	100.00%	98.04%	100.00%	100.00%	100.00%
69	NE-II	BSNL	2.00	96.00%	100.00%	99.00%	100%	110	4.00	0.00	0.01%	0.00	100.00%	100.00%	100.00%	98.82%	99.67%	100.00%	100.00%

Annexure 4.2 (contd.)

70	Odisha	BSNL	6.00	95.00%	100.00%	88.00%	100%	0	5.00	0.00	0.06%	0.00	99.00%	100.00%	100.00%	96.93%	99.33%	100.00%	100.00%
71		RJIL	0.02	100.00%	100.00%	100.00%	100.00%	0	0.50	0.00	0.00	0.00	NA	NA	NA	100.00%	100.00%	NA	NA
72		TTSL	1.68	100.00%	100.00%	NA	NA	NA	2.33	0.00	NA	NA	NA	NA	NA	NA	100.00%	NA	NA
73		VIL	0.69	100.00%	100.00%	NA	NA	NA	2.39	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
74	Punjab	Bharti	2.39	87.11%	100.00%	NA	NA	238	5.29	0.00	0.00%	0.00	100.00%	100.00%	100.00%	100.00%	99.00%	100.00%	100.00%
75		BSNL	5.00	91.00%	100.00%	88.00%	100%	179	6.00	0.00	0.02%	0.00	98.00%	100.00%	100.00%	86.85%	98.67%	100.00%	100.00%
76		Quadrant	4.90	90.70%	100.00%	100.00%	100%	0	6.62	0.00	0.00%	0.00	100.00%	100.00%	100.00%	96.27%	95.34%	100.00%	100.00%
77		RJIL	0.00	100.00%	100.00%	100.00%	100.00%	0	1.2	0.00	0.00	0.00	NA	NA	NA	100.00%	100.00%	NA	NA
78		TTSL	1.02	100.00%	100.00%	NA	NA	NA	2.44	0.00	NA	NA	NA	NA	NA	96.00%	100.00%	NA	NA
79		VIL	0.30	100.00%	100.00%	NA	NA	NA	1.23	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
80	Rajasthan	Bharti	2.02	85.87%	100.00%	NA	NA	108	5.59	0.00	0.02%	0.00	100.00%	100.00%	100.00%	100.00%	99.00%	100.00%	100.00%
81		BSNL	5.00	95.00%	100.00%	95.00%	100%	269	6.00	0.00	0.00%	0.00	100.00%	100.00%	100.00%	92.09%	98.67%	100.00%	100.00%
82		RJIL	0.01	100.00%	100.00%	100.00%	100.00%	0	2.10	0.00	0.00	0.00	NA	NA	NA	100.00%	100.00%	NA	NA
83		TTSL	4.01	100.00%	100.00%	NA	NA	NA	2.07	0.00	NA	NA	NA	NA	NA	98.00%	98.81%	NA	NA
84		VIL	0.35	100.00%	100.00%	NA	NA	NA	6.54	NA	NA	NA	NA	NA	NA	99.00%	100.00%	NA	NA
85		Bharti	3.71	90.21%	100.00%	NA	NA	2810	9.42	0.00	0.01%	0.00	100.00%	100.00%	100.00%	100.00%	96.00%	100.00%	100.00%
86	Tamil	BSNL	3.00	90.00%	100.00%	87.00%	100%	1658	7.00	0.00	0.08%	0.00	100.00%	100.00%	100.00%	98.34%	98.20%	100.00%	100.00%
87	Nadu	RJIL	0.01	88.00%	100.00%	88.00%	100%	0	5.50	0.00	0.00	0.00	NA	NA	NA	100.00%	100.00%	NA	NA
88		TTSL	0.57	89.81%	100.00%	NA	NA	NA	5.83	0.00	NA	NA	NA	NA	NA	95.00%	99.46%	NA	100.00%
89		VIL	0.65	100.00%	100.00%	NA	NA	NA	3.10	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
90	UP (E)	Bharti	2.47	85.22%	100.00%	NA	NA	126	5.26	0.00	0.01%	0.00	100.00%	100.00%	100.00%	100.00%	98.00%	100.00%	100.00%
91		BSNL	3.00	85.00%	100.00%	90.00%	100%	720	5.00	0.00	0.90%	0.00	100.00%	100.00%	100.00%	91.53%	98.67%	100.00%	100.00%
92		RJIL	0.01	88.00%	100.00%	88.00%	100.00%	0	6.10	0.00	0.00	0.00	NA	NA	NA	100.00%	100.00%	NA	NA
93		TTSL	1.22	100.00%	100.00%	NA	NA	NA	1.56	0.00	NA	NA	NA	NA	NA	NA	100.00%	NA	NA
94		VIL	0.24	100.00%	100.00%	NA	NA	NA	5.46	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
95	UP (W)	Bharti	2.67	91.16%	100.00%	NA	NA	40	4.43	0.00	0.00%	0.00	100.00%	100.00%	100.00%	100.00%	98.00%	100.00%	100.00%
96		BSNL	7.00	95.00%	100.00%	95.00%	100%	433	5.00	0.00	0.02%	0.00	100.00%	100.00%	100.00%	90.54%	98.67%	100.00%	100.00%
97		RJIL	0.01	100.00%	100.00%	100.00%	100.00%	0	1.30	0.00	0.00	0.00	NA	NA	NA	100.00%	100.00%	NA	NA
98		TTSL	1.32	100.00%	100.00%	NA	NA	NA	1.20	0.00	NA	NA	NA	NA	NA	95.00%	100.00%	NA	NA
99		VIL	1.81	100.00%	100.00%	NA	NA	NA	6.50	NA	NA	NA	NA	NA	NA	99.00%	100.00%	100.00%	NA
100	Uttaranchal	BSNL	4.00	97.00%	100.00%	90.00%	100%	115	7.00	0.00	0.00%	0.00	98.00%	100.00%	100.00%	91.39%	98.67%	100.00%	100.00%
101	WB	BSNL	5.00	92.00%	100.00%	93.00%	100%	3513	7.00	0.00	0.01%	0.00	100.00%	100.00%	100.00%	91.23%	100.00%	100.00%	100.00%
102		RJIL	0.00	100.00%	100.00%	100.00%	100.00%	0	8.00	0.00	0.00	0.00	NA	NA	NA	100.00%	100.00%	NA	NA
103		TTSL	1.41	99.67%	100.00%	NA	NA	NA	2.32	0.00	NA	NA	NA	NA	NA	95.00%	99.61%	NA	NA
104		VIL	1.67	100.00%	100.00%	NA	NA	NA	0.23	NA	NA	NA	NA	NA	NA	99.00%	100.00%	NA	NA

Annexure 4.3: Quality of Service Performance of Broadband (Wireline) Service Providers

Performance Monitoring Report on Quality of Service of Service Providers providing Broadband (Wireline) Services for Quarter Ending December 2019

Sl. No.	Service Provider	Service area	Service Provisioning	Faults Repair			Billing Performance			Response Time to the Customer for			Bandwidth utilisation/throughput				Service availability/uptime (for all users) in %age	Packet Loss (for wired broadband access) in %age	Network latency (for wired broadband access)	
				% of faults repaired by next working day (>90%)	% of faults repaired within 3 days	% of faults repaired within 15 days of registration of demand	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 >90% utilisation during peak hours (TCBH)	No. of Upstream international connectivity bandwidth utilisation during peak hours (TCBH)	% International bandwidth utilization during peak hours (TCBH) (Enclose MRTG) <90%	Broadband Connection Speed available (download) from ISP node to user			Packet loss (for wired broadband access) in %age	User reference point at POP/ISP Gateway node to International gateway (GSP/NIXI)
1	Bharat Sanchar Nigam Ltd. (BSNL)	All India (except Delhi & Mumbai)	100%	>90%	=>99%	in nos.	<2%	100%	100%	>60%	>80%	0	0	<90%	>80%	<1%	<120 ms	<350 ms	<800 ms	
2	Mahanagar Telephone Nigam Ltd.	Delhi & Mumbai	100.00%	93.70%	99.68%	25694	0.05%	100.00%	100.00%	96.20%	97.05%	NA	0	68.50%	91.91%	0.60%	18	142	NA	
3	Airtel Communications Pvt. Ltd.	All India	100.00%	91.35%	98.32%	7983	0.42%	100.00%	100.00%	98.11%	98.61%	Nil	0	80.48%	89.87%	0.52%	45	301	NA	
4	Airnet Cable and Datacom Pvt. Ltd.	Maharashtra	100.00%	90.91%	99.45%	0	NA	100.00%	NA	76.99%	100.00%	0	0	87.67%	98.33%	0.52%	120	150	NA	
5	Alliance Broadband Services Pvt. Ltd.	Mumbai	100.00%	98.80%	100.00%	0	0	0.00%	0.00%	100.00%	100.00%	0	0	8.42%	100.00%	0.45%	5	255	NA	
6	ANI Network Pvt. Ltd.	All India	100.00%	97.10%	100.00%	Nil	0.00%	100.00%	Nil	87.67%	100.00%	0	0	78.90%	100.00%	0.47%	5	255	NA	
7	Asianet Satellite Communications	Delhi	100.00%	99.60%	100.00%	0	0.00%	0.00%	0.00%	99.00%	100.00%	0	0	85.00%	100.00%	0.00%	20	288	NA	
8	Atria Convergence Technologies Pvt. Ltd.	All India	100.00%	90.42%	99.47%	Nil	1.71%	100.00%	100.00%	60.30%	80.50%	Nil	0	68.65%	90.00%	1.00%	50	270	NA	
		All India	100.00%	89.36%	98.59%	45728	1.31%	100.00%	Nil	60.00%	63.00%	0	0	38.79%	90.00%	1.00%	27	145	NA	
		Andhra Pradesh	100.00%	92.65%	99.22%	768	0.09%	100.00%	100.00%	95.00%	98.00%	0	0	54.00%	100.00%	0.00%	32	14	NA	
		Delhi	100.00%	91.60%	99.21%	967	0.04%	100.00%	100.00%	97.00%	98.00%	0	0	56.00%	100.00%	0.00%	37	72	NA	
		Gujarat	100.00%	95.11%	99.38%	176	0.03%	100.00%	100.00%	97.00%	99.00%	0	NA	NA	100.00%	0.00%	30	NA	NA	
		Haryana	100.00%	96.12%	99.59%	2	0.04%	100.00%	100.00%	96.00%	98.00%	0	NA	NA	100.00%	0.00%	71	NA	NA	
		Karnataka	100.00%	90.06%	100.00%	2009	0.12%	100.00%	100.00%	96.00%	98.00%	0	0	53.00%	100.00%	0.00%	30	67	NA	
		Kerala	100.00%	91.25%	99.74%	426	0.03%	100.00%	100.00%	97.00%	98.00%	0	NA	NA	100.00%	0.00%	18	NA	NA	
		Kolkata	100.00%	91.37%	100.00%	455	0.01%	100.00%	100.00%	95.00%	97.00%	0	0	40.00%	100.00%	0.00%	42	69	NA	
9	Bharti Airtel Ltd.	Madhya Pradesh	100.00%	91.39%	99.03%	672	0.04%	100.00%	100.00%	97.00%	99.00%	0	0	55.00%	100.00%	0.00%	46	62	NA	
		Maharashtra	100.00%	94.26%	99.43%	140	0.09%	100.00%	100.00%	95.00%	97.00%	0	NA	NA	100.00%	0.00%	15	NA	NA	
		Mumbai	100.00%	94.86%	99.37%	351	0.02%	100.00%	100.00%	97.00%	99.00%	0	0	53.00%	100.00%	0.00%	39	56	NA	
		Punjab	100.00%	90.23%	99.19%	237	0.01%	100.00%	100.00%	97.00%	99.00%	0	0	58.00%	100.00%	0.00%	58	77	NA	
		Rajasthan	100.00%	90.39%	99.86%	71	0.04%	100.00%	100.00%	97.00%	98.00%	0	NA	NA	100.00%	0.00%	39	NA	NA	
		Tamil Nadu	100.00%	90.13%	99.92%	2051	0.05%	100.00%	100.00%	94.00%	97.00%	0	0	39.00%	100.00%	0.00%	54	34	NA	
		Uttar Pradesh - East	100.00%	91.41%	99.14%	147	0.02%	100.00%	100.00%	96.00%	98.00%	0	0	47.00%	100.00%	0.00%	50	82	NA	
		Uttar Pradesh - West	100.00%	92.27%	99.08%	63	0.02%	100.00%	100.00%	96.00%	98.00%	0	0	NA	100.00%	0.00%	34	NA	NA	

10	City Online Services Ltd.	AP	100.00%	98.00%	99.00%	NA	0.00%	100.00%	100.00%	95.00%	97.60%	0%	0%	59.00%	98.00%	98.00%	98.00%	0.50%	25	280	NA
		Karnataka	100.00%	98.00%	99.00%	NA	0.00%	100.00%	100.00%	95.00%	97.60%	0%	0%	60.00%	98.00%	98.00%	98.00%	0.50%	25	280	NA
11	DEN Broadband Pvt. Ltd.	All India	100.00%	97.90%	99.80%	0	Nil	Nil	Nil	82.89%	85.99%	0	0	79.48%	100.00%	100.00%	99.09%	0.00%	NA	244	NA
12	Digital Network Associates Pvt. Ltd	Maharashtra & Goa	100.00%	92.10%	99.35%	None	0.07%	100.00%	Nil	61.62%	82.41%	Nil	0	80.00%	80.00%	80.00%	99.77%	1.00%	4	255	600
		Mumbai	100.00%	93.77%	99.72%	None	0.00%	100.00%	Nil	76.10%	90.73%	Nil	0	80.00%	80.00%	80.00%	99.77%	1.00%	4	255	600
13	Digital Satellite Connect Pvt. Ltd.	Mumbai	100.00%	92.53%	99.24%	None	0.00%	100.00%	Nil	63.70%	86.24%	Nil	0	80.00%	80.00%	80.00%	99.73%	1.00%	4	255	600
14	DNA Infotel Pvt. Ltd.	Maharashtra	100.00%	91.06%	99.35%	None	0.03%	100.00%	Nil	61.02%	82.19%	Nil	0	80.00%	80.00%	80.00%	99.77%	1.00%	4	255	600
15	D-Vois Communications Pvt. Ltd.	All India	100.00%	95.07%	99.89%	0	1.48%	Nil	Nil	91.50%	96.00%	0	Nil	Nil	90.00%	100.00%	100.00%	0.10%	29	32	62
		Andhra Pradesh	100.00%	91.00%	99.00%	Nil	NA	NA	NA	84.00%	90.00%	0	Nil	85.00%	90.00%	98.00%	98.00%	0.00%	10	130	Nil
16	Excitel Broadband Pvt. Ltd.	Delhi	100.00%	90.30%	99.10%	Nil	NA	NA	NA	60.00%	80.00%	0	Nil	79.50%	98.50%	98.48%	98.48%	0.00%	4	199	Nil
		Karnataka	100.00%	91.00%	99.00%	Nil	NA	NA	NA	84.00%	90.00%	0	Nil	85.00%	98.00%	98.00%	98.00%	0.00%	10	130	Nil
		Rajasthan	100.00%	90.30%	99.10%	Nil	NA	NA	NA	60.00%	80.00%	0	Nil	79.50%	98.50%	98.48%	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%	98.48%	0.00%	4	199	Nil
17	Five Networks Solution (India) Ltd.	All India	100.00%	99.50%	100.00%	NA	0.00%	100.00%	100.00%	NA	NA	NA	NA	NA	90.00%	99.00%	99.00%	1.00%	NA	NA	NA
18	Fusionnet Web Services Pvt. Ltd.	All India	100.00%	91.10%	99.70%	43	0.00%	100.00%	100.00%	85.40%	87.00%	0	0	75.00%	100.00%	100.00%	100.00%	1.00%	120	350	NA
19	Geocity Network Solutions Pvt. Ltd.	Delhi	100.00%	93.00%	99.67%	0	0.00%	100.00%	100.00%	67.67%	86.67%	0	0	90.29%	85.00%	99.90%	99.90%	0.40%	30	100	400
20	GTP Broadband Pvt. Ltd.	All India	100.00%	96.00%	99.00%	374	0.06%	100.00%	100.00%	78.00%	89.00%	NA	0	49.05%	91.00%	98.97%	98.97%	0.00%	11	300	NA
21	Hathway Cable & Datacom Ltd.	All India	100.00%	94.45%	99.30%	3032	0.16%	100.00%	100.00%	81.34%	94.59%	0	0	77.20%	90.00%	99.80%	99.80%	0.20%	76	263	NA
22	Honesty Net Solutions (I) Pvt. Ltd.	Mumbai	100.00%	93.00%	100.00%	0	Nil	100.00%	0.00%	68.00%	100.00%	0	0	NA	95.00%	100.00%	100.00%	1.00%	NA	66	NA
23	IKF Technologies Ltd.	All India	100.00%	92.00%	99.25%	0	0.00%	100.00%	100.00%	63.60%	84.70%	0	0	86.00%	91.00%	98.55%	98.55%	0.70%	96	311	NA
24	Indinet Service Pvt Ltd	All India	100.00%	91.67%	100.00%	0	0.00%	100.00%	100.00%	78.00%	85.00%	0	0	86.00%	90.00%	99.00%	99.00%	1.00%	44	251	0
25	Intech Online Pvt.Ltd.	Maharashtra	100.00%	90.56%	99.43%	21	1.15%	100.00%	0.00%	88.92%	92.48%	0	0	36.07%	83.33%	99.33%	99.33%	1.00%	15	89.33	455
26	Ishan Netsol Pvt Ltd	Mumbai	100.00%	91.90%	99.46%	18	1.40%	100.00%	0.00%	88.13%	92.81%	0	0	35.47%	83.66%	99.63%	99.63%	1.00%	1	76	455
27	Joister Infoserve Pvt. Ltd. (Formerly Syscon Infoway Pvt. Ltd.)	Gujarat	100.00%	91.41%	100.00%	0	0.00%	100.00%	100.00%	66.72%	82.05%	0	0	53.93%	91.00%	98.36%	98.36%	1.00%	100	250	NA
		Mumbai	100.00%	92.67%	100.00%	Nil	0.00%	100.00%	0.00%	86.00%	90.00%	0	0	78.00%	99.00%	100.00%	100.00%	0.00%	1	47	265
		Maharashtra	100.00%	96.00%	100.00%	Nil	0.00%	100.00%	NA	83.67%	90.33%	0	0	77.00%	99.00%	100.00%	100.00%	1.00%	1	225	265
28	K NET SOLUTIONS PVT. LTD.	Chennai	100.00%	91.67%	99.37%	90	NA	100.00%	100.00%	90.41%	91.15%	0	0	NA	100.00%	99.99%	99.99%	0.00%	10	239	NA
		Tamil Nadu	100.00%	96.05%	99.77%	4	NA	100.00%	100.00%	90.41%	91.15%	0	0	NA	100.00%	99.94%	99.94%	0.00%	17	250	NA
29	Limras Eronet Broadband Service	All India	100.00%	99.00%	100.00%	0	1.00%	100.00%	0.00%	90.00%	100.00%	0	0	0.00%	96.00%	99.00%	99.00%	1.00%	32	261	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%	99.90%	0.00%	60	150	0
31	Microscan Infocommtech Pvt. Ltd. (Formerly - Microscan Computers Pvt Ltd)	Mumbai	100.00%	98.59%	99.91%	0	0.00%	0.00%	0.00%	100.00%	100.00%	0	0	28.09%	100.00%	100.00%	100.00%	0.47%	5	255	NA
		Delhi	100.00%	100.00%	100.00%	0	0.00%	100.00%	100.00%	81.00%	86.00%	0	0	58.53%	95.63%	100.00%	100.00%	0.10%	90	135	NA
		Haryana	100.00%	93.64%	100.00%	0	0.13%	100.00%	100.00%	81.00%	86.00%	0	0	62.00%	95.50%	100.00%	100.00%	0.10%	87	139	NA
		Himachal Pradesh	100.00%	94.00%	100.00%	0	0.13%	100.00%	100.00%	81.00%	86.00%	0	0	75.00%	95.97%	100.00%	100.00%	0.10%	88	131	NA
		Jammu & Kashmir	100.00%	100.00%	100.00%	0	0.00%	100.00%	100.00%	81.00%	86.00%	0	0	70.80%	95.27%	100.00%	100.00%	0.10%	96	147	NA
		Punjab	100.00%	95.11%	100.00%	0	0.55%	100.00%	100.00%	81.00%	86.00%	0	0	81.00%	95.83%	100.00%	100.00%	0.10%	59	84	NA
		Rajasthan	100.00%	100.00%	100.00%	0	0.00%	100.00%	100.00%	81.00%	86.00%	0	0	81.00%	95.41%	100.00%	100.00%	0.10%	85	144	NA
		UP- West	100.00%	100.00%	100.00%	0	0.00%	100.00%	100.00%	81.00%	86.00%	0	0	76.90%	95.00%	100.00%	100.00%	0.10%	89	146	NA
33	Nextra Teleservices Pvt. Ltd.	Delhi	100.00%	92.17%	99.25%	1760	1.00%	100.00%	100.00%	74.00%	87.00%	0	0	86.00%	100.00%	100.00%	100.00%	1.00%	120	350	NA
34	Ortel Communications Ltd.	All India	100.00%	94.00%	99.20%	NA	NA	NA	NA	100.00%	100.00%	0	0	52.96%	94.33%	98.46%	98.46%	0.00%	90	225	NA
35	ONEOTT Entertainment Limited (formerly Planet E-shop Holdings India Ltd.)	All India	100.00%	97.00%	99.00%	184	1.00%	100.00%	100.00%	100.00%	100.00%	0	0	92.00%	80.00%	99.00%	99.00%	0.50%	64	257	NA
36	Quadrant Televentures Ltd.	Punjab	100.00%	96.00%	99.36%	0	0.00%	100.00%	100.00%	78.00%	83.00%	0	0	73.50%	100.00%	100.00%	99.98%	0.00%	80	280	NA
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%	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	83.66%	91.00%	0	0	56.06%	100.00%	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%	83.00%	99.00%	99.00%	0.00%	46	250	500

Annexure 5.1: Maximum Retail Price (MRP) of Pay Channels, offered by Broadcasters to Subscribers, as reported to TRAI (New Regulatory Framework)

Sl. No	Name of the Broadcaster	Sl. No	Name of the Channel	Genre as per new Regulatory framework	Language	MRP as per New Regulatory Framework 2017 (in ₹) (Excluding Taxes)	Declared as SD or HD
1	AETN 18 Media Pvt Limited	1	The History Channel	Infotainment	Hindi	3.00	SD
		2	FYI TV18	Infotainment	English	0.25	SD
		3	FYI TV18 (HD)	Infotainment	English	1.00	HD
		4	History TV 18 HD	Infotainment	Hindi	7.00	HD
2	Asianet Star Communications Private Limited	5	Vijay TV	GEC	Tamil	12.00	SD
		6	Vijay Super	GEC	Tamil	1.00	SD
		7	Vijay HD	GEC	Tamil	19.00	HD
		8	Asianet	GEC	Malayalam	12.00	SD
		9	Asianet Plus	GEC	Malayalam	5.00	SD
		10	Asianet Movies	Movies	Malayalam	12.00	SD
		11	Suvarna Plus	Movies	Kannada	1.00	SD
		12	Star Suvarna HD	GEC	Kannada	19.00	HD
		13	Asianet HD	GEC	Malayalam	19.00	HD
3	Bangla Entertainment Private Limited	15	AATH	GEC	Bangla	4.00	SD
		16	SONY Marathi	GEC	Marathi	4.00	SD
4	BBC Global News India Private Limited	17	BBC World News	News	English	1.00	SD
5	Bennett, Coleman & Company Limited	18	Zoom	GEC	Hindi	0.50	SD
		19	Romedy Now	Movies	English	6.00	SD
		20	MN +	Movies	English	10.00	HD
		21	Mirror Now	News	English/ Hindi	0.50	SD
		22	ET NOW	News	English/ Hindi	3.00	SD
		23	Times Now	News	English/Hindi	3.00	SD
		24	Romedy Now HD	Movies	English	9.00	HD
		25	Movies Now HD	Movies	English	12.00	HD
		26	MNX HD	Movies	English	9.00	HD
		27	MNX	Movies	English	6.00	SD
6	Celebrities Management Pvt Limited	29	Travel XP HD	Miscellaneous	English	9.00	HD
		30	Travel XP Tamil	Miscellaneous	Tamil	1.50	SD
7	CSL Info Media Private Limited	31	JAN TV PLUS	News	Hindi	50.00	SD

Annexure 5.1 (Contd.)

Sl. No	Name of the Broadcaster	Sl. No	Name of the Channel	Genre as per new Regulatory framework	Language	MRP as per New Regulatory Framework 2017 (in ₹) (Excluding Taxes)	Declared as SD or HD
8	Discovery Communications India	32	Animal Planet	Infotainment	English/Hindi	2.00	SD
		33	Discovery Channel	Infotainment	English/Hindi	4.00	SD
		34	Discovery Channel - Tamil	Infotainment	Tamil	4.00	SD
		35	Discovery Kids Channel	Kids	English	3.00	SD
		36	Discovery Science	Infotainment	English/Hindi	1.00	SD
		37	Discovery Turbo	Infotainment	English/Hindi	1.00	SD
		38	Discovery Jeet	GEC	Hindi	1.00	SD
		39	Discovery HD World	Infotainment	English	6.00	HD
		40	Animal Planet HD World	Infotainment	English/Hindi	3.00	HD
		41	TLC HD World	Infotainment	English/Hindi	3.00	HD
		42	Discovery Jeet HD	GEC	Hindi	2.00	HD
		43	TLC	Infotainment	English/Hindi	2.00	SD
		44	Dsport	Sports	English	4.00	SD
		9	Disney Broadcasting (India) Limited	45	Disney Junior	Kids	English
46	UTV Movies			Movies	Hindi	2.00	SD
47	Marvel HQ			Kids	English/Hindi	3.00	SD
48	Disney International HD			GEC	English	12.00	HD
49	Hungama TV			Kids	English/Hindi	1.00	SD
50	The Disney Channel			Kids	English/Hindi	8.00	SD
51	UTV HD			Movies	Hindi	8.00	HD
52	UTV Bindass			GEC	Hindi	0.10	SD
53	UTV Action			Movies	Hindi	2.00	SD
10	Eenadu Television Private Limited	54	ETV	GEC	Telugu	17.00	SD
		55	ETV Andhra Pradesh	News	Telugu	1.00	SD
		56	ETV - Telangana	News	Telugu	1.00	SD
		57	ETV Cinema	Movies	Telugu	6.00	SD
		58	ETV Life	GEC	Telugu	1.00	SD
		59	ETV Plus	GEC	Telugu	7.00	SD
		60	ETV Abhiruchi	GEC	Telugu	2.00	SD
		61	ETV HD	GEC	Telugu	19.00	HD
		62	ETV Plus HD	GEC	Telugu	9.00	HD
		63	ETV Cinema HD	Movies	Telugu	8.00	HD
		64	ETV Abhiruchi HD	GEC	Telugu	3.00	HD
		65	ETV Life HD	GEC	Telugu	2.00	HD

Annexure 5.1 (Contd.)

Sl. No	Name of the Broadcaster	Sl. No	Name of the Channel	Genre as per new Regulatory framework	Language	MRP as per New Regulatory Framework 2017 (in ₹) (Excluding Taxes)	Declared as SD or HD
11	EPIC Television Networks Pvt Limited	66	EPIC TV	Infotainment	English/Hindi	2.00	SD
12	Fame Media Private Limited	67	4tv News	News	Urdu/Hindi	1.00	SD
13	Greycells18 Media Limited	68	Topper TV	Miscellaneous	English	59.32	SD
14	IBN Lokmat News Private Ltd	69	News 18 Lokmat	News	Hindi	0.10	SD
15	Lex Sportel Vision Private Limited	70	1SPORTS	Sports	English	4.00	SD
16	Living Entertainment Enterprises Private Ltd	71	Living Foodz HD	Infotainment	Hindi	10.00	HD
		72	Living Travelz	Infotainment	Hindi	0.10	SD
17	Mavis Satcom Limited	73	J Movies	Movies	Tamil	2.25	SD
		74	Jaya Max	Music	Tamil	2.25	SD
		75	Jaya Plus	News	Tamil	0.50	SD
		76	Jaya TV HD	GEC	Tamil	6.00	HD
18	MSM World Wide Factual Media Private Limited	77	SONY BBC EARTH	Infotainment	English/Hindi	4.00	SD
		78	SONY BBC EARTH HD	Infotainment	English/Hindi	10.00	HD
19	Media World Wide Limited	79	Travel XP	Miscellaneous	English	3.00	SD
20	Lifestyle and Media Broadcasting Limited	80	Good Times	Miscellaneous	English	1.50	SD
21	New Delhi Television Limited	81	NDTV 24*7	News	English	3.00	SD
		82	NDTV India	News	Hindi	1.00	SD
		83	NDTV Profit	News	English	1.00	SD
22	NGC Network (India) Pvt Limited	84	Fox Life	Miscellaneous	English/Hindi	1.00	SD
		85	National Geographic Channel (NGC)	Infotainment	English/Hindi	1.00	SD
		86	Fox Life HD	Miscellaneous	English/Hindi	1.00	HD
		87	Nat Geo Wild	Infotainment	English/Hindi	0.10	SD
		88	National Geographic HD	Infotainment	English/Hindi	10.00	HD
		89	National Geographic Tamil	Infotainment	Tamil	1.00	SD

Annexure 5.1 (Contd.)

Sl. No	Name of the Broadcaster	Sl. No	Name of the Channel	Genre as per new Regulatory framework	Language	MRP as per New Regulatory Framework 2017 (in ₹) (Excluding Taxes)	Declared as SD or HD
		90	Nat Geo Wild HD	Infotainment	English/Hindi	5.00	HD
		91	National Geographic Telugu	Infotainment	Telugu	1.00	SD
		92	Baby TV HD	Kids	English/Hindi	1.00	HD
23	NOIDA Software Technology Park Limited	93	NHK World Premium (HD Distribution)	Infotainment	Japanese	1800.00	HD
24	Odisha Television Limited	94	Prarthana	Devotional	Odia	2.00	SD
		95	Tarang	GEC	Odia	10.00	SD
		96	Tarang Music	Music	Odia	2.00	SD
		97	Alankar	Movies	Odia	4.00	SD
25	Raj Television Network Limited	98	Raj Digital Plus	Movies	Tamil	1.50	SD
		99	Raj Musix	Music	Tamil	1.00	SD
		100	Raj News	News	Tamil	0.25	SD
		101	Raj TV	GEC	Tamil	3.00	SD
26	Sarthak Entertainment Pvt Limited	102	ZEE Sarthak	GEC	Odia	12.00	SD
27	Silverstar Communications Limited	103	Mega 24	GEC	Tamil	1.00	SD
		104	Mega Musiq	Music	Tamil	2.00	SD
		105	Mega TV	GEC	Tamil	3.00	SD
28	Sony Pictures Networks India Private Limited	106	Sony YAY!	Kids	English	2.00	SD
		107	AXN	GEC	English	5.00	SD
		108	SET MAX	Movies	Hindi	12.00	SD
		109	MIX	Music	Hindi	1.00	SD
		110	SAB	GEC	Hindi	12.00	SD
		111	SONY ENTERTAINMENT CHANNEL (SET)	GEC	Hindi	12.00	SD
		112	PIX	Movies	English	10.00	SD
		113	SIX	Sports	English/Hindi	15.00	SD
		114	MAX 2	Movies	Hindi	1.00	SD
		115	PAL	GEC	Hindi	1.00	SD
		116	SET HD	GEC	Hindi	19.00	HD
		117	SIX HD	Sports	English/Hindi	19.00	HD
		118	PIX HD	Movies	English	15.00	HD
		119	MAX HD	Movies	Hindi	17.00	HD
120	SONY ESPN HD	Sports	English/Hindi	7.00	HD		
121	Ten 2 HD	Sports	English/Hindi	17.00	HD		
122	Ten 3 HD	Sports	English/Hindi	17.00	HD		

Annexure 5.1 (Contd.)

Sl. No	Name of the Broadcaster	Sl. No	Name of the Channel	Genre as per new Regulatory framework	Language	MRP as per New Regulatory Framework 2017 (in ₹) (Excluding Taxes)	Declared as SD or HD
		123	SONY ESPN	Sports	English/Hindi	5.00	SD
		124	AXN HD	GEC	English	7.00	HD
		125	Ten 2	Sports	English/Hindi	15.00	SD
		126	Ten 1	Sports	English	19.00	SD
		127	Ten 3	Sports	English/Hindi	17.00	SD
		128	Ten 1 HD	Sports	English	19.00	HD
		129	SONY Wah	Movies	Hindi	1.00	SD
		130	SAB HD	GEC	Hindi	19.00	HD
29	Star India Private Limited	131	Star Sports 3	Sports	English/Hindi	1.00	SD
		132	Star Sports 1 Tamil	Sports	Tamil	17.00	SD
		133	Star Sports Select 2	Sports	English/Hindi	7.00	SD
		134	Star Bharat	GEC	Hindi	10.00	SD
		135	Movies OK	Movies	Hindi	1.00	SD
		136	Star Sports 1 Hindi	Sports	Hindi	19.00	SD
		137	Star Gold	Movies	Hindi	8.00	SD
		138	Star Jalsha	GEC	Bangla	12.00	SD
		139	Star Movies	Movies	English	12.00	SD
		140	Star Gold Select	Movies	Hindi	7.00	SD
		141	Star Plus	GEC	Hindi	12.00	SD
		142	Star Pravah	GEC	Marathi	9.00	SD
		143	Star Sports 1	Sports	English/Hindi	19.00	SD
		144	Star Sports 2	Sports	English/Hindi	5.00	SD
		145	Star World	GEC	English	8.00	SD
		146	Jalsha Movies	Movies	Bangla	6.00	SD
		147	Star Sports HD 2	Sports	English/Hindi	19.00	HD
		148	Star Sports HD 1	Sports	English/Hindi	19.00	HD
		149	Star Bharat HD	GEC	Hindi	19.00	HD
		150	Star Gold HD	Movies	Hindi	10.00	HD
		151	Star Movies HD	Movies	English	19.00	HD
		152	Star Plus HD	GEC	Hindi	19.00	HD
		153	Star World Premiere HD	GEC	English	9.00	HD
		154	Star Sports 1 HD Hindi	Sports	Hindi	19.00	HD
		155	Star Sports Select 1	Sports	English/Hindi	19.00	SD
		156	Star Movies Select HD	Movies	English	10.00	HD
		157	Star World HD	GEC	English	9.00	HD

Annexure 5.1 (Contd.)

Sl. No	Name of the Broadcaster	Sl. No	Name of the Channel	Genre as per new Regulatory framework	Language	MRP as per New Regulatory Framework 2017 (in ₹) (Excluding Taxes)	Declared as SD or HD
		158	Star Sports First	Sports	English/Hindi	0.10	SD
		159	MAA Gold	Movies	Telugu	2.00	SD
		160	MAA Movies	Movies	Telugu	10.00	SD
		161	MAA Music	Music	Telugu	1.00	SD
		162	MAA TV	GEC	Telugu	12.00	SD
		163	Star Pravah HD	GEC	Marathi	15.00	HD
		164	Star Jalsha HD	GEC	Bangla	19.00	HD
		165	Jalsha Movies HD	Movies	Bangla	19.00	HD
		166	Star Sports Select HD 1	Sports	English/Hindi	19.00	HD
		167	Star Sports Select HD 2	Sports	English/Hindi	10.00	HD
		168	MAA HD	GEC	Telugu	19.00	HD
		169	Star Gold Select HD	Movies	Hindi	8.00	HD
		170	MAA Movies HD	Movies	Telugu	19.00	HD
		171	Star Sports 1 Telugu	Sports	Telugu	19.00	SD
		172	Star Sports 1 Kannada	Sports	Kannada	19.00	SD
		173	Star Sports 1 Bangla	Sports	Bangla	19.00	SD
		174	Star Utsav	GEC	Hindi	1.00	SD
		175	Star Sports 1 Marathi	Sports	Marathi	8.00	SD
		176	Star Utsav Movies	Movies	Hindi	1.00	SD
30	SUN TV Network Limited	177	Adithya TV	GEC	Tamil	9.00	SD
		178	Chintu TV	Kids	Kannada	6.00	SD
		179	Chutti TV	Kids	Tamil	6.00	SD
		180	Gemini Comedy	GEC	Telugu	5.00	SD
		181	Gemini Life	GEC	Telugu	5.00	SD
		182	Gemini Movies	GEC	Telugu	17.00	SD
		183	Gemini Music	Music	Telugu	4.00	SD
		184	Gemini News	News	Telugu	0.10	SD
		185	Gemini TV	GEC	Telugu	19.00	SD
		186	KTV	GEC	Tamil	19.00	SD
		187	Surya Movies	GEC	Malayalam	11.00	SD
		188	Kushi TV	Kids	Telugu	4.00	SD
		189	SUN Life	GEC	Tamil	9.00	SD
		190	Sun Music	Music	Tamil	6.00	SD

Annexure 5.1 (Contd.)

Sl. No	Name of the Broadcaster	Sl. No	Name of the Channel	Genre as per new Regulatory framework	Language	MRP as per New Regulatory Framework 2017 (in ₹) (Excluding Taxes)	Declared as SD or HD
		191	Sun News	News	Tamil	1.00	SD
		192	Surya Music	Music	Malayalam	4.00	SD
		193	SUN TV	GEC	Tamil	19.00	SD
		194	Surya Comedy	GEC	Malayalam	4.00	SD
		195	Surya TV	GEC	Malayalam	12.00	SD
		196	Udaya Comedy	Movies	Kannada	6.00	SD
		197	Udaya Movies	GEC	Kannada	16.00	SD
		198	Udaya Music	Music	Kannada	6.00	SD
		199	Udaya News	News	Kannada	0.10	SD
		200	Udaya TV	GEC	Kannada	17.00	SD
		201	Kochu TV	Kids	Malayalam	5.00	SD
		202	Sun TV HD	GEC	Tamil	19.00	HD
		203	KTV HD	GEC	Tamil	19.00	HD
		204	Sun Music HD	Music	Tamil	19.00	HD
		205	Gemini TV HD	GEC	Telugu	19.00	HD
		206	Gemini Music HD	Music	Telugu	19.00	HD
		207	Gemini Movies HD	GEC	Telugu	19.00	HD
		208	Surya TV HD	GEC	Malayalam	19.00	HD
		209	Udaya TV HD	GEC	Kannada	19.00	HD
31	Suryansh Broadcasting Private Limited	210	Flowers	GEC	Malayalam	10.00	SD
32	Turner International India Pvt Ltd	211	Cartoon Network	Kids	Hindi	4.25	SD
		212	CNN International	News	English	0.50	SD
		213	HBO	Movies	English	10.00	SD
		214	POGO	Kids	Hindi	4.25	SD
		215	Cartoon Network HD+	Kids	Hindi	5.00	HD
		216	WB	Movies	English	1.00	SD
		217	HBO HD	Movies	English	12.00	HD
33	TV 18 Broadcast Limited	218	CNN News 18	News	English	0.50	SD
		219	CNBC Bazaar	News	Gujarati	1.00	SD
		220	CNBC TV 18 Prime HD	News	English	1.00	HD
		221	CNBC Awaaz	News	Hindi	1.00	SD
		222	News 18 Tamil Nadu	News	Tamil	0.10	SD
		223	News 18 Kerala	News	Malayalam	0.10	SD
		224	News 18 Assam / North East	News	Assamese	0.10	SD
		225	News 18 India	News	Hindi	0.10	SD

Annexure 5.1 (Contd.)

Sl. No	Name of the Broadcaster	Sl. No	Name of the Channel	Genre as per new Regulatory framework	Language	MRP as per New Regulatory Framework 2017 (in ₹) (Excluding Taxes)	Declared as SD or HD
		226	CNBC TV 18	News	English	4.00	SD
		227	News 18 Bihar Jharkhand	News	Hindi	0.10	SD
		228	News 18 Madhya Pradesh / Chhattisgarh	News	Hindi	0.10	SD
		229	News 18 Rajasthan	News	Hindi	0.10	SD
		230	News 18 Uttar Pradesh/ Uttaranchal	News	Hindi	0.10	SD
		231	News 18 Urdu	News	Urdu	0.10	SD
		232	News 18 Kannada	News	Kannada	0.10	SD
		233	News 18 Bangla	News	Bangla	0.10	SD
		234	News 18 Punjab / Haryana / Himachal Pradesh	News	Punjabi	0.10	SD
		235	News 18 Gujarati	News	Gujarati	0.10	SD
		236	News 18 Odia	News	Odia	0.10	SD
34	TV Today Network Limited	237	Aaj Tak	News	Hindi	0.75	SD
		238	India Today	News	English	1.00	SD
		239	AAJ Tak HD	News	Hindi	1.50	HD
		240	Aaj Tak Tez	News	Hindi	0.25	SD
35	Viacom 18 Media Private Limited	241	Colors	GEC	Hindi	12.00	SD
		242	Comedy Central (HD)	GEC	English	9.00	HD
		243	MTV	Music	Hindi	3.00	SD
		244	NICK	Kids	Hindi	6.00	SD
		245	NICK JR	Kids	English	1.00	SD
		246	SONIC	Kids	Hindi	2.00	SD
		247	VH 1 (HD Distribution)	Music	English	2.00	HD
		248	Colors Infinity HD	GEC	English	9.00	HD
		249	Colors Infinity	GEC	English	5.00	SD
		250	Colors HD	GEC	Hindi	19.00	HD
		251	NICKS HD+	Kids	Hindi	10.00	HD
		252	Colors Cineplex	Movies	Hindi	3.00	SD
		253	MTV Beats	Music	Hindi	0.10	SD
		254	Colors Kannada HD	GEC	Kannada	19.00	HD
		255	Colors Marathi HD	GEC	Marathi	17.00	HD
		256	Colors Bangla HD	GEC	Bangla	14.00	HD
		257	Colors Super	GEC	Kannada	3.00	SD
		258	Colors Bangla	GEC	Bangla	7.00	SD

Annexure 5.1 (Contd.)

Sl. No	Name of the Broadcaster	Sl. No	Name of the Channel	Genre as per new Regulatory framework	Language	MRP as per New Regulatory Framework 2017 (in ₹) (Excluding Taxes)	Declared as SD or HD
		259	Colors Gujarati	GEC	Gujarati	5.00	SD
		260	Colors Kannada	GEC	Kannada	12.00	SD
		261	Colors Marathi	GEC	Marathi	10.00	SD
		262	Colors Oriya	GEC	Odia	6.00	SD
		263	MTV Beats HD	Music	Hindi	1.00	HD
		264	Colors Tamil	GEC	Tamil	3.00	SD
		265	Colors Cineplex HD	Movies	Hindi	5.00	HD
		266	VH 1	Music	English	1.00	SD
		267	Colors Tamil HD	GEC	Tamil	7.00	HD
		268	MTV HD+	Music	Hindi	5.00	HD
		269	Colors Rishtey	GEC	Hindi	1.00	SD
		270	Colors Kannada Cinema	Movies	Kannada	2.00	SD
		271	Colors Gujarati Cinema	Movies	Gujarati	1.00	SD
		272	Comedy Central	GEC	English	5.00	SD
		273	Colors Bangla Cinema	Movies	Bangla	1.00	SD
36	Zee Akaash News Private Limited	274	Zee 24 Ghanta	News	Bangla	0.10	SD
37	Zee Entertainment Enterprises Limited	275	Zee Bollywood	Movies	Hindi	2.00	SD
		276	Zee Action	Movies	Hindi	1.00	SD
		277	Zee Bangla Cinema	Movies	Bangla	2.00	SD
		278	Zee Café HD	GEC	English	19.00	HD
		279	Zee Café	GEC	English	15.00	SD
		280	Zee Cinema	Movies	Hindi	15.00	SD
		281	Zee Talkies	Movies	Marathi	2.00	SD
		282	Zee TV	GEC	Hindi	12.00	SD
		283	Zing	Music	Hindi	0.10	SD
		284	& Picture	Movies	Hindi	6.00	SD
		285	Zee Bangla	GEC	Bangla	12.00	SD
		286	Zee Marathi	GEC	Marathi	12.00	SD
		287	Living Foodz	Infotainment	English/Hindi	1.00	SD
		288	Zee TV HD	GEC	Hindi	19.00	HD
		289	Zee Cinema HD	Movies	Hindi	19.00	HD
		290	& TV	GEC	Hindi	12.00	SD
		291	& TV HD	GEC	Hindi	19.00	HD
		292	Zee Kannada	GEC	Kannada	12.00	SD
		293	Zee Telugu	GEC	Telugu	12.00	SD
		294	& Pictures HD	Movies	English/Hindi	19.00	HD
		295	Zee Cinemalu	Movies	Telugu	10.00	SD
		296	Zee Yuva	GEC	Marathi	1.00	SD

Annexure 5.1 (Contd.)

Sl. No	Name of the Broadcaster	Sl. No	Name of the Channel	Genre as per new Regulatory framework	Language	MRP as per New Regulatory Framework 2017 (in ₹) (Excluding Taxes)	Declared as SD or HD
		297	Zee Marathi HD	GEC	Marathi	19.00	HD
		298	& Prive HD	Movies	English	19.00	HD
		299	Zee Bangla HD	GEC	Bangla	19.00	HD
		300	Zee Tamil HD	GEC	Tamil	19.00	HD
		301	Zee Cinemalu HD	Movies	Telugu	16.00	HD
		302	Zee Telugu HD	GEC	Telugu	19.00	HD
		303	Zee Tamil	GEC	Tamil	10.00	SD
		304	Zee Kannada HD	GEC	Kannada	19.00	HD
		305	Zee Anmol Cinema	Movies	Hindi	0.10	SD
		306	& Flix HD	Movies	English	19.00	HD
		307	& Flix	Movies	English	15.00	SD
		308	Zee Keralam HD	GEC	Malayalam	8.00	HD
		309	Zee Keralam	GEC	Malayalam	0.10	SD
		310	Zee ETC	Music	Hindi	0.10	SD
		311	Zee Anmol	GEC	Hindi	0.10	SD
		312	Big Magic	GEC	Hindi	0.10	SD
		313	Big Ganga	GEC	Bhojpuri	0.50	SD
		314	Zee Classic	Movies	Hindi	0.50	SD
		315	&Xplore HD	Movies	Hindi	4.00	HD
		316	Zee Talkies HD	Movies	Marathi	19.00	HD
		317	Zee Biskope	Movies	Bhojpuri	0.10	SD
38	Zee Media Corporation Limited	318	Zee 24 Taas	News	Marathi	0.10	SD
		319	Zee Odisha	News	Odia	0.10	SD
		320	Zee Business	News	Hindi	0.10	SD
		321	Zee Punjab Haryana Himachal	News	Hindi	0.10	SD
		322	Zee Madhya Pradesh Chhattisgarh	News	Hindi	0.10	SD
		323	Zee Salaam	News	Urdu	0.10	SD
		324	Zee 24 Kalak	News	Hindi	0.10	SD
		325	Zee Punjabi	GEC	Punjabi	3.00	SD
		326	WION	News	Hindi	1.00	SD
		327	Zee Uttar Pradesh Uttarakhand	News	Hindi	0.10	SD
		328	Zee Hindustan	News	Hindi	0.10	SD
		329	Zee Bihar Jharkhand	News	Hindi	0.10	SD
		330	Zee News	News	Hindi	0.10	SD
		331	Zee Rajasthan News	News	Hindi	0.10	SD
39	Zoom Entertainment Network Limited	332	Movies Now	Movies	English	10.00	SD

Annexure 5.2 : List of Pay DTH Operators

1. M/s. Tata Sky Ltd.,

Tata Communications Complex,
Mandi Road, PO Chhattarpur,
New Delhi – 110 074
Tel: 011-6616 3000
Fax-022-6616 3030
Website : 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

3. SUN Direct TV (P) Ltd.

Murasoli Maran Towers, 73, MRC Nagar,
Main Road, MRC Nagar, Chennai – 600028
Ph: 044-44676767, Fax No 044-40679191
Website : 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

Annexure 5.3: List of existing 105 cities with operational FM Radio Stations in India as on 31st December, 2019

Sl.No.	City	Category	Stations
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.)

Sl.No.	City	Category	Stations
38	Haflong	D	1
39	Hissar	D	4
40	Hubli - Dharwad	C	2
41	Hyderabad	A	8
42	Indore	B	4
43	Itanagar	D	1
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+	8
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

Annexure 5.3 (Contd.)

Sl.No.	City	Category	Stations
75	Patna	B	4
76	Puducherry	C	4
77	Pune	A	6
78	Raigarh	D	1
79	Raipur	C	3
80	Rajahmundry	C	2
81	Rajkot	B	4
82	Ranchi	C	4
83	Rourkela	C	3
84	Salem	C	2
85	Sangli	C	5
86	Shillong	D	3
87	Shimla	D	3
88	Sholapur	C	4
89	Siliguri	C	3
90	Srinagar	C	4
91	Surat	A	6
92	Thiruvananthapuram	C	4
93	Thrissur	C	3
94	Tiruchy	C	3
95	Tirunelveli	C	3
96	Tirupati	C	2
97	Tuticorin	C	2
98	Udaipur	C	4
99	Ujjain	C	1
100	Vadodra	B	4
101	Varanasi	B	5
102	Vellore	C	2
103	Vijayawada	B	2
104	Vishakapatnam	B	3
105	Warrangal	C	2
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Source: As reported by Private FM Radio Service Providers to TRAI

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Telecom Regulatory Authority of India
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