



Telecom Regulatory Authority of India

The Indian Telecom Services Performance Indicators

Oct – Dec, 2022

New Delhi, India

31st May, 2023

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Snapshot

(Data as on Q.E. 31st December, 2022)

Telecom Subscribers (Wireless+Wireline)	
Total Subscribers	1,170.38 Million
% change over the previous quarter	-0.13%
Urban Subscribers	652.39 Million
Rural Subscribers	517.99 Million
Market share of Private Operators	89.83%
Market share of PSU Operators	10.17%
Tele-density	84.56%
Urban Tele-density	134.16%
Rural Tele-density	57.69%
Wireless Subscribers	
Total Wireless Subscribers	1,142.93 Million
% change over the previous quarter	-0.22%
Urban Subscribers	627.03 Million
Rural Subscribers	515.89 Million
Market share of Private Operators	90.42%
Market share of PSU Operators	9.58%
Tele-density	82.57%
Urban Tele-density	128.94%
Rural Tele-density	57.46%
Total Wireless Data Usage during the quarter	40,512 PB
Number of Public Mobile Radio Trunk Services (PMRTS)	65,607
Number of Very Small Aperture Terminals (VSAT)	2,63,066
Wireline Subscribers	
Total Wireline Subscribers	27.45 Million
% change over the previous quarter	3.72%
Urban Subscribers	25.35 Million
Rural Subscribers	2.10 Million
Market share of PSU Operators	34.65%
Market share of Private Operators	65.35%
Tele-density	1.98%
Rural Tele-density	0.23%
Urban Tele-density	5.21%
No. of Village Public Telephones (VPT)	68,606
No. of Public Call Office (PCO)	50,188

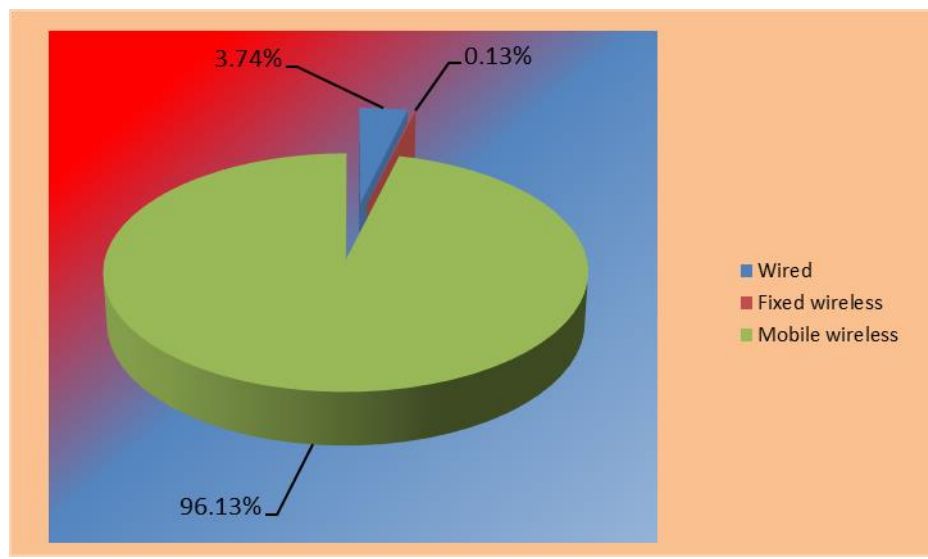
Telecom Financial Data	
Gross Revenue (GR) during the quarter	Rs.88,166 Crore
% change in GR over the previous quarter	5.25%
Applicable Gross Revenue (ApGR) during quarter	Rs. 76,627 Crore
% change in ApGR over the previous quarter	2.56%
Adjusted Gross Revenue (AGR) during the quarter	Rs.62,904 Crore
% change in AGR over the previous quarter	1.49%
Share of Public sector undertakings in Access AGR	4.26%
Internet/Broadband Subscribers	
Total Internet Subscribers	865.90 Million
% change over previous quarter	1.76%
Narrowband subscribers	33.70 Million
Broadband subscribers	832.20 Million
Wired Internet Subscribers	32.41 Million
Wireless Internet Subscribers	833.49 Million
Urban Internet Subscribers	516.37 Million
Rural Internet Subscribers	349.53 Million
Total Internet Subscribers per 100 population	62.56
Urban Internet Subscribers per 100 population	106.19
Rural Internet Subscribers per 100 population	38.93
No. of Public Wi-Fi Hotspots	1,76,662
Aggregate Data Consumed (GB)	1,40,24,519
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	903
Number of Pay TV Channels as reported by broadcasters	357
Number of private FM Radio Stations (excluding All India Radio)	388
Number of total active subscribers with pay DTH operators	66.52 Million
Number of Operational Community Radio Stations	408
Number of pay DTH Operators	4
Revenue & Usage Parameters	
Monthly ARPU of Wireless Service	Rs.141.14
Minutes of Usage (MOU) per subscriber per month - Wireless Service	919 Minutes
Total Outgoing Minutes of Usage for Internet Telephony	82.35 Million
Wireless Data Usage	
Average Wireless Data Usage per wireless data subscriber per month	17.11 GB
Average revenue realization per GB for wireless data usage during the quarter	Rs.10.10

* For ARPU explanation please refer to footnote on Page 52

Executive Summary

1. Total number of Internet¹ subscribers increased from 850.95 million at the end of Sep-22 to 865.90 million at the end of Dec-22, registering a quarterly growth rate of 1.76%. Out of 865.90 million internet subscribers, number of Wired Internet subscribers are 32.41 million and number of Wireless Internet subscribers are 833.49 million.

Composition of internet subscription



2. The Internet subscriber base is comprised of Broadband² Internet subscriber base of 832.20 million and Narrowband³ Internet subscriber base of 33.70 million.
3. The broadband Internet subscriber base increased by 1.99% from 815.93 million at the end of Sep-22 to 832.20 million at the end of Dec-22. The narrowband Internet subscriber base declined by 3.76% from 35.01 million at the end of Sep-22 to 33.70 million at the end of Dec-22.

¹ Internet: Interconnected global networks that use the internet protocol.

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

³ Narrowband: Internet access with a capacity of less than 512 Kbit/s in one or both directions.

(Source-ITU)

4. Wireline subscribers increased from 26.47 million at the end of Sep-22 to 27.45 million at the end of Dec-22 with a quarterly growth rate of 3.72% and, on Y-O-Y basis, wireline subscriptions also increased by 15.42% at the end of QE Dec-22.
5. Wireline Tele-density increased from 1.92% at the end of Sep-22 to 1.98% at the end of Dec-22 with quarterly growth rate of 3.49%.
6. Monthly Average Revenue per User (ARPU)⁴ for wireless service increased by 2.79%, from Rs.137.31 in QE Sep-22 to Rs.141.14 in QE Dec-22. On Y-O-Y basis, monthly ARPU for wireless service increased by 23.63% in this quarter.
7. Prepaid ARPU per month increased from Rs.132.91 in QE Sep-22 to Rs.137.71 in QE Dec-22, however, Postpaid ARPU per month decreased from Rs.192.50 in QE Sep-22 to Rs.182.30 in QE Dec-22.
8. On an all-India average, the overall MOU per subscriber per month increased by 2.79% from 894 in Q.E. Sep- 2022 to 919 in Q.E. Dec- 2022.
9. Prepaid MOU per subscriber per month increased from 920 in QE Sep-22 to 950 in QE Dec-22. Postpaid MOU per subscriber per month decreased from 567 in QE Sep-22 to 542 in QE Dec-22.

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

10. Gross Revenue⁵ (GR), Applicable Gross Revenue (ApGR) and Adjusted Gross Revenue⁶ (AGR) of Telecom Service Sector for the Q.E. Dec-22 has been Rs.88,166/- Crore, Rs.76,627 crore and Rs.62,904/- Crore respectively. GR increased by 5.25%, ApGR increased by 2.56% and AGR increased by 1.49% in Q.E. Dec-22, as compared to previous quarter.
11. The Y-O-Y rate of growth in GR and AGR in Q.E. Dec-22 over the same quarter in last year has been 26.50% and 14.06% respectively.
12. Pass-through charges increased from Rs.13,445 Crore in QE Sep-22 to Rs.14,381 Crore in QE Dec-22 with quarterly growth rate of 6.96%. The Y-O-Y rate of decline 1.12% has been recorded in pass-through charges for QE Dec-22.
13. The License Fee⁷ increased from Rs.4,921 Crore for the QE Sep-22 to Rs.5,031 Crore for the QE Dec-22. The quarterly and the Y-O-Y rate of growth of license fee are 2.24% and 10.79% respectively in this quarter.

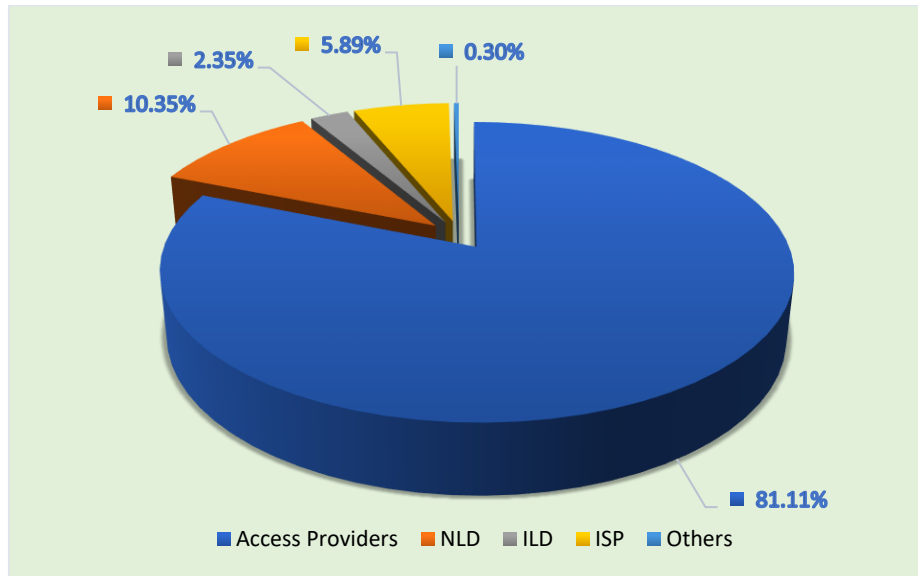
⁵ Gross Revenue is inclusive of installation charges, late fees, sale proceeds of handsets (or any other terminal equipment etc.), revenue on account of interest, dividend, value added services, supplementary services, access or interconnection charges, roaming charges, revenue from permissible sharing of infrastructure and any other miscellaneous revenue, without any set-off for related item of expense etc.

⁶ Adjusted Gross Revenue: The following shall be excluded from the Gross Revenue to arrive at the AGR:

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

⁷ License Fee means a fee payable by Licensee at prescribed intervals and rates for the period of the Licence.

Service-wise composition of Adjusted Gross Revenue

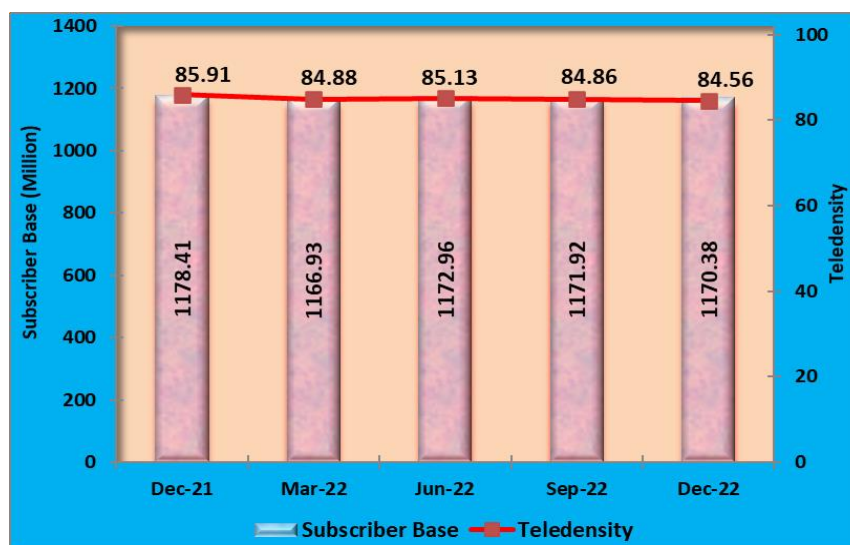


14. Access services contributed 81.11% of the total Adjusted Gross Revenue of telecom services. In Access services, Gross Revenue (GR), Applicable Gross Revenue (ApGR), Adjusted Gross Revenue (AGR), License Fee, Spectrum Usage Charges (SUC)⁸ and Pass Through Charges increased by 5.72%, 1.86%, 1.38%, 1.38%, -42.29% and 4.78% respectively in QE Dec-22.
15. The number of telephone subscribers in India decreased from 1,171.92 million at the end of Sep-22 to 1,170.38 million at the end of Dec-22, registering a decline rate of 0.13% over the previous quarter. This reflects Year-On-Year (Y-O-Y) rate of decline 0.68% over the same quarter of the last year. The overall Tele-density in India also decreased from 84.86% as in QE Sep-22 to 84.56% as in QE Dec-22.

⁸ Spectrum Usage Charge is payable by the licensees providing mobile access services, as a percentage of their Adjusted Gross Revenue (AGR).

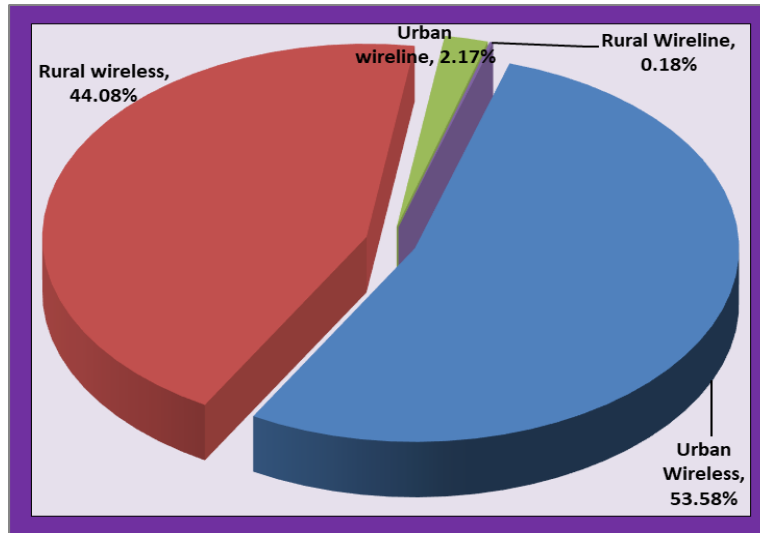
(Source – DoT License Agreement)

Trends in Telephone subscribers and Tele-density in India



16. Telephone subscribers in Urban areas increased from 651.61 million at the end of Sep-22 to 652.39 million at the end of Dec-22 however, Urban Tele-density decreased from 134.62% to 134.16% during the same period.
17. Rural telephone subscribers decreased from 520.30 million at the end of Sep-22 to 517.99 million at the end of Dec-22 and Rural Tele-density also decreased from 58.01% to 57.69% during the same period.
18. Out of the total subscription, the share of Rural subscription decreased from 44.40% at the end of Sep-22 to 44.26% at the end of Dec-22.

Composition of Telephone Subscribers



19. With a net decrease of 2.52 million subscribers during the quarter, the total wireless subscriber base decreased from 1,145.45 million at the end of Sep-22 to 1,142.93 million at the end of Dec-22, registering a decline rate of 0.22% over the previous quarter. On Y-O-Y basis, wireless subscriptions decreased at the rate of 1.01% during the year.

20. Wireless Tele-density decreased from 82.94% at the end of Sep-22 to 82.57% at the end of Dec-22 with quarterly decline rate of 0.44%.

21. During this quarter, the following parameters in terms of QoS benchmarks have been fully complied by wireline service providers: -
 - a. 'Fault repair' Fault incidences No. of faults per 100 subs/month) ≤ 7
 - b. Point of Interconnection'(POI) Congestion (No. of PoIs not meeting benchmark) $\leq 0.5\%$
 - c. 'Metering and Billing 'Metering and billing credibility- post-paid $\leq 0.1\%$
 - d. Metering and billing credibility- pre-paid $\leq 0.1\%$
 - e. Resolution of billing/charging/Credit & validity complaints 98% within 4 weeks

- f. Resolution of billing/charging Credit & validity complaints
100% within 4 weeks
- g. Period of applying credit/waiver/adjustment to
customer's 100% within 1 week of resolution of complaint
- h. Response time to the customer for assistance'
Accessibility of call centre/customer care $\geq 95\%$
- i. %age of calls answered by the operators (voice to voice)
within ninety seconds $\geq 95\%$

22. The following parameters have shown improvement, as compared to the previous quarter, in QoS by wireline service providers: -

- ❖ % Fault repaired by next working day (for urban areas) $\geq 85\%$
- ❖ Accessibility of call centre/ customer care $\geq 95\%$
- ❖ % age of calls answered by the operators (voice to voice) within ninety seconds $\geq 95\%$
- ❖ Termination/closure of service ≤ 7 days

23. The following parameters have shown deterioration as compared to the previous quarter, in QoS by wireline service providers: -

- ❖ % Fault repaired within 5 days (for urban areas) $>100\%$
- ❖ % Fault repaired within 7 days (for rural and hilly areas) $>100\%$

24. During this quarter, list of Parameters which are fully complied, as compared to the previous quarter, by all the Cellular Mobile service providers: -

- i. BS Accumulated down-time (not available for service)
(%age) $\leq 2\%$
- ii. Worst affected BSs due to down-time (%age) $\leq 2\%$

- iii. Call Set-up Success Rate and Session Establishment Success Rate for Circuit Switched Voice or VoLTE as applicable (within licensee's own network) $\geq 95\%$
 - iv. SDCCH/ Paging Channel Congestion/ RRC Congestion (%age) $\leq 1\%$
 - v. TCH, RAB and E-RAB congestion (%age) $\leq 2\%$
 - vi. Network QoS DCR Spatial Distribution Measure [Network_QSD (90,90)] $\leq 2\%$
 - vii. Network QoS DCR Temporal Distribution Measure [Network_QTD (97,90)] $\leq 3\%$
 - viii. Connections with good voice quality, Circuit Switched Voice Quality and VoLTE quality $\geq 95\%$
 - ix. Down Link (DL) Packet Drop Rate or DL-PDR $\leq 2\%$
 - x. Up Link (UL) Packet Drop Rate or UL-PDR $\leq 2\%$
 - xi. Point of Interconnection (POI) Congestion (No. of POIs not meeting the benchmark) $\leq 0.5\%$
 - xii. Metering and billing credibility - postpaid $\leq 0.1\%$
 - xiii. Metering and billing credibility – prepaid $\leq 0.1\%$
 - xiv. Resolution of billing/charging/validity complaints - 98% within 4 weeks
 - xv. Resolution of billing/charging/validity complaints - 100% within 6 weeks
 - xvi. Period of applying credit/ waiver/ adjustment to customer's account from the date of resolution - within 1 week of resolution of complaint
 - xvii. Accessibility of call centre/ customer care $\geq 95\%$
 - xviii. Termination / Closure of service < 7 days
 - xix. Time taken for refund of deposits after closures (100% within 60 days)
25. The following parameters have shown improvement, as compared to the previous quarter, in QoS by Cellular Mobile service providers:
- ❖ Accessibility of call centre/ customer care $\geq 95\%$

❖ % age of calls answered by the operators (voice to voice) within ninety seconds \geq 95%

26. A total of approximately 903 private satellite TV channels have been permitted by the Ministry of Information and Broadcasting (MIB) for uplinking only/downlinking only/both uplinking & downlinking.
27. As per the reporting done by broadcasters in pursuance of the Tariff Order dated 3rd March 2017 as amended, out of 892 permitted satellite TV channels which are available for downlinking in India, there are 357 satellite pay TV channels as on 31st December 2022. Out of 357 pay channels, 254 are SD satellite pay TV channels and 103 are HD satellite pay TV channels.
28. Since the introduction of DTH Sector in the year 2003, Indian DTH (direct-to-home) services have displayed a phenomenal growth. During the QE 31st December 2022, there were 4 pay DTH service providers in the country.
29. Pay DTH has attained total active subscriber base of around 66.62 million in QE 31st December 2022. This is in addition to the subscribers of the DD Free Dish (free DTH services of Doordarshan).
30. Apart from the radio channels operated by All India Radio – the public broadcaster, as per the data reported by FM Radio operators to TRAI, as on 31st December 2022, there are 388 operational private FM Radio channels in 113 cities operated by 36 private FM Radio operators.
31. The advertisement revenue reported by FM Radio operators during the quarter ending 31st December 2022 in respect of 388 private FM Radio channels is Rs 427.18 crore as against Rs 385.86 crore in respect of 388 private FM Radio channels for the previous quarter i.e. 30th June 2022.

32. As on 31st December 2022, 408 Community Radio stations are operational.

Trends at a Glance

A. Access Service (Wireline + Wireless)									
	QE Dec 2021	QE Mar 2022	QE Jun 2022	QE Sep 2022	QE Dec 2022	%age change over Dec-2021	%age change over Mar-2022	%age change over Jun-2022	%age change over Sep-2022
						(12 months)	(9 months)	(6 months)	(3 months)
1) Subscriber Base (in million)									
Wireline	23.79	24.84	25.57	26.47	27.45	15.42%	10.53%	7.39%	3.72%
Wireless	1154.62	1142.09	1147.39	1145.45	1142.93	-1.01%	0.07%	-0.39%	-0.22%
Total	1178.41	1166.93	1172.96	1171.92	1170.38	-0.68%	0.30%	-0.22%	-0.13%
Rural	523.21	519.82	523.87	520.30	517.99	-1.00%	-0.35%	-1.12%	-0.44%
Urban	655.20	647.11	649.09	651.61	652.39	-0.43%	0.81%	0.51%	0.12%
2) Tele-density									
Wireline	1.73	1.81	1.86	1.92	1.98	14.38%	9.78%	6.91%	3.49%
Wireless	84.17	83.07	83.27	82.94	82.57	-1.90%	-0.60%	-0.84%	-0.44%
Total	85.91	84.88	85.13	84.86	84.56	-1.57%	-0.38%	-0.67%	-0.36%
Rural	58.50	58.07	58.46	58.01	57.69	-1.38%	-0.64%	-1.31%	-0.54%
Urban	137.26	134.94	134.72	134.62	134.16	-2.26%	-0.58%	-0.42%	-0.34%
3) Service Provider wise Subscribers Base (in Million) (wireless+wireline)									
Reliance Jio	421.05	410.17	419.99	427.62	432.92	2.82%	5.55%	3.08%	1.24%
Bharti Airtel	361.35	366.18	369.00	370.62	374.39	3.61%	2.24%	1.46%	1.02%
Vodafone Idea	266.05	261.35	257.32	249.82	242.04	-9.02%	-7.39%	-5.94%	-3.12%
BSNL	121.95	121.25	118.73	116.45	113.82	-6.67%	-6.13%	-4.13%	-2.26%
MTNL	6.01	5.94	5.87	5.35	5.17	-14.05%	-13.04%	-11.99%	-3.51%
Tata Tele.	1.60	1.60	1.59	1.58	1.57	-1.69%	-1.90%	-1.00%	-0.55%
Reliance Com.	0.19	0.18	0.17	0.16	0.15	-18.70%	-14.73%	-12.34%	-5.97%
Quadrant	0.21	0.27	0.30	0.30	0.32	50.34%	19.32%	6.67%	5.56%
Total	1178.41	1166.93	1172.96	1171.92	1170.38	-0.68%	0.30%	-0.22%	-0.13%

B. Internet Services									
	QE Dec 2021	QE Mar 2022	QE Jun 2022	QE Sep 2022	QE Dec 2022	%age change over Dec-2021 (12 months)	%age change over Mar-2022 (9 months)	%age change over Jun-2022 (6 months)	%age change over Sep-2022 (3 months)
1) Subscriber's Base (in million)									
A. Wired Internet Subscribers	26.58	27.27	28.73	30.82	32.41	21.93%	18.82%	12.81%	5.16%
B. Wireless Internet Subscribers	802.72	797.61	808.13	820.13	833.49	3.83%	4.50%	3.14%	1.63%
i. Mobile Wireless (Mobile & Dongle)	801.58	796.43	807.02	818.98	832.35	3.84%	4.51%	3.14%	1.63%
ii. Fixed Wireless (Wi-Fi, Wi-Max, Point-to-Point Radio & VSAT)	1.14	1.18	1.11	1.16	1.13	-0.84%	-4.06%	2.27%	-1.85%
Total Internet Subscribers	829.30	824.89	836.86	850.95	865.90	4.41%	4.97%	3.47%	1.76%
2) No. of Internet Subs per 100 Population	60.46	60.00	60.73	61.62	62.56	3.48%	4.27%	3.01%	1.53%
C. Usage and Revenue for Wireless Services									
Traffic (MOU) (minutes of uses/subscriber/month)	854	955	914	894	919	7.55%	-3.81%	0.59%	2.79%
ARPU (Rs./sub/month)	114	127.17	133.55	137.31	141.14	23.63%	10.99%	5.68%	2.79%
D. Telecom Financial Data									
	QE Dec 2021	QE Mar 2022	QE Jun 2022	QE Sep 2022	QE Dec 2022	%age change over Dec-2021 (12 months)	%age change over Mar-2022 (9 months)	%age change over Jun-2022 (6 months)	%age change over Sep-2022 (3 months)
1. Telecom Sector									
i) Gross Revenue (Rs.in Crores)	69695	76420	76408	83767	88166	26.50%	15.37%	15.39%	5.25%
ii) Adjusted Gross Revenue (Rs. in Crores)	55151	58886	60530	61981	62904	14.06%	6.82%	3.92%	1.49%
2. Access Services									
Adjusted Gross Revenue (Rs. in Crores)	42930	46421	48999	50327	51023	18.85%	9.91%	4.13%	1.38%

;

Introduction

This Report presents the Key Parameters and growth trends for the Telecom Services in India for the quarter ending 31st December, 2022. It provides a broad perspective on the Telecom Services to serve as a reference document for various stakeholders, research agencies and analysts. Chapter-1 depicts the growth pattern, in terms of Subscriber base and Tele-density of Wireline, Wireless, Internet and Value Added Services (VAS) as well as Wireless Data Usage. Chapter-2 covers the key revenue and usage parameters. Chapter-3 gives the financial and accounting data. Chapter-4 covers performance of various telecom service providers in terms of QoS. The information relating to Cable TV, DTH & Radio Broadcast services is provided in Chapter-5.

2. The Report has been prepared based on the information furnished by the Service Providers. It is also available on TRAI's website (www.trai.gov.in and under the link <http://www.trai.gov.in/release-publication/reports/performance-indicators-reports>). Any suggestion or any clarification pertaining to this report, Advisor (F&EA), TRAI may be contacted on Tel. +91-23230752 and e-mail: advfeal@traigov.in.

Chapter 1 :

Subscription Data

-
- In this report, Tele-density figures are derived from the subscriber data provided by the operators and projection of population from the 'Report of the Technical Group on Population Projections for India and States 2011–2036', which is available under the link https://main.mohfw.gov.in/sites/default/files/Population%20Projection%20Report%202011-2036%20-%20upload_compressed_0.pdf

Section A : Access Service - An Overview

1.1 The number of telephone subscribers in India decreased from 1,171.92 million at the end of Sep-22 to 1,170.38 million at the end of Dec-22, registering a decline rate of 0.13% over the previous quarter. This reflects year-on-year (Y-O-Y) rate of decline 0.68% over the same quarter of last year. The overall Tele-density in India decreased from 84.86% as on 30th September, 2022 to 84.56% as on 31st December, 2022 with quarterly decline rate of 0.36%.

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

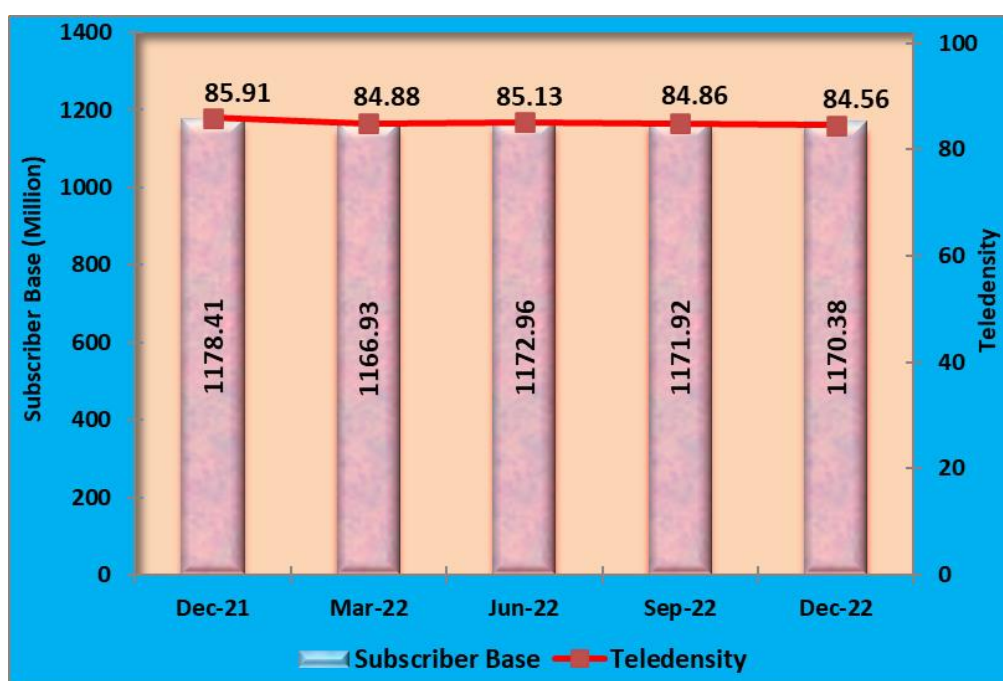
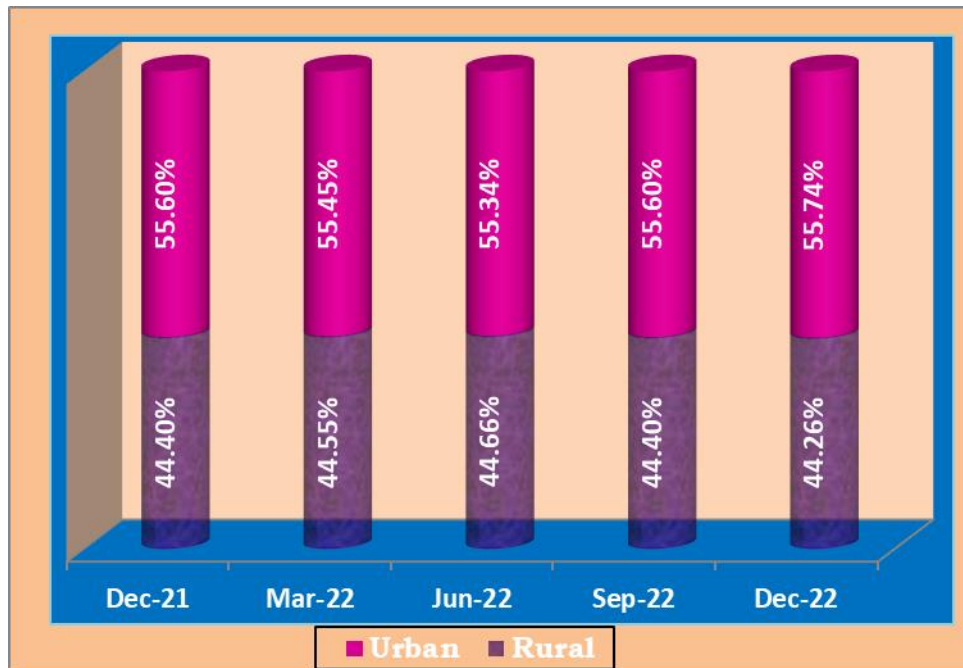


Table 1.1: Subscriber Base & Tele-density - Rural & Urban

Quarter ending	Subscriber Base (million)		Tele-density (%)	
	Rural	Urban	Rural	Urban
Dec-21	523.21	655.20	58.50	137.26
Mar-22	519.82	647.11	58.07	134.94
Jun-22	523.87	649.09	58.46	134.72
Sep-22	520.30	651.61	58.01	134.62
Dec-22	517.99	652.39	57.69	134.16

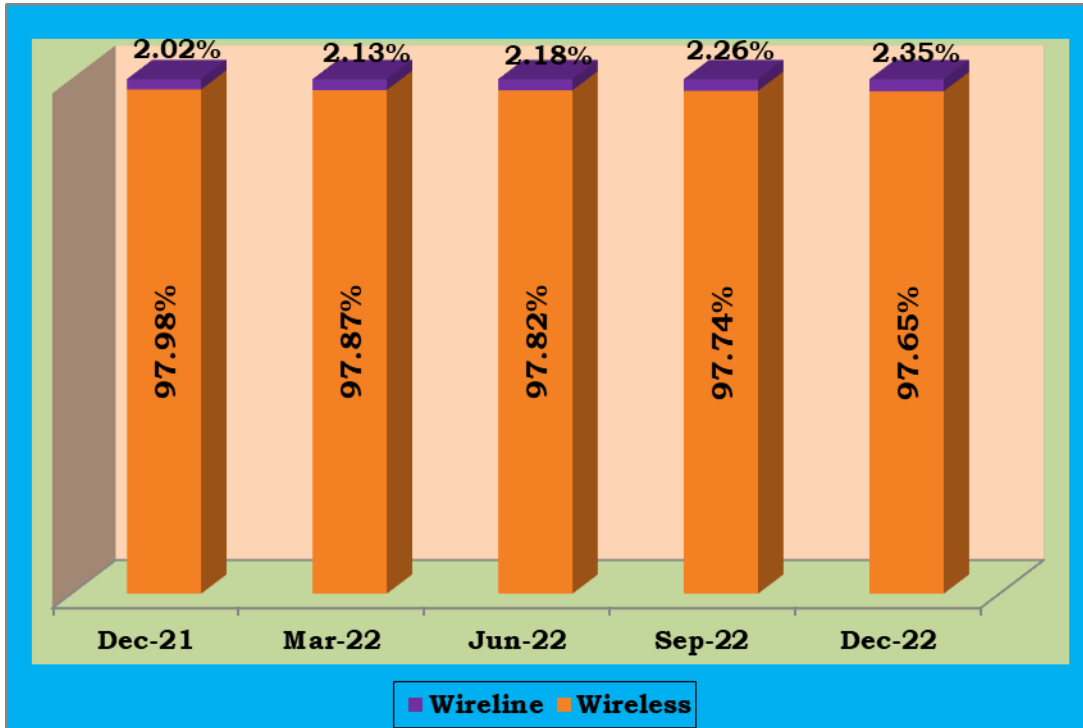
- 1.2 Telephone subscription in Urban areas increased from 651.61 million at the end of Sep-22 to 652.39 million at the end of Dec-22 however, Urban Tele-density decreased from 134.62% to 134.16% at the end of the quarter.
- 1.3 Rural telephone subscription decreased from 520.30 million at the end of Sep-22 to 517.99 million at the end of Dec-22 and Rural Tele-density also decreased from 58.01% to 57.69% at the end of the quarter.
- 1.4 The Y-O-Y rate of decline in Urban and Rural telephone subscriptions from Dec-21 to Dec-22 are 0.43% and 1% respectively. The Y-O-Y rate of decline in Urban and Rural Tele-density from Dec-21 to Dec-22 are 2.26% and 1.38% respectively.

Chart 1.2: Market Share - Rural & Urban Subscribers



- 1.5 Share of subscriptions of rural areas in the total telephone subscriptions decreased from 44.40% at the end of Sep-22 to 44.26% at the end of Dec-22.

Chart 1.3: Composition of Access subscription - Wireline & Wireless



- 1.6 Share of wireline subscription in total telephone subscription increased from 2.26% at the end of Sep-22 to 2.35% at the end of Dec-22.

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

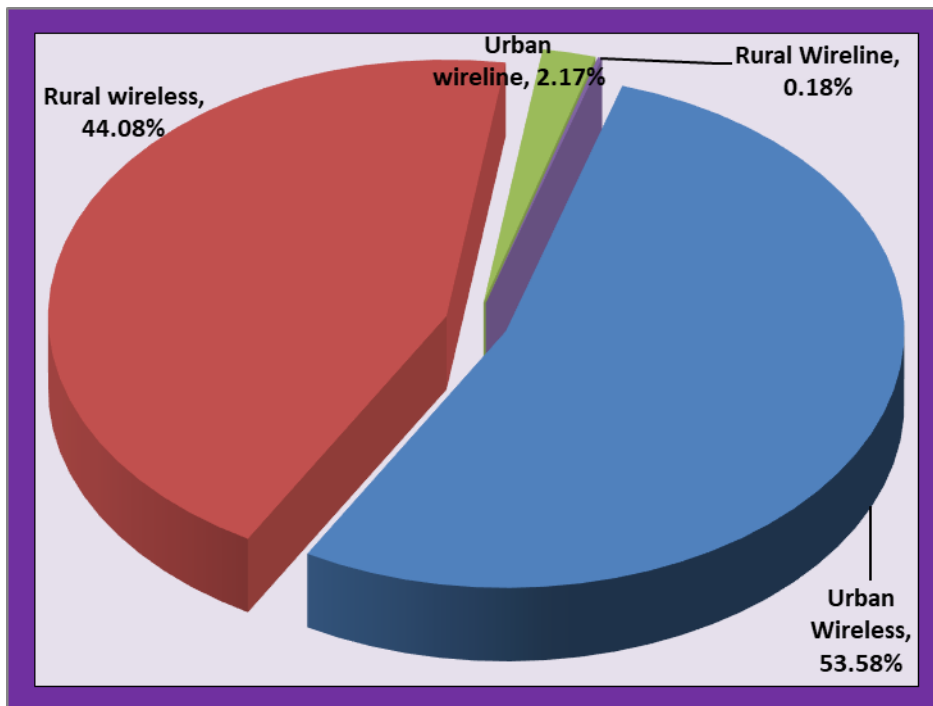


Table 1.2: Service Area wise Access (Wireless+Wireline) Subscriber base

Service Area	Subscribers (million)			
	Sep-22	Dec-22	Net Additions	Rate of Growth
Andhra Pradesh	84.89	84.70	-0.19	-0.23%
Assam	24.69	24.97	0.28	1.15%
Bihar	91.49	91.51	0.03	0.03%
Delhi	57.12	57.91	0.79	1.38%
Gujarat	67.70	67.24	-0.46	-0.68%
Haryana	27.14	27.13	-0.01	-0.04%
Himachal Pradesh	9.93	9.73	-0.21	-2.09%
Jammu & Kashmir	12.39	12.39	0.01	0.06%
Karnataka	68.67	69.33	0.67	0.97%
Kerala	44.02	43.85	-0.18	-0.40%
Madhya Pradesh	77.96	77.49	-0.47	-0.60%
Maharashtra	93.15	92.92	-0.23	-0.25%
Mumbai	37.05	37.26	0.21	0.57%
North East	12.32	12.33	0.01	0.11%
Odisha	33.43	33.66	0.24	0.71%
Punjab	36.86	36.94	0.07	0.20%
Rajasthan	64.11	63.93	-0.18	-0.27%
Tamil Nadu	80.42	81.00	0.58	0.72%
Uttar Pradesh(E)	101.42	100.58	-0.84	-0.82%
Uttar Pradesh(W)	64.90	63.70	-1.20	-1.85%
Kolkata	24.70	24.85	0.14	0.59%
West Bengal	57.56	56.94	-0.62	-1.07%
All India	1,171.92	1,170.38	-1.54	-0.13%

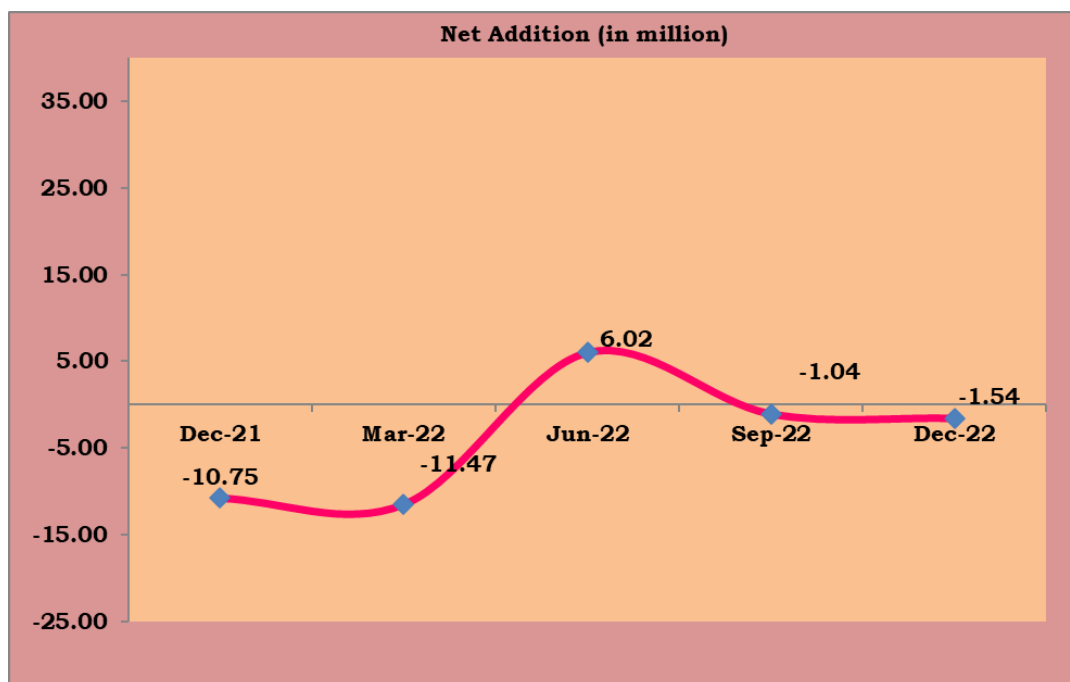
1.7 All service areas, except Andhra Pradesh, Gujarat, Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, Maharashtra, Rajasthan, Uttar Pradesh (E), Uttar Pradesh (W), and West Bengal showed growth in their subscriber base during the quarter ending Dec-22. Delhi service area showed maximum growth of 1.38% during the quarter.

Table 1.3: Service Area wise Rural-Urban Subscribers at QE Dec-22

Service Area	Number of Subscribers (in million)			
	Total	Rural	Urban	% of Rural Subscribers
Andhra Pradesh	84.70	40.82	43.88	48.20%
Assam	24.97	15.68	9.30	62.77%
Bihar	91.51	60.36	31.15	65.96%
Delhi	57.91	1.78	56.13	3.07%
Gujarat	67.24	26.06	41.17	38.76%
Haryana	27.13	11.93	15.20	43.99%
Himachal Pradesh	9.73	6.34	3.38	65.20%
Jammu & Kashmir	12.39	5.96	6.43	48.10%
Karnataka	69.33	26.29	43.05	37.91%
Kerala	43.85	19.61	24.24	44.73%
Madhya Pradesh	77.49	34.46	43.04	44.46%
Maharashtra	92.92	42.10	50.83	45.30%
Mumbai	37.26	1.13	36.14	3.02%
North East	12.33	6.40	5.93	51.88%
Odisha	33.66	21.97	11.70	65.25%
Punjab	36.94	12.24	24.70	33.13%
Rajasthan	63.93	33.69	30.24	52.69%
Tamil Nadu	81.00	23.25	57.75	28.70%
U.P.(E)	100.58	61.48	39.10	61.13%
U.P.(W)	63.70	30.16	33.54	47.35%
Kolkata	24.85	1.59	23.25	6.41%
West Bengal	56.94	34.70	22.24	60.95%
All India	1,170.38	517.99	652.39	44.26%

1.8 Only eight service areas have more than 50% share of rural subscribers in their total number of subscribers. Bihar service area has maximum share of rural subscribers of 65.96% in its total telephone subscribers.

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



1.9 The net decrease in telephone subscription is 1.54 million during QE Dec-22 as compared to the net decrease of 1.04 million during QE Sep-22.

Table 1.4 : Service Area wise Tele-density

Service Area/ States	As on 30 th Sep, 2022			As on 31 st Dec, 2022		
	Rural Tele-density (%)	Urban Tele-density (%)	Total Tele-density (%)	Rural Tele-density (%)	Urban Tele-density (%)	Total Tele-density (%)
Andhra Pradesh	76.30	117.34	93.10	75.91	116.99	92.79
Assam	51.41	167.44	69.41	52.06	167.78	70.04
Bihar	43.15	121.74	55.36	43.11	120.70	55.18
Delhi	-	-	269.51	-	-	271.97
Gujarat	71.79	116.12	93.54	70.67	115.24	92.60
Haryana	68.54	120.49	90.28	68.24	120.00	89.98
Himachal Pradesh	97.33	446.65	133.30	94.76	440.14	130.36
J&K	61.82	152.31	89.36	61.77	151.88	89.25
Karnataka	68.99	142.99	101.70	69.83	143.60	102.53

Service Area/ States	As on 30 th Sep, 2022			As on 31 st Dec, 2022		
	Rural Tele-density (%)	Urban Tele-density (%)	Total Tele-density (%)	Rural Tele-density (%)	Urban Tele-density (%)	Total Tele-density (%)
Kerala	215.31	91.39	123.02	219.09	90.19	122.40
Madhya Pradesh	41.76	130.85	67.10	41.34	129.67	66.50
Maharashtra (incl. Mumbai)*	66.57	139.41	102.08	66.08	139.39	101.87
North East	61.31	111.25	78.51	62.20	109.07	78.42
Orissa	60.75	139.51	75.56	61.15	140.17	76.04
Punjab	68.14	176.35	115.66	68.46	175.82	115.70
Rajasthan	57.44	140.43	79.48	56.74	140.63	79.05
Tamil Nadu	64.53	135.20	102.58	64.35	136.42	103.23
Uttar Pradesh (incl. UPE & UPW)*	49.77	122.19	67.53	49.20	119.79	66.53
West Bengal (incl. Kolkata)*	58.05	124.05	82.29	57.40	123.41	81.71
All India	58.01	134.62	84.86	57.69	134.16	84.56

* 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 are taken from projection of population from the 'Report of the Technical Group on Population Projections for India and States 2011 – 2036', which is available under the link https://main.mohfw.gov.in/sites/default/files/Population%20Projection%20Report%202011-2036%20-%20upload_compressed_0.pdf
2. Delhi Service area, apart from the State of Delhi, includes wireless subscribers of the areas served by the local exchanges of Ghaziabad & Noida (in UP) and Gurgaon & Faridabad (in Haryana).
3. Data/information for Andhra Pradesh includes Telengana, Madhya Pradesh includes Chhatishgarh, Bihar includes Jharkhand, Maharashtra includes Goa, Uttar Pradesh includes Uttarakhand, West Bengal includes Sikkim and North-East includes Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland & Tripura states.

1.10 Kerala service area has the highest Rural Tele-density of 219.09 followed by Himachal Pradesh service area of 94.76. Madhya Pradesh service area has the lowest Rural Tele-density of 41.34 followed by Bihar service area with rural tele-density of 43.11 in QE Dec-22.

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

Sl. No.	States/UT	Total Telephone Subscription (million)		
		Total	Rural	Urban
1	Andhra Pradesh	43.68	24.02	19.66
2	Arunachal Pradesh	1.28	0.84	0.44
3	Assam	24.97	15.68	9.30
4	Bihar	67.85	47.35	20.50
5	Chhattisgarh	20.14	9.63	10.51
6	Goa	2.30	0.79	1.51
7	Gujarat	66.32	25.73	40.59
8	Haryana	33.34	11.98	21.36
9	Himachal Pradesh	9.73	6.34	3.38
10	Jharkhand	23.66	13.01	10.66
11	Karnataka	69.33	26.29	43.05
12	Kerala	43.77	19.59	24.18
13	Madhya Pradesh	57.35	24.83	32.52
14	Maharashtra Incl. Mumbai	127.89	42.44	85.45
15	Manipur	2.40	0.98	1.42
16	Meghalaya	2.51	1.56	0.96
17	Mizoram	1.40	0.56	0.85
18	Nagaland	1.61	0.83	0.79
19	Odisha	33.66	21.97	11.70
20	Punjab	35.01	12.20	22.81
21	Rajasthan	63.93	33.69	30.24
22	Sikkim	0.95	0.57	0.38
23	Tamil Nadu	79.88	22.91	56.97
24	Telangana	41.01	16.80	24.22
25	Tripura	3.12	1.63	1.49
26	Uttar Pradesh (UPE + UPW)	159.70	85.20	74.50
27	Uttarakhand	13.08	6.45	6.64
28	West Bengal Incl. Kolkata	80.28	35.51	44.78
Union Territories				
1	Andaman & Nicobar Islands	0.56	0.22	0.34
2	Chandigarh	1.93	0.04	1.89
3	Dadra and Nagar Haveli and Daman and Diu	0.92	0.33	0.59
4	Delhi	43.19	1.73	41.47
5	Jammu & Kashmir	11.91	5.70	6.22
6	Ladakh	0.48	0.27	0.22
7	Lakshdweep	0.08	0.02	0.06
8	Puduchery	1.12	0.34	0.77
Total		1170.38	517.99	652.39

Table 1.6 : State/UT wise total Tele-density

Sl.No.	State/UT	Total Tele-density (%)		
		Total	Rural	Urban
1	Andhra Pradesh	82.23	120.76	227.07
2	Arunachal Pradesh	82.26	72.42	110.89
3	Assam	70.04	52.06	167.78
4	Bihar	53.66	42.68	132.14
5	Chhattisgarh	66.87	43.83	128.96
6	Goa	146.00	204.71	127.08
7	Gujarat	92.93	70.22	116.91
8	Haryana	110.59	68.52	168.69
9	Himachal Pradesh	130.36	94.76	440.14
10	Jharkhand	60.09	44.72	103.48
11	Karnataka	102.53	69.83	143.60
12	Kerala	122.41	218.89	90.20
13	Madhya Pradesh	66.37	40.46	129.91
14	Maharashtra Incl. Mumbai	101.32	65.26	139.63
15	Manipur	74.70	45.26	136.18
16	Meghalaya	75.09	58.59	138.57
17	Mizoram	113.66	100.45	124.48
18	Nagaland	72.31	68.07	77.37
19	Odisha	76.04	61.15	140.17
20	Punjab	114.05	68.24	177.93
21	Rajasthan	79.05	56.74	140.63
22	Sikkim	137.38	161.01	112.51
23	Tamil Nadu (incl. Chennai)	103.98	64.27	138.35
24	Telangana	107.50	84.12	133.19
25	Tripura	75.32	64.65	92.00
26	Uttar Pradesh (UPE +UPW)	67.87	47.65	131.92
27	Uttarakhand	112.63	86.48	159.49
28	West Bengal Incl. Kolkata	81.09	56.67	123.18
Union Territories				
1	Andaman & Nicobar Islands	139.09	98.55	190.55
2	Chandigarh	156.89	-	-
3	Dadra and Nagar Haveli and Daman and Diu	73.48	140.57	57.90
4	Delhi	202.85	-	-
5	Jammu & Kashmir	87.67	60.32	150.02
6	Ladakh	160.55	127.43	235.07
7	Lakshdweep	116.18	-	-
8	Puduchery	68.20	70.46	67.23
Total		84.56	57.69	134.16

Table 1.7 : Service Provider wise Growth in Subscriber base

Service Provider	Subscriber base (millions)			Rate of Growth (%)	Market Share in QE Sep-22 (%)	Market Share in QE Dec-22 (%)
	Sep-22	Dec-22	Net Additions			
Reliance Jio	427.62	432.92	5.30	1.24	36.49	36.99
Bharti Airtel	370.62	374.39	3.77	1.02	31.63	31.99
Vodafone Idea Ltd	249.82	242.04	-7.78	-3.12	21.32	20.68
BSNL	116.45	113.82	-2.63	-2.26	9.94	9.72
MTNL	5.35	5.17	-0.19	-3.51	0.46	0.44
Tata Teleservices	1.58	1.57	-0.01	-0.55	0.13	0.13
Quadrant	0.30	0.32	0.017	5.56	0.03	0.03
Reliance Com.	0.16	0.15	-0.01	-5.97	0.01	0.01
Total	1,171.92	1,170.38	-1.54	-0.13	100	100

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

1.11 M/s Reliance Jio Infocomm Ltd is the market leader with 36.99% in the access segment in terms of number of subscribers with 432.92 million subscribers at the end of Dec-22 followed by M/s Bharti Airtel Ltd with 374.39 million subscribers.

1.12 In term of net addition, Reliance Jio became the biggest gainer with net addition of 5.30 million telephone subscribers during the QE Dec-22.

Table 1.8: Market Share of the service providers in 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	432.92	186.37	43.05%	35.98%
Bharti Airtel	374.39	177.39	47.38%	34.25%
Vodafone Idea Ltd	242.04	118.19	48.83%	22.82%
BSNL	113.82	35.96	31.60%	6.94%
MTNL	5.17	0.04	0.68%	0.01%
Tata Teleservices	1.57	0.03	1.91%	0.01%
Quadrant	0.32	0.02	6.31%	0.004%
Reliance Com.	0.15	0.0004	0.26%	0.00%
Total	1,170.38	517.99	44.26	100

1.13 M/s Vodafone Idea Ltd is the telecom service provider with highest proportion of rural telephone subscribers of 48.83% followed by Bharti Airtel of 47.38% to their total telephone subscribers at the end of Sep-22.

Section B : Wireless Service

Table 1.9: List of Wireless Access Service Providers currently providing service

[As on 31st December, 2022]

Sl.No.	Service Provider	Licensed Service Areas
1	Reliance Jio Infocom Ltd	All India
2	Bharti Airtel Ltd	All India
3	Vodafone Idea Ltd	All India
4	BSNL	All India (except Delhi & Mumbai)
5	MTNL	Delhi & Mumbai
6	Reliance Communications Ltd	All India (except Assam & NE)

Source : DoT website

UL Access Services Licensees Virtual Network Operators (VNOs) who are providing services as on 31st December, 2022

1	AdPay Mobile Payment India Pvt. Ltd	Tamil Nadu including Chennai
2	SurÖelecomPrivateLimited	TamilNaduincludingChennai

Source : As reported by telecom service providers

- 1.14 Number of total wireless (Mobile and WLL (F)) subscribers decreased from 1,145.45 million at the end of Sep-22 to 1,142.93 million at the end of Dec-22, thereby showing a quarterly decline rate of 0.22%. During the quarter, net decrease of 2.52 million wireless subscribers has been recorded.
- 1.15 The total wireless subscriber base recorded a Y-O-Y rate of decline 1.01% in QE Dec-22 over the same quarter in the previous year.
- 1.16 Wireless Teledensity in the country decreased from 82.94% at the end of Sep-22 to 82.57% at the end of Dec-22.

Chart 1.6: Wireless Subscriber Base and Teledensity

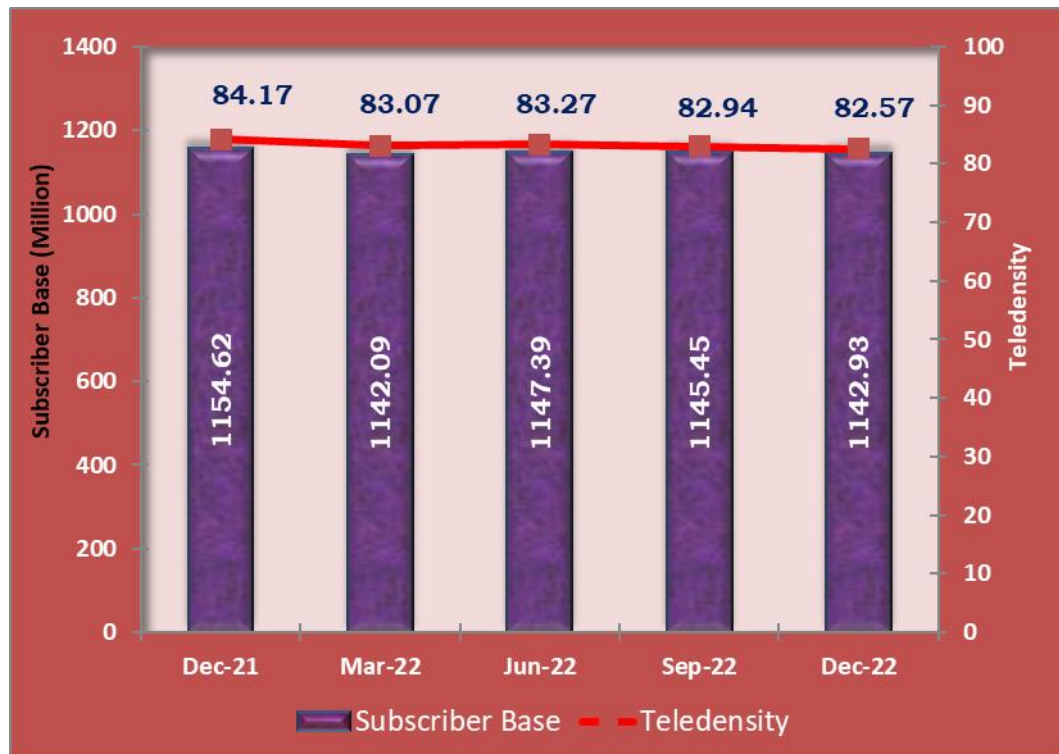


Table 1.10: Wireless Subscriber Base & Tele-density - Rural & Urban

Quarter ending	Subscriber Base (million)		Tele-density (%)	
	Rural	Urban	Rural	Urban
Dec-21	521.28	633.34	58.28	132.68
Mar-22	517.86	624.23	57.85	130.17
Jun-22	521.90	625.49	58.24	129.82
Sep-22	518.31	627.14	57.79	129.56
Dec-22	515.89	627.03	57.46	128.94

1.17 Number of Rural Wireless subscribers decreased from 518.31 million at the end of Sep-22 to 515.89 million at the end of Dec-22 and number of urban wireless subscribers also decreased from 627.14 million to 627.03 million during the quarter. Quarterly decline rates of Rural and Urban wireless subscriptions are 0.47% and 0.02% respectively during QE Dec-22.

1.18 The share of rural wireless subscription decreased from 45.25% to 45.14% in total wireless subscription during QE Dec-22.

Chart 1.7: Wireless Market Share - Rural & Urban

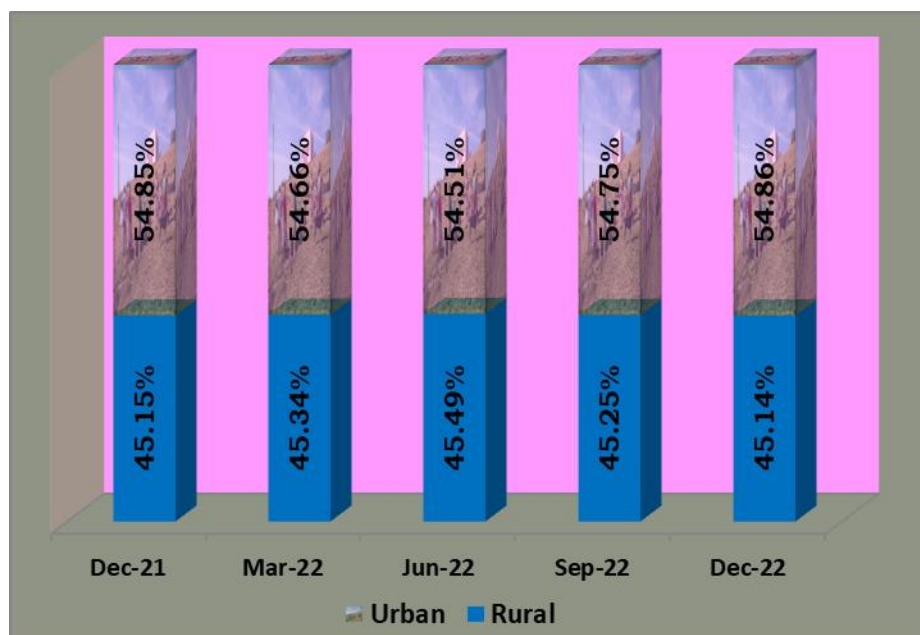


Table 1.11: Growth in Wireless Subscriber base

Service Provider	Subscriber Base (millions)			Rate of Growth	Market Share Sep-22	Market Share Dec-22
	Sep-22	Dec-22	Net Additions			
Reliance Jio	419.97	424.52	4.55	1.08%	36.66%	37.14%
Bharti Airtel	364.22	367.61	3.39	0.93%	31.80%	32.16%
Vodafone Idea Ltd	249.13	241.32	-7.81	-3.13%	21.75%	21.11%
BSNL	109.35	106.71	-2.64	-2.41%	9.55%	9.34%
MTNL	2.77	2.76	-0.01	-0.40%	0.24%	0.24%
Reliance Com.	0.003	0.003	0.00	-8.81%	0.0003%	0.0002%
Total	1,145.45	1,142.93	-2.52	-0.22%	100	100

1.19 M/s RJIL Limited is the market leader with a wireless subscriber base of 424.52 million which translates into market share of 37.14% w.r.t total wireless subscriber base. M/s Bharti Airtel Ltd. is at 2nd position with a total subscriber base of 367.61 million and market share of 32.16%.

1.20 In terms of net additions during QE Dec-22, except M/s Reliance Jio and M/s Bharti Airtel Limited, all service providers have showed negative growth in their wireless subscribers.

Table 1.12: Service Area wise Wireless Subscriber base

Service Area	Subscriber base (in million)			
	Sep-22	Dec-22	Net Additions	Rate of change (%)
Andhra Pradesh	82.69	82.37	-0.32	-0.39%
Assam	24.44	24.71	0.27	1.09%
Bihar	90.92	90.87	-0.05	-0.05%
Delhi	53.06	53.88	0.82	1.54%
Gujarat	66.60	66.07	-0.53	-0.80%
Haryana	26.75	26.70	-0.04	-0.16%
Himachal Pradesh	9.80	9.59	-0.21	-2.16%
Jammu & Kashmir	12.07	12.06	-0.01	-0.07%
Karnataka	65.73	66.31	0.58	0.88%
Kerala	42.69	42.50	-0.19	-0.44%
Madhya Pradesh	76.80	76.25	-0.55	-0.72%
Maharashtra	91.75	91.48	-0.26	-0.29%
Mumbai	33.84	34.02	0.18	0.53%
North East	12.13	12.13	0.00	-0.01%
Orissa	33.07	33.29	0.22	0.66%
Punjab	35.82	35.81	-0.01	-0.02%
Rajasthan	63.34	63.13	-0.21	-0.34%
Tamil Nadu	77.95	78.45	0.50	0.64%
U.P.(E)	100.76	99.87	-0.89	-0.88%
U.P.(W)	64.23	62.97	-1.25	-1.95%
Kolkata	23.89	24.00	0.11	0.44%
West Bengal	57.13	56.47	-0.66	-1.15%
All India	1,145.45	1,142.93	-2.52	-0.22%

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	82.37	40.62	41.75	49.31%
Assam	24.71	15.66	9.05	63.37%
Bihar	90.87	60.31	30.56	66.37%
Delhi	53.88	1.78	52.10	3.30%
Gujarat	66.07	25.99	40.07	39.35%
Haryana	26.70	11.85	14.85	44.39%
Himachal Pradesh	9.59	6.30	3.29	65.68%
Jammu & Kashmir	12.06	5.95	6.11	49.31%
Karnataka	66.31	26.17	40.14	39.47%
Kerala	42.50	18.97	23.53	44.64%
Madhya Pradesh	76.25	34.41	41.84	45.13%
Maharashtra	91.48	41.95	49.53	45.86%
Mumbai	34.02	1.12	32.90	3.28%
North East	12.13	6.38	5.74	52.64%
Orissa	33.29	21.93	11.36	65.88%
Punjab	35.81	12.11	23.71	33.81%
Rajasthan	63.13	33.64	29.49	53.28%
T.N. (incl. Chennai)	78.45	22.98	55.46	29.30%
U.P.(E)	99.87	61.46	38.41	61.54%
U.P.(W)	62.97	30.13	32.85	47.84%
Kolkata	24.00	1.59	22.41	6.64%
West Bengal	56.47	34.60	21.87	61.27%
All India	1,142.93	515.89	627.03	45.14%

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

Table 1.14 : Service Area wise Wireless Tele-density

Service Area	As on 30 th September, 2022			As on 31 st December, 2022		
	Rural Tele-density (%)	Urban Tele-density (%)	Total Tele-density (%)	Rural Tele-density (%)	Urban Tele-density (%)	Total Tele-density (%)
A.P.	75.95	111.97	90.69	75.54	111.33	75.54
Assam	51.34	163.26	68.70	51.98	163.34	51.98
Bihar	43.13	119.69	55.02	43.07	118.41	43.07
Delhi	-	-	250.35	-	-	-
Gujarat	71.61	113.21	92.02	70.48	112.15	70.48
Haryana	68.19	117.87	88.98	67.79	117.26	67.79
H.P.	96.58	435.68	131.50	94.10	427.92	94.10
J&K	61.68	145.05	87.05	61.62	144.30	61.62
Karnataka	68.70	133.52	97.36	69.51	133.91	69.51
Kerala	208.28	88.79	119.29	211.95	87.56	211.95
M.P.	41.73	127.42	66.10	41.29	126.05	41.29
Maharashtra (incl. Mumbai)*	66.35	132.22	98.46	65.84	132.13	98.21
North East	61.17	107.99	77.30	62.06	105.58	62.06
Orissa	60.65	135.65	74.76	61.04	136.11	61.04
Punjab	67.51	169.69	112.38	67.73	168.74	67.73
Rajasthan	57.35	137.07	78.52	56.65	137.12	56.65
Tamil Nadu	63.79	129.98	99.43	63.61	131.02	63.61
Uttar Pradesh (incl. UPE&UPW)*	49.75	120.07	66.99	49.17	117.52	65.95
West Bengal (incl. Kolkata)*	57.90	120.92	81.04	57.24	120.11	80.39
All India	57.79	129.56	82.94	57.46	128.94	82.57

* 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 projection of population from the 'Report of the Technical Group on Population Projections for India and States 2011 – 2036', which is available under the link https://main.mohfw.gov.in/sites/default/files/_Population%20Projection%20Report%202011-2036%20-%20upload_compressed_0.pdf
2. Delhi Service area, apart from the State of Delhi, includes wireless subscribers of the areas served by the local exchanges of Ghaziabad & Noida (in UP) and Gurgaon & Faridabad (in Haryana).
3. Data/information for Andhra Pradesh includes Telengana, Madhya Pradesh includes Chhatisgarh, Bihar includes Jharkhand, Maharashtra includes Goa, Uttar Pradesh includes Uttarakhand, West Bengal includes Sikkim and North-East includes Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland & Tripura states.

Table 1.15 : State/UT wise Wireless Subscriber Base

Sl. No.	States/UT	Wireless Subscribers (in million)		
		Total	Rural	Urban
1	Andhra Pradesh	42.47	23.88	18.59
2	Arunachal Pradesh	1.26	0.84	0.43
3	Assam	24.71	15.66	9.05
4	Bihar	67.49	47.32	20.18
5	Chhattisgarh	19.86	9.62	10.24
6	Goa	2.23	0.77	1.47
7	Gujarat	65.16	25.67	39.49
8	Haryana	32.76	11.90	20.86
9	Himachal Pradesh	9.59	6.30	3.29
10	Jharkhand	23.38	12.99	10.38
11	Karnataka	66.31	26.17	40.14
12	Kerala	42.42	18.95	23.47
13	Madhya Pradesh	56.39	24.80	31.59
14	Maharashtra	123.27	42.30	80.97
15	Manipur	2.36	0.98	1.38
16	Meghalaya	2.46	1.55	0.91
17	Mizoram	1.37	0.56	0.81
18	Nagaland	1.59	0.83	0.76
19	Odisha	33.29	21.93	11.36
20	Punjab	34.10	12.07	22.03
21	Rajasthan	63.13	33.64	29.49
22	Sikkim	0.94	0.57	0.37
23	Tamil Nadu	77.39	22.65	54.74
24	Telangana	39.91	16.74	23.16
25	Tripura	3.08	1.63	1.45
26	Uttar Pradesh	158.32	85.15	73.16
27	Uttarakhand	12.83	6.43	6.40
28	West Bengal	79.01	35.42	43.59
Union Territories				
1	Andaman & Nicobar Islands	0.52	0.20	0.32
2	Chandigarh	1.72	0.04	1.68
3	Dadra and Nagar Haveli and Daman and Diu	0.91	0.33	0.58
4	Delhi	39.52	1.72	37.79
5	Jammu & Kashmir	11.58	5.68	5.90
6	Ladakh	0.48	0.26	0.22
7	Lakshdweep	0.08	0.02	0.06
8	Puduchery	1.06	0.33	0.73
Total		1142.93	515.89	627.03

Table 1.16 : State/UT wise Wireless Tele-density

Sl.No.	State/UT	Wireless Tele-density (%)		
		Total	Rural	Urban
1	Andhra Pradesh	79.94	70.64	96.20
2	Arunachal Pradesh	81.08	72.09	107.27
3	Assam	69.29	51.98	163.34
4	Bihar	53.38	42.65	130.07
5	Chhattisgarh	65.93	43.78	125.63
6	Goa	141.91	200.22	123.12
7	Gujarat	91.30	70.04	113.75
8	Haryana	108.66	68.06	164.74
9	Himachal Pradesh	128.50	94.10	427.92
10	Jharkhand	59.36	44.68	100.84
11	Karnataka	98.06	69.51	133.91
12	Kerala	118.66	211.76	87.57
13	Madhya Pradesh	65.26	40.41	126.19
14	Maharashtra	97.66	65.05	132.31
15	Manipur	73.29	45.12	132.12
16	Meghalaya	73.67	58.51	131.96
17	Mizoram	111.02	100.33	119.78
18	Nagaland	71.30	68.03	75.20
19	Odisha	75.19	61.04	136.11
20	Punjab	111.08	67.52	171.81
21	Rajasthan	78.05	56.65	137.12
22	Sikkim	136.49	160.95	110.74
23	Tamil Nadu	100.73	63.54	132.92
24	Telangana	104.60	83.84	127.41
25	Tripura	74.39	64.48	89.89
26	Uttar Pradesh	67.29	47.62	129.55
27	Uttarakhand	110.41	86.24	153.72
28	West Bengal	79.80	56.54	119.91
Union Territories				
1	Andaman & Nicobar Islands	129.89	90.56	179.82
2	Chandigarh	139.58	-	-
3	Dadra and Nagar Haveli and Daman and Diu	72.96	139.68	57.46
4	Delhi	185.58	-	-
5	Jammu & Kashmir	85.23	60.18	142.33
6	Ladakh	159.50	126.99	232.66
7	Lakshdweep	110.39	-	-
8	Puduchery	64.67	68.32	63.12
All India Tele-density		82.57	57.46	128.94

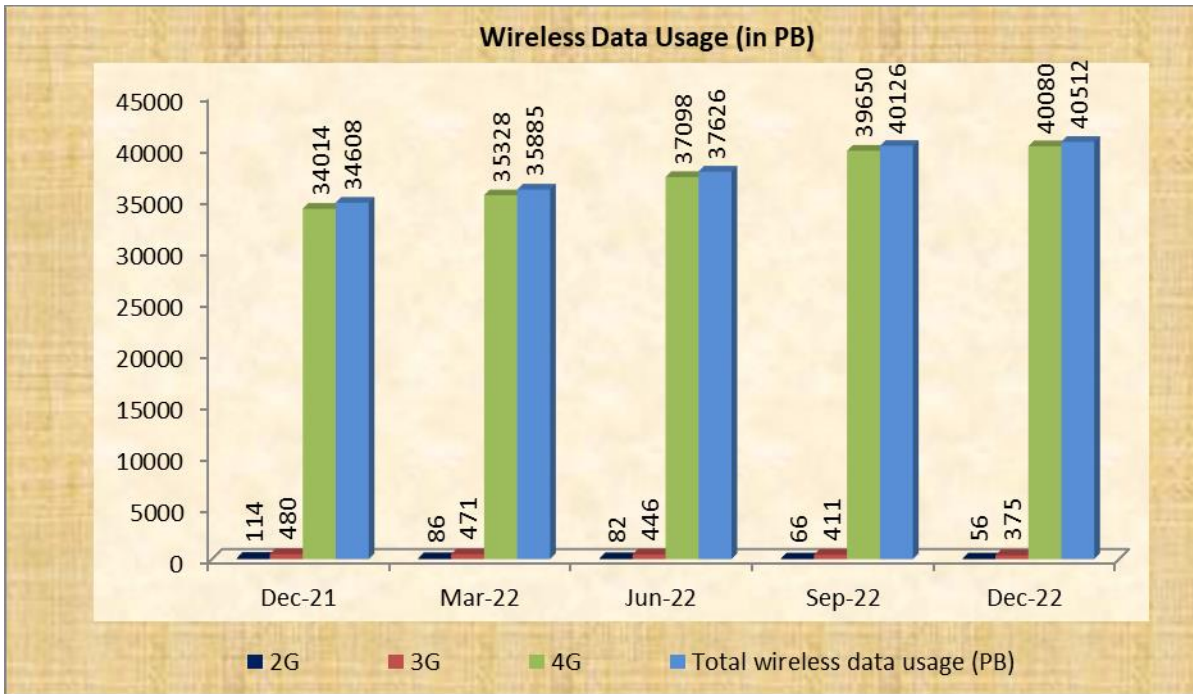
**Table 1.17 : Rural Wireless Subscriber base and Market Share
(as on 31.12.2022)**

Service Provider	Total number of wireless Subscribers (in millions)	Rural Subscribers (in millions)	% of Rural subscribers in total	Market Share of Rural Subscribers
Reliance Jio	424.52	186.21	43.86%	36.09%
Bharti Airtel	367.61	177.39	48.26%	34.39%
Vodafone Idea Ltd	241.32	118.19	48.97%	22.91%
BSNL	106.71	34.07	31.92%	6.60%
MTNL	2.76	0.04	1.28%	0.01%
Reliance Com.	0.003	0.00	0.00%	0.000%
Total	1,142.93	515.89	45.14%	100.00%

Wireless Data Usage

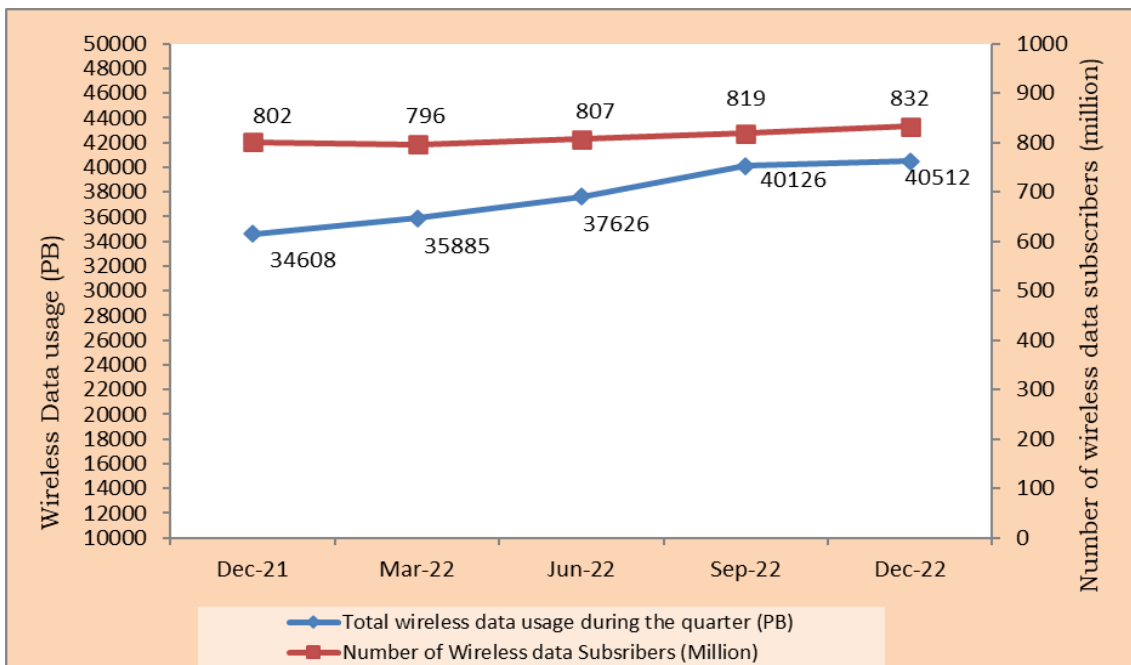
- 1.22 Volume of total wireless data usage increased from 40,126 PB during Q.E. September-22 to 40,512 PB during Q.E. December-22 with quarterly growth rate of 0.96%. Out of total data wireless usage, 2G data usage was 56 PB, 3G data usage was 375 PB and 4G data usage was 40,080 PB during the quarter.
- 1.23 Total number of wireless data subscribers increased from 818.98 million at the end of September-22 to 832.36 million at the end of December-22.
- 1.24 The contribution of 2G, 3G and 4G data usage in total volume of wireless data usage are about 0.14%, 0.93% and 98.93% respectively during the QE Dec-22.
- 1.25 Technology-wise trend of growth in volume of wireless data usage is depicted in the following chart.

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



1.26 The following chart depicts the trend of number of wireless data subscribers and volume of wireless data usage in QE Dec-22.

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



Section C : Wireline Service

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

[As on 31st December, 2022]

Sl. No.	Name of the Service Provider	Area of Operation
1	Bharti Airtel Ltd	Andhra Pradesh, Assam, Bihar, Delhi, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Kolkata, Madhya Pradesh, Maharashtra, Mumbai, Punjab, Rajasthan, Tamil Nadu including Chennai, UP-East, UP-West and West Bengal.
2	BSNL	All India except Delhi & Mumbai
3	MTNL	Delhi & Mumbai
4	Quadrant Televentures Ltd.	Punjab
5	Reliance Communications Ltd.	Andhra Pradesh, Bihar, Delhi, Gujarat, Karnataka, Kerala, Kolkata, Maharashtra, Mumbai, Odisha, Punjab, Rajasthan, Tamil Nadu including Chennai, UP-East, UP-West and West Bengal.
6.	Tata Teleservices Ltd. & Tata Teleservices (Maharashtra) Ltd	Andhra Pradesh, Bihar, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh, Maharashtra, Mumbai, Odisha, Punjab, Rajasthan, Tamil Nadu including Chennai, UP-East, UP-West and West Bengal.
7	Vodafone Idea Ltd	Andhra Pradesh, Assam, Bihar, Delhi, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Kolkata, Madhya Pradesh, Maharashtra, Mumbai, North-East, Odisha, Punjab, Rajasthan, Tamil Nadu including Chennai, UP-East, UP-West and West Bengal.
8	Reliance Jio Infocomm Ltd.	Andhra Pradesh, Assam, Bihar, Delhi, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Kolkata, Madhya Pradesh, Maharashtra, Mumbai, North-East, Odisha, Punjab, Rajasthan, Tamil Nadu including Chennai, UP-East, UP-West and West Bengal.

1.27 Total number of Wireline subscribers increased from 26.47 million at the end of Sep-22 to 27.45 million at the end of Dec-22 with quarterly growth rate of 3.72%. Overall Wireline Teledensity in the country increased from 1.92% at the end of Sep-22 to 1.98% at the end of Dec-22.

1.28 Urban wireline subscriber base increased by 3.59% from 24.48 million at the end of Sep-22 to 25.35 million at the end of Dec-22. Rural wireline subscription also increased by 5.33%, from 1.99 million to 2.10 million during the same period.

Chart 1.10: Wireline Subscriber Base and Tele-density

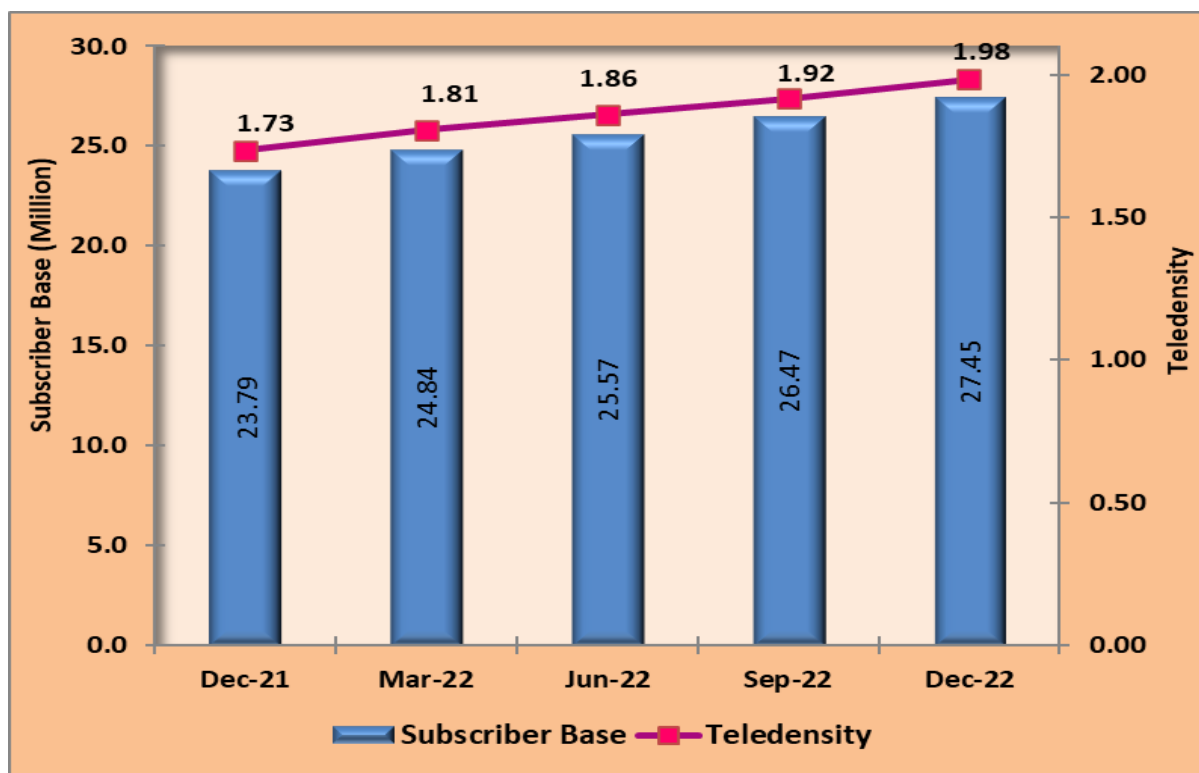


Table 1.19: Wireline Subscriber Base & Tele-density - Rural & Urban

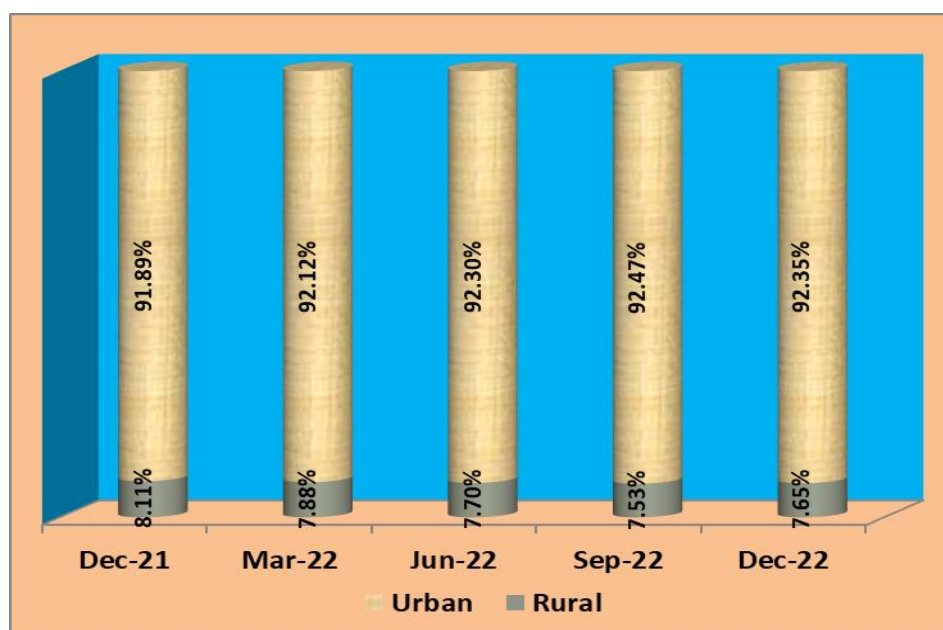
Quarter ending	Subscriber Base (million)		Tele-density (%)	
	Rural	Urban	Rural	Urban
Dec-21	1.93	21.86	0.22	4.58
Mar-22	1.96	22.88	0.22	4.77
Jun-22	1.97	23.60	0.22	4.90
Sep-22	1.99	24.48	0.22	5.06
Dec-22	2.10	25.35	0.23	5.21

**Table 1.20 : Service Provider wise Wireline Subscriber base
(Rural - Urban) – As on 31.12.2022**

Service Provider	Subscriber Base (million)			Percentage of Rural subscribers	Share of Rural subscription
	Rural	Urban	Total		
BSNL	1.89	5.21	7.10	26.64%	90.13%
Bharti	--	6.79	6.79	--	0.00%
MTNL	--	2.41	2.41	--	0.00%
Tata Tele.	0.03	1.54	1.57	1.91%	1.42%
Reliance Com.	0.0004	0.15	0.15	0.26%	0.02%
Quadrant	0.02	0.30	0.32	6.31%	0.96%
Vodafone Idea	--	0.72	0.72	--	0.00%
Reliance Jio	0.16	8.24	8.40	1.87%	7.47%
Total	2.10	25.35	27.45	7.65%	100.00%

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

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



1.30 Market Share of Rural wireline subscription increased from 7.53% in QE Sep-22 to 7.65% in QE Dec-22.

Table 1.21 : Service Provider wise growth in Wireline Subscriber base

Service Provider	Subscriber Base (million)			Rate of change (%)	Market share-Sep-22	Market share-Dec-22
	Sep-22	Dec-22	Net Addition			
Reliance Jio	7.65	8.40	0.75	9.81%	28.91%	30.60%
BSNL	7.10	7.10	0.00	0.06%	26.82%	25.88%
Bharti Airtel	6.40	6.79	0.38	5.97%	24.19%	24.72%
MTNL	2.59	2.41	-0.18	-6.83%	9.77%	8.77%
Vodafone Idea	0.69	0.72	0.03	3.76%	2.61%	2.61%
Tata Tele.	1.58	1.57	-0.01	-0.55%	5.97%	5.72%
Quadrant	0.30	0.32	0.02	5.56%	1.14%	1.16%
Reliance Com	0.16	0.15	-0.01	-5.91%	0.60%	0.54%
Total	26.47	27.45	0.99	3.72	100	100

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

Service Area	Sep-22	Dec-22	Net Additions	Rate of Change (%)
Andhra Pradesh	2.20	2.32	0.13	5.78%
Assam	0.25	0.27	0.02	6.72%
Bihar	0.56	0.64	0.08	13.32%
Delhi	4.06	4.04	-0.02	-0.61%
Gujarat	1.10	1.17	0.07	6.42%
Haryana	0.39	0.42	0.03	8.69%
Himachal Pradesh	0.13	0.14	0.00	3.04%
Jammu & Kashmir	0.32	0.34	0.02	4.92%
Karnataka	2.93	3.03	0.09	3.12%
Kerala	1.33	1.35	0.01	0.89%

Service Area	Sep-22	Dec-22	Net Additions	Rate of Change (%)
Madhya Pradesh	1.16	1.24	0.09	7.43%
Maharashtra	1.41	1.44	0.03	2.33%
Mumbai	3.21	3.24	0.03	0.99%
North East	0.19	0.20	0.01	7.37%
Orissa	0.36	0.38	0.02	5.38%
Punjab	1.04	1.13	0.08	7.83%
Rajasthan	0.77	0.81	0.04	4.79%
Tamil Nadu	2.47	2.55	0.08	3.31%
U.P.(E)	0.66	0.71	0.05	7.66%
U.P.(W)	0.67	0.72	0.05	7.80%
Kolkata	0.81	0.85	0.04	4.81%
West Bengal	0.44	0.47	0.04	8.49%
All India	26.47	27.45	0.99	3.72

1.31 Bihar service area showed maximum growth of 13.32% and only Delhi service area showed decline of 0.61% in their wireline subscriber base during the quarter ending Dec-22.

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	2.32	0.20	2.12	8.66%
Assam	0.27	0.02	0.25	8.30%
Bihar	0.64	0.05	0.59	7.28%
Delhi	4.04	0.00	4.03	0.06%
Gujarat	1.17	0.07	1.10	5.94%
Haryana	0.42	0.08	0.35	18.26%
Himachal Pradesh	0.14	0.04	0.09	32.10%
Jammu & Kashmir	0.34	0.01	0.32	4.36%
Karnataka	3.03	0.12	2.91	3.90%

Service Area	Total Subscribers	Rural Subscribers	Urban Subscribers	% of Rural Subscribers
Kerala	1.35	0.64	0.71	47.49%
Madhya Pradesh	1.24	0.04	1.20	3.41%
Maharashtra	1.44	0.14	1.30	10.01%
Mumbai	3.24	0.01	3.23	0.29%
North East	0.20	0.01	0.19	7.18%
Orissa	0.38	0.04	0.34	9.94%
Punjab	1.13	0.13	0.99	11.65%
Rajasthan	0.81	0.05	0.75	6.37%
Tamil Nadu	2.55	0.27	2.28	10.56%
U.P.(E)	0.71	0.03	0.69	3.60%
U.P.(W)	0.72	0.03	0.69	4.75%
Kolkata	0.85	0.00	0.85	0.02%
West Bengal	0.47	0.10	0.37	21.88%
All India	27.45	2.10	25.35	7.65

1.32 Kerala service area has the maximum share 47.49% of rural wireline subscriber in its total wireline subscriber base at the end of Dec-22.

Table 1.24: Service Area wise Wireline Tele-density

Service Area	As on 30 th September, 2022			As on 31 st December, 2022		
	Rural Tele-density (%)	Urban Tele-density (%)	Total Tele-density (%)	Rural Tele-density (%)	Urban Tele-density (%)	Total Tele-density (%)
Andhra Pradesh	0.36	5.37	2.41	0.37	5.66	2.55
Assam	0.07	4.18	0.71	0.07	4.44	0.75
Bihar	0.03	2.05	0.34	0.03	2.30	0.39
Delhi	-	-	19.15	-	-	18.95
Gujarat	0.19	2.91	1.52	0.19	3.08	1.61
Haryana	0.35	2.62	1.30	0.44	2.74	1.41
Himachal Pradesh	0.75	10.97	1.80	0.66	12.22	1.85
Jammu & Kashmir	0.14	7.26	2.31	0.15	7.57	2.42
Karnataka	0.29	9.47	4.35	0.31	9.70	4.47
Kerala	7.03	2.60	3.73	7.14	2.63	3.76
Madhya Pradesh	0.03	3.43	1.00	0.05	3.62	1.07
Maharashtra (incl. Mumbai)*	0.22	7.19	3.62	0.23	7.26	3.66
North East	0.14	3.26	1.22	0.14	3.49	1.30
Orissa	0.10	3.87	0.81	0.10	4.07	0.85
Punjab	0.63	6.66	3.27	0.73	7.08	3.53
Rajasthan	0.08	3.36	0.95	0.09	3.51	1.00
Tamil Nadu (incl. Chennai)	0.74	5.22	3.15	0.75	5.39	3.25
Uttar Pradesh (incl. UPE & UPW)*	0.03	2.12	0.54	0.03	2.27	0.58
West Bengal (incl. Kolkata)*	0.15	3.13	1.24	0.16	3.30	1.32
All India	0.22	5.06	1.92	0.23	5.21	1.98

* Population data/projections are available state-wise only

- Note: -
1. Tele-density figures are derived from the subscriber data provided by the operators and projection of population from the 'Report of the Technical Group on Population Projections for India and States 2011 – 2036', which is available under the link https://main.mohfw.gov.in/sites/default/files/Population%20Projection%20Report%202011-2036%20-%20upload_compressed_0.pdf
 2. Data/information for Andhra Pradesh includes Telengana, Madhya Pradesh includes Chhatishgarh, Bihar includes Jharkhand, Maharashtra includes Goa, Uttar Pradesh includes Uttarakhand, West Bengal includes Sikkim and North-East includes Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland & Tripura states.

Table 1.25: State/UT wise Wireline Subscriber base

Sl. No.	States/UT	Wireline Subscribers (in million)		
		Total	Rural	Urban
1	Andhra Pradesh	1.22	0.15	1.07
2	Arunachal Pradesh	0.02	0.004	0.01
3	Assam	0.27	0.02	0.25
4	Bihar	0.35	0.03	0.32
5	Chhattisgarh	0.28	0.01	0.27
6	Goa	0.06	0.02	0.05
7	Gujarat	1.17	0.07	1.10
8	Haryana	0.58	0.08	0.50
9	Himachal Pradesh	0.14	0.04	0.09
10	Jharkhand	0.28	0.01	0.27
11	Karnataka	3.03	0.12	2.91
12	Kerala	1.34	0.64	0.70
13	Madhya Pradesh	0.96	0.03	0.93
14	Maharashtra Incl. Mumbai	4.62	0.14	4.48
15	Manipur	0.05	0.003	0.04
16	Meghalaya	0.05	0.002	0.05
17	Mizoram	0.03	0.001	0.03
18	Nagaland	0.02	0.000	0.02
19	Odisha	0.38	0.04	0.34
20	Punjab	0.91	0.13	0.78
21	Rajasthan	0.81	0.05	0.75
22	Sikkim	0.006	0.0002	0.01
23	Tamil Nadu	2.50	0.26	2.24
24	Telangana	1.11	0.06	1.05
25	Tripura	0.04	0.004	0.03
26	Uttar Pradesh (UPE+UPW)	1.38	0.04	1.34
27	Uttarakhand	0.26	0.02	0.24
28	West Bengal Incl. Kolkata	1.28	0.09	1.19
Union Territories				
1	Andaman & Nicobar Islands	0.04	0.02	0.02
2	Chandigarh	0.21	0.002	0.21
3	Dadra and Nagar Haveli and Daman and Diu	0.006	0.002	0.004
4	Delhi	3.68	0.0003	3.68
5	Jammu & Kashmir	0.33	0.01	0.32
6	Ladakh	0.003	0.001	0.002
7	Lakshdweep	0.004	0.002	0.002
8	Puduchery	0.06	0.01	0.05
Total		27.45	2.10	25.35

Table 1.26: State/UT wise Wireline Tele-density

Sl.No.	State/UT	Wireline Tele-density		
		Total (%)	Rural (%)	Urban (%)
1	Andhra Pradesh	4.37	0.60	10.99
2	Arunachal Pradesh	1.17	0.34	3.62
3	Assam	0.75	0.07	4.44
4	Bihar	0.28	0.03	2.07
5	Chhattisgarh	0.94	0.05	3.32
6	Goa	4.09	4.49	3.96
7	Gujarat	1.63	0.18	3.16
8	Haryana	1.92	0.46	3.95
9	Himachal Pradesh	1.85	0.66	12.22
10	Jharkhand	0.72	0.05	2.64
11	Karnataka	4.47	0.31	9.70
12	Kerala	3.75	7.13	2.63
13	Madhya Pradesh	1.11	0.05	3.72
14	Maharashtra Incl. Mumbai	3.66	0.21	7.32
15	Manipur	1.41	0.14	4.06
16	Meghalaya	1.43	0.08	6.60
17	Mizoram	2.63	0.12	4.69
18	Nagaland	1.01	0.04	2.17
19	Odisha	0.85	0.10	4.07
20	Punjab	2.97	0.72	6.12
21	Rajasthan	1.00	0.09	3.51
22	Sikkim	0.89	0.06	1.77
23	Tamil Nadu	3.25	0.73	5.43
24	Telangana	2.90	0.28	5.78
25	Tripura	0.93	0.18	2.10
26	Uttar Pradesh (UPE + UPW)	0.59	0.02	2.37
27	Uttarakhand	2.22	0.24	5.77
28	West Bengal incl. Kolkata	1.29	0.14	3.28
Union Territories				
1	Andaman & Nicobar Islands	9.20	7.99	10.73
2	Chandigarh	17.31	232.60	17.13
3	Dadra and Nagar Haveli and Daman and Diu	0.52	0.89	0.43
4	Delhi	17.26	0.28	17.34
5	Jammu & Kashmir	2.45	0.15	7.69
6	Ladakh	1.05	0.44	2.42
7	Lakshdweep	5.79	155.40	3.59
8	Puduchery	3.52	2.14	4.11
Total		1.98	0.23	5.21

Public Call Offices (PCO)

1.33 Total number of PCOs in the country decreased from 57,125 at the end of Sep-22 to 50,188 at the end of Dec-22. Detailed table of service provider wise PCOs is available at **Annexure-1.3**.

Chart 1.12: Trend of Number of PCOs



1.34 Number of PCOs continued show declining trend over the year. It has recorded a overall quarterly decline rate of 12.14% and on Y-O-Y rate of decline 31.84% at the QE Dec-22.

Table 1.27: Rate of change & Market share of PCOs

Service Provider	Sep-22	Dec-22	Rate of change (%)	Market share (%) (Dec-22)
BSNL	38,955	36,661	-5.89%	73.05%
MTNL	13,931	13,165	-5.50%	26.23%
Bharti	3,861	0	-100.00%	0.00%
Quadrant	378	362	-4.23%	0.72%
Total	57,125	50,188	-12.14%	100%

Village Public Telephones (VPTs)

- 1.35 There are 6,40,930 inhabited villages in India as per census 2011. During the Q.E. Dec-22, there are 68,606 villages having Village Public Telephones (VPTs).
- 1.36 Number of VPTs remained same i.e. 68,606 at the end of Dec-22 as were at the end of Sep-22.
- 1.37 As per the information received in TRAI, at the end of Dec-22, only M/s BSNL was providing VPT in the country. Service area wise detailed table of VPT is available at **Annexure-1.4**.

Chart 1.13: Trend of number of VPTs



Section D: Internet Service

1.38 This section summarizes information submitted by internet service providers for the quarter ending Dec-22. **Part-I** consists of information of Internet service (narrowband+broadband), **Part-II** consists of broadband service and **Part-III** covers narrowband service.

Part-I: Internet Service (broadband + narrowband)

1.39 As per reports received from 921 operators as compared to 860 operators in last quarter, total number of internet subscribers increased from 850.95 million at the end of Sep-22 to 865.90 million at the end of Dec-22 with quarterly growth rate of 1.76%. Out of total 865.90 million internet subscribers, 832.20 million were broadband subscribers and 33.70 million were narrowband subscribers.

1.40 Wired Internet subscribers increased from 30.82 million at the end of Sep-22 to 32.41 million at the end of Dec-22 with quarterly growth rate of 5.16%. Wireless Internet subscribers increased from 820.14 million at the end of Sep-22 to 833.49 million at the end of Dec-22 with quarterly growth rate of 1.63%.

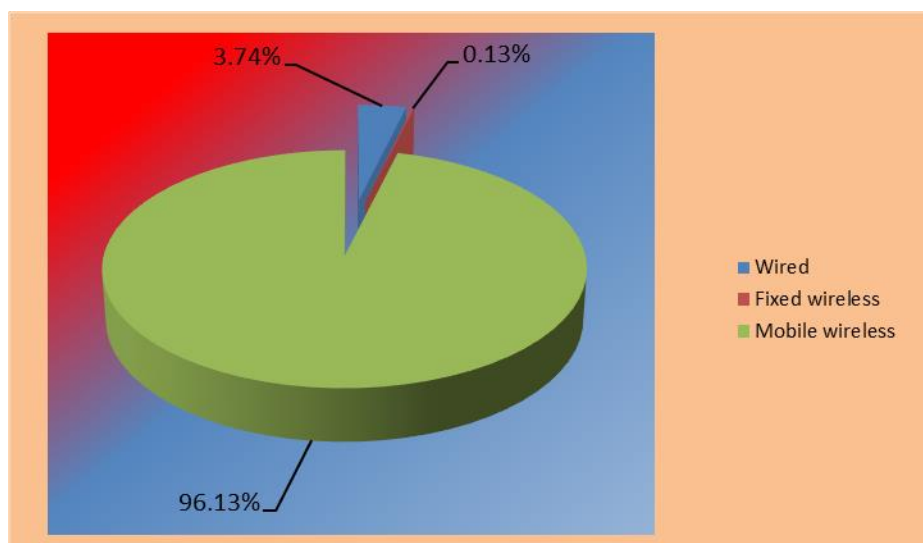
1.41 The number of Broadband subscribers increased from 815.93 million at the end of Sep-22 to 832.20 million at the end of Dec-22 with quarterly growth rate of 1.99%. Number of Narrowband subscribers declined from 35.01 million at the end of Sep-22 to 33.70 million at the end of Dec-22 with quarterly decline rate of 3.76%.

Table 1.28: Trend of Internet subscriber base

Segment	Mode of Access								Total Subscribers (in million)	
	Wired Subscribers (in million)		Wireless Subscribers (in million)							
			Fixed Wireless (Wi-Fi, Wi-Max, Radio & VSAT)		Mobile Wireless (Phone + Dongle)		Total Wireless			
	Sep-22	Dec-22	Sep-22	Dec-22	Sep-22	Dec-22	Sep-22	Dec-22	Sep-22	Dec-22
Broadband	30.79	32.38	1.15	1.13	783.99	798.69	785.14	799.82	815.93	832.20
Narrowband	0.02	0.02	0.01	0.01	34.98	33.67	34.99	33.67	35.01	33.70
Total	30.82	32.41	1.16	1.13	818.98	832.35	820.13	833.49	850.95	865.90

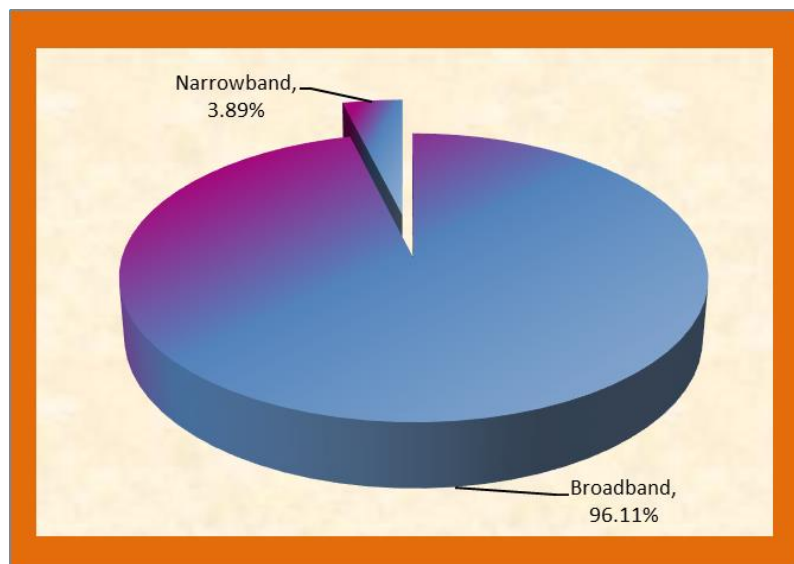
1.42 The following charts present the composition of Internet Subscribers by mode of access and composition of Broadband & Narrowband subscription as on 31st December, 2022.

Chart 1.14: Composition of Internet subscription



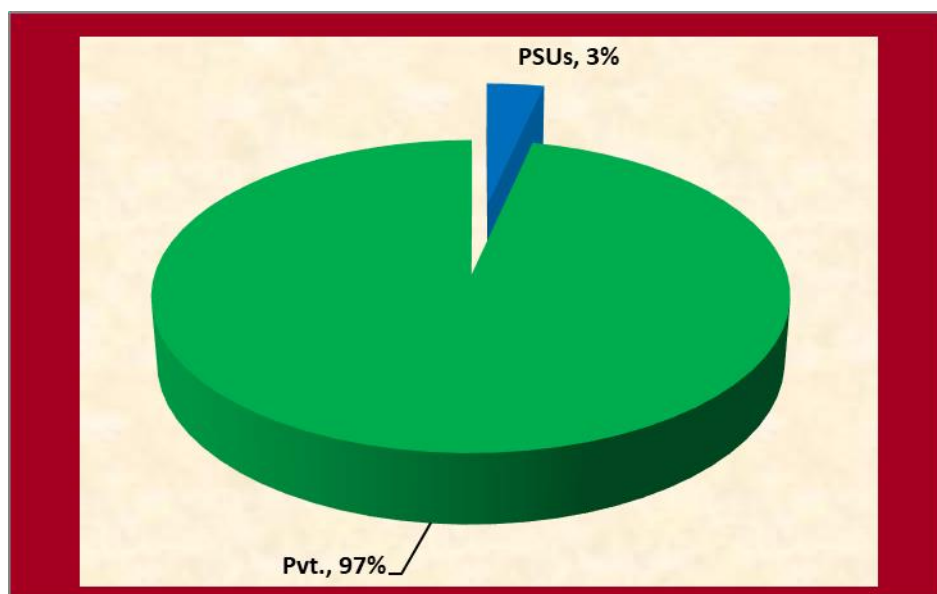
1.43 Out of total internet subscribers, 96.13% subscribers are using Mobile devices for access of internet service. Wired internet subscribers are only 3.74% in total internet subscribers at the end of December-22.

Chart 1.15 : Composition of Broadband & Narrowband subscription



- 1.44 Out of total internet subscribers, 96.11% subscribers are using broadband for access of internet.
- 1.45 Share of private internet service providers in total internet subscriber base is 97%, at QE Dec-22. The following charts present the composition of market share of PSUs and Private Internet service providers.

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



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

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

Telecom Service Area	Narrowband		Broadband		Total (Dec-2022)		Total (Sep-2022)	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Andhra Pradesh	1.24	1.17	26.84	35.76	28.07	36.93	27.73	36.14
Assam	0.32	0.14	10.14	6.32	10.46	6.45	10.12	6.39
Bihar	1.76	0.54	38.63	22.57	40.38	23.11	39.86	22.82
Delhi	0.26	5.90	0.51	44.64	0.77	50.54	0.77	48.59
Gujarat	0.41	0.59	16.53	34.96	16.94	35.55	16.69	35.16
Haryana	0.28	0.45	7.93	10.02	8.21	10.46	8.03	10.21
Himachal Pradesh	0.08	0.07	3.73	2.31	3.80	2.37	3.80	2.35
Jammu & Kashmir	0.13	0.08	4.12	4.99	4.25	5.08	4.18	5.01
Karnataka	1.22	2.22	17.88	30.82	19.10	33.04	18.55	32.06
Kerala	0.50	0.44	14.51	16.29	15.01	16.73	14.68	16.57
Kolkata	0.04	0.52	1.28	16.71	1.31	17.23	1.27	16.88
Madhya Pradesh	0.85	0.66	24.02	34.17	24.87	34.83	24.36	34.28
Maharashtra	1.12	0.98	29.99	41.74	31.11	42.72	30.61	41.96
Mumbai	0.01	1.03	1.04	28.35	1.05	29.38	1.05	28.98
North East	0.12	0.10	4.75	4.41	4.87	4.51	4.73	4.52
Orissa	0.42	0.15	14.00	7.51	14.42	7.66	14.17	7.46
Punjab	0.26	0.46	8.63	17.60	8.88	18.06	8.67	17.68
Rajasthan	0.71	0.70	20.91	23.56	21.62	24.26	21.34	23.69
Tamil Nadu	0.78	1.34	15.36	40.43	16.14	41.77	15.80	40.81
UP (East)	2.12	0.77	36.34	29.24	38.46	30.01	37.77	29.77
UP (West)	0.79	0.64	17.64	25.59	18.43	26.23	18.39	26.24
West Bengal	1.06	0.30	20.30	19.12	21.37	19.42	21.26	19.54
Grand Total	14.46	19.23	335.06	497.14	349.53	516.37	343.82	507.13
	33.70		832.20		865.90		850.95	

The information is compiled based on the reports being received from the Internet Service Providers.

Table 1.30: State/UT wise Break up of Rural-Urban internet subscriber base (in millions)

S.No.	State(s)	Narrowband		Broadband		Total (Dec 2022)	
		Rural	Urban	Rural	Urban	Rural	Urban
1	Andhra Pradesh	0.73	0.65	15.67	15.84	16.40	16.49
2	Arunachal Pradesh	0.01	0.01	0.44	0.32	0.46	0.33
3	Assam	0.32	0.14	10.14	6.32	10.46	6.45
4	Bihar	1.47	0.36	29.42	14.88	30.89	15.24
5	Chattisgarh	0.17	0.15	7.15	8.13	7.32	8.28
6	Goa	0.05	0.05	0.64	1.35	0.68	1.40
7	Gujarat	0.41	0.58	16.29	34.61	16.70	35.19
8	Haryana	0.28	0.45	7.98	13.14	8.26	13.59
9	Himachal Pradesh	0.08	0.07	3.73	2.31	3.80	2.37
10	Jharkhand	0.29	0.18	9.21	7.69	9.49	7.88
11	Karnataka	1.22	2.22	17.88	30.81	19.10	33.03
12	Kerala	0.47	0.44	14.49	16.28	14.96	16.73
13	Madhya Pradesh	0.68	0.51	16.87	26.04	17.55	26.55
14	Maharashtra incl. Mumbai	1.08	1.96	30.40	68.72	31.48	70.67
15	Manipur	0.02	0.02	0.86	1.22	0.88	1.24
16	Meghalaya	0.03	0.01	1.16	0.67	1.19	0.69
17	Mizoram	0.01	0.01	0.47	0.64	0.48	0.65
18	Nagaland	0.02	0.02	0.89	0.62	0.91	0.63
19	Odisha	0.42	0.15	14.00	7.51	14.42	7.66
20	Punjab	0.26	0.45	8.59	16.82	8.84	17.27
21	Rajasthan	0.71	0.70	20.91	23.55	21.62	24.25
22	Sikkim	0.02	0.00	0.36	0.37	0.38	0.37
23	Tamil Nadu incl. Chennai	0.77	1.33	15.13	40.01	15.90	41.35
24	Telangana	0.51	0.52	11.16	19.92	11.67	20.44
25	Tripura	0.03	0.03	0.92	0.98	0.96	1.01
26	Uttar Pradesh (UPE+UPW)	2.82	1.30	49.93	53.63	52.75	54.93
27	Uttarakhand	0.08	0.11	4.06	4.64	4.14	4.74
28	West Bengal incl. Kolkata	1.08	0.81	21.02	35.23	22.09	36.04
Union Territories							
1	Andaman & Nicobar Islands	0.00	0.00	0.20	0.24	0.21	0.24
2	Chandigarh	0.00	0.02	0.04	0.79	0.04	0.81
3	Dadar & Nagar Haweli (incl. Daman & Diu)	0.00	0.01	0.24	0.35	0.24	0.36
4	Delhi	0.26	5.90	0.45	38.09	0.72	43.99
5	Jammu & Kashmir	0.13	0.08	3.95	4.97	4.09	5.05
6	Ladakh	0.00	0.00	0.17	0.03	0.17	0.03
7	Lakshdweep	0.03	0.00	0.02	0.00	0.05	0.00
8	Puduchery	0.01	0.01	0.24	0.42	0.25	0.42
	Total	14.46	19.23	335.06	497.14	349.53	516.37
	Grand Total	33.70		832.20		865.90	

Table 1.31: Internet Subscriber Base and Market Share of top 10 Service Providers

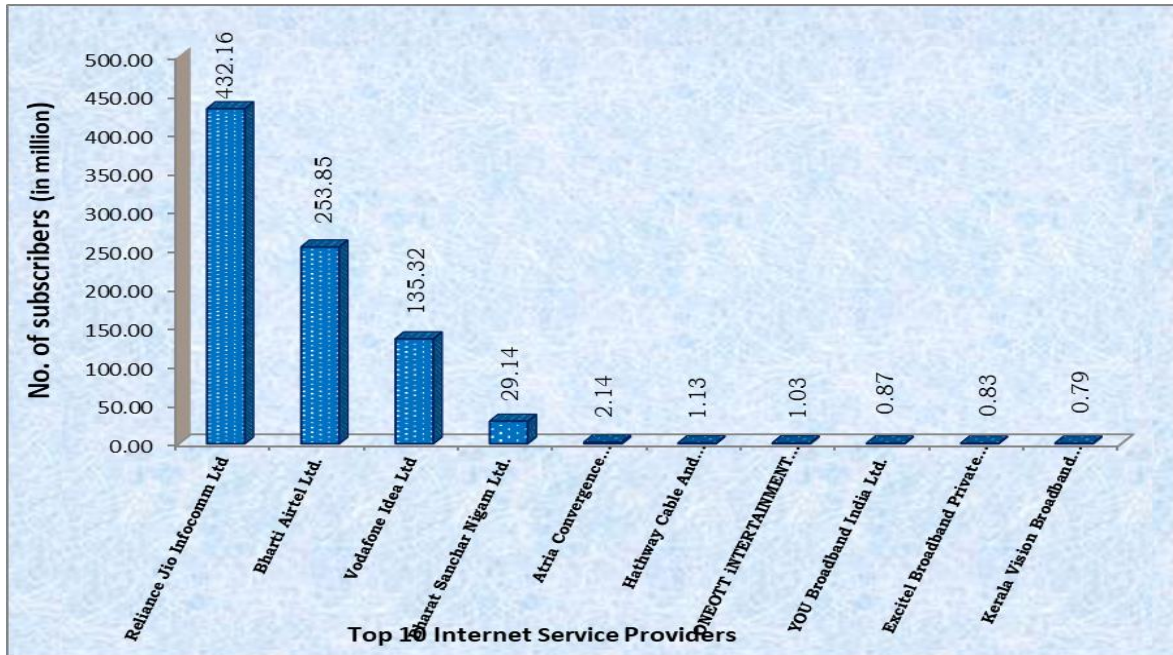
S.No	ISP	No. of Subscribers (In million)	Share (%)
1	Reliance Jio Infocomm Ltd	432.16	49.91
2	Bharti Airtel Ltd.	253.85	29.32
3	Vodafone Idea Ltd	135.32	15.63
4	Bharat Sanchar Nigam Ltd.	29.14	3.37
5	Atria Convergence Technologies Pvt. Ltd.	2.14	0.25
6	Hathway Cable And Datacom Limited	1.13	0.13
7	ONEOTT iNTERTAINMENT LIMITED	1.03	0.12
8	YOU Broadband India Ltd.	0.87	0.10
9	Excitel Broadband Private Limited	0.83	0.10
10	Kerala Vision Broadband Ltd.	0.79	0.09
Total of Top 10 ISPs		857.26	99
Others		8.64	1
Grand Total		865.90	100

1.47 Reliance Jio holds the top position with 49.91% of market share of internet subscribers followed by Bharti Airtel Ltd with 29.32% at the QE Dec-22. M/s Vodafone Idea Ltd held the third position in respect of internet subscriber base with market share of 15.63%.

1.48 Out of total 921 internet service providers, top 10 Service Providers together hold 99% of total internet subscriber base at the QE Dec-22. Detailed table of number of internet subscriber base (broadband and narrowband) of all the service providers is available at **Annexure-1.5**.

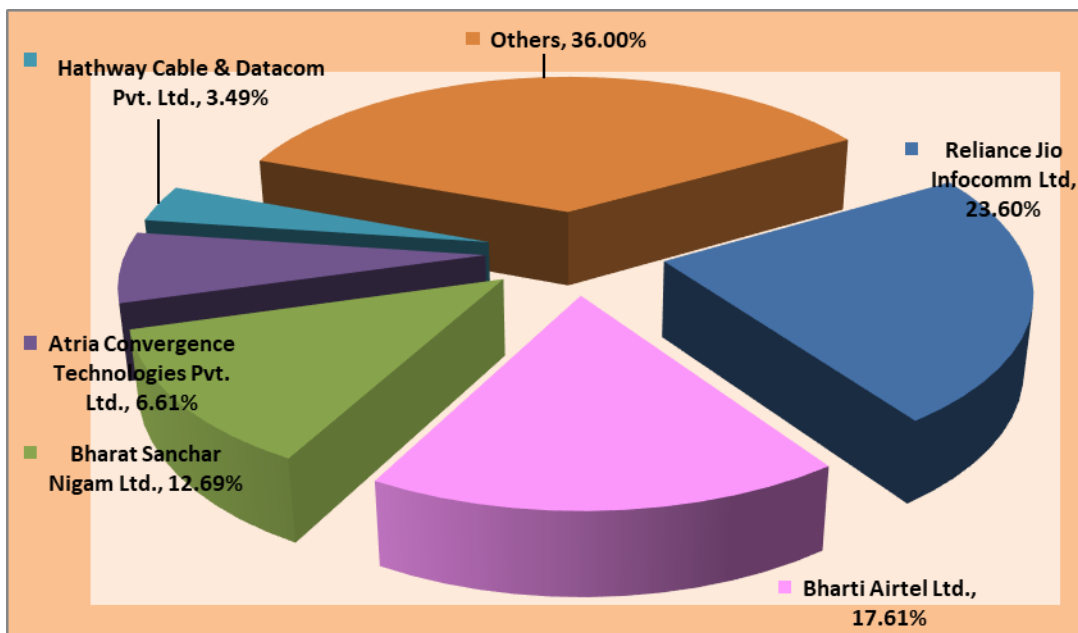
1.49 The following chart depicts the internet subscriber base of top ten Internet Service Providers (ISPs) in the QE Dec-22.

Chart 1.17 : Subscriber base of top ten ISPs



1.50 Out of total 32.41 million wired internet subscribers, Reliance Jio Infocomm Ltd holds 23.60% market share with 7.65 million subscribers, followed by Bharti with 5.71 million subscribers.

Chart 1.18 : Composition of Wired Internet subscribers



1.51 In wireless internet segment, Reliance Jio holds 50.93% market share with 424.52 million subscribers followed by Bharti Airtel Ltd with 29.77% and 248.15 million wireless internet subscribers at the QE Dec-22.

Chart 1.19 : Composition of Wireless Internet subscription

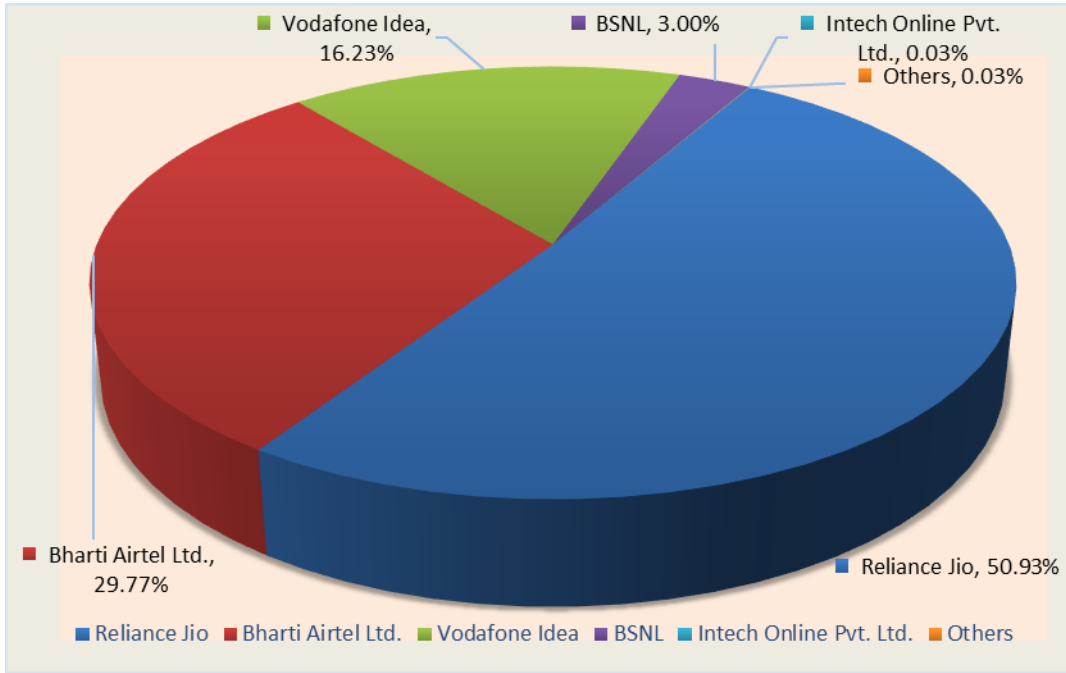


Chart 1.20 : Technology trend for Wireless Internet Access

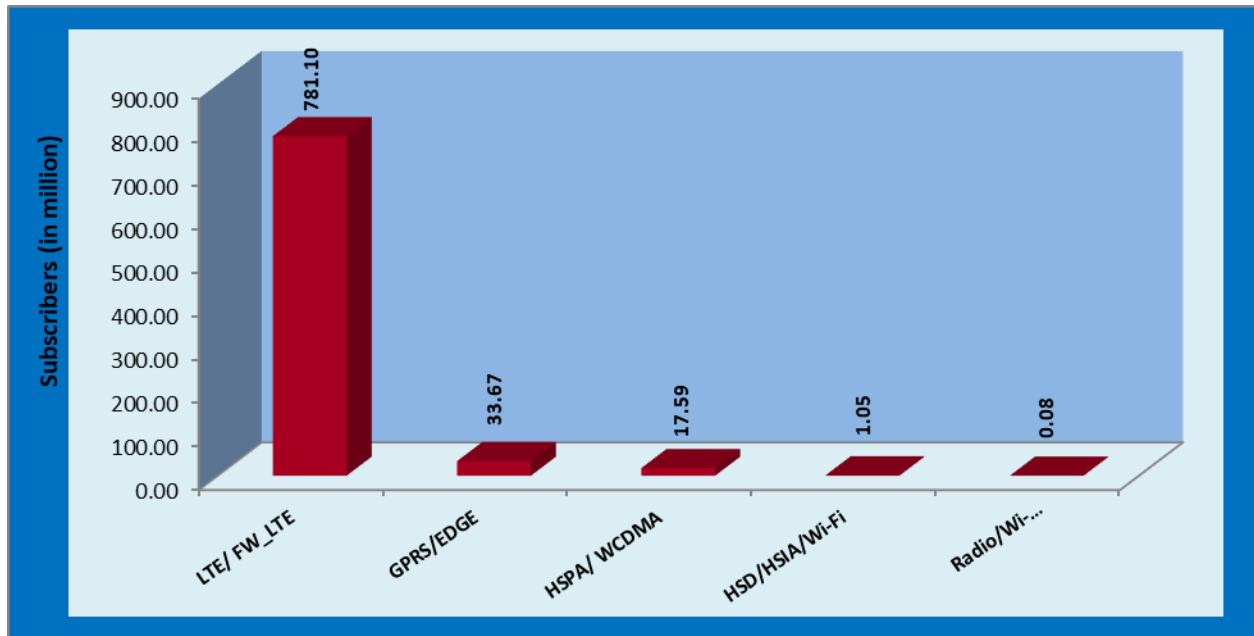
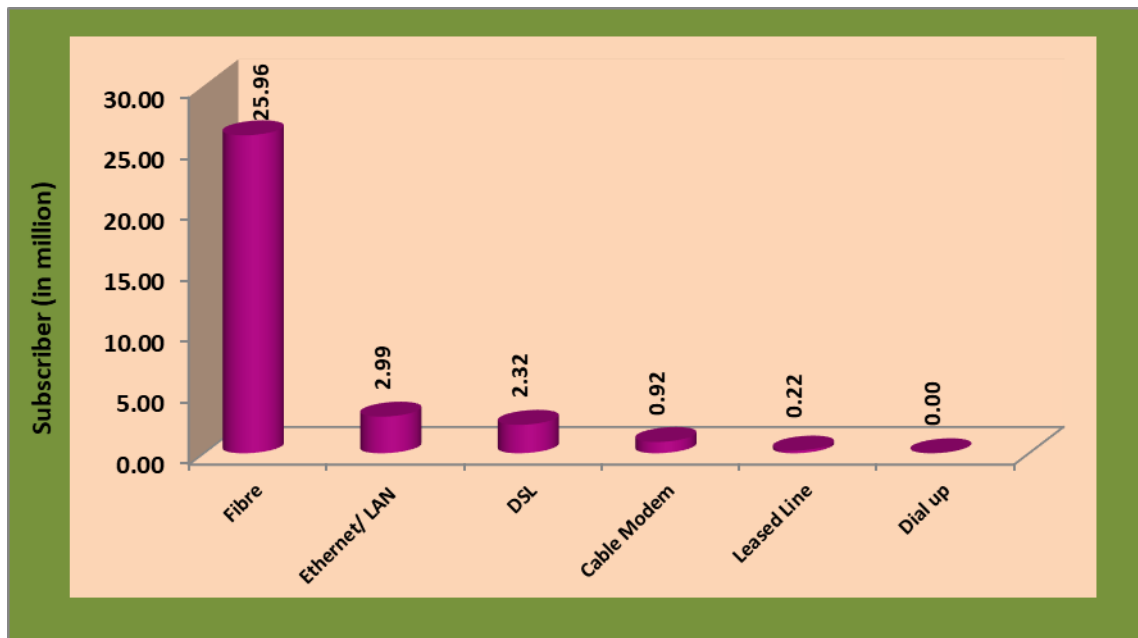


Chart 1.21: Technology trend for Wired Internet Access



1.52 Top five service areas in terms of internet subscriptions (wired+wireless) are Maharashtra 73.83 million, U.P.(East) 68.47 million, Andhra Pradesh 65.01 million, Bihar 63.49 million and Madhya Pradesh 59.70 million.

Table 1.32 : Service Area wise number of Internet Subscribers per 100 population at the end of Dec-22

Service Area	Internet Subscribers (in million)			No. of Internet subscribers per 100 population		
	Rural	Urban	Total	Rural	Urban	Total
Andhra Pradesh	28.07	36.93	65.01	52.21	98.48	71.22
Assam	10.46	6.45	16.91	34.72	116.46	47.42
Bihar	40.38	23.11	63.49	28.84	89.54	38.29
Delhi	0.77	50.54	51.31	-	-	240.99
Gujarat	16.94	35.55	52.50	45.93	99.51	72.30
Haryana	8.21	10.46	18.68	46.98	82.64	61.96
Himachal Pradesh	3.80	2.37	6.18	56.81	308.72	82.77
Jammu & Kashmir	4.25	5.08	9.33	44.04	119.84	67.16
Karnataka	19.10	33.04	52.14	50.74	110.22	77.10
Kerala	15.01	16.73	31.74	167.68	62.26	88.60
Madhya Pradesh	24.87	34.83	59.70	29.84	104.93	51.23
Maharashtra	31.11	42.72	73.83	49.18	115.57	81.59
Mumbai	1.05	29.38	30.43			
North East	4.87	4.51	9.38	47.33	82.97	59.66
Orissa	14.42	7.66	22.08	40.14	91.80	49.88
Punjab	8.88	18.06	26.94	49.68	128.55	84.39
Rajasthan	21.62	24.26	45.88	36.41	112.82	56.73
Tamil Nadu	16.14	41.77	57.91	44.67	98.67	73.81
UP (East)	38.46	30.01	68.47	30.54	92.75	45.82
UP (West)	18.43	26.23	44.66			
Kolkata	1.31	17.23	18.55	35.87	99.43	59.28
West Bengal	21.37	19.42	40.79			
Total	349.53	516.37	865.90	38.93	106.19	62.56

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

Notes:

- No. of total internet subscribers per 100 population is derived from the subscriber data provided by the operators and the and the projection of population from the 'Report of the Technical Group on Population Projections for India and States 2011 - 2036', which is available under the link https://main.mohfw.gov.in/sites/default/files/Population%20Projection%20Report%202011-2036%20-%20upload_compressed_0.pdf
- Data/information for Andhra Pradesh includes Telengana, Madhya Pradesh includes Chhatishgarh, Bihar includes Jharkhand, Maharashtra includes Goa, Uttar Pradesh includes Uttarakhand, West Bengal includes Sikkim and North-East includes Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland & Tripura states.

Table 1.33 : State/UT wise number of Internet Subscribers per 100 population at the end of Dec-22

S.N.	State(s)	Total Subscribers (In million)			Tele-density (%)		
		Rural	Urban	Total	Rural	Urban	Total
1	Andhra Pradesh	16.40	16.49	32.90	48.52	85.37	61.92
2	Arunachal Pradesh	0.46	0.33	0.78	39.23	81.60	50.06
3	Assam	10.46	6.45	16.91	34.72	116.48	47.42
4	Bihar	30.89	15.24	46.13	27.85	98.23	36.48
5	Chattisgarh	7.32	8.28	15.60	33.32	101.50	51.78
6	Goa	0.68	1.40	2.08	178.07	117.64	132.36
7	Gujarat	16.70	35.19	51.89	45.58	101.36	72.72
8	Haryana	8.26	13.59	21.86	47.26	107.34	72.49
9	Himachal Pradesh	3.80	2.37	6.18	56.81	308.71	82.77
10	Jharkhand	9.49	7.88	17.37	32.63	76.48	44.10
11	Karnataka	19.10	33.03	52.13	50.73	110.19	77.09
12	Kerala	14.96	16.73	31.68	167.11	62.41	88.62
13	Madhya Pradesh	17.55	26.55	44.10	28.59	106.06	51.04
14	Maharashtra	31.48	70.67	102.16	48.42	115.48	80.94
15	Manipur	0.88	1.24	2.12	40.67	118.72	65.94
16	Meghalaya	1.19	0.69	1.88	44.77	99.91	56.14
17	Mizoram	0.48	0.65	1.12	85.78	95.03	90.87
18	Nagaland	0.91	0.63	1.54	74.76	62.13	69.00
19	Odisha	14.42	7.66	22.08	40.14	91.81	49.88
20	Punjab	8.84	17.27	26.11	49.48	134.67	85.06
21	Rajasthan	21.62	24.25	45.87	36.41	112.76	56.71
22	Sikkim	0.38	0.37	0.75	108.32	111.19	109.72
23	Tamil Nadu incl. Chennai	15.90	41.35	57.24	44.60	100.40	74.51
24	Telangana	11.67	20.44	32.11	58.46	112.41	84.17
25	Tripura	0.96	1.01	1.97	37.84	62.51	47.46
26	Uttar Pradesh (UPE+UPW)	52.75	54.93	107.68	29.50	97.26	45.76
27	Uttarakhand	4.14	4.74	8.89	55.56	114.00	76.49
28	West Bengal incl. Kolkata	22.09	36.04	58.13	35.26	99.14	58.72
Union Territories							
1	Andaman & Nicobar Islands	0.21	0.24	0.45	91.17	137.39	111.54
2	Chandigarh	0.04	0.81	0.84	-	-	68.62
3	Dadar & Nagar Haweli (incl. Daman & Diu)	0.24	0.36	0.60	101.04	35.98	48.25
4	Delhi	0.72	43.99	44.70	-	-	209.94
5	Jammu & Kashmir	4.09	5.05	9.13	43.26	121.80	67.21
6	Ladakh	0.17	0.03	0.20	79.57	32.16	64.98
7	Lakshdweep	0.05	0.00	0.05	-	-	79.21
8	Puduchery	0.25	0.42	0.67	50.13	36.93	40.87
Total		349.53	516.37	865.90	38.93	106.19	62.56

ISP Connectivity

1.53 The International Internet bandwidth owned by various service providers is reported to be 33,973 Gbps during the quarter ending Dec-22 as compared to 33,607 Gbps during the previous quarter.

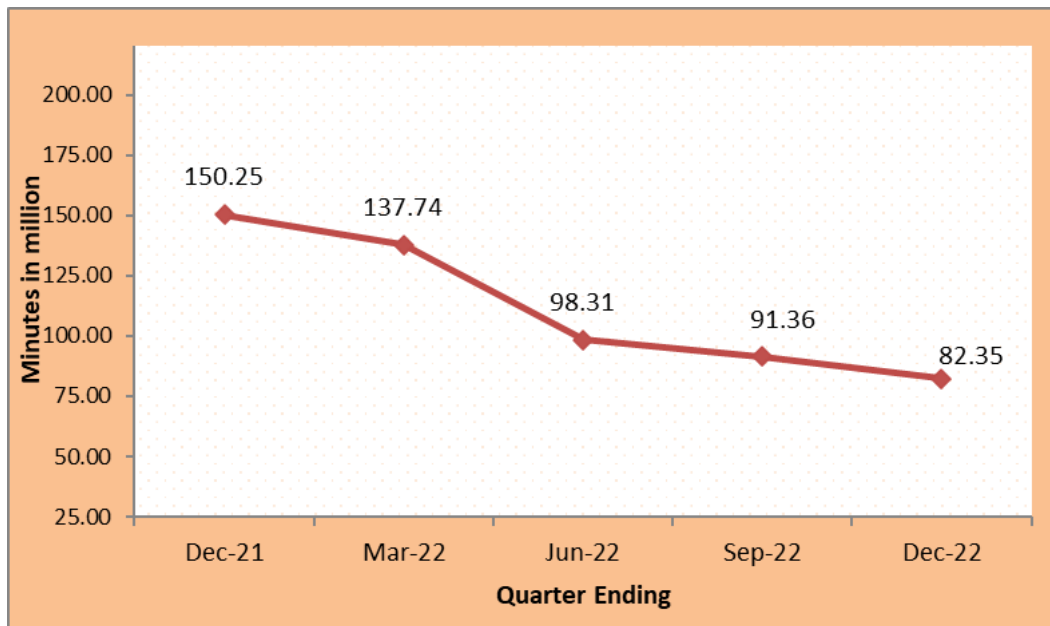
Public WiFi Hotspot

1.54 A public Wi-Fi hotspot is an area where you can access Wi-Fi enabled internet. These areas are usually created in places such as malls, coffee shops, airports, stadiums, and parks to name a few. This report also includes information on Public Wi-Fi Hotspots, as on 31st December, available at **Annexure-1.6**.

Internet Telephony

1.55 As per the reports received from 13 service providers, providing Internet Telephony services, the total outgoing minutes of usage for internet telephony decreased from 91.36 million minutes at the end of Sep-22 to 82.35 million minutes at the end of Dec-22. List of Internet Telephony Service providers is available at **Annexure-1.7**.

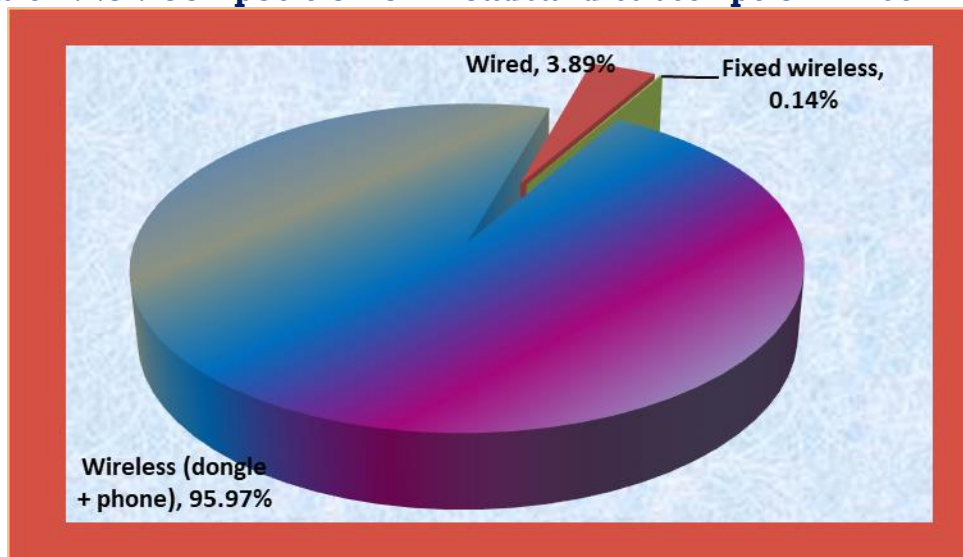
Chart 1.22 : Trends in MOU for Internet Telephony



Part-II : Broadband Service (Download Speed >=512 Kbps)

- 1.56 The total number of broadband subscribers increased from 815.93 million at the end of Sep-22 to 832.20 million at the end of Dec-22. Out of which number of wired broadband subscribers are 32.38 million and wireless broadband subscribers are 799.82 million.
- 1.57 Top five broadband (wired+wireless) service providers in term of subscribers are Reliance Jio 432.16 million, Bharti Airtel 234.46 million, Vodafone Idea Ltd 123.87 million, BSNL 26.35 million and Atria Convergence 2.14 million.
- 1.58 In wired broadband segment, Reliance Jio Infocomm Ltd. holds 23.62% market share with 7.65 million subscribers followed by Bharti Airtel Ltd. with 5.71 million subscribers in QE Dec-22.
- 1.59 In wireless broadband segment, Reliance Jio holds 53.08% market share with 424.52 million subscribers followed by Bharti Airtel Ltd 28.60% with 228.76 million subscribers in QE Dec-22.
- 1.60 Top five service areas in respect of broadband subscriptions at Q.E. Dec-22 are Maharashtra 71.73 million, U.P.-East 65.59 million, Andhra Pradesh 62.60 million, Bihar 61.20 million and Madhya Pradesh 58.19 million.

Chart 1.23 : Composition of Broadband subscription – Technology wise



1.61 Mobile Device Users (dongle+phone) constitute 95.97% of total broadband subscribers at the end of Dec-22.

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

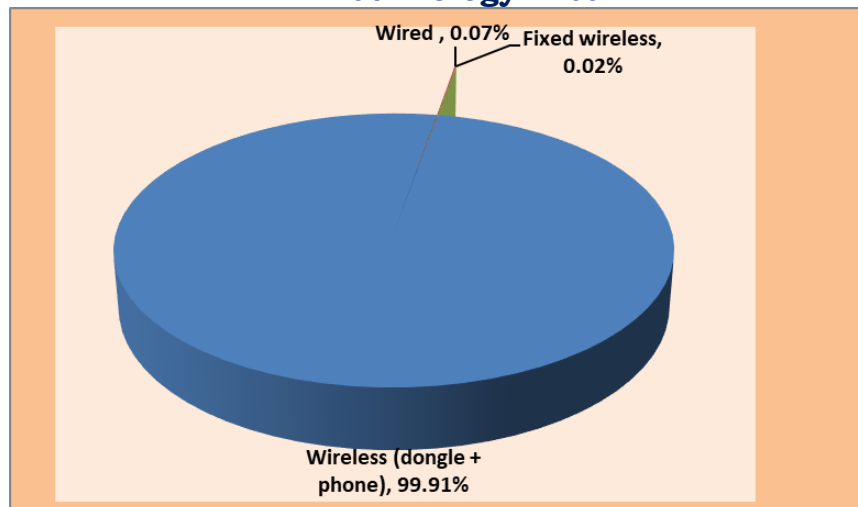
1.62 Total number of narrowband subscribers decreased from 35.01 million at the end of Sep-22 to 33.70 million at the end of Dec-22 with the quarterly decline rate of 3.76%. Out of 33.70 million narrowband subscribers, Wired Narrowband subscribers are 0.02 million and Wireless Narrowband subscribers are 33.68 million.

1.63 The top five narrowband (wired+wireless) service providers in term of subscriber base are Bharti Airtel 19.39 million, Vodafone Idea Ltd 11.44 million, BSNL 2.79 million, MTNL 0.04 million and YOU Broadband India Ltd. 0.01 million at the end of Dec-22.

1.64 In wired narrowband segment, YOU Broadband India Ltd. hold 60.25% market share with 0.014 million subscribers followed by TENG Network solution Pvt. Ltd. with 0.002 million subscribers.

1.65 In wireless narrowband segment, Bharti Airtel holds 57.59% market share with 19.39 million subscribers followed by Vodafone Idea Ltd with 11.44 million subscribers.

Chart 1.24 : Composition of Narrowband subscription – Technology wise



Section E : Other Value Added Services - PMRTS & VSAT

Public Mobile Radio Trunk Services (PMRTS)

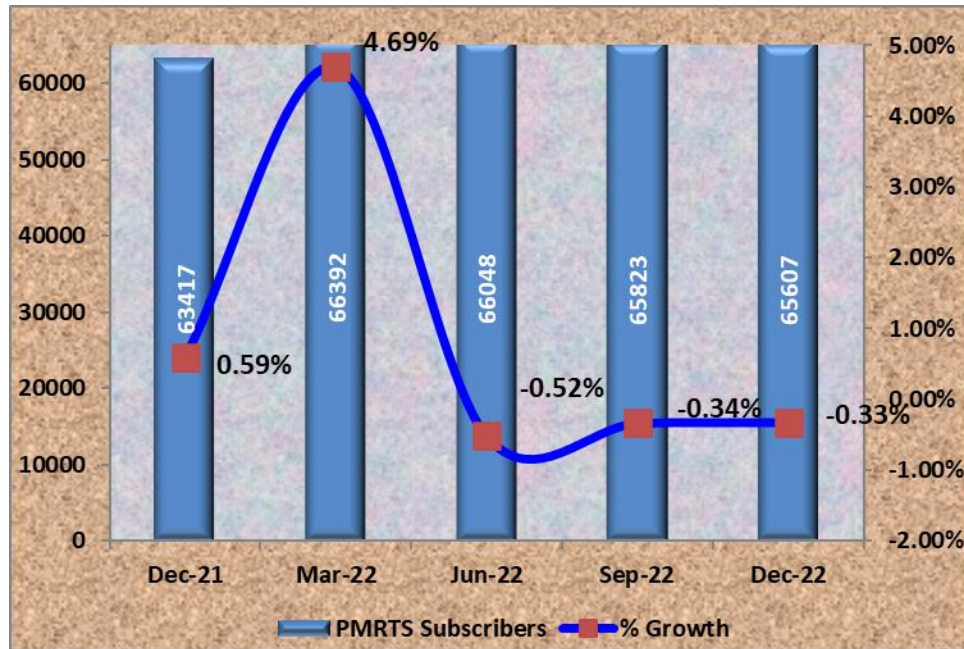
1.66 The subscriber base of PMRTS decreased from 65,823 at the end of Sep-22 to 65,607 at the end of Dec-22 with quarterly decline rate of 0.33%.

Table 1.34 : PMRTS Subscriber base - Service Provider wise

Sl. No	Name of the Service Provider	Subscriber Base as on 30.06.2022	Subscriber Base as on 30.09.2022	Net Addition	% Growth in subscribers in QE Sep-22
1	Arya Omnitalk Radio Trunking Services Pvt. Ltd.	53,795	53,720	-75	-0.14
2	Procall Ltd.	4,218	4,158	-60	-1.42
3	Quick Call	1,895	1,836	-59	-3.11
4	Inative Networks Pvt Ltd	1,825	1,825	0	0.00
5	Smartalk Pvt Ltd	1,570	1,501	-69	-4.39
6	Bhilwara Telenet Services Pvt Ltd	882	889	7	0.79
7	Wiwonet Solutions Pvt Ltd	1,046	1,048	2	0.19
8	Airtalk Solutions & Services Pvt Ltd	592	630	38	6.42
Total		65,823	65,607	-216	-0.33

1.67 Detailed table on Service Area wise subscriber base of PMRTS as on 31st December, 2022 is available at **Annexure-1.8**.

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



Very Small Aperture Terminal (VSAT)

1.68 The total number of VSAT subscribers decreased from 2,65,505 at the end of Sep-22 to 2,63,066 at the end of Dec-22. Net decrease during the quarter has been 2,439 at the decline rate of 0.92%.

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

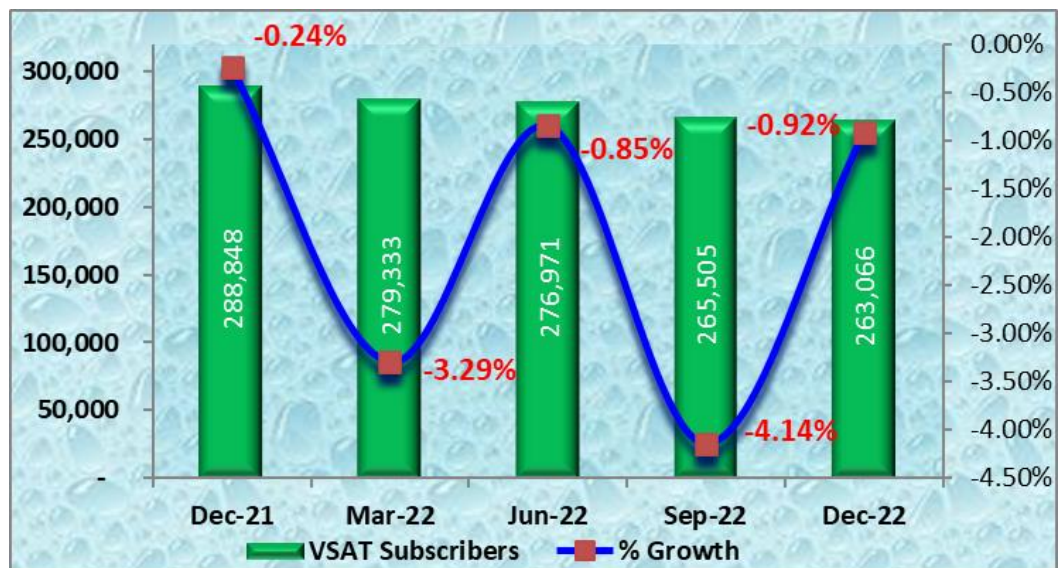


Table 1.35 : VSAT Service Providers currently providing service & their subscriber base

Sr. No	Name of Service Providers	Subscriber base at the Quarter ending		Net Addition	%age Growth	Market Share (%) Dec-22
		Sep-22	Dec-22			
1	Hughes Communications Ltd.	1,82,003	1,78,791	-3212	-1.76	67.96
2	Nelco Ltd.	74,441	75,126	685	0.92	28.56
3	BSNL	6,387	6,526	139	2.18	2.48
4	Infotel Satcom	2,624	2,616	-8	-0.30	0.99
5	Cloudcast Digital (earthwhile Planetcast Media Services)	50	7	-43	-86	0.00%
Total		2,65,505	2,63,066	-2,439	-0.92%	100

1.69 Hughes Communications Ltd. is the market leader having 1,78,791 subscribers with market share of 67.96% followed by Nelco Ltd. having 75,126 subscribers with market share of 28.56% at the end of Dec-22.

1.70 In term of net addition except Nelco Ltd. and BSNL all other service providers have registered decline in their VSAT subscribers during this quarter.

Chapter 2 :

Revenue and Usage

Wireless Services

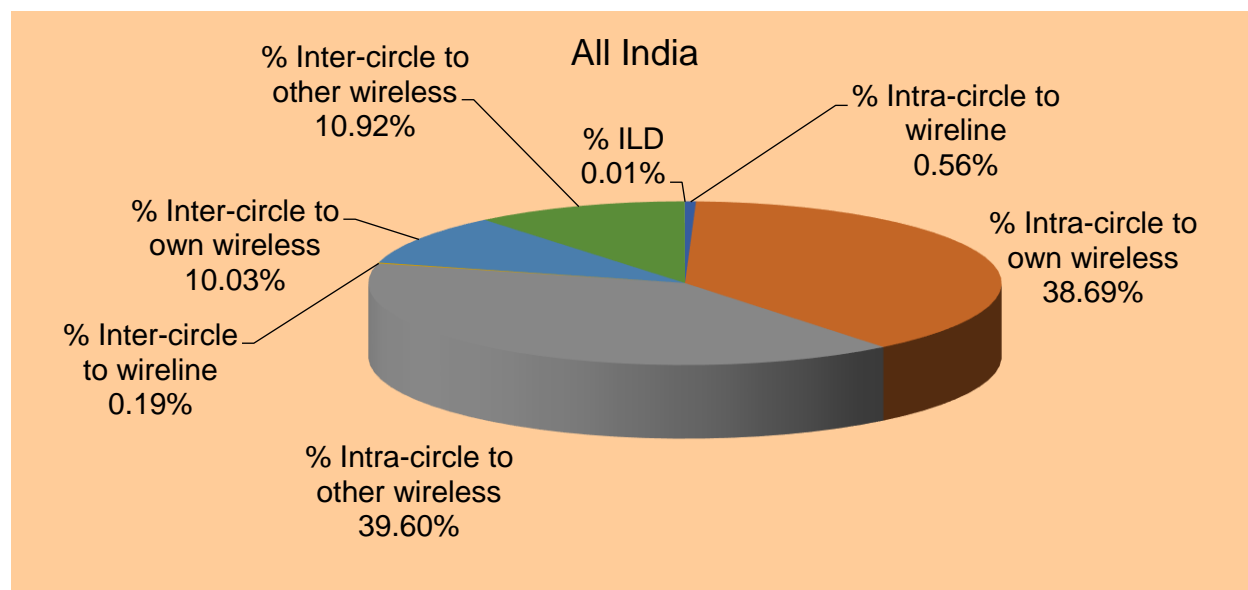
-
- For all the parameters, Metros indicate data for Delhi, Mumbai & Kolkata. Data for Chennai service area has been included in Circle A, as part of TN.
 - ARPU arrived after adjusting interconnect usage charges and roaming settlement charges.
 - The data contained in this section covers the licensees, who have been providing service during the entire period from 1st October, 2022 to 31st December, 2022 in the various service areas.

Table 2.1: Key Indicators – Wireless Services

Parameter	Dec-22	Sep-22	Dec-21	QoQ %age change	YoY %age change
Share of Prepaid (%)	92.21%	92.43%	93.62%	-0.24%	-1.51%
Incoming MOU per subscriber per month	459.57	447.31	427.19	2.74%	7.67%
Outgoing MOU per subscriber per month	459.07	446.74	427.28	2.76%	7.44%
No. of Outgoing SMS per subscriber per month	12.26	12.79	14.13	-4.07%	-13.19%
Average Revenue Per User (ARPU) per month (Rs.)	141.14	137.31	114.16	2.79%	23.63%

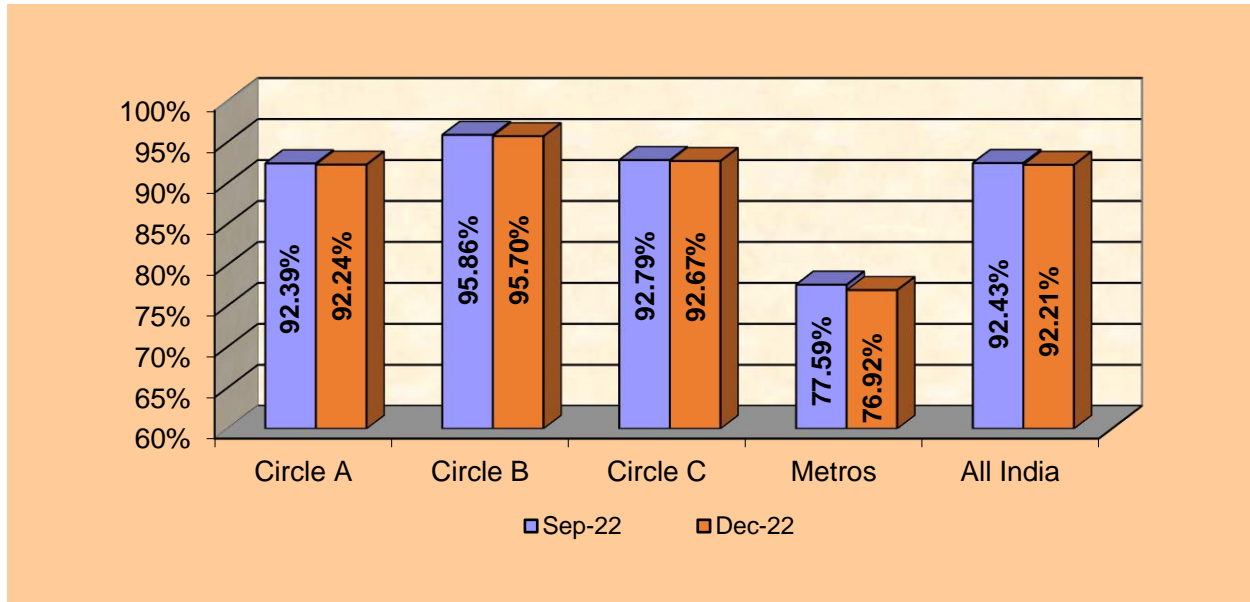
2.1 The following chart presents % break-up of outgoing minutes from Home Service Area (HSA) in the QE Dec-22.

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



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

Chart 2.2: Proportion of prepaid subscribers



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

- 2.3 The Market share of pre-paid segment has decreased from 92.43% at the end of September- 2022 to 92.21% at the end of December- 2022.
- 2.4 The ARPU per month (all India blended) increased from Rs.137.31 in Q.E. September- 2022 to Rs.141.14 in Q.E. December- 2022 with quarterly growth rate of 2.79%. Year-on-Year basis, ARPU per month increased by 23.63% in this quarter. The ARPU for private service providers increased by 2.54% from Rs.146.13 in Q.E. September-2022 to Rs.149.84 in Q.E. December-2022 and for PSUs (BSNL/MTNL) increased by 5.46% from Rs. 57.00 in Q.E. September-2022 to Rs.60.11 in Q.E. December-2022.
- 2.5 The ARPU per month for the pre-paid segment is Rs. 137.71 and the ARPU per month for the post-paid segment is Rs. 182.30 for Q.E. December- 2022.
- 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-22

Circle Category	ARPU per month (in Rs.)		
	Post-paid	Pre-paid	Blended
Circle A	219.55	157.78	162.55
Circle B	166.45	128.11	129.72
Circle C	164.93	130.98	133.45
Metros	160.02	118.04	127.61
All India	182.30	137.71	141.14
All private SPs	185.66	146.69	149.84
BSNL/MTNL	117.12	57.80	60.11

2.7 The following table presents the composition of ARPU per month for QE Dec-22.

Table 2.3: Composition of ARPU per month - Wireless Services

S. No.	Item	Revenue (excl. service tax) per subscriber per month (in Rs.)	Share of total revenue from subscribers
1	Usage from Home Service Area		
1.1.	Rental Revenue	0.81	0.5%
1.2.	Revenue from calls	14.79	10.1%
1.3.	Revenue from SMS	0.23	0.2%
1.4.	Revenue from data usage	125.05	85.1%
1.5.	Revenue from other VAS	1.44	1.0%
1.6.	Other revenue	3.33	2.3%
2	Usage outside Home Service Area		
2.1.	Revenue from out-roamers	1.31	0.9%
3	Total revenue from subscribers (1+2)	146.96	100%
4	Net inter-operator settlement charges receivable *	-5.82	
5	Net Revenue (ARPU) per month (3+4)	141.14	

* includes Interconnect Usages Charges and roaming settlement charges

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

2.8 From the above table, it may be seen that the net inter-operator settlement charges payable incl. other income (Rs. 5.82) accounted for 3.96% of the total revenue from subscribers in the Q.E. December- 2022.

2.9 On an all-India average, the overall MOU per subscriber per month increased by 2.79% from 894 in Q.E. September-2022 to 919 in Q.E. December-2022.

2.10 The following table presents the total MOU (usage from, and outside, the home service area) per subscriber per month for various categories of circles and various platforms for payment viz. post-paid and pre-paid during Q.E. Dec-22.

Table 2.4: MOU per subscriber per month - QE Dec-22

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	276	256	532	429	423	852	417	410	827
Circle B	324	314	639	464	473	937	458	466	924
Circle C	405	366	771	575	601	1175	562	584	1146
Metro	190	168	358	512	472	984	439	403	842
All India	281	260	542	474	477	950	459	460	919

2.11 overall ratio of incoming MOUs and outgoing MOUs for the Q.E. Dec-2022 is 50:50.

2.12 Average number of Outgoing SMS per subscriber per month is 12 in Q.E. December-2022. The following table presents the outgoing SMS usage (usage from and outside, the home service area) per subscriber per month for various categories of circles and various categories of subscribers viz. post-paid and pre-paid during Q.E. December-2022.

Table 2.5: No. of Outgoing SMS per subscriber per month during QE Dec-22

Circle category	Outgoing SMS per subscriber per month		
	Post-paid	Pre-paid	Blended
Circle A	19	13	13
Circle B	11	11	11
Circle C	16	16	16
Metro	6	10	9
All India	13	12	12

Chart 2.3 : Minutes of Usage by Out-roamers as a % of Total Minutes of Usage during Q.E. Dec-2022

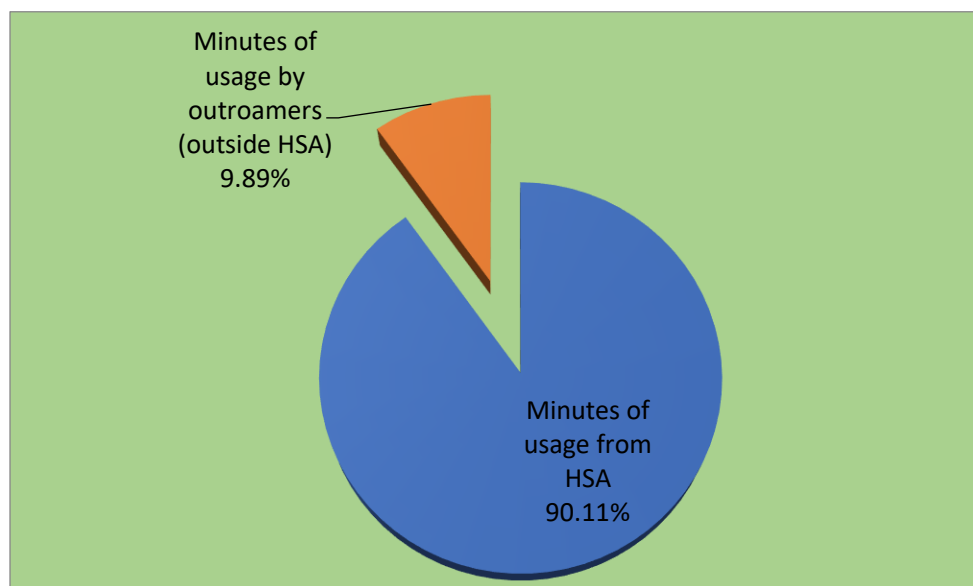
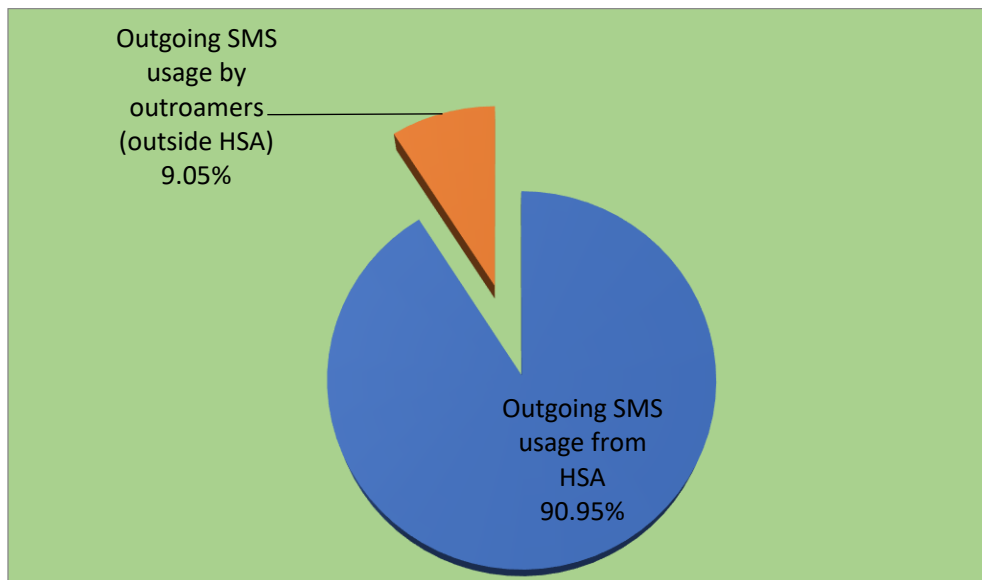


Chart 2.4: Outgoing SMS Usage by Out-roamers as a % of Total No. of Outgoing SMS Usage during Q.E. Sep-2022



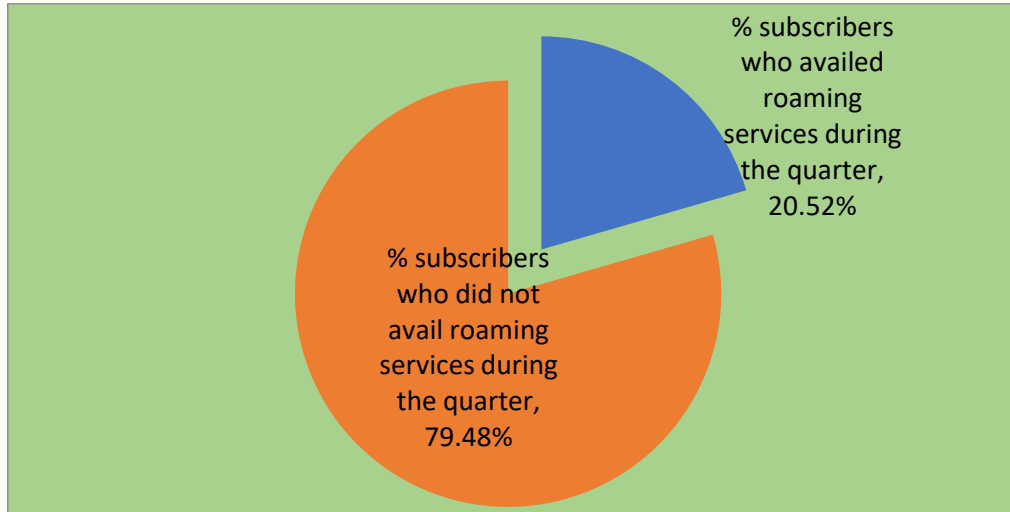
2.13 The following table presents the percentage break-up of outgoing minutes of usage from home service area between various categories of termination networks in the Q.E. Dec-22.

Table 2.6: % Break-up of Outgoing minutes from Home Service Area (HSA) during the Q.E. Dec-2022

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	0.52%	40.95%	44.03%	0.16%	6.83%	7.49%	0.02%
Circle B	0.56%	37.79%	40.67%	0.17%	9.81%	10.99%	0.01%
Circle C	0.48%	41.54%	33.60%	0.18%	12.20%	11.99%	0.00%
Metros	0.85%	28.23%	31.64%	0.36%	18.03%	20.85%	0.04%
All India	0.56%	38.69%	39.60%	0.19%	10.03%	10.92%	0.01%

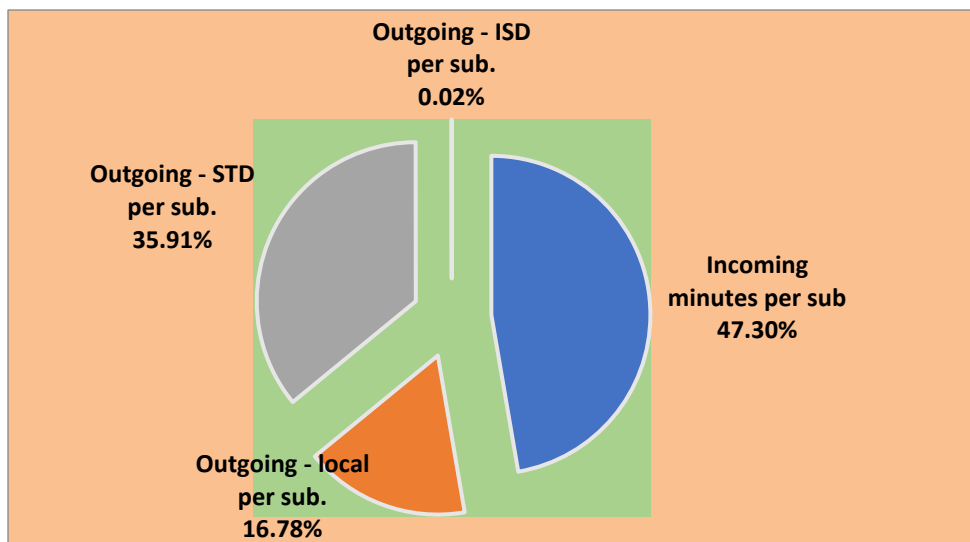
2.14 The following chart presents the share of outroamers (who had availed roaming services) as a percentage of total subscribers during Q.E. Dec-22.

Chart 2.5: % Share of outroamers as a percentage of total subscribers during Q.E. Dec-2022



2.15 The usage pattern of outroamers i.e. usage from outside the home service area shows that incoming minutes accounts for 47.30% of the total minutes of usage by outroamers in Q.E. December-2022 as against 47.25% in the Q.E. September-2022. The chart given below presents the break-up of minutes of usage of outroamers.

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



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

Average Revenue per Outgoing Minute of usage from HSA

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

Table 2.7: Average revenue per outgoing minute from HSA in QE Dec-22

(In Rs. per minute)

Circle Category	Postpaid	Prepaid	Blended
Circle A	0.05	0.04	0.04
Circle B	0.03	0.04	0.04
Circle C	0.01	0.03	0.03
Metros	0.05	0.03	0.03
All India	0.04	0.04	0.04

2.17 All India average revenue per outgoing minute is constant at 0.04 in Q.E December-2022 and Q.E. September-2022.

Table 2.8: Trends of Key Parameters - Wireless Services

Parameter	Dec-21	Mar-22	Jun-22	Sep-22	Dec-22
1. ARPU (Rs. Per month)	114.16	127.17	133.55	137.31	141.14
2. Average revenue Realization per subscriber per GB wireless data (in Rs.)	9.91	10.47	10.29	9.94	10.10
3. MOU per subscriber per month	854	955	914	894	919
4. Outgoing MOU per subscriber per month					
4.1 Local (Intra-circle)	319	332	342	331	339
4.2 NLD (inter-circle)	108	176	115	115	120
4.3 ILD	0.05	0.05	0.05	0.05	0.05
5. Average no. of Outgoing SMS per subscriber per month	14	13	14	13	12
6. Average revenue per outgoing minute from HSA (in Rs.)	0.04	0.03	0.04	0.04	0.04

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

Chapter 3 :

Financial Data of Telecom Service Sector

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

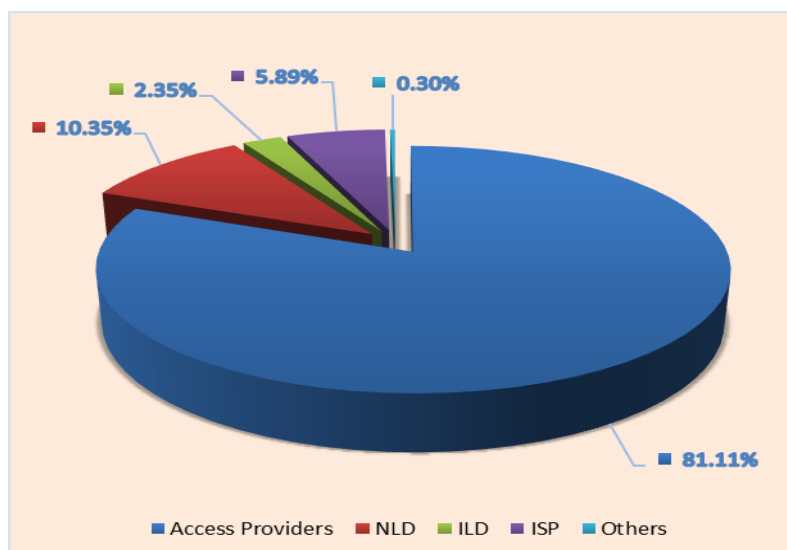
Particulars	QE Dec-21 (Rs. in Crore)	QE Sep-22 (Rs. in Crore)	QE Dec-22 (Rs. in Crore)	Q-O-Q % Change	Y-O-Y % Change
Gross Revenue (GR)	69,695	83,767	88,166	5.25	26.50
Applicable Gross Revenue (ApGR)	--	74,713	76,627	2.56	--
Adjusted Gross Revenue (AGR)	55,151	61,981	62,904	1.49	14.06
Pass Through Charges (PTC)	14,544	13,445	14,381	6.96	-1.12
License Fee (LF)	4,541	4,921	5,031	2.24	10.79
Spectrum Usage Charges (SUC)	1,760	1,403	811	-42.14	-53.89

- 3.1 Gross Revenue (GR) increased by 5.25%, Applicable Gross Revenue (ApGR) increased by 2.56% and Adjusted Gross Revenue (AGR) increased by 1.49% during QE Dec-22. On YoY basis GR increased by 26.50% and AGR increased by 14.06% in QE Dec-22.
- 3.2 Pass through charges increased by 6.96% in QE Dec-22, however on YoY basis it decreased by 1.12%.
- 3.3 Pass-through charges as a percentage of Gross Revenue are 16.31% in QE Dec-22 as against 16.05% in the previous quarter.

**Table 3.2: Service-wise GR, ApGR, AGR, LF, SUC and PTC for QE Dec-22
(in Rs. Crore)**

Service	GR	ApGR	AGR	LF	SUC	PTC
Access Providers	72,132.83	61,763.08	51,022.80	4,082.42	806.81	10,974.35
NLD	7,335.47	6,495.99	6,513.06	521.10	-	219.45
ILD	3,543.23	3,456.26	1,479.43	118.60	-	2,017.08
ISP	4,978.21	4,725.37	3,702.86	296.04	-	1,164.08
Others	176.63	186.71	185.59	13.21	4.68	5.76
Total	88,166.38	76,627.40	629,03.76	5,031.37	811.49	14,380.73

Chart 3.1: Composition of Adjusted Gross Revenue



3.4 Access services contributed 81.11% of the total Adjusted Gross Revenue of telecom services. In Access services, Gross Revenue (GR), Applicable Gross Revenue (ApGR), Adjusted Gross Revenue (AGR), License Fee (LF), Spectrum Usage (SUC)⁹ and Pass Through Charges (PTC) increased by 5.72%, 1.86%, 1.38%, 1.38%, -42.29%, and 4.78% respectively in QE Dec-22.

Table 3.3: Access Services - Service Provider wise Adjusted Gross Revenue
(Rs.in Crore)

Service Provider	AGR			Q-o-Q Growth (%)	Y-o-Y Growth (%)
	(Rs. in Crore)				
	Q.E. Dec 2021	Q.E. Sep 2022	Q.E. Dec 2022		
Reliance Jio	19,063.75	22,192.19	22,586.32	1.78	18.48
Bharti Airtel	14,484.48	17,893.47	18,290.13	2.22	26.27
Vodafone Idea	6,541.83	7,478.73	7,328.74	-2.01	12.03
BSNL	1,984.94	1,929.24	1,985.74	2.93	0.04
Tata	530.21	571.83	574.18	0.41	8.29
MTNL	254.78	201.67	188.61	-6.47	-25.97
Reliance	61.69	53.40	51.22	-4.07	-16.97
V-Con Mobile & Infra	-4.80	-4.38	14.98	442.13	412.17

⁹ Spectrum Usage Charge is payable by the licensees providing mobile access services, as a percentage of their Adjusted Gross Revenue (AGR).

(Source – DoT License Agreement)

Service Provider	AGR			Q-o-Q Growth (%)	Y-o-Y Growth (%)
	(Rs. in Crore)				
	Q.E. Dec 2021	Q.E. Sep 2022	Q.E. Dec 2022		
GPX Services	0.00	0.75	2.04	173.79	0.00
Quadrant	13.22	8.82	0.75	-91.51	-94.33
Shyam Spectra	0.00	0.04	0.08	91.88	91.88
Tata Play Broadband	0.00	1.34	0.00	- 100.00	0.00
Total	42,930.10	50,327.10	51,022.80		

3.5 Public Sector Undertakings' share in the Access AGR of telecom services is 4.26% in the QE Dec-22.

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

Category	AGR of Access Services for QE Dec-22 (in crore)	%age share of AGR
Metro	5,369.74	10.52
A	19,415.37	38.05
B	18,744.22	36.74
C	7,493.48	14.69
Total	51,022.80	100

Notes: -

1. Figures are **un-audited** and as submitted by the TSPs.
2. A copy of quarterly Statement(s) of Revenue and Licence Fee and Spectrum Charges filed with the licensor(DoT) is submitted by Telecom Service Providers to TRAI in reference to TRAI's Order No.RP-5/13/(8)/2022/FEA-II, dated 12th December, 2022.
3. The figures have been re-grouped wherever considered necessary for analysis purpose.
4. Percentage of contribution of Five TSPs of Public Sector (BSNL, MTNL, Rail Tel, Power Grid, Oil India and Bharat Broadband) to AGR in NLD Service and two TSPs of Public Sector (BSNL/MTNL) in Access Services and BSNL in ILD Services.
5. For all the parameters metros indicate data for Delhi, Mumbai and Kolkata. Data for Chennai Service Area has been included as part of Tamil Nadu

Chapter 4 : Quality of Service (QoS)

Section A: Quality of Service of Cellular Mobile Service Providers

Table 4.1: QoS Summary - Cellular Mobile Service

Summary of Performance of Service providers against identified parameters

S. No.	Parameters	Bench mark	Performance in respect of UASL/CMTS Licensees for the Parameters and Benchmarks			
			For Quarter Ending Sept, 2022		For Quarter Ending Dec, 2022	
			Out of 88 (Nos.)	Out of 88 (%)	Out of 88 (Nos.)	Out of 88 (%)
I.	Network Related Parameters					
1	Network Availability					
(a)	BS Accumulated down-time (not available for service) (%age)	$\leq 2\%$	0	0.00%	0	0.00%
(b)	Worst affected BS due to down-time (%age)	$\leq 2\%$	0	0.00%	0	0.00%
2	Connection Establishment (Accessibility)					
(a)	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	0.00%	0	0.00%
(b)	SDCCH/ Paging Channel Congestion/ RRC Congestion (% age)	$\leq 1\%$	0	0.00%	0	0.00%
(c)	TCH, RAB and E-RAB congestion (%age)	$\leq 2\%$	0	0.00%	0	0.00%
3	Connection Maintenance (Retain ability)					
(a)	Network QoS DCR Spatial Distribution Measure [Network_ QSD (90,90)]	$\leq 2\%$	0	0.00%	0	0.00%
(b)	Network QoS DCR Temporal Distribution Measure [Network_ QTD (97,90)]	$\leq 3\%$	0	0.00%	0	0.00%
(c)	Connections with good voice quality, Circuit Switched Voice Quality and VoLTE quality	$\geq 95\%$	0	0.00%	0	0.00%

(d)	Down Link (DL) Packet Drop Rate or DL-PDR	≤ 2%	0	0.00%	0	0.00%
(e)	Up Link (UL) Packet Drop Rate or UL-PDR	≤ 2%	0	0.00%	0	0.00%
4	Point of Interconnection (POI) Congestion (No. of POIs not meeting the benchmark)	≤ 0.5%	0	0.00%	0	0.00%
II. Customer Service Quality Parameters						
5	Metering and billing credibility - post paid	≤ 0.1%	0	0.00%	0	0.00%
6	Metering and billing credibility - prepaid	≤ 0.1%	0	0.00%	0	0.00%
7 (a)	Resolution of billing/charging/validity complaints	98% within 4 weeks	0	0.00%	0	0.00%
	Resolution of billing/charging/validity complaints	100% within 6 weeks	0	0.00%	0	0.00%
(b)	Period of applying credit/waiver/ adjustment to customer's account from the date of resolution of complaints	within 1 week of resolution of complaint	0	0.00%	0	0.00%
8	Response time to the customer for assistance					
(a)	Accessibility of call centre/customer care	≥ 95%	1	1.14%	0	0.00%
(b)	Percentage of calls answered by the operators (voice to voice) within ninety seconds	≥ 95%	23	26.14%	20	22.73%
9	Termination / Closure of service	≤ 7 days	0	0.00%	0	0.00%
10	Time taken for refund of deposits after closures	100% within 60 days	0	0.00%	0	0.00%

4.1 Comparison of Performance with the last quarter: -

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

- i. Accessibility of call centre/customer care ≥ 95%
- ii. %age of calls answered by the operators (voice to voice) within ninety seconds ≥ 95%

Table 4.2: Parameter wise analysis of non-compliance of service providers

Service Provider	Parameter	Benchmark	Service Area	Performance in QE December 2022 (in%)
AIRTEL	Percentage of calls answered by the operators (voice to voice) within ninety seconds	≥ 95%	Assam	91.67%
			Bihar	91.40%
			Delhi	92.28%
			Gujarat	92.22%
			Haryana	90.96%
			Himachal Pradesh	93.40%
			Jammu & Kashmir	93.95%
			Kolkata	91.25%
			Madhya Pradesh	94.25%
			Maharashtra	94.25%
			North East	87.66%
			Odisha	93.95%
			Punjab	89.88%
			Rajasthan	92.53%
			Tamilnadu including Chennai	91.10%
			Uttar Pradesh (East)	91.28%
Uttar Pradesh (West)	89.68%			
West Bengal	85.59%			
BSNL	Percentage of calls answered by the operators (voice to voice) within ninety seconds	≥ 95%	Andhra Pradesh	89.82%
			Karnataka	91.81%

4.2 List of Parameters which are fully complied by all the Service providers: -

1. BS Accumulated down-time (not available for service) (%age) ≤ 2%
2. Worst affected BSs due to down-time (%age) ≤ 2%

3. Call Set-up Success Rate and Session Establishment Success Rate for Circuit Switched Voice or VoLTE as applicable (within licensee's own network) $\geq 95\%$
 4. SDCCH/ Paging Channel Congestion/ RRC Congestion (% age) $\leq 1\%$
 5. TCH, RAB and E-RAB congestion (%age) $\leq 2\%$
 6. Network QoS DCR Spatial Distribution Measure [Network_ QSD (90,90)] $\leq 2\%$
 7. Network QoS DCR Temporal Distribution Measure [Network_ QTD (97,90)] $\leq 3\%$
 8. Connections with good voice quality, Circuit Switched Voice Quality and VoLTE quality $\geq 95\%$
 9. Down Link (DL) Packet Drop Rate or DL-PDR $\leq 2\%$
 10. Up Link (UL) Packet Drop Rate or UL-PDR $\leq 2\%$
 11. Point of Interconnection (POI) Congestion (No. of POIs not meeting the benchmark) $\leq 0.5\%$
 12. Metering and billing credibility - postpaid $\leq 0.1\%$
 13. Metering and billing credibility – prepaid $\leq 0.1\%$
 14. Resolution of billing/charging/validity complaints - 98% within 4 weeks
 15. Resolution of billing/charging/validity complaints - 100% within 6 weeks
 16. Period of applying credit/ waiver/ adjustment to customer's account from the date of resolution - within 1 week of resolution of complaint
 17. Accessibility of call centre/ customer care $\geq 95\%$
 18. Termination / Closure of service ≤ 7 days
 19. Time taken for refund of deposits after closures (100% within 60 days)
- 4.3 The detailed table on Service Provider wise performance of QoS parameters for Cellular Mobile Services is available at **Annexure-4.1**.

Section B: Quality of Service of Basic Telephone Service (Wire Line) Providers

Table 4.3: QoS Summary - Wireline Service

Summary of Performance of service providers against identified parameters

Sr. No.	Parameters	Benchmark	No of license areas where operators not meeting the benchmarks			
			September, 2022		December, 2022	
			Out of 107 In Nos.	Out of 107 In %age	Out of 107 In Nos.	Out of 107 In %age
(i)	Fault incidences No. of faults per 100 subs/month)	≤ 7	0	0.00%	0	0.00%
(ii)	% Fault repaired by next working day (for urban areas)	≥ 85%	2	1.87%	1	0.93%
	% Fault repaired within 5 days (for urban areas)	≥ 100%	2	1.87%	6	5.61%
(iii)	% Fault repaired by next working day (for rural and hilly areas)	≥ 75%	1	0.93%	1	0.93%
	% Fault repaired within 7 days (for rural and hilly areas)	≥ 100%	1	0.93%	3	2.80%
(iv)	Mean time to Repair (MTTR)	≤ 10Hs	1	0.93%	1	0.93%
(v)	Point of Interconnection (POI) Congestion (No. of PoIs not meeting benchmark)	≤ 0.5%	0	0.00%	0	0.00%
(vi)	Metering and Billing credibility - post-paid	≤ 0.1%	0	0.00%	0	0.00%
	Metering and Billing credibility -pre-paid	≤ 0.1%	0	0.00%	0	0.00%
(vii)	Resolution of billing/charging /Credit & validity complaints	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	1 week of resolution of complaint	0	0.00%	0	0.00%

Sr. No.	Parameters	Benchmark	No of license areas where operators not meeting the benchmarks			
			September, 2022		December, 2022	
			Out of 107 In Nos.	Out of 107 In %age	Out of 107 In Nos.	Out of 107 In %age
(ix)	Accessibility of call centre/ customer care	≥ 95%	10	9.35%	0	0.00%
	% age of calls answered by the operators (voice to voice) within ninety seconds	≥ 95%	11	10.28%	0	0.00%
(x)	Termination / closure of service	≤ 7 days	2	1.87%	1	0.93%
(xi)	Time taken for refund of deposits after closures	100% within 60 days	4	3.74%	4	3.74%

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

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

- i. % Fault repaired by next working day (for urban areas) ≥ 85%
- ii. Accessibility of call centre/ customer care ≥ 95%
- iii. % age of calls answered by the operators (voice to voice) within ninety seconds ≥ 95%
- iv. Termination / closure of service ≤ 7 days

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

- i. % Fault repaired within 5 days (for urban areas) >100%
- ii. % Fault repaired within 7 days (for rural and hilly areas) >100%

Table 4.4: Parameter wise analysis of non-compliance of Service Providers

Parameter	Benchmark	Service Provider	Service Area	Parameters not met
% of faults repaired by next working day - Urban	For urban areas by next working day ≥ 85	MTNL	Mumbai	50.70%
% of faults repaired within 5 days - Urban	For urban areas ≥ 100	BSNL	Karnataka	97.10%
			Maharashtra	99.80%
			Uttar Pradesh (East)	99.96%
			West Bengal	99.98%
		MTNL	Delhi	97.05%
			Mumbai	71.20%
% of faults repaired by next working day - Rural and hilly areas	≥ 75	MTNL	Mumbai	57.10%
% of faults repaired within 7 days- Rural and hilly areas	≥ 100	BSNL	Karnataka	89.40%
			West Bengal	97.34%
		MTNL	Mumbai	57.10%
Mean Time to Repair (MTTR)	≤ 10 hrs	MTNL	Mumbai	56.46
Termination / Closure of service	≤ 7 days	MTNL	Mumbai	99.95%
Time taken for Refund of deposits after closures- within 60 days	100% within 60 days	BSNL	Punjab	99.60%
			Rajasthan	0.00%
			Tamilnadu including Chennai	63.00%
		MTNL	Mumbai	63.94%

4.6 List of Parameters which are fully complied by all the Service providers_

- i. 'Fault repair' Fault incidences No. of faults per 100 subs/month) ≤ 7
- ii. Point of Interconnection'(POI) Congestion (No. of PoIs not meeting benchmark) $\leq 0.5\%$
- iii. 'Metering and Billing 'Metering and billing credibility- post-paid $\leq 0.1\%$
- iv. Metering and billing credibility- pre-paid $\leq 0.1\%$
- v. Resolution of billing/charging/Credit & validity complaints 98% within 4 weeks

- vi. Resolution of billing/charging Credit & validity complaints
100% within 4 weeks
- vii. Period of applying credit/waiver/adjustment to customer's
100% within 1 week of resolution of complaint
- viii. Response time to the customer for assistance' Accessibility of
call centre/ customer care $\geq 95\%$
- ix. %age of calls answered by the operators (voice to voice) within
ninety seconds $\geq 95\%$

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

Section C : Quality Of Service Of Service Providers Providing Broadband Service (WIRELINE)

- 4.8 There are 868 Service Providers providing broadband (wireline) service at the end of December, 2022. Total number of broadband (wireline) subscriber base of all the broadband service providers is 3,23,84,186 in quarter ending December, 2022 as compared to 3,10,93,105 in quarter ending September, 2022.
- 4.9 Out of 868 broadband service providers providing broadband (wireline) service, only 85 service providers are having subscriber base more than 10,000 subscribers and share 97.33% of total subscriber base in this quarter. The total number of broadband subscribers (wireline) of service providers having more than 10,000 subscriber base, has increased from 302,66,534 at the end of September, 2022 (for 84 service providers) to 315,18,305 at the end of December, 2022 (for 85 service providers).
- 4.10 This report covers performance of 85 broadband service providers' vis-à-vis the QoS benchmarks prescribed by TRAI. The summary of performance of the service providers who have not met the benchmarks in this quarter and performance of previous quarter is given in the table below: -

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

S. No	Parameters	Benchmarks	Quarter Ending		Quarter Ending	
			September, 2022		December, 2022	
			Out of 118	Out of 118	Out of 121	Out of 121
1	Service Provisioning/ Activation Time	100% in =< 15 working days				
1.2	%age of connections provided within 15 days of registration of demand	100%	1	0.85%	1	0.83%
2	Faults Repair/ Restoration Time					
2.2	% of faults repaired by next working day	>90%	2	1.69%	1	0.83%
2.3	% of faults repaired within 3 working day	=>99%	3	2.54%	4	3.31%
3	Billing performance					
3.3	%age of bills disputed	<2%	0	0.00%	0	0.00%
3.4	%age of 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 closures	100% within 60 days	2	1.69%	2	1.65%
4	Response Time to the Customer for assistance					
4.2	%age of calls answered by operator (Voice to voice) within 60 sec	>60%	0	0.00%	0	0.00%
4.3	%age of calls answered by operator (Voice to voice) within 90 sec	>80%	1	0.85%	1	0.83%
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	% International bandwidth utilization during peak hours (TCBH) (Enclose MRTG)	<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%

S. No	Parameters	Benchmarks	Quarter Ending		Quarter Ending	
			September, 2022		December, 2022	
			Out of 118	Out of 118	Out of 121	Out of 121
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	<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	<120ms	0	0.00%	0	0.00%
8.2	User reference point at ISP Gateway node to International nearest NAP port abroad (terrestrial)	<350ms	0	0.00%	0	0.00%
8.3	User reference point at ISP Gateway node to International nearest NAP abroad (satellite)	<800ms	0	0.00%	0	0.00%

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

S. No.	Parameters	Bench -marks	Service Provider	LSA	Performance	
1	Service Provisioning / Activation Time	%age of connections provided within 15 days of registration of demand	100%	Mahanagar Telephone Nigam Ltd.	All India	93.93%
2	Fault Repair/ Restoration Time	% of faults repaired by next working day (>90%)	>90%	Mahanagar Telephone Nigam Ltd.	All India	72.91%
			=>99%	Atria Convergence Technologies Ltd.	All India	98.96%
				Mahanagar Telephone Nigam Ltd.	All India	79.52%
				Tata Teleservices Limited	Delhi	98.14%
					Gujarat	97.94%
3	Billing Performance	%age of cases to whom refund of deposits is made within 60 days of closures	100% within 60 days	Bharat Sanchar Nigam Ltd.	All India	97.36%
				Mahanagar Telephone Nigam Ltd.	All India	79.89%
4	Response Time to the Customer for assistance	%age of calls answered by operator (Voice to voice) within 90 sec	>80%	Atria Convergence Technologies Ltd.	All India	70.70%

4.11 List of parameters which are fully complied by all service providers: -

S. No.	Parameter	Benchmark
1	Billing Performance - %age of bills disputed	<2%
2	Billing Performance - %age of complaints resolved within 4 weeks	100% within 4 weeks
3	Response Time to the Customer for assistance - %age of calls answered by operator (Voice to voice) within 60 sec	>60%
4	Bandwidth utilisation/ throughput - No. of Intra network links having Bandwidth utilisation >90% during peak hours (TCBH)	0
5	Bandwidth utilisation/ throughput - No. of Upstream links for International connectivity having bandwidth utilisation >90% during peak hours (TCBH)	0
6	Bandwidth utilisation/ throughput - % International bandwidth utilization during peak hours (TCBH)	<90%
7	Bandwidth utilisation/ throughput - Broadband Connection Speed available (download) from ISP node to user	>80%
8	Service Availability/ Uptime (for all users) in %age	>98%
9	Packet loss (for wired broadband access) in %age	<1%
10	Network latency (for wired broadband access) - User reference point at POP/ISP Gateway node to IGSP/NIXI	<120 ms
11	Network latency (for wired broadband access) - User reference point at ISP Gateway node to International nearest NAP port abroad (terrestrial)	<350 ms
12	Network latency (for wired broadband access) - User reference point at ISP Gateway node to International nearest NAP abroad (satellite)	<800 ms

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

Performance of Cable TV, DTH and Radio Broadcasting Services

Table 5.1: Key Parameters - Broadcasting & Cable TV Services

S.No	Parameter	Sep-22	Dec-22
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	885*	903*
2	Number of Pay TV Channels as reported by broadcasters	353	357
3	Total number of Multi System Operators (MSOs), who have been granted Permanent Registration (for 10 years) by Ministry of I&B for providing Cable TV services through Digital Addressable Systems	1750#	1748#
4	Number of FM Radio Stations (excluding All India Radio)	388	388
5	Number of pay DTH Operators	4	4
6	Number of Operational Community Radio Stations	374	408
7	Number of total active Subscribers with pay DTH operators (in million)	65.58	66.62

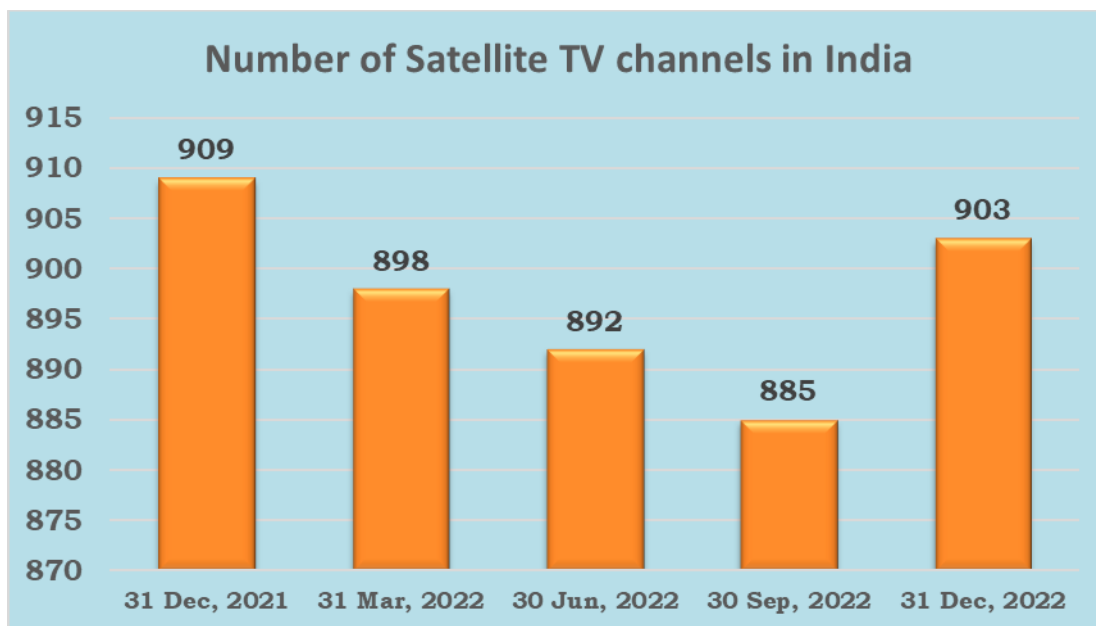
* <https://new.broadcastseva.gov.in/digigov-portal-web-app/webHP?requestType=ApplicationRH&actionVal=userInformationSystem&screenId=2>

Source- https://mib.gov.in/all_broadcasting_documents

A. Satellite TV Channels

5.1 A total of approximately 903 private satellite TV channels have been permitted by the Ministry of Information and Broadcasting (MIB) for uplinking only/downlinking only/both uplinking & downlinking. The total number of satellite TV channels is depicted in **Chart 5.1**. Further, the permission-wise number of permitted satellite TV channels is given in the **Table 5.2**.

Chart5.1- : Number of Satellite TV channels in India



Source: Ministry of I&B (broadcastseva.gov.in)

Table 5.2: Permission-wise number of permitted satellite TV channels

Type of Permission	Number of channels	Remarks
Uplinking only	11	TV channels uplinked from India but downlinked abroad only
Downlinking only	67	TV channels uplinked from abroad but downlinked only in India
Both Uplinking & downlinking	825	TV channels uplinked from India and also downlinked only in India
Total	903	

Out of 903 permitted satellite TV channels, 892 channels are available for downlinking in India.

Pay TV Channels

5.2 As per the reporting done by broadcasters in pursuance of the Tariff Order dated 3rd March 2017 as amended, out of 892 permitted satellite TV channels which are available for downlinking in India, there are 357 satellite pay TV channels as on 31st December 2022. Out of 357 pay channels, 254 are SD satellite pay TV channels and 103 are HD satellite pay TV channels. A list of pay TV channels offered by broadcasters for

subscribers as reported to TRAI is attached as **Annexure-5.1**. Apart from these pay channels reported to TRAI, all other channels, available for downlinking in India, are considered as Free to Air (FTA) channels. **Chart-5.2** depicts total number of Pay satellite TV channels and FTA satellite TV channels available for downlinking in India during last one year. **Chart-5.3** depicts total number of SD satellite Pay TV channels and HD satellite Pay TV channels during last one year.

Chart5.2: Number of Pay and FTA channels available for downlinking in India

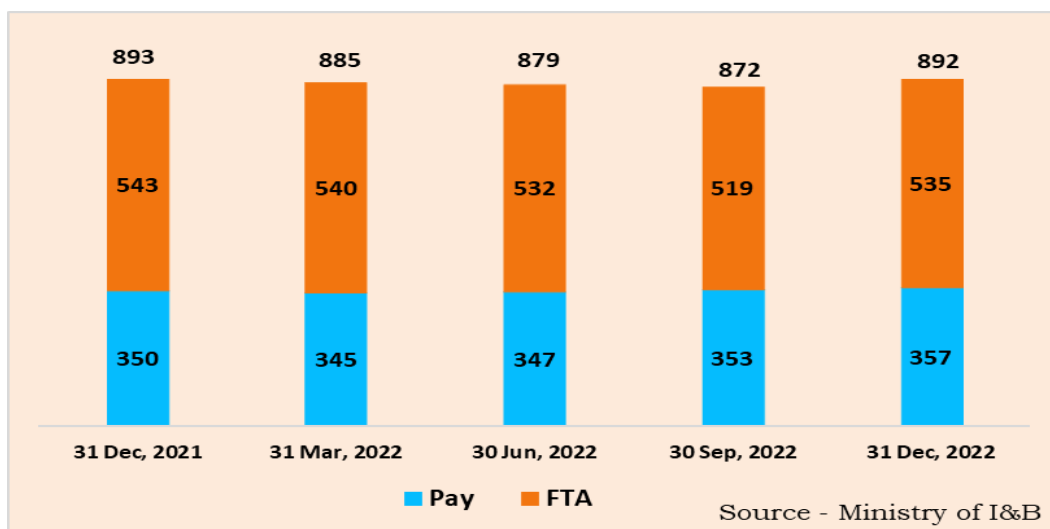
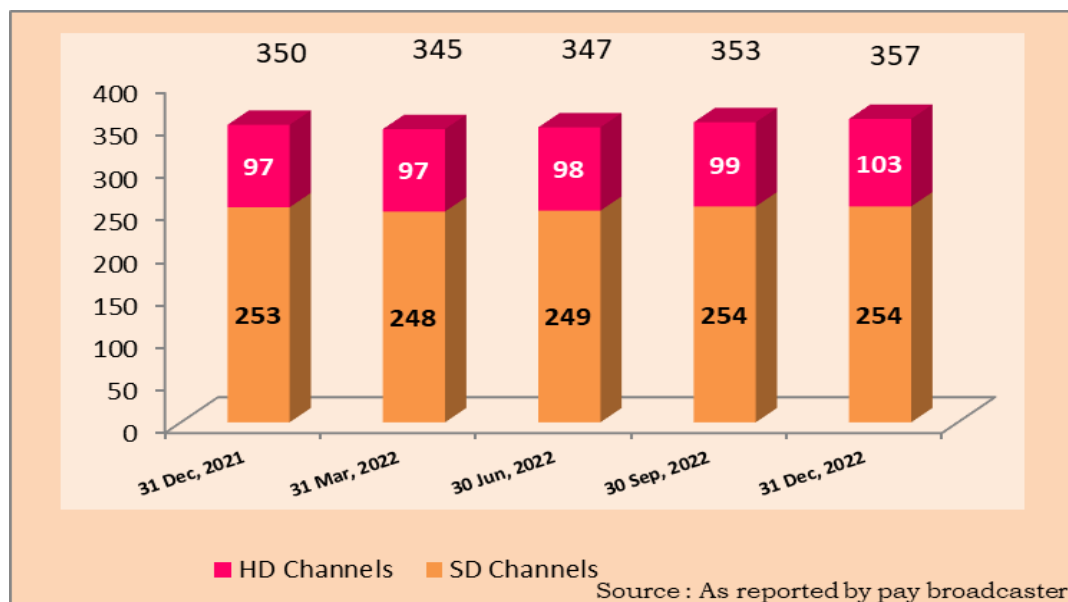


Chart 5.3 : Numbers of SD satellite pay TV channels and HD satellite pay TV channels



B. Cable TV Sector

5.3 As on 31st December 2022, there are 1748 MSOs registered with MIB. As per the data reported by MSOs and HITS operator, there are 12 MSOs & 1 HITS operator who have subscriber base greater than one million. A list of such major MSOs and HITS operators is attached as **Annexure 5.2**. Details of subscriber base of major MSO and HITS Operators (greater than one million) are given in following **Table 5.3:-**

Table 5.3: Subscriber base of major MSOs/HITS operators at the end of December, 2022 (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.	GTPL Hathway	8,916,102
2.	Siti Networks Ltd.	6,721,470
3.	Hathway Digital Ltd.	5,618,178
4.	Den Networks Ltd.	4,241,415
5.	Thamigzha Cable TV Communication Ltd. (TCCL)	3,855,906
6.	Kerala Communicators Cable Ltd (KCCL)	3,186,591
7.	Tamil Nadu Arasu Cable TV (TACTV)	2,326,781
8.	NXT Digital Ltd. (HITS)	2,324,550
9.	KAL Cables	2,087,500
10.	Fastway Transmission Pvt. Ltd	1,811,461
11.	VK Digital	1,789,512
12.	NXT Digital Ltd. (CATV)	1,256,365
13.	Asianet Digital Network	1,069,835

C. Direct-to-Home (DTH) Sector

5.4 Since its introduction in the year 2003, Indian DTH services have displayed a phenomenal growth. During the quarter ending 31st December 2022, there are 4 pay DTH service providers. A list of DTH Operators is attached as **Annexure 5.3**.

5.5 Pay DTH has attained total active subscriber base of around 66.62 million. This is in addition to the subscribers of the DD Free Dish (free DTH services of Doordarshan). The total active subscriber base has increased from 65.58 million in September 2022 to 66.62 million in December 2022.

5.6 Quarterly growth in the DTH sector in terms of the total active subscriber base and market share of DTH operators in terms of percentage of total active subscribers during the quarter ending 31st December 2022 is depicted in the following charts: -

Chart 5.4: - Total active subscriber base of pay DTH sector (in millions)

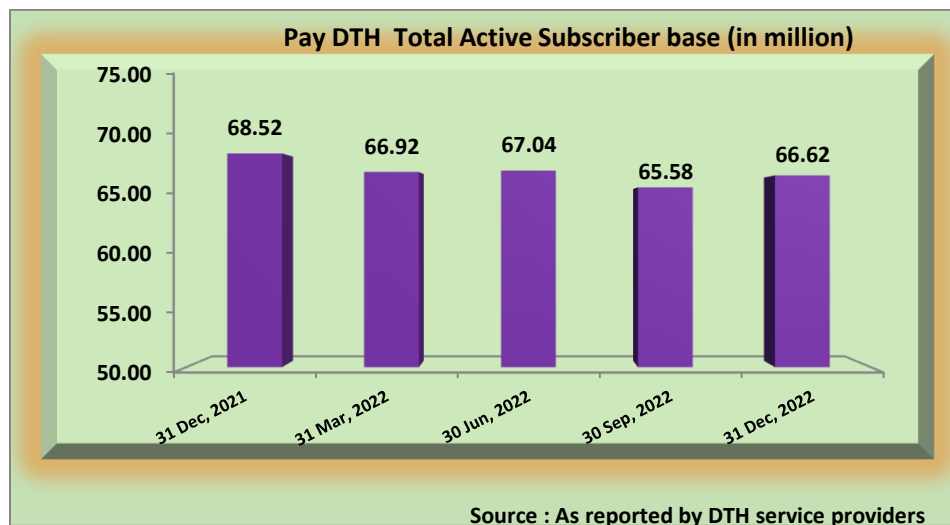
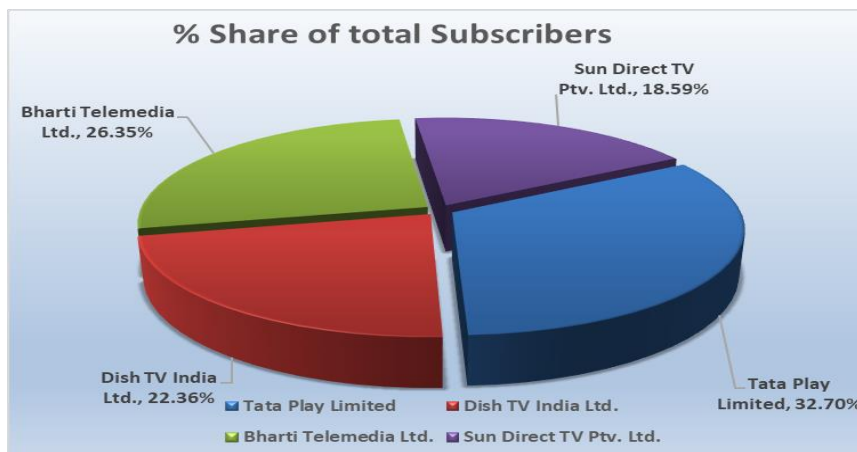


Chart 5.5 : Market share of DTH Operators



Source : As reported by DTH service providers

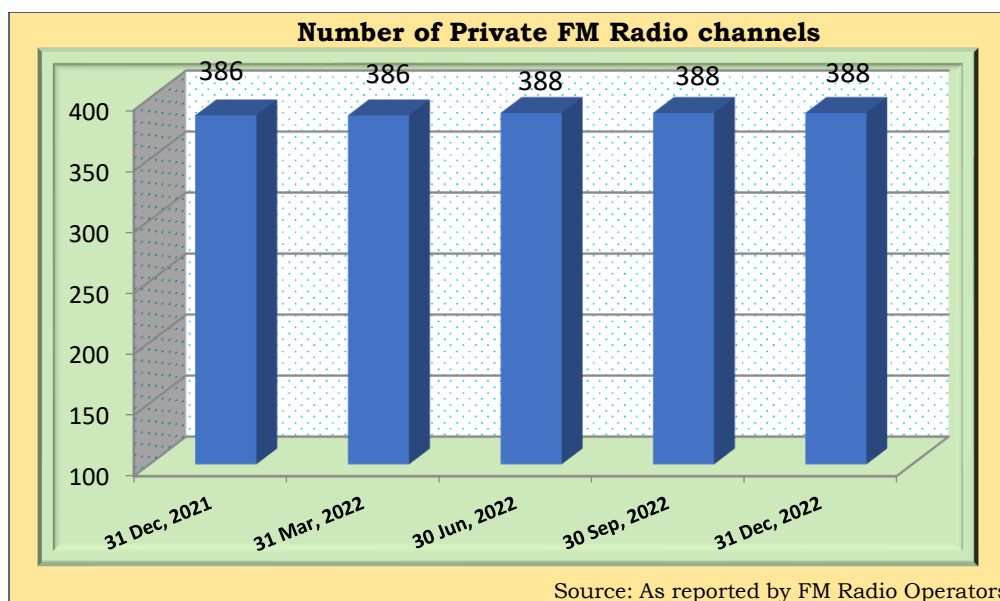
D. IPTV

As per information provided by the Ministry of Information and Broadcasting (MIB), as on 31.12.2022, there are 23 IPTV Operators. A list of such IPTV Operators is attached as **Annexure 5.4**. At present, M/s Andhra Pradesh State Fibernet Ltd has reported a subscriber base of 5,92,869 at the end of December 2022.

E. FM Radio Services

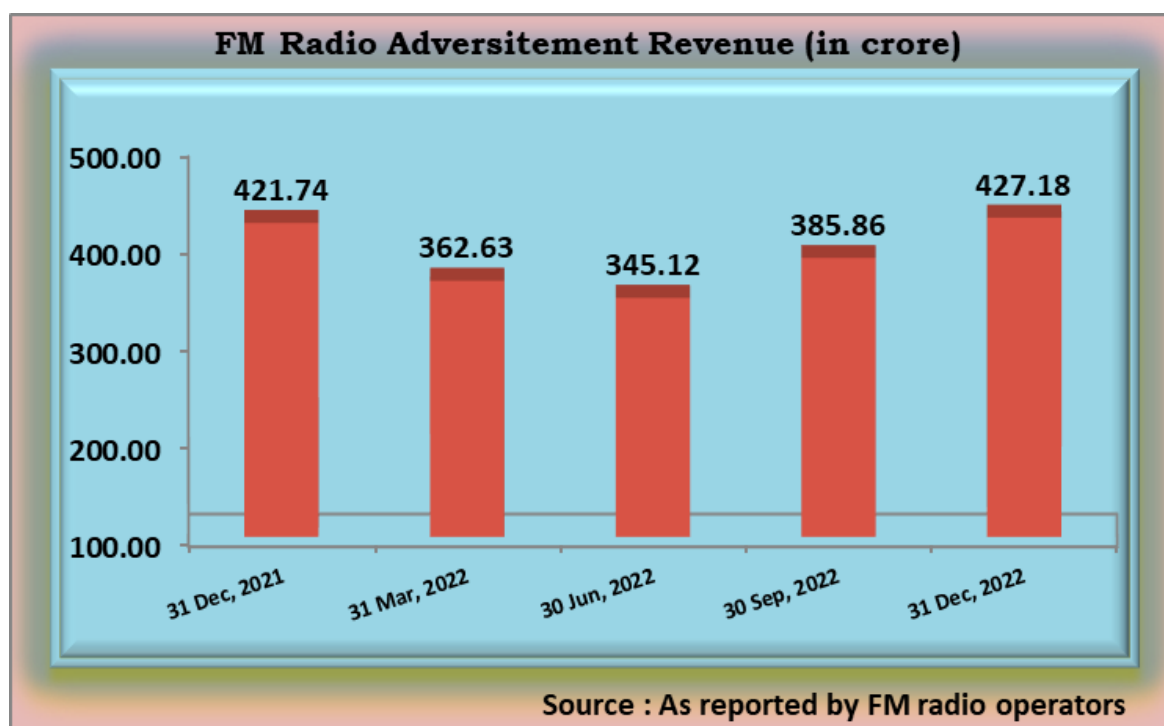
5.7 Apart from the radio channels operated by All India Radio – the public broadcaster, as per the data reported by FM Radio operators to TRAI, as on 31st December 2022, there are 388 operational private FM Radio channels in 113 cities operated by 36 private FM Radio operators. As compared to the previous quarter, there is no change in the number of operational private FM Radio channels, cities and FM Radio operators. A list of 113 existing cities with operational private FM radio channels in India, as on 31st December, 2022 is placed at **Annexure 5.5**. The following **chart 5.6** depicts the quarterly growth in private FM Radio stations.

Chart 5.6 : Number of Private FM Radio channels



5.8 The advertisement revenue reported by FM Radio operators during the quarter ending 31st December 2022 in respect of 388 private FM Radio channels is Rs 427.18 crore as against Rs.385.86 crore in respect of 388 private FM Radio channels for the previous quarter.

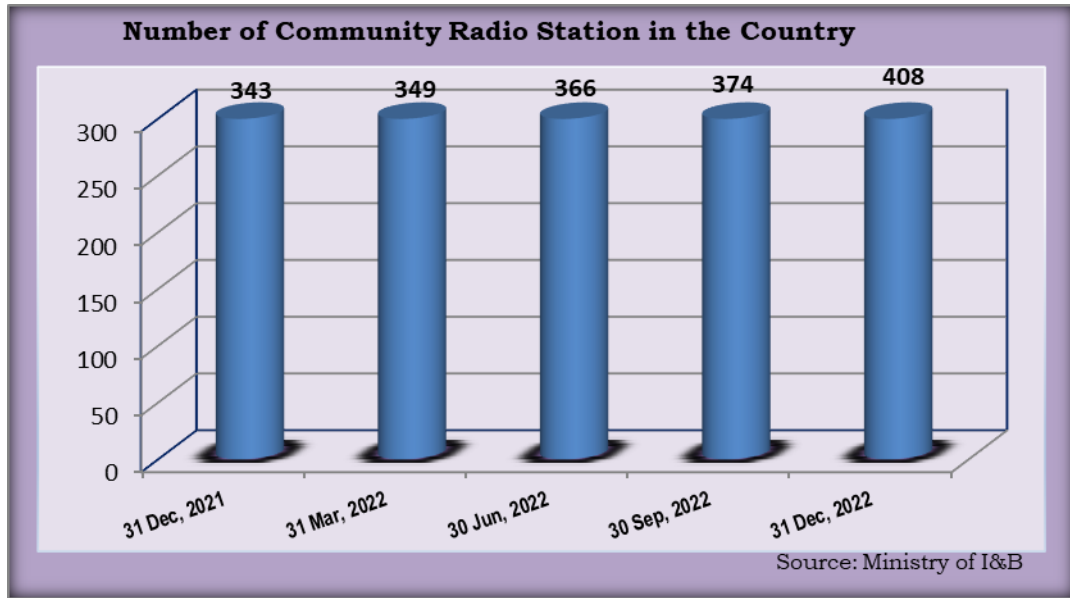
Chart 4.7: Details of Advertisement Revenue submitted by the private FM Radio broadcasters



F. Community Radio

5.9 As on 31st December 2022, 408 Community Radio stations are operational. The quarterly growth in the number of operational community radio stations during last one year is depicted in the following **chart 5.8**.

Chart 5.8: 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-22	Dec-22	Sep-22	Dec-22	Sep-22	Dec-22	Sep-22	Dec-22	Sep-22	Dec-22	Sep-22	Dec-22	Sep-22	Dec-22	
Andhra Pradesh	12491955	12060526	31774350	32163984			8797156	8156707			29629059	29991757	82,692,520	82,372,974	-319546
Assam	2264284	2128563	10438124	10648415			3313824	3308505			8423085	8621292	24,439,317	24,706,775	267458
Bihar	9959642	9195941	39367223	39726581			5669094	5705175			35927758	36246456	90,923,717	90,874,153	-49564
Delhi	16616495	16872359	16438020	16826426	198	194			1691594	1690527	18315529	18487734	53,061,836	53,877,240	815404
Gujarat	23266733	22528058	11252833	11380155	57	47	5293414	5139655			26786692	27017956	66,599,729	66,065,871	-533858
Haryana	7729482	7563522	6314298	6489254	13	11	4724280	4621826			7977956	8027774	26,746,029	26,702,387	-43642
Himachal Pradesh	521480	496145	3368664	3414229	92	92	2613363	2391457			3296501	3286812	9,800,100	9,588,735	-211365
Jammu & Kashmir	414420	387466	5870318	5795811	0	0	832966	830350			4949686	5045691	12,067,390	12,059,318	-8072
Karnataka	7668092	7598993	30920839	31169983	601	593	6576460	6492981			20565682	21045839	65,731,674	66,308,389	576715
Kerala	14990802	14684250	7821693	7942467	152	114	10115577	9961133			9758480	9911488	42,686,704	42,499,452	-187252
Madhya Pradesh	18318854	17368867	15342537	15216078	0	0	5628013	5443063			37513234	38223356	76,802,638	76,251,364	-551274
Maharashtra	26351731	24958114	20547335	20934562	0	0	6386783	6428378			38459608	39162702	91,745,457	91,483,756	-261701
Mumbai	11440567	11367552	9390935	9480918	1197	1015			1078159	1068028	11931328	12102729	33,842,186	34,020,242	178056
North East	1023214	935069	5780529	5836711	0	0	1389461	1,373,270			3936541	3983794	12,129,745	12,128,844	-901
Orissa	1677824	1647883	11302188	11381082	32	29	6330453	6,318,998			13759487	13939298	33,069,984	33,287,290	217306
Punjab	7640310	7386768	12053572	12232409	113	106	5054814	4,920,829			11072338	11273435	35,821,147	35,813,547	-7600
Rajasthan	10609215	10406709	22111587	21980740	161	155	6390012	6,293,169			24227583	24445346	63,338,558	63,126,119	-212439
Tamil Nadu	17445195	17142543	27160209	27579698	272	269	9605054	9,741,479			23735924	23981468	77,946,654	78,445,457	498803
UP(E)	19609019	19023762	36164407	36435124	0	0	10371737	9,436,080			34611274	34975500	100,756,437	99,870,466	-885971
UP(W)	17878479	17073244	18692418	18556736	8	8	5709997	5,579,253			21944303	21763217	64,225,205	62,972,458	-1252747
Kolkata	5993135	5876479	5687241	5699449	0	0	2172368	2166601			10041779	10258126	23,894,523	24,000,655	106132
West Bengal	15221878	14621269	16421417	16717883	157	151	2379097	2,405,969			23102745	22724469	57,125,294	56,469,741	-655553
Total	249,132,806	241,324,082	364,220,737	367,608,695	3,053	2,784	109,353,923	106,714,878	2,769,753	2,758,555	419,966,572	424,516,239	1,145,446,844	1,142,925,233	-2521611

Annexure 1.2: Wireline Subscriber Base

Sl. No	Service Area	Bharti Airtel		Reliance Com.		Quadrant		Tata Tele.		MTNL		BSNL		Vodafone Idea		Reliance Jio		Total		Net Additions
		Sep-22	Dec-22	Sep-22	Dec-22	Sep-22	Dec-22	Sep-22	Dec-22	Sep-22	Dec-22	Sep-22	Dec-22	Sep-22	Dec-22	Sep-22	Dec-22	Sep-22	Dec-22	
1	Andhra Pradesh	388080	421335	20247	20335			154615	155414			676698	676133	75155	71275	882035	979388	2,196,830	2,323,880	127,050
2	Assam	14230	16417	0	0			0	0			107865	109461	2730	2640	126474	139677	251,299	268,195	16,896
3	Bihar	45704	66258	9	9			8947	8920			161267	171257	1980	2080	345815	390312	563,722	638,836	75,114
4	Delhi	1826346	1889035	23096	20651			141845	142415	1249661	1097894	-	-	84590	89445	734172	795691	4,059,710	4,035,131	-24,579
5	Gujarat	166931	195551	2265	2649			76401	76557			355783	343420	49136	59236	450378	494177	1,100,894	1,171,590	70,696
6	Haryana	85590	96292	0	0			31625	31111			186772	201075	360	420	86349	95765	390,696	424,663	33,967
7	Himachal Pradesh	2953	3807	0	0			1561	1535			88360	87556	30	30	41382	45443	134,286	138,371	4,085
8	Jammu & Kashmir	65203	73600	0	0			0	0			91611	88336	30	30	162881	173497	319,725	335,463	15,738
9	Karnataka	983541	1019470	20702	19717			226735	221897			874983	885635	146012	157652	681993	721102	2,933,966	3,025,473	91,507
10	Kerala	83486	87613	4075	3663			19119	18986			1028453	1014448	6810	6830	192530	214788	1,334,473	1,346,328	11,855
11	Madhya Pradesh	390766	414607	5	14			12461	12409			259391	261323	29365	35245	465632	519977	1,157,620	1,243,575	85,955
12	Maharashtra	325396	354018	9831	9599			208844	210820			641532	624800	26463	25958	195909	215592	1,407,975	1,440,787	32,812
13	Mumbai	497526	520336	46890	43056			476701	471710	1,335,525	1,310,696	0		174536	171225	678867	724949	3,210,045	3,241,972	31,927
14	North East	0	0	0	0			0	0			76764	75707	360	510	113671	128643	190,795	204,860	14,065
15	Orissa	1046	0	4	4			8587	8409			174087	172912	3990	3960	170112	191798	357,826	377,083	19,257
16	Punjab	199686	212790	1970	1982	301569	318346	15058	15450			309753	335015	2040	2210	213770	239793	1,043,846	1,125,586	81,740
17	Rajasthan	169407	182960	3484	3600			12989	12901			285087	280128	15385	15325	282324	310574	768,676	805,488	36,812
18	Tamil Nadu	728365	771994	19874	18641			119497	117545			990170	974808	36980	38433	576631	631786	2,471,517	2,553,207	81,690
19	U.P.(E)	148497	161936	20	23			8253	8150			140938	138197	16720	16660	345854	385876	660,282	710,842	50,560
20	U.P.(W)	95971	103285	10	12			4758	4894			187784	188774	3738	3648	379419	423462	671,680	724,075	52,395
21	Kolkata	177461	181903	5385	4513			48372	48667			211911	209708	14255	13855	350386	387984	807,770	846,630	38,860
22	West Bengal	7578	12784	13	76			2627	2589			250934	265723	120	120	174537	191500	435,809	472,792	36,983
	Total	6,403,763	6,785,991	157,880	148,544	301,569	318,346	1,578,995	1,570,379	2,585,186	2,408,590	7,100,143	7,104,416	690,785	716,787	7,651,121	8,401,774	26,469,442	27,454,827	985,385

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

S.No.	Name of Telecom Service Area	Service Provider	Number of PCOs as on 30.9.2022	Number of PCOs as on 31.12.2022	Net PCO increase/decrease as on 31.12.2022	Percentage Growth/Decline as on 31.12.2022
1	Andhra Pradesh	Bharat Sanchar Nigam Limited	4,602	4,285	-317	-6.89%
		Bharti Airtel	181	0	-181	-100.00%
2	Assam	Bharat Sanchar Nigam Limited	495	479	-16	-3.23%
3	Bihar	Bharat Sanchar Nigam Limited	358	340	-18	-5.03%
4	Delhi	Bharti Airtel	330	0	-330	-100.00%
		MTNL	6,146	5,994	-152	-2.47%
5	Gujarat	Bharat Sanchar Nigam Limited	2,351	2,253	-98	-4.17%
		Bharti Airtel	14	0	-14	-100.00%
6	Haryana	Bharat Sanchar Nigam Limited	230	192	-38	-16.52%
		Bharti Airtel	129	0	-129	-100.00%
7	Himachal Pradesh	Bharat Sanchar Nigam Limited	599	561	-38	-6.34%
8	Jammu & Kashmir	Bharat Sanchar Nigam Limited	150	139	-11	-7.33%
9	Karnataka	Bharat Sanchar Nigam Limited	4,005	3,574	-431	-10.76%
		Bharti Airtel	2,549	0	-2549	-100.00%
10	Kerala	Bharat Sanchar Nigam Limited	5,037	4,789	-248	-4.92%
		Bharti Airtel	373	0	-373	-100.00%
11	Kolkata	Bharat Sanchar Nigam Limited	1,343	1,293	-50	-3.72%
		Bharti Airtel	26	0	-26	-100.00%
12	Madhya Pradesh	Bharat Sanchar Nigam Limited	1,003	960	-43	-4.29%
		Bharti Airtel	0	0	0	
13	Maharashtra	Bharat Sanchar Nigam Limited	3,483	3,445	-38	-1.09%
		Bharti Airtel	0	0	0	
14	Mumbai	Bharti Airtel	50	0	-50	-100.00%
		MTNL	7,785	7,171	-614	-7.89%
15	North East	Bharat Sanchar Nigam Limited	426	410	-16	-3.76%
16	Odisha	Bharat Sanchar Nigam Limited	279	279	0	0.00%
17	Punjab	Bharat Sanchar Nigam Limited	888	859	-29	-3.27%
		Bharti Airtel	0	0	0	
		Quadrant	378	362	-16	-4.23%
18	Rajasthan	Bharat Sanchar Nigam Limited	531	452	-79	-14.88%
		Bharti Airtel	209	0	-209	-100.00%
19	TN including Chennai	Bharat Sanchar Nigam Limited	9,917	9,173	-744	-7.50%
		Bharti Airtel	0	0	0	
20	UP - East	Bharat Sanchar Nigam Limited	2,393	2,393	0	0.00%
		Bharti Airtel	0	0	0	
21	UP - West	Bharat Sanchar Nigam Limited	840	765	-75	-8.93%
		Bharti Airtel	0	0	0	
22	West Bengal	Bharat Sanchar Nigam Limited	25	20	-5	-20.00%
Total			57,125	50,188	-6937	-12.14%

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

S.NO	Name of Telecom Service Area	Service Provider	Number of VPTs as on 30.9.2022	Number of VPTs as on 31.12.2022	Net VPTs increase/ decrease as on 31.12.2022	Percentage Growth/ Decline as on 31.12.2022
1	Andhra Pradesh	BSNL	2,896	2,896	0	0.00%
2	Assam	BSNL	105	105	0	0.00%
3	Bihar	BSNL	6,114	6,114	0	0.00%
4	Delhi	BSNL				
5	Gujarat	BSNL	5,278	5,278	0	0.00%
6	Haryana	BSNL	462	462	0	0.00%
7	Himachal Pradesh	BSNL	1,875	1,875	0	0.00%
8	Jammu & Kashmir	BSNL	810	810	0	0.00%
9	Karnataka	BSNL	3,656	3,656	0	0.00%
10	Kerala	BSNL	331	331	0	0.00%
11	Kolkata	BSNL	130	130	0	0.00%
12	Madhya Pradesh	BSNL	10,100	10,100	0	0.00%
13	Maharashtra	BSNL	7,846	7,846	0	0.00%
14	Mumbai	BSNL				
15	North East	BSNL	1,182	1,182	0	0.00%
16	Odisha	BSNL	1,554	1,554	0	0.00%
17	Punjab	BSNL	4,493	4,493	0	0.00%
18	Rajasthan	BSNL				
19	TN including Chennai	BSNL	5,478	5,478	0	0.00%
20	UP - East	BSNL	568	568	0	0.00%
21	UP - West	BSNL	3,758	3,758	0	0.00%
22	West Bengal	BSNL	11,970	11,970	0	0.00%
	Total		68,606	68,606	0	0.00%

**Annexure 1.5: Internet Service Provider(ISP) wise Internet Subscriber base
as on 31.12.2022**

S. No.	Name of Service Provider	Narrowband	Broadband	Total
1	Reliance Jio Infocomm Ltd	0	432164935	432164935
2	Bharti Airtel Ltd.	19390271	234463976	253854247
3	Vodafone Idea Ltd	11443601	123874399	135318000
4	Bharat Sanchar Nigam Ltd.	2787624	26350038	29137662
5	Atria Convergence Technologies Pvt. Ltd.	0	2142767	2142767
6	Hathway Cable And Datacom Limited	0	1129493	1129493
7	ONEOTT iENTERTAINMENT LIMITED	0	1032490	1032490
8	YOU Broadband India Ltd.	14335	852218	866553
9	Excitel Broadband Private Limited	0	826836	826836
10	Kerala Vision Broadband Ltd.	0	786087	786087
11	GTPL Broadband Pvt. Ltd.	0	783073	783073
12	Netplus Broadband Services Pvt. Ltd	0	584047	584047
13	Mahanagar Telephone Nigam Limited	43866	479430	523296
14	ALLIANCE BROADBAND SERVICES PVT. LTD.	0	520175	520175
15	RailTel Corporation of India Ltd.	0	500990	500990
16	Asianet Satellite Communications Ltd.	0	430633	430633
17	Tata Play Broadband Private Limited	0	403536	403536
18	Intech Online Pvt. Ltd.	0	311720	311720
19	Quadrant Televentures Ltd.	88	251034	251122
20	Pioneer eLabs Limited	0	234024	234024
21	Tikona Infinet Ltd.	0	223408	223408
22	Limras Eronet Broadband Service Pvt Ltd	0	213807	213807
23	D-Vois Communication Private Limited	0	179762	179762
24	ANI NETWORK PVT LTD	0	146255	146255
25	Excell Media Pvt. Ltd.	0	143086	143086
26	Siti Broadband Services Pvt. Limited	0	133470	133470
27	Indinet Service Pvt. Ltd.	0	124236	124236
28	Wish Net Pvt. Ltd.	0	121074	121074
29	GTPL KCBPL Broadband Private Limited	0	115442	115442
30	Airnet Cable and Datacom Pvt. Ltd.	0	98575	98575
31	Five Network Solution (India) Ltd.	0	90881	90881
32	Joister Infoserve Pvt. Ltd.	0	77567	77567
33	Ishan Netsol Pvt. Ltd.	0	76048	76048
34	Vortex Netsol Pvt. Ltd.	0	75110	75110
35	Fusionnet Web Services Pvt Ltd	0	73755	73755
36	DEN Broadband Limited	0	68275	68275
37	K Net Solutions Pvt. Ltd.	0	59986	59986

S. No.	Name of Service Provider	Narrowband	Broadband	Total
38	Microscan Infocommtech Private Limited	0	57289	57289
39	Dwan Supports Pvt. Ltd.	0	51572	51572
40	Radinet Info Solutions Pvt. Ltd.	0	39295	39295
41	DNA Infotel Pvt. Ltd.	0	36786	36786
42	Instanet Technologies Pvt. Ltd.	0	36406	36406
43	Meghbela Cable & Broadband Servies (P) Ltd	0	35346	35346
44	Multicraft Digital Technologies Private Limited	0	31383	31383
45	ADN Broadband Private Limited	0	30953	30953
46	Sristisanchar Webnet Limited	0	28825	28825
47	Ethernet Xpress(I) Pvt. Ltd.	0	28198	28198
48	Readylink Internet Services Limited	0	27775	27775
49	Nuron Networks India Private Limited	0	27264	27264
50	Juweriyah Networks Pvt. Ltd.	0	26232	26232
51	WAN AND LAN INTERNET PRIVATE LIMITED	0	26022	26022
52	Tata Teleservices(Maharashtra) Ltd.	52	25919	25971
53	Shyam Spectra Private Limited	0	25633	25633
54	Digital Networks Associates Pvt. Ltd.	0	24917	24917
55	Kernel Fibernet Online Network Pvt. Ltd.	0	24710	24710
56	Shree Omkar Infocomm Pvt Ltd	0	24574	24574
57	Tata Communications Limited	550	22352	22902
58	Tachyon Communications Private Limited	0	22668	22668
59	WAVE FIBER PRIVATE LIMITED (Formerly Coastal Broadband and Online Services Pvt. Ltd.)	0	22284	22284
60	SIKKA BROADBAND PRIVATE LIMITED	0	22119	22119
61	Tata Teleservices Limited	1	21970	21971
62	Kings Broadband Pvt. Ltd	0	21823	21823
63	Spiderlink Networks Pvt. Ltd.	0	21453	21453
64	Weebo Networks Pvt Ltd.	0	20714	20714
65	Candor Infosolution Pvt. Ltd.	0	19859	19859
66	RI Networks Pvt Ltd	0	19571	19571
67	Stampede Communications Pvt. Ltd.	0	19568	19568
68	Genstar Network Solutions Pvt. Ltd.	0	19197	19197
69	Honesty Net Solutions (I) Pvt Ltd	0	18897	18897
70	Airfiber Networks Pvt. Ltd.	0	17162	17162
71	RAINBOW COMMUNICATIONS INDIA PRIVATE LIMITED	0	16863	16863
72	Rajesh Digital & DataCom Pvt. Ltd.	0	16846	16846
73	QUEST CONSULTANCY PVT LTD	0	16642	16642
74	Airlink Communications Pvt. Ltd.	0	16332	16332
75	Yashash Cable Network (Pvt.) Ltd	0	16106	16106

S. No.	Name of Service Provider	Narrowband	Broadband	Total
76	Paradise Telecom Pvt. Ltd.	0	14795	14795
77	City Online Services Ltd.	0	13705	13705
78	DDC Broad Band Pvt. Ltd	0	13358	13358
79	Pacenet Meghbela Broadband Pvt.Ltd.	0	13153	13153
80	DL GTPL Broadband Pvt. Ltd.	0	11971	11971
81	Apple Broadband Services Pvt. Ltd.	0	11488	11488
82	Intermedia Cable Communication Pvt Ltd	0	11313	11313
83	BALAJI TELEWORKS DEVOLOPMENTPRIVATE LIMITED	0	11205	11205
84	Ultranet Infotech Solution Pvt. Ltd.	0	11034	11034
85	Net 9 Fibernet Pvt Ltd	0	10814	10814
86	Angel Air Network Solutions Pvt. Ltd.	0	10736	10736
87	VIJAYALAKSHMI NET SERVICES PRIVATE LIMITED	0	10483	10483
88	Orange Infocom PVT.LTD	0	10305	10305
89	NORTH EAST DATAA NETWORK PRIVATE LIMITED	0	9698	9698
90	INFONET COMM ENTERPRISES PVT LTD	0	9662	9662
91	Signum Digital Networks Pvt. Ltd	0	9484	9484
92	MAHA MEDIACOM INTERNET PVT. LTD.	0	9469	9469
93	LM Energy and Software Pvt. Ltd.	4541	4732	9273
94	Esto Broadband Pvt. Ltd.	0	9155	9155
95	Siliguri Internet & Cable TV Pvt. Ltd.	0	9152	9152
96	HYOSEC SOLUTIONS Pvt. LTD	0	8693	8693
97	Rural Broadband Pvt. Ltd.	0	8527	8527
98	AT Broadband Pvt. Ltd.	0	8364	8364
99	Five Internet Solutions Pvt. Ltd.	0	8207	8207
100	APNA TELELINK PVT. LTD.	0	8110	8110
101	Specific Net Pvt. Ltd	0	7885	7885
102	R.G. Technosolutions Pvt. Ltd.	0	7872	7872
103	Airconnect Internet Services Pvt. Ltd.	0	7847	7847
104	Ani Broadband Service Pvt. Ltd.	0	7471	7471
105	Vizag Broad CastingCompany Pvt. Ltd.	0	7466	7466
106	Gigaline Teleservices (OPC) Pvt. Ltd	0	7336	7336
107	FOXTEL TELECOMMUNICATIONS PVT LTD	0	7325	7325
108	WSNS PVT. LTD.	0	7276	7276
109	United Telecoms Ltd.	0	7210	7210
110	Multinet (Udaipur) Pvt. Ltd.	0	7188	7188
111	HYFY Giga Fiber Pvt. Ltd.	0	7182	7182
112	Prisac Aviation Technologies Pvt. Ltd.	0	7071	7071
113	Kappa Internet Services Pvt. Ltd.	0	7024	7024

S. No.	Name of Service Provider	Narrowband	Broadband	Total
114	Cityzone Infonet Pvt. Ltd.	0	6888	6888
115	SSCN Pvt. Ltd.	0	6735	6735
116	Elxer Communications (P)Ltd.	0	6602	6602
117	ROHAN MEDIA PRIVATE LIMITED	0	6494	6494
118	Skymax Broadband Services Pvt. Ltd.	0	6442	6442
119	7 Star Cablenet Pvt. Ltd	0	6388	6388
120	S S Netcom Pvt. Ltd.	0	6354	6354
121	OM-ASHA Net Pvt. Ltd.	0	6333	6333
122	Symbios Creations Pvt. Ltd.	0	6187	6187
123	DEEPNET BROADBAND PRIVATE LIMITED	0	6007	6007
124	Southern Online Bio Technologies Ltd.	0	5971	5971
125	GEOCITY NETWORK SOLUTIONS PVT. LTD.	0	5850	5850
126	SANCHAR TELENETWORK PVT LTD	0	5664	5664
127	SONALI INTERNET SERVICES PVT. LTD.	0	5554	5554
128	Sancfil Technologies Internet Services Pvt. Ltd.	0	5547	5547
129	Praction Networks Private Limited	0	5520	5520
130	Airgenie Communications Pvt. Ltd.	0	5504	5504
131	SFOUR CABLENET PVT LTD	0	5371	5371
132	DEHRADUN E NET SOLUTIONS PRIVATE LIMITED	0	5300	5300
133	Mangaluru Broadband Network Pvt Ltd	0	5300	5300
134	Dsouza Infotainment Pvt. Ltd.	0	5297	5297
135	Lalat Internet Service Private Limited	0	5287	5287
136	Wefe Technology Pvt. Ltd.	0	5203	5203
137	Swiftnet Broadband Pvt Ltd	0	5118	5118
138	INRI COMMUNICATIONS PVT LTD	0	5030	5030
139	SNS Internet Services Pvt. Ltd.	0	5020	5020
140	ARKTEL NETWORKS PVT LTD	0	4926	4926
141	Patel Internet Pvt. Ltd.	0	4801	4801
142	TJ BROADBAND NETWORK PVT LTD	0	4685	4685
143	Allnet Broadband Network Pvt Ltd	0	4676	4676
144	FIBRE AIR SERVICES Pvt Ltd.	0	4421	4421
145	FUTURE CONNECT BROADBAND Pvt Ltd.	0	4313	4313
146	Bittel Telecom Private Limited	0	4119	4119
147	Five Net Service Provider Pvt. Ltd.	0	4068	4068
148	Blazenet Ltd.	0	4017	4017
149	Antarjal IT Communication Pvt. Ltd.	0	3973	3973
150	POWERNET TELECOM PVT LTD	0	3947	3947
151	SUPER SONIC BROADBAND PVT LTD	0	3915	3915
152	Swiftmail Communications Ltd.	0	3893	3893

S. No.	Name of Service Provider	Narrowband	Broadband	Total
153	Shine Communications Pvt. Ltd.	0	3821	3821
154	Speed Online Net Pvt Ltd	0	3796	3796
155	Siddhant Broadband Pvt. Ltd.	0	3780	3780
156	SoftCall Cust-O-Care Pvt. Ltd..	0	3699	3699
157	Kumar Cable Digital Network Pvt. Ltd.	0	3640	3640
158	Vibhuti Networks Pvt. Ltd.	0	3604	3604
159	HIGHTEC NETWORK SOLUTIONS (OPC) PRIVATE LIMITED	0	3596	3596
160	STN INFOTECH PVT. LTD.	0	3595	3595
161	Getway Broadband Pvt. Ltd.	0	3496	3496
162	NEHA INFONET PVT LTD.	0	3363	3363
163	Mukand Infotel Pvt. Ltd.	0	3335	3335
164	Prathamesh Broadband Pvt. Ltd	0	3240	3240
165	Nirav Infoway Pvt. Ltd	0	3213	3213
166	Sri Nagar Net Tech Pvt. Ltd.	0	3191	3191
167	Rainbow Internet teleservices Pvt Ltd	0	3184	3184
168	Maharaj Netsol Pvt Ltd	0	3136	3136
169	Inet Fiber India Pvt. Ltd	0	3132	3132
170	Net Access Internet India Private Limited	0	3128	3128
171	AS Broadband Pvt. Ltd	0	3047	3047
172	Niss Internet Services Pvt. Ltd.	0	2914	2914
173	Renu Giga Fiber Pvt. Ltd.	0	2904	2904
174	ajab media vision pvt. Ltd.	0	2900	2900
175	delDSL Internet Pvt Ltd	0	2879	2879
176	VRD Web Services Pvt. Ltd.	0	2856	2856
177	AAACLOUD TELEPHONY PRIVATE LIMITED	0	2822	2822
178	Netfirre Communications Pvt. Ltd.	0	2816	2816
179	Sherie Plexus ISP Pvt. Ltd.	0	2779	2779
180	NETVISION AWADH NETWORKS PVT LTD	0	2774	2774
181	HBS Network Pvt. Ltd.	0	2734	2734
182	Krishinet Infocom Pvt. Ltd.	0	2712	2712
183	NETWAY INTERNET PVT. LTD.	0	2685	2685
184	TGN NETWORKS PVT LTD	0	2679	2679
185	Exnet Broadband Pvt. Ltd.	0	2670	2670
186	Netfox Networks Private Limited	0	2649	2649
187	TRANSMEDIA TECHNOLOGIES (AP) PVT LTD	0	2639	2639
188	MicroNet Gigafiber Pvt Ltd	0	2618	2618
189	Foxcell Communications Pvt. Ltd.	0	2574	2574
190	ADRI INFOCOM Pvt. Ltd.	0	2559	2559

S. No.	Name of Service Provider	Narrowband	Broadband	Total
191	N4U broadband pvt.ltd	0	2500	2500
192	Deenet Services Pvt Ltd	0	2475	2475
193	BHORER ALO CABLE AND BROADBAND PRIVATE LIMITED	0	2468	2468
194	Chandra Net Pvt. Limited	0	2435	2435
195	Jeebr Internet Service Private Limited	0	2428	2428
196	Userlinks Netcom Pvt. Ltd.	0	2385	2385
197	WOW Solutions and Systems Pvt. Ltd	0	2360	2360
198	Johnson Telemarketers Pvt. Ltd.	0	2355	2355
199	SBR Telecom Pvt. Ltd.	0	2350	2350
200	Real Wire Express Network Pvt. Ltd.	0	2341	2341
201	VENKATA SAI INTERNET PRIVATE LIMITED	0	2338	2338
202	Myguru Online India (P)Ltd.	0	2337	2337
203	TENG NETWORK SOLUTION PRIVATE LIMITED	2317	0	2317
204	Classic Internet and Cable Services Pvt. Ltd.	0	2297	2297
205	OUTOFBOX NETWORKS PRIVATE LIMITED	0	2290	2290
206	Bakliwal Telecom Services Pvt. Ltd.	0	2236	2236
207	Mega Hertz Network Solutions Pvt. Ltd.	0	2236	2236
208	Sai Prasad Internet Services Pvt. Ltd.	0	2201	2201
209	LAKSHAY ISOLUTIONS INDIA PRIVATE LIMITED	0	2164	2164
210	Lbs Infoway India Pvt. Ltd.	0	2158	2158
211	Suntech Sanchar Private Limited	0	2123	2123
212	Fiberzone communication Pvt Ltd	0	2120	2120
213	Jetspot Networks Pvt. Ltd.	0	2061	2061
214	Vision Smartlink Networking Pvt. Ltd.	0	2048	2048
215	SMARTLINK SOLUTIONS PVT. LTD.	0	2033	2033
216	Shikhar BroadbandEnterprises Pvt. Ltd.	0	2000	2000
217	Pink Broadband Services Pvt. Ltd.	0	1990	1990
218	JDM Broadband Services Pvt. Ltd.	0	1982	1982
219	Tejays Dynamic Ltd.	27	1954	1981
220	TRICHY CHANNEL NINE CABLENET PRIVATE LIMITED	0	1977	1977
221	Flashcom Network Pvt. Ltd.	0	1967	1967
222	Opticom Networks Pvt.Ltd	0	1961	1961
223	Southnet Broadband Pvt. Ltd.	0	1935	1935
224	CORREL IT SERVICE PVT LTD	0	1920	1920
225	Mayekar Broadband Pvt. Ltd.	0	1905	1905
226	Karunay Internet Pvt. Ltd.	0	1901	1901

S. No.	Name of Service Provider	Narrowband	Broadband	Total
227	CredenceIS Computing Pvt. Ltd.	0	1900	1900
228	Amar Broadband Pvt. Ltd..	0	1885	1885
229	Scud Communication Pvt. Ltd.	0	1882	1882
230	First Mile Digital Private Limited	0	1860	1860
231	Ncore Creative Technologies Pvt. Ltd	1342	500	1842
232	Sanchit Infocom Pvt Ltd	0	1818	1818
233	City Online AP Pvt. Ltd.	0	1812	1812
234	Lotus Broadband Pvt Ltd	0	1810	1810
235	F2H Networks Pvt. Ltd.	0	1806	1806
236	MORE WIFI INTERNET PRIVATE LIMITED	0	1805	1805
237	Mana Broadband Pvt. Ltd.	0	1797	1797
238	Merv Enterprises Pvt Ltd	0	1794	1794
239	Spider Broadband Pvt. Ltd..	0	1788	1788
240	Galaxynet Connections Pvt. Ltd.	0	1780	1780
241	SMART NET INDIA PVT LTD	0	1753	1753
242	Osbnnet Broadband Pvt. Ltd.	0	1742	1742
243	Bakcom Networks India Pvt. Ltd.	1740	0	1740
244	Seven Star Digicomm Pvt. Ltd..	0	1739	1739
245	BLITS GLOBAL TECHNOLOGIES Pvt. LTD	0	1732	1732
246	DNS SKYLINK PVT. LTD.	0	1728	1728
247	North Point Services Pvt. Ltd.	0	1728	1728
248	Assistive networks & technologie Pvt Ltd	0	1701	1701
249	Syntego Technologies India Pvt. Ltd.	0	1694	1694
250	Maruthi Cable & Data Pvt. Ltd.	0	1687	1687
251	Protoact Digital Network Pvt. Ltd.	0	1683	1683
252	S P Internet Technologies Pvt. Ltd.	0	1683	1683
253	Blu Ultraband Internet Services Private Limited	0	1682	1682
254	Spricoc Web Private Limited	0	1637	1637
255	Sphier Infotech PVT. LTD.	0	1633	1633
256	Sadaa SmartlinksCommunication Pvt. Ltd.	0	1621	1621
257	Skyline Infonet Pvt. Ltd.	0	1597	1597
258	Netlinx Limited	0	1591	1591
259	KWIKZO TELECOMM Pvt. LTD	0	1582	1582
260	Charotar Telelink Pvt. Ltd..	0	1578	1578
261	JB Jain Broadband Solutions Private Limited	0	1574	1574
262	Onet Digital Networks Pvt. Ltd..	0	1574	1574
263	Megahertz Internet Network Pvt. Ltd.	0	1568	1568
264	SATHYA WEBSERVICES PRIVATE LIMITED	0	1552	1552
265	Sefaro Networks Pvt. Ltd.	0	1552	1552
266	Uzaina Business India Pvt. Ltd.	0	1545	1545

S. No.	Name of Service Provider	Narrowband	Broadband	Total
267	B2H Infonet Pvt. Ltd.	0	1534	1534
268	Skynet Datacom Pvt. Ltd.	0	1534	1534
269	Macro Signal Pvt. Ltd	0	1530	1530
270	Susneham Private Limited	0	1522	1522
271	Capture Network Systems Pvt. Ltd.	0	1517	1517
272	S S Fiber Net OpticalCommunication Pvt. Ltd.	0	1506	1506
273	Speednet Unique Network Pvt. Ltd.	0	1506	1506
274	Teligus Networks Pvt. Ltd	0	1490	1490
275	Venessa Internet Pvt. Ltd.	0	1486	1486
276	Thrishul Broadband Pvt. Ltd..	0	1464	1464
277	Ski Network Services Pvt. Ltd	0	1446	1446
278	NGC Broadband Pvt. Ltd.	0	1444	1444
279	Kovai Fibernet Pvt. Ltd.	0	1413	1413
280	Speedmaxx Digital Networks Pvt. Ltd.	0	1412	1412
281	Country Online Services Pvt. Ltd.	0	1408	1408
282	ERO WIDE COMM Pvt. Ltd.	0	1408	1408
283	INET SEVICES PVT LTD	0	1407	1407
284	ALACRIY NET SYSTEM SERVICE PRIVATE LIMITED	0	1399	1399
285	Spider Broadband & Cable Pvt. Ltd.	0	1384	1384
286	SIS NETWORKS PVT LTD	0	1382	1382
287	KOLI'Z PRIVATE LIMITED	0	1377	1377
288	Vizag BroadbandCommunications Pvt. Ltd.	0	1374	1374
289	Smart Wi5 Pvt. Ltd.	0	1372	1372
290	Channel III Internet Pvt. Ltd.	0	1337	1337
291	Cyber City ExtremeBroadband Pvt. Ltd.	0	1318	1318
292	R2 Net Solutions Pvt. Ltd.	0	1304	1304
293	DHL Broadband Net Pvt. Ltd.	0	1275	1275
294	Airwaves Internet Pvt. Ltd.	0	1255	1255
295	Sigaram Networks Pvt. Ltd.	0	1254	1254
296	Shrisai Shavenk Technologies Pvt. Ltd.	0	1253	1253
297	City Broadband Network Pvt Ltd	0	1248	1248
298	MAKS COMMUNICATIONS PVT.LTD.	0	1248	1248
299	Rtel Internet services Pvt Ltd	0	1246	1246
300	Gigacast Network Pvt. Ltd.	0	1243	1243
301	Oxynet Telecommunications Pvt. Ltd	0	1228	1228
302	MAULI SHIV CABLE INTERNET SERVICES PRIVATE LIMITED	0	1225	1225
303	WNET TELECOM PRIVATE LIMITED	0	1224	1224
304	UNITED STARS NETWORK PRIVATE LIMITED	0	1221	1221

S. No.	Name of Service Provider	Narrowband	Broadband	Total
305	iAIRONET COMMUNICATION PVT LTD	0	1213	1213
306	Nikita Broadband Pvt. Ltd	0	1197	1197
307	Sharplink Wireless Solution Pvt. Ltd.	0	1194	1194
308	Poem Techno Pvt. Ltd.	0	1186	1186
309	REVOLUTION BROADBAND PVT LTD	0	1177	1177
310	SHAILDHAR TELECOM SERVICES Pvt. LTD	0	1176	1176
311	VSJ INTERNET SERVICES PVT. LTD.	0	1162	1162
312	AMK SUNBEAM COMMUNICATION PRIVATE LIMITED	0	1152	1152
313	Grace Teleinfra Pvt Ltd	0	1145	1145
314	A.S.C.S.C. DIGITAL PRIVATE LIMITED	0	1144	1144
315	Navkar Netsol Pvt. Ltd..	0	1144	1144
316	Minnal DigitalNetwork (P) Ltd.	0	1138	1138
317	Sampath Venkateswara Communications Pvt. Ltd.	0	1133	1133
318	Veloxr Telecom Pvt. Ltd.	0	1128	1128
319	In Broadband Pvt.ltd	0	1121	1121
320	Green Tech Net Com Pvt. Ltd.	0	1118	1118
321	Click 4 Net InternetServices Pvt. Ltd.	0	1116	1116
322	DNS INFONET Pvt Ltd	0	1113	1113
323	Packenet Solutions Pvt. Ltd.	0	1110	1110
324	ACN Fiber Pvt. Ltd.	0	1100	1100
325	Hostaxis Network Pvt. Ltd.	0	1087	1087
326	Hardwork Cable & Internet services Pvt. Ltd.	0	1072	1072
327	FTTX Broadband P Ltd	0	1050	1050
328	SkyComm Internet Service Private Limited	0	1035	1035
329	GREEN ARROW TECHNOLOGY PRIVATE LIMITED	0	1022	1022
330	FASTNET COMMUNICATION PVT. LTD.	195	822	1017
331	SKY ONLINE TECHNOSYSTEM PVT LTD	0	1016	1016
332	Starlings Wireless Communications Pvt. Ltd.	0	1000	1000
333	Jiffy Cable & Datacom Pvt. Ltd.	0	987	987
334	Netfirst Communications Pvt. Ltd.	0	982	982
335	Global (India) Tele Infra Pvt. Ltd.	0	971	971
336	AHM Digital Network Pvt Ltd	0	970	970
337	EBENEZAR COMMUNICATIONS PVT. LTD.	0	970	970
338	Sheng Li Telecom India Pvt. Ltd..	0	968	968
339	C. J. Online Pvt. Ltd.	0	961	961
340	Sarvada net Pvt. Ltd	0	957	957
341	Asg Telecom Pvt. Ltd	0	955	955
342	PARAMOUNT INFINET PVT. LTD.	0	955	955

S. No.	Name of Service Provider	Narrowband	Broadband	Total
343	Uttam Infranet Pvt. Ltd..	0	946	946
344	Anushree Digital Network Pvt Ltd	0	944	944
345	Surround Networks Pvt Ltd	0	943	943
346	NetMagic Solutions(P) Ltd.	0	927	927
347	RK Broadband Hifi Services Pvt Ltd	926	0	926
348	DA Smartzone Pvt. Ltd.	0	925	925
349	Bluwaves Internet Services India Pvt. Ltd.	0	918	918
350	Ashley Internet Services Pvt. Ltd.	0	916	916
351	ALWAR ONLINE PVT LTD	0	910	910
352	CATLA IT&ENGG. CO. PVT LTD.	0	910	910
353	Reliance Communications Limited	909	0	909
354	MAHRTH INTERNET SERVICES PRIVATELIMITED	0	906	906
355	Wyris Network Pvt. Ltd.	0	903	903
356	Glo Internet Services Pvt Ltd	0	901	901
357	OM SHIV SAI INTERNET SERVICE (OPC) PVT. LTD	0	900	900
358	Darer Internet Services Pvt. Ltd.	0	898	898
359	Unigro Infranet Online Pvt. Ltd.	0	890	890
360	BTS TELECOM PVT LTD	0	887	887
361	AU NetworksPvt. Ltd.	0	882	882
362	M/s NTT Communications India Network Services Private Ltd.	0	880	880
363	Al-Mairah Braodband Pvt. Ltd.	0	876	876
364	SRI NETT PRIVATE LIMITED	0	875	875
365	Ficus Telecom Pvt. Ltd.	0	873	873
366	Trueinet Networks Pvt.Ltd	0	866	866
367	ARJUN BROADBAND PRIVATE LIMITED	0	861	861
368	Pegasuswave Private Limited	0	860	860
369	Sai Dwarawati Net Services Pvt. Ltd.	0	860	860
370	Aeroway Networks Pvt. Ltd.	0	854	854
371	Rida Communication Pvt. Ltd.	0	853	853
372	Skyber Broadband Service Pvt. Ltd	0	850	850
373	Balaji Infra Ray Pvt. Ltd.	0	848	848
374	DREAMLINK TECHNOLOGIES PVT LTD	0	848	848
375	INTERJET INDIA PRIVATE LIMITED	0	848	848
376	Stackbit Internet Services Pvt. Ltd.	0	848	848
377	Vinayaga Communications Pvt Ltd.	0	844	844
378	IAXN TELECOM PVT LTD	0	842	842
379	Clickian Network Pvt. Ltd.	0	832	832
380	Ultimate Internet Services Pvt. Ltd.	0	830	830

S. No.	Name of Service Provider	Narrowband	Broadband	Total
381	Gleam Worldwide Services Pvt. Ltd.	0	829	829
382	Mhatoba BroadbandPvt. Ltd	0	827	827
383	SRI KRISHNA INTERNET SERVICE PVT LTD	0	824	824
384	VICTORY DIGITAL NETWORK PRIVATE LIMITED	0	821	821
385	KESHAVA DIGITAL NETWORK PVT. LTD.	0	818	818
386	Rathnaa Spectra Pvt. Ltd.	0	813	813
387	SAI DWARAWATI NET SERVICES PVT. LTD.	0	810	810
388	Sivaan Infocom Pvt. Ltd	0	807	807
389	Shineplus Networks Pvt. Ltd.	0	795	795
390	SVD Digital Networks Pvt. Ltd.	0	793	793
391	Telosy Telecom Pvt. Ltd.	0	791	791
392	Briskcom Infoway Pvt. Ltd.	0	788	788
393	Treelink Broadband Pvt. Ltd.	0	773	773
394	Bapu Internet ServicesPvt. Ltd.	0	768	768
395	Nandini Broadband Pvt. Ltd.	0	766	766
396	Alegra Communication Pvt Ltd	0	763	763
397	Datawave IT solutions Pvt. Ltd.	0	763	763
398	Touchnet Broadband Services Pvt. Ltd.	0	757	757
399	SB Broadband Services Pvt. Ltd	0	756	756
400	Primenet Global Ltd.	0	745	745
401	Reticule Infotech Pvt. Ltd.	0	737	737
402	Shass Information and Quality Engineering Services Pvt. Ltd.	0	728	728
403	PJR NET SERVICE PRIVATE LIMITED	0	725	725
404	Software Technology Parks of India	9	715	724
405	Suraj Networks Pvt. Ltd.	0	724	724
406	MAXNET DIGITAL PRIVATE LIMITED	0	720	720
407	Spirenet Digital Communications Pvt. Ltd.	0	720	720
408	Cloudnet Communications Pvt. Ltd.	0	706	706
409	F2Connect Private Limited	0	704	704
410	Vimal Telecom Pvt. Ltd	0	694	694
411	Power Grid Corporation of India Ltd.	0	692	692
412	TOUCH NET INDIATELESERVICES PRIVATE LIMITED	0	692	692
413	Daksh Broadband Services Pvt. Ltd.	0	687	687
414	Gloiosa Infotel IT Services Pvt Ltd.	0	682	682
415	SG Broadband Internet Pvt. Ltd.	0	682	682
416	NETSAT COMMUNICATIONS PVT. LTD.	0	679	679
417	Kosmic Broadband Pvt Ltd	0	676	676

S. No.	Name of Service Provider	Narrowband	Broadband	Total
418	Unitel Media Pvt. Ltd.	0	675	675
419	Rajesh Patel Net Services Pvt. Ltd.	3	671	674
420	HPS DIGITAL BROADBAND PVT LTD	0	672	672
421	KGS NETWORKS PRIVATE LIMITED	0	672	672
422	Craze IT Solutions Pvt Ltd	0	667	667
423	BASS NETWORKS PRIVATE LIMITED	0	661	661
424	Spectram Telecom Pvt.Ltd	0	650	650
425	Nextra Communications Private Limited	0	646	646
426	ACME Diginet Corporation Pvt. Ltd.	0	634	634
427	Bandwidth Infinity Pvt. Ltd	0	633	633
428	Blue Net IT Solutions Pvt. Ltd.	0	631	631
429	Bass Jokernet Pvt. Ltd.	0	630	630
430	Breitband Technologies Private Limited	0	618	618
431	Airnetz Broadband Services Pvt. Ltd.	0	613	613
432	Datamax Technologies Pvt Ltd	0	611	611
433	Airway Communication Services India Pvt. Ltd.	0	608	608
434	Windsor Internet Pvt. Ltd.	0	608	608
435	ALLIED IT INFRASTRUCTURE & SERVICES PRIVATE LIMITED	603	0	603
436	Easy Solutions InternetServices Pvt. Ltd.	0	600	600
437	Ometa Net Pvt. Ltd.	0	595	595
438	RSBS Online Services Pvt. Ltd.	0	595	595
439	LIMERICK TECHNOLOGIES PRIVATE LIMITED	0	594	594
440	Gowio Networks Pvt. Ltd	0	590	590
441	Kad-Syscon NetworksPvt. Ltd	0	589	589
442	SARVA AIRWORLD NETWORK PVT LTD	0	587	587
443	SERANS FIBERNET PRIVATE LIMITED	0	584	584
444	Goodwill Smartlink Pvt. Ltd.	0	582	582
445	CNS Infotel Services Pvt. Ltd..	0	572	572
446	SHEEN TELECOM CONSULTANTS PVT LTD	0	572	572
447	Alphanet Broadband Pvt Ltd	0	571	571
448	Nanjil Internet Services Pvt. Ltd.	0	560	560
449	NEONET COMMUNICATIONS PVT. LTD.	0	560	560
450	RAAGAV COMMUNICATIONS PVT LTD	0	560	560
451	Smart Choice Wireless Network Pvt. Ltd.	0	559	559
452	Gazillio Technologies Pvt. Ltd.	0	557	557
453	Development Logics Solutions Pvt. Ltd.	0	554	554
454	NC BROADBAND SERVICES PRIVATE LIMITED	0	551	551
455	Prayag BroadbandPvt. Ltd.	0	550	550

S. No.	Name of Service Provider	Narrowband	Broadband	Total
456	Digital2Virtual ISP Pvt. Ltd.	0	549	549
457	INCUBIX UNIFIED SOLUTIONS PRIVATE LIMITED	0	549	549
458	Panav Network and Communications Private Limited	0	548	548
459	Fastnet Wire & Wireless Solutions Pvt. Ltd.	0	543	543
460	Unisas Netserve Pvt. Ltd.	0	532	532
461	Graceway Infrastructure and Services Pvt. Ltd	0	530	530
462	MSINFINITY ETHERNET SOLUTIONS PRIVATE LIMITED	527	0	527
463	Wi-Link Network Pvt. Ltd	0	525	525
464	Imperium Digital Network Pvt. Ltd.	0	522	522
465	Acegen Broadband Pvt. Ltd.	0	521	521
466	Skylink Fibernet Pvt. Ltd.	0	521	521
467	RNET GIGAFIBER Pvt. LTD	514	0	514
468	Corsica Solutions Private Limited	0	513	513
469	Manish Infocom Pvt. Ltd.	0	511	511
470	Mall and Mall Digiworld Pvt. Ltd.	0	508	508
471	Elitel Solutions Private Limited	0	504	504
472	KSK Broadband Pvt. Ltd.	0	502	502
473	Dhanam Internet Services India Pvt. Ltd.	0	500	500
474	RACSANN TECHNOLOGIES PVT. LTD.	0	500	500
475	Royal Connect Solutions Pvt. Ltd	0	499	499
476	DE-CIX Interwire Internet Services Pvt. Limited	0	498	498
477	Cityline Networks Pvt Ltd	0	496	496
478	Earthlink Broadband Pvt. Ltd	0	490	490
479	Faconet Internet Pvt Ltd	0	490	490
480	Moradabad Internet Services Pvt. Ltd.	0	490	490
481	7 Sai Net Solutions Pvt. Ltd.	0	486	486
482	JMD INTERNET AND SERVICES PVT. LTD.	0	477	477
483	Shree Manoranjan Broadband Pvt. Ltd.	0	475	475
484	Texas Connect Private Limited	0	475	475
485	GIGANET DIGITAL NET SERVICES PRIVATE LIMITED	0	469	469
486	FASTCOM TELELINK PRTVATE LIMITED	0	466	466
487	YES BROADBANDPRIVATE LIMITED	0	461	461
488	SYNCFAC TO CONSULTING Pvt Ltd.	0	460	460
489	OPTO Communications Private Limited	0	456	456
490	GTECH COMMUNICATION Pvt Ltd	0	451	451
491	Sistemas Information Technology Pvt. Ltd.	0	451	451
492	Clicknet Communication Pvt. Ltd.	0	447	447
493	Quick Link Broadband and Services Pvt. Ltd.	0	446	446

S. No.	Name of Service Provider	Narrowband	Broadband	Total
494	KKM Broadband Internet Pvt. Ltd.	0	445	445
495	Aeronet online services private limited	0	443	443
496	Gorkha Infotech Private Limited	0	442	442
497	DMDS SOLUTIONSPRIVATE LIMITED	0	441	441
498	MREZHI INTERNET PRIVATE LIMITED	0	440	440
499	Daan Communications Private Limited	0	438	438
500	Unborn Networks Pvt. Ltd.	0	438	438
501	BPS COMMUNICATION AND SERVICES PRIVATE LIMITED	0	435	435
502	Malang Solutions Pvt. Ltd.	0	431	431
503	Prompt Infracom Pvt. Ltd.	0	430	430
504	Spark Telecommunication Private Limited	0	430	430
505	Shivraj Broadband Internet Pvt. Ltd.	0	422	422
506	I-Infolink Networks Pvt. Ltd.	0	419	419
507	Sysnet Broadband Services Pvt. Ltd.	0	417	417
508	SAI KUMAR INFONET PRIVATE LIMITED	0	415	415
509	Nandita Infocom Pvt. Ltd.	0	414	414
510	TRACKNET SERVICES PVT LTD	0	413	413
511	Gera Cable Internet Service Pvt. Ltd.	0	408	408
512	VPM NETWORKS PRIVATE LIMITED	0	408	408
513	Hughes Communications India Ltd.	2	403	405
514	RUSH ME BROADBAND PRIVATE LIMITED	0	403	403
515	SIDDIQUI GLOBAL SERVICES PVT LTD	0	403	403
516	Wavetree Networks Pvt. Ltd.	0	403	403
517	Wireline Solution India Pvt Ltd	0	402	402
518	3J Global Services Pvt Ltd	0	398	398
519	BSL Technologies Pvt. Ltd.	0	398	398
520	HANUMAT NETWORKS PRIVATE LIMITED	0	397	397
521	Sparklink. Net Pvt. Ltd.	0	397	397
522	COMPLIANCE BROADBAND PRIVATE LIMITED	0	395	395
523	PULSE TELESYSTEMS PRIVATE LIMITED	0	392	392
524	TECHNOMEX INFOCOM SYSTEMS PVT LTD.	0	392	392
525	Simplex Broadband Pvt. Ltd.	0	391	391
526	Vispates Internet Pvt. Ltd.	0	390	390
527	TAIBA SUPER INTERNET PRIVATE LIMITED	386	0	386
528	DMP Internet ServicesPvt. Ltd	0	383	383
529	VORRUCKEN NETWORKS PRIVATE LIMITED	0	382	382
530	Digiscope Networks Private Limited	0	381	381

S. No.	Name of Service Provider	Narrowband	Broadband	Total
531	Cybernet Introtech Pvt. Ltd.	0	375	375
532	Suncity Broadband Pvt. Ltd.	0	374	374
533	Qwistel Network Service Pvt Ltd	0	373	373
534	Starnet Global Pvt. Ltd.	0	370	370
535	Terrafiber Networks Pvt. Ltd.	0	369	369
536	AT&T Global Network Service India Private Limited	0	367	367
537	Rocketwire Internet Solutions Pvt. Ltd.	0	365	365
538	Citylink Broadband Services Pvt. Ltd.	0	354	354
539	Sense Connect IT Pvt. Ltd.	0	347	347
540	CONSAM TELECOM PRIVATE LIMITED	0	346	346
541	ST Network Solutions Pvt. Ltd.	0	346	346
542	Voxterra Innovtions Pvt. Ltd.	0	343	343
543	Elyzium Technologies Pvt. Ltd.	0	340	340
544	Speedster Communications Pvt. Ltd	0	340	340
545	AiriconCommunication Pvt. Ltd	0	338	338
546	VERYS INFOTECH PRIVATE LIMITED	0	335	335
547	PRONET PRIVATE LIMITED	0	334	334
548	Sai Akshay Internet Services Pvt Ltd.	0	332	332
549	Kataria Net Solutions Pvt. Ltd.	0	331	331
550	Twincity Communication Private Limited	0	328	328
551	Hyber Networking Pvt. Ltd.	0	327	327
552	R N Broadband Online Pvt. Ltd	0	325	325
553	RN Broadband Online Pvt. Ltd.	0	325	325
554	CLOUDPATH TELECOM PVT LTD	0	320	320
555	POLY INFORMATICS PVT.LTD.	0	320	320
556	Elecon Information Technology Ltd.	0	317	317
557	Pimoony Broadband Services Pvt. Ltd.	0	317	317
558	Orange City InternetServices Pvt. Ltd.	0	315	315
559	Bluenet Broadband Services Pvt. Ltd.	0	310	310
560	AARADHY LIAISON SERVICES PRIVATE LIMITED	0	309	309
561	Gramin Broadband Network Pvt. Ltd.	0	307	307
562	AKD NETWORK PRIVATE LIMITED	0	305	305
563	Srushti Broadband And Internet Services Pvt. Ltd.	0	304	304
564	TRIVNET NETWORKS PRIVATE LIMITED	0	304	304
565	METREXA BROADNET PRIVATE LIMITED	0	303	303
566	Inter Net LY Pvt. Ltd.	0	302	302
567	Hipoint Connect Pvt. Ltd.	0	301	301
568	Apex Netcom India Pvt. Ltd..	0	300	300

S. No.	Name of Service Provider	Narrowband	Broadband	Total
569	SSICON SYSTEMS PRIVATE LIMITED	0	300	300
570	Aayu Infonet Pvt. Ltd.	0	297	297
571	JD Net Enterprises Pvt. Ltd	0	296	296
572	Skyhunt IT Park Pvt. Ltd.	0	290	290
573	WAY2AIR NET SOLUTION PVT. LTD.	0	290	290
574	Excel UG Pvt. Ltd	0	289	289
575	Digital Telco Network India Pvt. Ltd.	0	287	287
576	Spiretel Technologies Pvt Ltd	0	285	285
577	Verizon Communications India Pvt. Ltd.	0	285	285
578	VIVEK NETWORK PRIVATE LIMITED	0	285	285
579	STN Communication & Advertising Pvt. Ltd.	0	281	281
580	Vizcon Digital Pvt. Ltd.	280	0	280
581	Delix Net Solutions Pvt. Ltd	0	278	278
582	Proline Datatech Services Pvt. Ltd.	0	272	272
583	VELOCITY INTERNET INDIA PRIVATE LIMITED	0	272	272
584	Zoram Infonet Pvt. Ltd.	0	272	272
585	J-Link Infotainment Pvt. Ltd.	0	270	270
586	Alien DNS Pvt. Ltd.	0	269	269
587	HELM CONSULTANTS PVT LTD	0	269	269
588	JBN Online Pvt. Ltd.	0	269	269
589	GPALV BROADBAND PRIVATE LIMITED	0	267	267
590	Linkio Fibernet Private Limited	0	265	265
591	airtechzone services india private limited	0	264	264
592	Vardaan Netservices Pvt. Ltd.	0	263	263
593	SIDDHBALI INFOTECH PVT LTD.	0	260	260
594	Singh Internet Services Pvt. Ltd.	0	260	260
595	Ruhban Telecommunication Private Limited	0	254	254
596	Varsha Datacom Services Pvt. Ltd.	0	252	252
597	Ecreado Network Solutions Pvt. Ltd.	0	251	251
598	SMARTLINK BROADBAND SERVICES PVT LTD	0	250	250
599	SPEEDGLOBAL TELECOM NETWORK PRIVATE LIMITED	0	250	250
600	Nivak Communications Pvt. Ltd	0	249	249
601	King Netsol Pvt. Ltd.	26	221	247
602	SNT Broadband Pvt. Ltd.	0	246	246
603	MRRIDSYS TECHNOLOGIES PVT LTD	0	245	245
604	TEJNET GIGAFIBER PRIVATE LIMITED	0	240	240
605	Ekowebtech IT Services Private Limited	0	239	239
606	Shri Samarth Infobahn Pvt. Ltd.	0	239	239

S. No.	Name of Service Provider	Narrowband	Broadband	Total
607	AEROLINK BROADBAND PRIVATE LIMITED	0	238	238
608	Microsense Pvt Ltd	0	237	237
609	Netrexo Communications Private Limited	0	237	237
610	JTM Internet Pvt. Ltd	0	236	236
611	Barani Data Solutions Private Limited	0	232	232
612	GOMTESH INFOTECH PVT. LTD.	0	231	231
613	MANAS INTERNET TECHNOLOGY PRIVATE LIMITED	0	230	230
614	VIVA Communications Pvt Ltd	0	229	229
615	Hipath Netcom Services Pvt. Ltd.	0	228	228
616	Magnuss Broadband Service Pvt. Ltd.	0	228	228
617	ZEES BROAD BAND PRIVATE LIMITED	0	228	228
618	Neton Icom Pvt. Ltd.	0	227	227
619	VN ETHERNET INDIA PRIVATE LIMITED	227	0	227
620	AIT Internet Services Pvt. Ltd.	0	222	222
621	Rmax Broadband Pvt. Ltd.	0	222	222
622	Peer Networks Private Limited	0	221	221
623	ACEBROWSE PVT LTD	0	219	219
624	CIT SOLUTIONS PVT. LTD.	0	217	217
625	Data Ingenious Global Ltd	0	216	216
626	Vrednus Network Pvt. Ltd.	0	216	216
627	Optisky Fibernet Pvt. Ltd.	0	215	215
628	iBus Network & Infrastructure (P) Ltd.	0	212	212
629	Airwire Infocom Pvt. Ltd.	0	211	211
630	Anish Infoline Pvt. Ltd.	0	211	211
631	Enhancelink CoreportPvt. Ltd	0	211	211
632	YNET BROADBAND SERVICES PRIVATE LIMITED	0	210	210
633	Yuva Communications Private Limited	0	209	209
634	EYE FASTNET SERVICE PRIVATE LIMITED	0	207	207
635	NAS INTERNET SERVICES PVT LTD	0	206	206
636	Saibaba Broadband Pvt. Ltd.	0	206	206
637	S.V.C CABLE NET PRIVATE LIMITED	0	205	205
638	VAIDIK NETSOL OPC PVT LTD	0	202	202
639	Sator Square Ventures Private Limited	0	201	201
640	Dhadam Hospitality & Services Pvt. Ltd.	0	200	200
641	Ishani Broadband Pvt Ltd	0	200	200
642	JAYBHOLE CABLE VISION PRIVATE LIMITED	0	194	194
643	Auspice Infratel Pvt. Ltd.	0	192	192
644	FRIDDEN INFOWAY PVT. LTD..	0	189	189

S. No.	Name of Service Provider	Narrowband	Broadband	Total
645	Wi5 Internet Services Pvt. Ltd.	0	189	189
646	Cheetah Networks Pvt. Ltd.	0	188	188
647	Frontier Infra Communications(P) Ltd.	0	187	187
648	M-TEL Networks (P) Ltd	0	186	186
649	Antariksh Broadband & Wireless Solution Pvt. Ltd.	0	182	182
650	AIRMAX INTERNET PVT LTD	0	181	181
651	BBRG Communication and Internet Pvt. Ltd.	0	181	181
652	NEAM COMMUNICATIONS PRIVATE LIMITED	0	180	180
653	VMO BROADBAND PVT LTD	0	180	180
654	White Stallion Networks Pvt. Ltd.	0	179	179
655	Pune Teleinfra Pvt. Ltd..	0	177	177
656	arrow touch wireless internet private limited	0	173	173
657	Sath Technologies Pvt. Ltd.	0	172	172
658	Sreedevi Communications Private Limited	0	172	172
659	Rae Internet Service Provider Pvt Ltd	0	171	171
660	CINFOGEN PRIVATE LIMITED	0	170	170
661	PMG Networks Pvt. Ltd.	0	170	170
662	Sify Technologies Ltd.	0	170	170
663	Costel Networks Pvt. Ltd.	0	167	167
664	SPARKLIGHT INTERNET PRIVATE LIMITED	0	167	167
665	Oistel Telecom Pvt. Ltd.	0	166	166
666	Fibernetisp Pvt. Ltd.	0	165	165
667	SRI RAM BROADBAND SERVICES PRIVATE LIMITED	0	163	163
668	Wifi Inter-connect Pvt. Ltd.	0	162	162
669	Vaishnavaibhavi Internet Solutions Private Limited	0	161	161
670	ARP INFONET PVT. LTD.	0	159	159
671	Onepipe Telecom Pvt. Ltd	0	159	159
672	Viking Network Pvt. ltd	0	157	157
673	Tamana Winet Pvt. Ltd.	0	156	156
674	Noob Technologies Pvt.Ltd	0	152	152
675	NEXTGEN COMPUSOFT PVT LTD	0	151	151
676	iGEN Networks Private Limited	0	150	150
677	Prateek Netconnect Pvt. Ltd	0	150	150
678	PRSHREE Networks Private Limited	0	150	150
679	YOTTA NETWORK SERVICES PRIVATE LIMITED	0	149	149
680	BT Global Communication India Pvt. Ltd.	0	148	148

S. No.	Name of Service Provider	Narrowband	Broadband	Total
681	Digitizer Access Network Private Limited	0	148	148
682	Shreepad Communication Pvt. Ltd.	0	148	148
683	Netstra Communications Pvt., Ltd.	0	147	147
684	TRIGART INTERNET PVT. LTD.	0	146	146
685	VISHWAKARMA BROADBAND PRIVATE LIMITED	0	143	143
686	Ezeenet Internet Solutions Pvt. Ltd.	0	142	142
687	LINKED NET TECHNO SERVICES PRIVATE LIMITED	0	142	142
688	Rita Infocom Pvt. Ltd.	0	142	142
689	Jasnet Networks Pvt. Ltd.	0	141	141
690	Teleglobal Communiocations pvt Ltd	139	0	139
691	GauravCommunication Pvt. Ltd	0	138	138
692	Nuozen Telecom Pvt. Ltd.	0	138	138
693	Achiever Communication and Services Pvt. Ltd.	0	137	137
694	Vision Hi-Speed Technology Pvt. Ltd.	0	137	137
695	Fabnet Services Private Limited	0	136	136
696	Airfiber IT Solutions Pvt. Ltd.	0	135	135
697	Mediatech Communication Pvt. Ltd.	0	135	135
698	Pyramid Infocom Pvt. Ltd.	135	0	135
699	Mahadev Telventures Pvt Ltd	0	134	134
700	Joshi Internet Services Pvt. Ltd.	0	133	133
701	CLOUDINSTA24 SERVICES PRIVATE LIMITED	0	131	131
702	Galvin Broadband (OPC) Pvt. Ltd.	0	130	130
703	LEROY NETWORKS AND SERVICES PRIVATE LIMITED	0	130	130
704	LINKUNIVERSE COMMUNICATION PRIVATE LIMITED	0	129	129
705	Shree Siddhivinayak Cable And Internet Service Provider Private Limited.	0	129	129
706	Wingsnet Internet Pvt.Ltd	0	129	129
707	Excogitate Technologies Pvt. Ltd.	0	126	126
708	INYCB Network Pvt. Ltd.	0	126	126
709	MLC INTERNET PVT LTD	0	126	126
710	Promptnet Broadband Pvt. Ltd.	0	126	126
711	Linkup Networks Pvt. Ltd.	0	125	125
712	A-Net Communication India Pvt.Ltd.	0	123	123
713	NT CYBRONET PRIVATE LIMITED	0	123	123
714	Hari Om Netsol Pvt. Ltd.	0	118	118
715	LEVOTEL BIGNET SOLUTIONS PRIVATE LIMITED	0	118	118

S. No.	Name of Service Provider	Narrowband	Broadband	Total
716	V NET NETWORKS PVT. LTD	0	118	118
717	ASVISH TECHNOLOGY PARTNER (OPC) PVT LTD	0	116	116
718	Sharktel Infocom Pvt. Ltd.	0	116	116
719	Blenda Internet ServicesIndia Pvt. Ltd.	0	115	115
720	Pronoc Technologies Pvt. Ltd.	0	113	113
721	Chaitali Communications (OPC) Pvt.Ltd	0	112	112
722	Netwire Internet Solutions Pvt. Ltd.	0	112	112
723	ITech Hive Pvt. Ltd	0	111	111
724	Japra Tele Link Pvt. Ltd.	0	110	110
725	Telstra Telecommunications Private Limited	0	110	110
726	NR IT Service Pvt. Ltd.	0	109	109
727	Durga Broadband Pvt. Ltd.	0	108	108
728	Netlife Network Pvt. Ltd..	0	107	107
729	SHIVKRANTI INTERNET SERVICES PVT. LTD.	0	107	107
730	MICRONOVA TELE SYSTEMS PRIVATE LTD.	0	106	106
731	Skynet Broadband Pvt. Ltd.	0	105	105
732	FASTJET TELECOM PRIVATE LIMITED	0	103	103
733	Jetato Skynet Services Pvt. Ltd.	0	103	103
734	Khetan Cable Network (P) Ltd	0	102	102
735	ROYAL WIRELESS SERVICES PVT LTD	0	102	102
736	Thangam Communications Pvt.Ltd.	0	102	102
737	Invensys Networks Pvt.Ltd.	0	101	101
738	AXOMNET BROADBAND Pvt. LTD.	0	99	99
739	FLIX BROADBAND SERVICES PRIVATE LIMITED	0	99	99
740	Broad Net India Pvt. Ltd.	0	97	97
741	SADBUDHHI SOLUTIONS PVT LTD	0	97	97
742	Magica Networking Solutions Pvt. Ltd.	0	94	94
743	Satpar Infotech Pvt Ltd	0	93	93
744	TENTEQ BROADBAND PVT. LTD.	0	93	93
745	Aircables Internet Services Pvt. Ltd.	0	90	90
746	Patil ISP Services (OPC) Pvt. Ltd.	0	90	90
747	S A Internet Solution Pvt Ltd	0	90	90
748	Denet Connect Services Pvt Ltd	0	89	89
749	INFINITY WIRELESS SERVICES PVT. LTD.	0	89	89
750	YNET TELECOM SOLUTIONS PVT LTD	0	89	89
751	Gaxiom Networking Solutions Private Limited	0	88	88
752	Inic Communications Private Limited	0	88	88

S. No.	Name of Service Provider	Narrowband	Broadband	Total
753	JAGUAR BYTE TECHNOLOGY PRIVATE LIMITED	0	88	88
754	Veer Point Pvt. Ltd.	0	87	87
755	DYSINT NETWORKS PRIVATE LIMITED	0	86	86
756	ASHOKA NETSOL PVT LTD	0	84	84
757	GIGHZ IT SOLUTIONS PRIVATE LIMITED	0	84	84
758	NSD Internet Private Limited	0	82	82
759	G-Max IT Services Pvt. Ltd.	0	80	80
760	NAS Broadband Pvt. Ltd	0	79	79
761	Omkar Net Services Pvt. Ltd.	0	79	79
762	E I DOT Com Pvt. Ltd.	0	75	75
763	Sanavi Infotech (OPC) Pvt. Ltd.	0	75	75
764	Bilal Internet Services Private Limited	0	74	74
765	Shri Vinayagaa Internet Pvt Ltd	0	74	74
766	V NETCARE PRIVATE LIMITED	0	74	74
767	ANODIC TELENETWORK PVT LTD	0	73	73
768	SMPL Networks Pvt. Ltd.	0	73	73
769	SPEEDNET INFORMEDIA PVT LTD	0	73	73
770	PAWAN BROADBAND INDIA PVT LTD	0	72	72
771	Creative BroadbandServices Pvt. Ltd	0	72	72
772	NR Data Service Pvt Ltd.	0	72	72
773	SHERAWAT INFOTECH PRIVATE LIMITED	0	72	72
774	Kelnet Communication Services Pvt. Ltd	0	70	70
775	MABA SAFENET BROADBAND SERVICES PVT LTD	0	70	70
776	IKRA Broadband Private Limited	0	69	69
777	Ekdant Communication Pvt. Ltd.	0	68	68
778	Jai Mata Di Telectronix Pvt. Ltd.	0	67	67
779	Amity Hua Electronics Pvt. Ltd.	0	66	66
780	Aspire Broadband Pvt. Ltd.	0	66	66
781	Orange Business Services India Network Pvt. Ltd.	0	66	66
782	DNet E Solutions Pvt. Ltd.	0	65	65
783	NIVID TELECOM INDIA PRIVATE LIMITED	0	65	65
784	Mark Networks SolutionsIndia Pvt. Ltd.	0	64	64
785	WINUX COMMUNICATIONS PVT LTD	0	64	64
786	IT Spectrum Media Pvt Ltd	0	62	62
787	PATHCOM COMMUNICATIONS PRIVATE LIMITED	0	61	61
788	Broadstar Net India Pvt. Ltd.	0	60	60
789	Kim Broadband Services Pvt. Ltd.	0	60	60
790	MaxwebMaltimedia Private Limited	0	60	60

S. No.	Name of Service Provider	Narrowband	Broadband	Total
791	Pier Communication Pvt. Ltd	0	60	60
792	Sankrish Infocom Private Limited	0	60	60
793	GURU NETCOM PVT. LTD.	0	59	59
794	Cfiber Communications Pvt. Ltd	0	58	58
795	Malachandra Broadband Services Private Limited	0	58	58
796	Samruddhi Communication Pvt. Ltd.	0	58	58
797	CSC Wifi Choupal Services India Pvt. Ltd.(Formerly CSC e-Governance Services India Ltd.)	0	56	56
798	Infiber Broadnet Pvt. Ltd.	0	56	56
799	SGCI Pvt. Ltd.	0	56	56
800	Trivoz Digital Networks Pvt. Ltd.	0	55	55
801	Aamak Network Pvt. Ltd.	0	54	54
802	Bloglytics Internet Pvt.Ltd	0	54	54
803	Sheetalinternet Services Private Limited	0	54	54
804	Fastx Broadband Pvt. Ltd.	0	52	52
805	Gponospace Internet India Pvt. Ltd.	0	52	52
806	Hansin IT Services Private Limited	0	52	52
807	Tiruppur Broadwave Pvt. Ltd.	0	52	52
808	VIDARBHA WI-FI AND NETWORK SERVICES PVT LTD.	0	52	52
809	Ajay Cable & Broadband Service OPC Pvt. Ltd	0	51	51
810	BRIZZ BROADBAND PRIVATE LIMITED	0	50	50
811	Highnet Broadband & Technologies Pvt. Ltd.	0	49	49
812	VDCN INFOTECH PRIVATE LIMITED	0	49	49
813	VR INTERNET PRIVATE LIMITED	0	48	48
814	Nextra Teleservices Pvt. Ltd.	0	48	48
815	A M Broadband Pvt.Ltd	0	47	47
816	Fibernet Solutions (OPC) Pvt. Ltd.	0	47	47
817	IndrayaniCommunication Pvt. Ltd	0	47	47
818	Jet Netcom Broadband Pvt. Ltd.	0	47	47
819	Suryasspeed Network Pvt Ltd	0	47	47
820	ZITA TELECOM PRIVATE LIMITED	0	47	47
821	S.G.I.C SERVICES PRIVATE LIMITED	0	46	46
822	Quantasoul Airoligix Pvt. Ltd.	0	43	43
823	R3ESOLUTION Pvt Ltd.	0	43	43
824	SPACELINK INTERNET (OPC) PRIVATE LIMITED	0	43	43
825	BEAURACK VELOCITY INFOCOM PVT LTD	0	42	42
826	Ziptel IT Solutions Pvt. Ltd.	26	15	41
827	Jmohit Cable Vision Pvt. Ltd.	0	40	40

S. No.	Name of Service Provider	Narrowband	Broadband	Total
828	Gigalo Communication Private Limited	0	39	39
829	Divine Broadband Services Pvt. Ltd.	0	38	38
830	Edge Telecommunications Pvt. Ltd.	38	0	38
831	R.P. World Telecom Pvt. Ltd.	0	36	36
832	Unified Voice Communication Pvt. Ltd.	18	18	36
833	ADS Royalnet Communication Private Limited	0	35	35
834	FASTHOOK NETWORKS PVT LTD	0	35	35
835	Froze Communications Pvt. Ltd.	0	34	34
836	SAMVAD TELECOM	0	34	34
837	Streamax Broadband Services Pvt. Ltd	0	34	34
838	Tarantula WebNetworks Pvt. Ltd.	0	34	34
839	Passcom System and Services Pvt. Ltd.	0	33	33
840	BRIGHTNET INTERNET SOLUTIONS (OPC) PRIVATE LIMITED	0	32	32
841	Playernet Technologies Private Limited	0	31	31
842	SAMAIRA INFOTECH PVT. LTD.	0	31	31
843	Bajpai Telecom Pvt. Ltd.	0	30	30
844	Doonbroadband Pvt. Ltd.	0	30	30
845	Suniman Cable and Net Pvt Ltd	0	30	30
846	Mesh Infranet Pvt. Ltd.	0	29	29
847	DENSIS ONLINE PVT LTD	0	28	28
848	Skynet Zone Wifi Services (P) Ltd.	0	28	28
849	Nelco Ltd.	3	24	27
850	Ultrawave Internet Access Pvt. Ltd.	5	22	27
851	WE INTERNET LIMITED	0	27	27
852	Praveen Telecom Pvt. Ltd.	0	26	26
853	Spacetrade Internet Pvt Ltd	0	26	26
854	DRONAGIRI INFOTECH PVT LTD	0	25	25
855	Sudhana Telecommunication Pvt Ltd.	0	25	25
856	TREELINK NETWORK PVT LTD	0	25	25
857	Aerocast Networks Pvt Ltd.	0	24	24
858	TLN COMMUNICATION PRIVATE LIMITED	0	24	24
859	INTRO TELECOM Pvt Ltd.	0	23	23
860	Pacific Internet India Pvt. Ltd.	0	23	23
861	Saagars Channel Pvt. Ltd.	0	23	23
862	LIVE FIBERNET SERVICE PRIVATE LIMITED	0	22	22
863	Smartware Technologies Pvt. Ltd.	0	22	22
864	Pintwire Infomatics Pvt. Ltd.	0	21	21
865	SHILOM NETWORK SERVICES PRIVATE LIMITED	0	21	21

S. No.	Name of Service Provider	Narrowband	Broadband	Total
866	SmchondheCommunication Pvt. Ltd	0	21	21
867	Heramb T-10 Network Pvt. Ltd..	0	20	20
868	Sun Broadband and Data Services PVT. LTD.	0	18	18
869	ERNET India	0	17	17
870	RAJNET CARE PRIVATE LIMITED	0	17	17
871	ACHARE BROADBAND (OPC) PRIVATE LIMITED	0	16	16
872	HELLO NETWORK SERVICE Pvt Ltd.	0	16	16
873	Hienet Internet Services Pvt. Ltd.	0	16	16
874	Microtel Internet Network Pvt. Ltd.	0	15	15
875	DAVA TELECOM PRIVATE LIMITED	0	14	14
876	Marutham Networks Pvt. Ltd.	0	14	14
877	SAI LEELA'S INTERNET SERVICE PVT. LTD.	0	14	14
878	SPEEDPULSE DIGITAL NETWORK PRIVATE LIMITED	0	14	14
879	ANGROW NETCOMM PRIVATE LIMITED	0	12	12
880	nwt internet services private limited	0	11	11
881	Hybrid Hash Pvt. Ltd.	0	10	10
882	Mastek Infosystems OPC Pvt. Ltd.	0	10	10
883	Upnet Communications Pvt. Ltd.	0	10	10
884	VISHVA INFRATEL PRIVATE LIMITED	0	10	10
885	Ceralink Communication Pvt Ltd	9	0	9
886	Feathers wireless network (opc) Pvt. Ltd.	0	9	9
887	Fibmesh IN Limited	0	9	9
888	WORLD PHONE INTERNET SERVICES PVT LTD	0	9	9
889	Tatanet Services Ltd	0	8	8
890	Uttradoon Networks Pvt. Ltd.	0	8	8
891	CIFY IT Services Pvt. Ltd.	0	7	7
892	Riyaz Internet Services Pvt. Ltd.	0	7	7
893	A TO Z INFOLINK PVT. LTD.	0	6	6
894	Clear Beam Communication Pvt. Ltd.	0	6	6
895	Financial Technologies Communication Ltd.	0	6	6
896	FURIOUSPEED PRIVATE LIMITED	0	6	6
897	Kartik Network Pvt. Ltd.	0	6	6
898	Aristo Telenet Pvt Ltd	0	5	5
899	Blueline ISP Pvt. Ltd	0	5	5
900	OM INTERNET BROADBAND SERVICE Pvt. LTD	0	5	5
901	ZAPTIC PRIVATE LIMITED	0	5	5

S. No.	Name of Service Provider	Narrowband	Broadband	Total
902	CLOUD8IN TECHNOLOGIES PRIVATE LIMITED	0	4	4
903	Critel Technologies Pvt. Ltd.	0	4	4
904	ESP Fibernet Pvt. Ltd.	0	4	4
905	UBERCORE DATA LABS PVT LTD	0	4	4
906	AGILE NETLINK PRIVATE LIMITED	0	3	3
907	Cloudcast Digital Ltd.	0	3	3
908	ESTO MEDIA PRIVATE LIMITED	0	3	3
909	GBLINK NETWORKSOLUTIONS PRIVATE LIMITED	0	3	3
910	GEGA BROADBAND SOLUTION PRIVATE LIMITED	0	2	2
911	Isyan Communication Pvt. Ltd	0	2	2
912	My Digital NetworkLtd.	0	2	2
913	Sabse Internet Service Provider Pvt. Ltd.	0	2	2
914	Sai Technix Pvt Ltd	0	2	2
915	Winet Infratel Pvt. Ltd.	0	2	2
916	SPEEDNET OPTICAL NETWORK Pvt Ltd.	0	1	1
917	FLYFAST CONNECTIONS Pvt. LTD	0	1	1
918	METICULOUS NETWORKS PRIVATE LIMITED	0	1	1
919	Red Fiber Telecom Pvt Ltd	0	1	1
920	Sahiba Silk Mills Pvt. Ltd.	0	1	1
921	SHYAM DATA & VOICE SERVICES PVT LTD	0	1	1
Total		33695335	832201735	865897070
Total (in million)		33.695	832.202	865.897

*The information is compiled based on the reports being received from the Internet Service Providers

**Annexure 1.6: Telecom Service Area-wise Public Wi-Fi Hotspots, as on
31st December, 2022**

S.No.	LSA	Sum of Number of Public Wi-Fi Hotspots	Sum of Number of Access Points	Sum of Number of unique Wi- Fi Users	Sum of Aggregate Data Consumed (GB)
1	Andhra Pradesh	10098	20803	549816	432227
2	Assam	783	1704	121844	133981
3	Bihar	34001	38762	1011907	1104634
4	Delhi	11768	22348	2402163	6556660
5	Gujarat	7266	15784	752999	1776815
6	Haryana	6601	9944	108013	81344
7	Himachal Pradesh	1121	2273	16696	17469
8	Jammu & Kashmir	1525	3229	59272	28031
9	Karnataka	8525	26356	352262	219558
10	Kerala	3973	8177	570995	287694
11	Kolkata	513	7245	232294	153051
12	Madhya Pradesh	18781	36869	449079	474140
13	Maharashtra	16831	25502	486027	393191
14	Mumbai	988	13880	965227	367310
15	North East	1466	2952	45188	80054
16	Odisha	3619	5687	210875	233722
17	Punjab	9704	12326	118204	92352
18	Rajasthan	3183	7972	288215	261992
19	Tamil Nadu (including Chennai Service Area)	2192	6848	252586	179502
20	Uttar Pradesh East	19534	77793	506470	465865
21	Uttar Pradesh West	10821	41792	205002	245291
22	West Bengal	3369	5168	521184	439636
Total		176662	393414	10226318	14024519

* The information is compiled based on the reports being received from the Internet Service Providers

Annexure 1.7: List of Service Providers which reported IP Telephony Minutes for Q.E. Dec-22

S. No.	Name of Service Providers reported IP Telephony Minutes as on 31st December 2022
1	Alliance Broadband Services Pvt. Ltd.
2	Novanet Ltd.
3	Viva Communications Pvt. Ltd.
4	Weco Infotech Pvt. Ltd.
5	Citycom Networks Pvt. Ltd.
6	delDSL Internet Pvt Ltd
7	Pulse Telesystems Pvt. Ltd.
8	Sify Technologies Ltd.
9	Tata Communications Limited
10	Trikon Electronics Pvt. Ltd.
11	World Phone Internet Services Pvt. Ltd.
12	Skyfall Voice Communications Pvt. Ltd.
13	Warmconnect Internet Services Pvt. Ltd.

Annexure 1.8: Service Area wise PMRTS subscriber Base

S.No.	DOT Licensed Service	Area Served	Service Provider	Subscriber Base	
				30.09.2022	31.12.2022
1	Andhra Pradesh	Hyderabad	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	2,955	2,841
			QuickCall	1,004	999
		Visakhapatnam	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	4,011	3,986
Total				7,970	7,826
2	Delhi	Delhi	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	7,384	7,285
			Procall Ltd.	3,724	3,692
		Total			
3	Gujarat	Ahmedabad	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,027	1,075
		Amrela	Inative Networks Pvt. Ltd.	-	-
		Bharuch	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,479	1,454
			Inative Networks Pvt. Ltd.	-	-
		Dahej	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,453	1,443
		Jamnagar	Inative Networks Pvt. Ltd.	360	360
		Kutch	Inative Networks Pvt. Ltd.	205	205
		Surat	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,735	1,774
			Inative Networks Pvt. Ltd.	900	900
		Vadodara	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,803	1,809
Inative Networks Pvt. Ltd.	360		360		
Total				9,322	9,380
4	Karnataka	Bangalore	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	7,530	7,457
			QuickCall	472	471
		Total			
5	Kerala	Ernakulam	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,059	1,201
		Kerala	Wiwant Solutions Pvt. Ltd	1,046	1,048
		Total			
6	Kolkata	Kolkata	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,501	1,503
7	Madhya Pradesh	Indore	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,742	1,807
8	Maharashtra	Khandala	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	262	495
		Pune	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1,895	1,658
			Smartalk Pvt Ltd.	694	691
Total				2,851	2,844
9	Mumbai	Mumbai	Airtalk Solutions & Services Pvt. Ltd.	592	630
			Arya Omnitalk Radio Trunking Services Pvt.Ltd.	9,537	9,488
			Bhilwara Telenet Services Pvt.Ltd.	882	889
			Smartalk Pvt Ltd.	876	810
Total				11,887	11,817
10	Rajasthan	Jaipur	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	861	817
			Procall Ltd.	494	466
		Total			
11	Tamil Nadu	Chennai	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	7,561	7,627
			QuickCall	419	366
		Total			
Grand Total				65,823	65,607

**Annexure 2.1: Wireless Revenue Service - Service Area wise Statistics for
QE Dec, 2022**

Key parameters for service areas of category-A

Service Area	% of pre-paid in total subscribers	ARPU (Rs. per month)	Total usage (from & outside HSA) per subscriber per month			
			Outgoing SMS	Outgoing MOU	Incoming MOU	Total MOU
AP	93.28%	173	12	453	438	892
Gujarat	93.52%	149	16	380	369	749
Karnataka	88.56%	166	15	447	439	886
MH	93.75%	155	13	394	389	783
TN (incl. Chennai)	91.40%	169	11	411	410	821

Key parameters for service areas of category-B

Service Area	% of pre-paid in total Subscribers	ARPU (Rs. per month)	Total usage (from & outside HSA) per subscriber per month			
			Outgoing SMS	Outgoing MOU	Incoming MOU	Total MOU
Haryana	91.67%	118	8	408	407	815
Kerala	96.39%	159	6	322	325	647
MP	94.98%	132	13	439	441	880
Punjab	93.92%	145	8	402	392	794
Rajasthan	95.36%	142	12	452	455	906
UP(E)	96.38%	110	11	549	570	1119
UP(W)	96.36%	123	10	455	467	922
WB	97.63%	129	14	496	507	1003

Key parameters for service areas of category-C

Service Area	% of pre-paid in total subscribers	ARPU (Rs. per month)	Total usage (from & outside HSA) per subscriber per month			
			Outgoing SMS	Outgoing MOU	Incoming MOU	Total MOU
Assam	97.11%	141	25	525	541	1065
Bihar	95.63%	120	11	602	640	1242
HP	97.36%	147	9	430	429	859
J&K	43.01%	166	24	583	555	1138
NE	97.12%	168	26	471	472	943
Odisha	96.31%	135	16	544	560	1104

Key parameters for service areas of category-Metro

Service Area	% of pre-paid in total subscribers	ARPU (Rs. per month)	Total usage (from & outside HSA) per subscriber per month			
			Outgoing SMS	Outgoing MOU	Incoming MOU	Total MOU
Kolkata	92.95%	104	11	408	397	805
Delhi	68.89%	136	9	461	421	882
Mumbai	78.33%	131	8	424	380	804

Annexure 4.1: Performance of QoS Parameters for Cellular Mobile Service

LSA Name	TSP Name	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		Termination / closure of		
		BS Accumulated downtime (not available for service) (%age)	Worst affected BSs due to downtime (%age)	Call Set-up Success Rate and Session Establishment Success Rate for Circuit Switched Voice or VoLTE as applicable	SDCCCH/Paging Channel Congestion / RRC Congestion (%age)	TCH, RAB and E-RAB Congestion (%age)	Network QoS DCR Spatial Distribution Measure [Network_K_QSD(90,90)]	Network QoS DCR Temporal Distribution Measure [Network_K_QTD(97,90)]	Connections with good voice quality, Circuit Switched Voice Quality and VoLTE quality	Down Link (DL) Packet Drop Rate or DL-PDR	Up Link (UL) Packet Drop Rate or UL-PDR	Point of Interconnection (POI) Congestion (on individual POI) - No. of POIs not meeting the benchmark	Metering and billing credibility - post paid	Metering and billing credibility - pre paid	Resolution of billing/charging complaints- within 4 weeks	Resolution of billing/charging complaints- within 6 weeks	Period of applying credit/waiver/adjustment to customer's account from the date of resolution of complaints	Accessibility of call center/customer care	Percentage of calls answered by operators (voice to voice) within ninety seconds	Termination / Closure of service	Time taken for refund of deposits after closures
<=2%	<=2%	=>95%	<=1%	<=2%	<=2%	<=3%	=>95%	<=2%	<=2%	<=0.5	<=0.1%	<=0.1%	98% within 4 weeks	100% within 6 weeks	100% within 1 week of resolution of complaint	=>95%	=>95%	<= 7 days	100% within 60 days		
Andhra Pradesh	AIRTEL	0.16%	0.83%	99.47%	0.21%	0.23%	0.79%	1.07%	96.48%	0.17%	0.15%	0	0.05%	0.00%	100.00%	100.00%	100.00%	100.00%	95.94%	100.00%	100.00%
	BSNL	0.92%	1.86%	98.52%	0.64%	0.66%	1.62%	1.78%	98.71%	0.11%	0.23%	0	0.00%	0.00%	100.00%	100.00%	100.00%	97.63%	89.82%	100.00%	100.00%
	RJIL	0.04%	0.02%	99.75%	0.03%	0.00%	0.00%	0.17%	99.26%	0.00%	0.07%	0	0.00%	0.00%	100.00%	100.00%	100.00%	98.32%	98.70%	100.00%	100.00%
Assam	VIL	0.06%	0.32%	99.08%	0.22%	0.19%	1.56%	2.13%	97.80%	0.01%	0.14%	0	0.01%	0.00%	98.81%	100.00%	100.00%	98.04%	99.99%	100.00%	100.00%
	AIRTEL	0.23%	1.07%	98.57%	0.30%	0.56%	1.80%	2.65%	96.60%	0.17%	0.17%	0	0.04%	0.00%	100.00%	100.00%	100.00%	100.00%	91.67%	100.00%	100.00%
	BSNL	1.71%	0.48%	98.57%	0.74%	1.72%	1.90%	2.58%	98.36%	1.51%	1.73%	0	0.01%	0.00%	100.00%	100.00%	100.00%	96.62%	95.80%	100.00%	100.00%
Bihar	RJIL	0.18%	0.64%	99.72%	0.15%	0.00%	0.41%	0.53%	99.96%	0.00%	0.08%	0	0.00%	0.00%	100.00%	100.00%	100.00%	97.62%	98.87%	100.00%	100.00%
	VIL	0.34%	1.84%	99.50%	0.10%	0.49%	1.88%	2.56%	98.39%	0.09%	0.11%	0	0.00%	0.00%	100.00%	100.00%	100.00%	99.14%	99.97%	100.00%	100.00%
	AIRTEL	0.15%	0.06%	97.72%	0.35%	0.62%	1.56%	1.68%	98.27%	0.15%	0.34%	0	0.04%	0.00%	100.00%	100.00%	100.00%	100.00%	91.40%	100.00%	100.00%
Delhi	BSNL	1.90%	0.64%	95.19%	0.30%	0.31%	1.83%	2.29%	98.20%	0.00%	0.00%	0	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	RJIL	0.06%	0.11%	99.63%	0.02%	0.00%	0.29%	0.40%	99.96%	0.00%	0.08%	0	0.00%	0.00%	100.00%	100.00%	100.00%	97.47%	99.00%	100.00%	100.00%
	VIL	0.04%	0.55%	99.12%	0.08%	0.09%	1.53%	2.08%	99.52%	0.01%	0.02%	0	0.00%	0.00%	100.00%	100.00%	100.00%	97.27%	99.97%	100.00%	100.00%
Gujarat	AIRTEL	0.22%	1.43%	99.33%	0.19%	0.22%	1.90%	2.41%	95.25%	0.45%	0.22%	0	0.02%	0.00%	100.00%	100.00%	100.00%	100.00%	92.28%	100.00%	100.00%
	MTNL	0.06%	0.51%	97.56%	0.08%	0.84%	1.22%	1.36%	98.25%	NA	NA	0	0.00%	0.00%	100.00%	100.00%	100.00%	97.27%	99.15%	100.00%	100.00%
	RJIL	0.06%	0.14%	99.70%	0.01%	0.00%	0.17%	0.30%	99.96%	0.00%	0.09%	0	0.00%	0.00%	100.00%	100.00%	100.00%	96.29%	98.97%	100.00%	100.00%
Haryana	VIL	0.06%	0.20%	99.81%	0.07%	0.19%	1.37%	1.85%	99.64%	0.19%	0.25%	0	0.00%	0.01%	100.00%	100.00%	100.00%	99.20%	100.00%	100.00%	100.00%
	AIRTEL	0.07%	0.26%	99.36%	0.22%	0.29%	1.75%	2.13%	96.22%	0.08%	0.17%	0	0.04%	0.00%	100.00%	100.00%	100.00%	100.00%	92.22%	100.00%	100.00%
	BSNL	1.16%	0.38%	98.04%	0.18%	0.61%	1.32%	2.13%	98.56%	0.09%	0.16%	0	0.00%	0.00%	100.00%	100.00%	100.00%	99.91%	96.37%	100.00%	100.00%
Himachal Pradesh	RJIL	0.09%	0.21%	99.74%	0.02%	0.00%	0.16%	0.26%	99.96%	0.00%	0.07%	0	0.00%	0.00%	100.00%	100.00%	100.00%	98.61%	98.52%	100.00%	100.00%
	VIL	0.04%	0.11%	99.59%	0.08%	0.32%	1.66%	2.21%	96.46%	0.15%	0.17%	0	0.01%	0.00%	100.00%	100.00%	100.00%	98.18%	100.00%	100.00%	100.00%
	AIRTEL	0.14%	1.08%	99.56%	0.06%	0.18%	1.18%	1.50%	95.25%	0.13%	0.22%	0	0.02%	0.00%	100.00%	100.00%	100.00%	100.00%	90.96%	100.00%	100.00%
Jammu & Kashmir	BSNL	0.83%	0.09%	98.95%	0.22%	0.63%	1.58%	1.74%	98.00%	0.15%	0.48%	0	0.00%	0.00%	100.00%	100.00%	100.00%	95.57%	99.96%	100.00%	100.00%
	RJIL	0.05%	0.18%	99.71%	0.06%	0.00%	0.23%	0.41%	99.97%	0.00%	0.06%	0	0.00%	0.00%	100.00%	100.00%	100.00%	98.32%	99.03%	100.00%	100.00%
	VIL	0.07%	0.18%	99.56%	0.39%	0.44%	1.79%	2.56%	97.87%	0.13%	0.09%	0	0.01%	0.00%	100.00%	100.00%	100.00%	98.87%	99.99%	100.00%	100.00%
Karnataka	AIRTEL	0.08%	0.41%	99.75%	0.12%	0.10%	1.32%	1.86%	96.10%	0.14%	0.12%	0	0.03%	0.00%	100.00%	100.00%	100.00%	100.00%	93.40%	100.00%	100.00%
	BSNL	1.76%	0.28%	97.36%	0.75%	0.94%	1.93%	2.07%	97.85%	0.00%	0.00%	0	0.01%	0.00%	100.00%	100.00%	100.00%	97.16%	95.20%	100.00%	100.00%
	RJIL	0.06%	0.12%	99.67%	0.00%	0.00%	0.17%	0.29%	99.97%	0.00%	0.05%	0	0.00%	0.00%	100.00%	100.00%	100.00%	98.33%	99.19%	100.00%	100.00%
Kerala	VIL	0.07%	0.12%	99.40%	0.04%	0.16%	1.82%	2.47%	95.61%	0.17%	0.23%	0	0.02%	0.00%	100.00%	100.00%	100.00%	99.86%	99.99%	100.00%	100.00%
	AIRTEL	0.24%	1.47%	99.49%	0.05%	0.05%	0.62%	1.39%	96.32%	0.16%	0.12%	0	0.01%	0.00%	100.00%	100.00%	100.00%	100.00%	93.95%	100.00%	100.00%
	BSNL	1.90%	0.65%	97.94%	0.78%	0.90%	1.97%	2.47%	95.88%	0.02%	0.10%	0	0.00%	0.01%	100.00%	100.00%	100.00%	98.00%	99.97%	100.00%	100.00%
Kerala	RJIL	0.11%	0.45%	99.74%	0.00%	0.00%	0.18%	0.33%	99.97%	0.00%	0.05%	0	0.00%	0.00%	100.00%	100.00%	100.00%	98.31%	99.53%	100.00%	100.00%
	VIL	0.21%	0.21%	99.36%	0.40%	0.34%	1.85%	2.50%	97.94%	0.15%	0.15%	0	0.01%	0.00%	100.00%	100.00%	100.00%	99.99%	99.99%	100.00%	100.00%
	AIRTEL	0.05%	0.20%	99.69%	0.15%	0.19%	1.39%	1.39%	95.54%	0.18%	0.16%	0	0.05%	0.00%	100.00%	100.00%	100.00%	100.00%	95.10%	100.00%	100.00%
Kerala	BSNL	1.52%	0.59%	98.16%	0.47%	0.38%	1.52%	1.65%	97.77%	1.23%	0.99%	0	0.00%	0.00%	99.76%	100.00%	100.00%	95.14%	91.81%	100.00%	100.00%
	RJIL	0.05%	0.06%	99.75%	0.04%	0.00%	0.17%	0.32%	99.97%	0.00%	0.07%	0	0.00%	0.00%	100.00%	100.00%	100.00%	97.69%	99.00%	100.00%	100.00%
	VIL	0.07%	0.56%	99.54%	0.36%	0.46%	1.69%	2.04%	98.88%	0.11%	0.16%	0	0.01%	0.01%	99.86%	100.00%	100.00%	97.73%	99.99%	100.00%	100.00%
Kerala	AIRTEL	0.09%	0.25%	99.69%	0.29%	0.45%	1.54%	2.26%	96.93%	0.12%	0.46%	0	0.05%	0.00%	100.00%	100.00%	100.00%	100.00%	97.90%	100.00%	100.00%
	BSNL	0.25%	0.18%	98.81%	0.29%	0.54%	1.87%	2.30%	98.55%	0.06%	0.19%	0	0.00%	0.00%	100.00%	100.00%	100.00%	97.00%	95.80%	100.00%	100.00%
	RJIL	0.03%	0.12%	99.78%	0.14%	0.00%	0.14%	0.45%	99.97%	0.00%	0.06%	0	0.00%	0.00%	100.00%	100.00%	100.00%	97.62%	98.57%	100.00%	100.00%
Kerala	VIL	0.05%	0.01%	99.72%	0.17%	0.28%	0.57%	0.86%	98.95%	0.06%	0.14%	0	0.02%	0.00%	100.00%	100.00%	100.00%	97.38%	99.99%	100.00%	100.00%

Annexure 4.1 (Contd.)

Kolkata	AIRTEL	0.07%	0.00%	99.86%	0.21%	0.20%	1.98%	2.56%	97.77%	0.11%	0.23%	0	0.05%	0.00%	100.00%	100.00%	100.00%	100.00%	91.25%	100.00%	100.00%
	BSNL	0.21%	0.50%	98.86%	0.06%	0.18%	1.43%	1.59%	96.86%	0.00%	0.00%	0	0.00%	0.01%	98.70%	100.00%	100.00%	97.37%	97.30%	100.00%	100.00%
	RJIL	0.01%	0.02%	99.77%	0.07%	0.00%	0.05%	0.19%	99.98%	0.00%	0.04%	0	0.00%	0.00%	100.00%	100.00%	100.00%	98.10%	99.14%	100.00%	100.00%
	VIL	0.09%	0.30%	99.87%	0.28%	0.13%	1.18%	1.64%	97.90%	0.09%	0.14%	0	0.02%	0.01%	100.00%	100.00%	100.00%	98.22%	99.97%	100.00%	100.00%
Madhya Pradesh	AIRTEL	0.08%	0.25%	99.13%	0.20%	0.28%	1.85%	2.22%	96.72%	0.10%	0.18%	0	0.03%	0.00%	100.00%	100.00%	100.00%	100.00%	94.25%	100.00%	100.00%
	BSNL	1.14%	0.33%	98.91%	0.41%	1.10%	1.83%	2.03%	98.80%	0.00%	0.00%	0	0.00%	0.02%	100.00%	100.00%	100.00%	98.81%	98.81%	100.00%	100.00%
	RJIL	0.11%	0.48%	99.67%	0.03%	0.00%	0.34%	0.46%	99.96%	0.00%	0.09%	0	0.00%	0.00%	100.00%	100.00%	100.00%	98.61%	99.03%	100.00%	100.00%
	VIL	0.16%	0.65%	98.88%	0.24%	0.63%	1.64%	2.08%	97.41%	0.23%	0.14%	0	0.02%	0.02%	100.00%	100.00%	100.00%	95.33%	99.99%	100.00%	100.00%
Maharashtra	AIRTEL	0.12%	0.56%	99.41%	0.27%	0.24%	1.45%	1.79%	97.34%	0.08%	0.13%	0	0.04%	0.00%	100.00%	100.00%	100.00%	100.00%	94.25%	100.00%	100.00%
	BSNL	1.60%	0.60%	97.40%	0.58%	0.87%	1.71%	2.56%	97.34%	0.07%	0.17%	0	0.02%	0.00%	100.00%	100.00%	100.00%	99.55%	95.53%	100.00%	100.00%
	RJIL	0.20%	0.72%	99.70%	0.02%	0.00%	0.25%	0.34%	99.96%	0.00%	0.09%	0	0.00%	0.00%	100.00%	100.00%	100.00%	97.98%	99.01%	100.00%	100.00%
	VIL	0.12%	0.26%	98.35%	0.80%	1.13%	1.89%	2.70%	96.69%	0.27%	0.13%	0	0.01%	0.00%	99.91%	100.00%	100.00%	96.41%	100.00%	100.00%	100.00%
Mumbai	AIRTEL	0.25%	1.72%	99.14%	0.20%	0.27%	1.61%	2.00%	96.34%	0.18%	0.21%	0	0.04%	0.00%	100.00%	100.00%	100.00%	100.00%	95.00%	100.00%	100.00%
	MTNL	0.50%	1.80%	98.10%	0.20%	0.00%	1.69%	2.78%	98.15%	NA	NA	0	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	99.93%	100.00%	100.00%
	RJIL	0.17%	0.63%	99.66%	0.08%	0.00%	0.11%	0.21%	99.96%	0.00%	0.08%	0	0.00%	0.00%	100.00%	100.00%	100.00%	97.86%	98.79%	100.00%	100.00%
	VIL	0.09%	0.12%	99.77%	0.05%	0.23%	1.53%	2.04%	98.97%	0.16%	0.22%	0	0.02%	0.00%	100.00%	100.00%	100.00%	98.76%	100.00%	100.00%	100.00%
North East	AIRTEL	0.41%	0.92%	98.60%	0.47%	1.04%	1.68%	2.00%	98.08%	0.20%	0.16%	0	0.02%	0.00%	100.00%	100.00%	100.00%	100.00%	87.66%	100.00%	100.00%
	BSNL	1.91%	0.43%	98.00%	0.78%	1.40%	1.86%	1.92%	97.00%	0.00%	0.00%	0	0.05%	0.05%	100.00%	100.00%	100.00%	96.00%	96.30%	100.00%	100.00%
	RJIL	1.07%	1.69%	99.69%	0.06%	0.00%	0.51%	0.75%	99.96%	0.00%	0.08%	0	0.00%	0.00%	100.00%	100.00%	100.00%	97.36%	99.25%	100.00%	100.00%
	VIL	0.60%	1.92%	99.58%	0.19%	0.39%	1.95%	2.18%	98.25%	0.17%	0.13%	0	0.00%	0.00%	100.00%	100.00%	100.00%	99.06%	99.97%	100.00%	100.00%
Odisha	AIRTEL	0.03%	0.02%	98.82%	0.21%	0.39%	1.65%	1.72%	97.12%	0.08%	0.20%	0	0.03%	0.00%	100.00%	100.00%	100.00%	100.00%	93.95%	100.00%	100.00%
	BSNL	1.25%	0.65%	96.57%	0.60%	1.64%	1.91%	1.93%	96.07%	0.00%	0.00%	0	0.00%	0.00%	100.00%	100.00%	100.00%	96.74%	98.85%	100.00%	100.00%
	RJIL	0.05%	0.10%	99.71%	0.08%	0.00%	0.26%	0.36%	99.96%	0.00%	0.09%	0	0.00%	0.00%	100.00%	100.00%	100.00%	97.85%	99.25%	100.00%	100.00%
	VIL	0.17%	0.86%	99.85%	0.07%	0.14%	1.57%	2.20%	99.00%	0.04%	0.12%	0	0.02%	0.00%	100.00%	100.00%	100.00%	99.45%	100.00%	100.00%	100.00%
Punjab	AIRTEL	0.06%	0.33%	99.61%	0.13%	0.18%	0.93%	1.21%	98.28%	0.10%	0.32%	0	0.07%	0.00%	100.00%	100.00%	100.00%	100.00%	89.88%	100.00%	100.00%
	BSNL	0.52%	0.45%	98.45%	0.28%	0.28%	1.78%	2.00%	97.51%	0.01%	0.01%	0	0.00%	0.00%	100.00%	100.00%	100.00%	98.97%	99.98%	100.00%	100.00%
	RJIL	0.05%	0.11%	99.67%	0.02%	0.00%	0.05%	0.24%	99.97%	0.00%	0.05%	0	0.00%	0.00%	100.00%	100.00%	100.00%	98.44%	99.15%	100.00%	100.00%
	VIL	0.03%	0.10%	99.67%	0.07%	0.18%	0.49%	1.06%	99.32%	0.10%	0.26%	0	0.01%	0.00%	100.00%	100.00%	100.00%	98.31%	100.00%	100.00%	100.00%
Rajasthan	AIRTEL	0.14%	0.64%	98.76%	0.30%	0.54%	1.67%	2.04%	98.40%	0.24%	0.17%	0	0.04%	0.00%	100.00%	100.00%	100.00%	100.00%	92.53%	100.00%	100.00%
	BSNL	1.18%	0.52%	98.75%	0.76%	1.25%	1.49%	2.16%	98.64%	0.00%	0.00%	0	0.01%	0.00%	100.00%	100.00%	100.00%	97.85%	95.07%	100.00%	100.00%
	RJIL	0.06%	0.12%	99.71%	0.03%	0.00%	0.26%	0.37%	99.97%	0.00%	0.07%	0	0.00%	0.00%	100.00%	100.00%	100.00%	96.84%	99.21%	100.00%	100.00%
	VIL	0.11%	0.35%	99.46%	0.17%	0.30%	1.89%	2.63%	98.11%	0.20%	0.19%	0	0.01%	0.00%	99.95%	100.00%	100.00%	98.56%	100.00%	100.00%	100.00%
Tamilnadu including Chennai	AIRTEL	0.12%	0.66%	99.60%	0.13%	0.18%	1.79%	2.44%	96.93%	0.12%	0.11%	0	0.05%	0.00%	100.00%	100.00%	100.00%	100.00%	91.10%	100.00%	100.00%
	BSNL	0.94%	0.56%	99.11%	0.47%	0.40%	1.82%	2.73%	98.09%	0.00%	0.00%	0	0.00%	0.00%	100.00%	100.00%	100.00%	97.15%	97.95%	100.00%	100.00%
	RJIL	0.09%	0.31%	99.76%	0.01%	0.00%	0.14%	0.26%	99.97%	0.00%	0.06%	0	0.00%	0.00%	100.00%	100.00%	100.00%	98.30%	98.68%	100.00%	100.00%
	VIL	0.18%	0.82%	99.39%	0.69%	0.59%	1.80%	2.33%	97.92%	0.09%	0.15%	0	0.03%	0.00%	100.00%	100.00%	100.00%	97.51%	100.00%	100.00%	100.00%
Uttar Pradesh (East)	AIRTEL	0.20%	0.98%	99.22%	0.39%	0.14%	1.31%	1.56%	97.68%	0.16%	0.29%	0	0.04%	0.00%	100.00%	100.00%	100.00%	100.00%	91.28%	100.00%	100.00%
	BSNL	1.46%	0.63%	96.75%	0.21%	0.12%	1.72%	2.30%	97.47%	0.01%	0.03%	0	0.01%	0.01%	100.00%	100.00%	100.00%	98.38%	99.94%	100.00%	100.00%
	RJIL	0.24%	1.11%	99.62%	0.01%	0.00%	0.25%	0.37%	99.97%	0.00%	0.07%	0	0.00%	0.00%	100.00%	100.00%	100.00%	97.19%	99.11%	100.00%	100.00%
	VIL	0.42%	0.76%	99.54%	0.19%	0.43%	1.96%	2.85%	97.79%	0.13%	0.25%	0	0.01%	0.02%	100.00%	100.00%	100.00%	99.33%	99.99%	100.00%	100.00%
Uttar Pradesh (West)	AIRTEL	0.25%	0.67%	99.73%	0.19%	0.16%	1.47%	1.91%	95.45%	0.13%	0.25%	0	0.05%	0.00%	100.00%	100.00%	100.00%	100.00%	89.68%	100.00%	100.00%
	BSNL	1.79%	0.61%	97.21%	0.85%	1.23%	1.72%	1.97%	96.33%	0.00%	0.00%	0	0.00%	0.00%	100.00%	100.00%	100.00%	97.46%	95.90%	100.00%	100.00%
	RJIL	0.12%	0.65%	99.70%	0.01%	0.00%	0.31%	0.48%	99.97%	0.00%	0.06%	0	0.00%	0.00%	100.00%	100.00%	100.00%	97.86%	99.07%	100.00%	100.00%
	VIL	0.09%	0.15%	99.41%	0.29%	0.55%	1.75%	2.37%	97.43%	0.09%	0.16%	0	0.00%	0.00%	100.00%	100.00%	100.00%	99.13%	99.98%	100.00%	100.00%
West Bengal	AIRTEL	0.10%	0.53%	98.71%	0.23%	0.45%	1.97%	2.67%	95.97%	0.31%	0.30%	0	0.06%	0.00%	100.00%	100.00%	100.00%	100.00%	85.59%	100.00%	100.00%
	BSNL	0.45%	0.64%	97.39%	0.94%	1.47%	1.97%	2.17%	97.70%	0.22%	1.46%	0	0.00%	0.01%	98.00%	100.00%	100.00%	97.00%	97.14%	100.00%	100.00%
	RJIL	0.03%	0.04%	99.70%	0.03%	0.00%	0.37%	0.47%	99.96%	0.00%	0.09%	0	0.00%	0.00%	100.00%	100.00%	100.00%	97.64%	98.68%	100.00%	100.00%
	VIL	0.10%	0.45%	99.82%	0.05%	0.17%	1.91%	2.62%	97.79%	0.11%	0.17%	0	0.04%	0.00%	100.00%	100.00%	100.00%	98.35%	99.93%	100.00%	100.00%

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

LSA Name	TSP Name	Faults incidences (No. of faults/100 Subs/month)	Fault Repair				Mean Time to Repair (MTTR)	POI	Metering and Billing					Response time to the customer for assistance		Termination / closure of service		
			faults repaired by next working day - Urban	faults repaired within 5 days - Urban	faults repaired by next working day - Rural and hilly areas	faults repaired within 7 days- Rural and hilly areas			Point of Interconnection (POI) Congestion (No. of Poirs not meeting benchmark)	Metering and Billing Credibility - Postpaid	Metering and Billing Credibility - Prepaid	Resolution of billing/charging/ validity complaints within 4 weeks	Resolution of billing/charging/ validity complaints within 6 weeks	Period of applying credit/ waiver/ adjustment to customer's account from the date of resolution of complaints- within 1 week of resolution of complaint	Accessibility of call center/ customer care	Percentage of calls answered by the operators (voice to voice) within ninety seconds	Termination / Closure of service	Time taken for Refund of deposits after closures- within 60 days
Andhra Pradesh	AIRTEL	0.57	93.68%	100.00%	100.00%	100.00%	7.43	0	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	99.07%	100.00%	100.00%	
	BSNL	5	98.00%	100.00%	96.00%	100.00%	6	0	0.00%	0.00%	100.00%	100.00%	100.00%	99.31%	99.23%	100.00%	100.00%	
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	NA	NA	NA	95.48%	99.62%	100.00%	100.00%	
	TATA	4.58	96.12%	100.00%	100.00%	100.00%	5.07	0	0.00%	NA	100.00%	100.00%	100.00%	99.62%	99.50%	100.00%	100.00%	
	VIL	0.09	100.00%	100.00%	NA	NA	19	0	NA	NA	NA	NA	NA	100.00%	100.00%	100.00%	NA	
Assam	AIRTEL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
	BSNL	3	92.00%	100.00%	89.00%	100.00%	3	0	0.05%	0.00%	100.00%	100.00%	100.00%	97.08%	97.08%	100.00%	100.00%	
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	NA	NA	NA	95.00%	100.00%	100.00%	100.00%	
	TATA	121	100.00%	100.00%	NA	NA	3.35	0	NA	NA	NA	NA	NA	100.00%	100.00%	NA	NA	
	VIL	0.33	88.70%	100.00%	100.00%	100.00%	8.86	0	0.0%	0.00%	100.00%	100.00%	100.00%	100.00%	99.22%	100.00%	100.00%	
Bihar	BSNL	4	97.00%	100.00%	96.00%	100.00%	4	0	0.0%	0.00%	98.00%	100.00%	100.00%	96.77%	96.7%	100.00%	100.00%	
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	NA	NA	NA	95.3%	100.00%	100.00%	100.00%	
	TATA	0.64	100.00%	100.00%	100.00%	100.00%	3.25	0	0.00%	NA	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
	VIL	0.83	100.00%	100.00%	NA	NA	1.8	0	NA	NA	NA	NA	NA	100.00%	100.00%	NA	NA	
	AIRTEL	0.56	96.84%	100.00%	100.00%	100.00%	9.75	0	0.0%	0.00%	100.00%	100.00%	100.00%	100.00%	98.90%	100.00%	100.00%	
Delhi	MTNL	161	85.77%	97.05%	NA	NA	4.76	0	0.00%	NA	100.00%	100.00%	100.00%	96.22%	98.92%	100.00%	100.00%	
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	NA	NA	NA	96.00%	99.81%	100.00%	100.00%	
	TATA	2.97	91.35%	100.00%	100.00%	100.00%	6.65	0	0.00%	NA	100.00%	100.00%	100.00%	98.69%	99.39%	100.00%	100.00%	
	VIL	0.18	100.00%	100.00%	NA	NA	3.19	0	NA	NA	NA	NA	NA	100.00%	100.00%	100.00%	NA	
	AIRTEL	0.48	88.98%	100.00%	100.00%	100.00%	8.39	0	0.0%	0.00%	100.00%	100.00%	100.00%	100.00%	99.53%	100.00%	100.00%	
Gujarat	BSNL	5	96.00%	100.00%	95.00%	100.00%	4	0	0.0%	0.00%	100.00%	100.00%	100.00%	95.86%	95.86%	100.00%	100.00%	
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	NA	NA	NA	96.5%	100.00%	100.00%	100.00%	
	TATA	2.13	92.7%	100.00%	100.00%	100.00%	4.74	0	0.00%	NA	100.00%	100.00%	100.00%	97.97%	99.46%	100.00%	100.00%	
	VIL	0.08	100.00%	100.00%	NA	NA	0.43	0	NA	NA	NA	NA	NA	100.00%	100.00%	100.00%	NA	
	AIRTEL	0.81	90.26%	100.00%	100.00%	100.00%	4.91	0	0.0%	0.00%	100.00%	100.00%	100.00%	100.00%	99.10%	100.00%	100.00%	
Haryana	BSNL	4	86.00%	100.00%	91.00%	100.00%	5	0	0.06%	0.00%	100.00%	100.00%	100.00%	97.59%	96.43%	100.00%	100.00%	
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	NA	NA	NA	100.00%	100.00%	100.00%	100.00%	
	TATA	0.33	88.89%	100.00%	100.00%	100.00%	6.29	0	0.00%	NA	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
	VIL	19	100.00%	100.00%	NA	NA	0.41	0	NA	NA	NA	NA	NA	100.00%	100.00%	NA	NA	
	AIRTEL	0.11	92.1%	100.00%	100.00%	100.00%	6.45	0	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	99.39%	100.00%	100.00%	
Himachal Pradesh	BSNL	5	91.00%	100.00%	96.00%	100.00%	6	0	0.04%	0.00%	99.09%	100.00%	100.00%	96.43%	96.13%	100.00%	100.00%	
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	NA	NA	NA	100.00%	100.00%	100.00%	100.00%	
	TATA	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	NA	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
	VIL	0	100.00%	100.00%	NA	NA	0	0	NA	NA	NA	NA	NA	100.00%	100.00%	NA	NA	
	AIRTEL	0.67	91.43%	100.00%	100.00%	100.00%	8.65	0	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	99.96%	100.00%	100.00%	
Jammu & Kashmir	BSNL	4	97.00%	100.00%	100.00%	100.00%	7	0	0.0%	0.00%	98.00%	100.00%	100.00%	100.00%	97.62%	100.00%	100.00%	
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	NA	NA	NA	96.30%	100.00%	100.00%	100.00%	
	TATA	0	100.00%	100.00%	NA	NA	0	0	NA	NA	NA	NA	NA	100.00%	100.00%	NA	NA	
	VIL	0	100.00%	100.00%	NA	NA	0	0	NA	NA	NA	NA	NA	100.00%	100.00%	100.00%	100.00%	
	AIRTEL	0.64	87.58%	100.00%	100.00%	100.00%	9.67	0	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	97.22%	100.00%	100.00%	
Karnataka	BSNL	6	93.00%	97.10%	88.00%	89.40%	7	0	0.09%	0.00%	98.00%	100.00%	100.00%	98.93%	98.29%	100.00%	100.00%	
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	NA	NA	NA	95.89%	100.00%	100.00%	100.00%	
	TATA	0.22	92.45%	100.00%	100.00%	100.00%	6.75	0	0.00%	NA	100.00%	100.00%	100.00%	98.35%	98.45%	100.00%	100.00%	
	VIL	0.11	100.00%	100.00%	NA	NA	6.5	0	NA	NA	NA	NA	NA	100.00%	100.00%	100.00%	NA	

Annexure 4.2 (Contd.)

Kerala	AIRTEL	0.67	9122%	100.00%	100.00%	100.00%	9.83	0	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	95.22%	100.00%	100.00%
	BSNL	5	9100%	100.00%	92.00%	100.00%	7	0	0.02%	0.00%	100.00%	100.00%	100.00%	98.99%	98.86%	100.00%	100.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	NA	NA	NA	95.92%	98.59%	100.00%	100.00%
	TATA	0.22	100.00%	100.00%	100.00%	100.00%	4.94	0	0.00%	NA	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	VIL	0.55	100.00%	100.00%	NA	NA	5.7	0	NA	NA	NA	NA	NA	100.00%	100.00%	100.00%	NA
Kolkata	AIRTEL	0.45	90.70%	100.00%	100.00%	100.00%	9.17	0	0.01%	0.00%	100.00%	100.00%	100.00%	100.00%	99.66%	100.00%	100.00%
	BSNL	6	92.00%	100.00%	NA	NA	8	0	0.00%	0.00%	98.00%	100.00%	100.00%	96.83%	96.83%	100.00%	100.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	NA	NA	NA	96.83%	100.00%	100.00%	100.00%
	TATA	1.76	100.00%	100.00%	100.00%	100.00%	2.12	0	0.00%	NA	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	VIL	0.23	100.00%	100.00%	NA	NA	6.11	0	NA	NA	NA	NA	NA	100.00%	100.00%	100.00%	NA
Madhya Pradesh	AIRTEL	0.41	85.04%	100.00%	100.00%	100.00%	1.11	0	0.01%	0.00%	100.00%	100.00%	100.00%	100.00%	99.42%	100.00%	100.00%
	BSNL	7	9100%	100.00%	93.00%	100.00%	6	0	0.05%	0.00%	100.00%	100.00%	100.00%	95.24%	95.03%	100.00%	100.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	NA	NA	NA	97.30%	100.00%	100.00%	100.00%
	TATA	0.28	100.00%	100.00%	100.00%	100.00%	0.41	0	0.00%	NA	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	VIL	0.08	100.00%	100.00%	NA	NA	0.56	0	NA	NA	NA	NA	NA	100.00%	100.00%	100.00%	NA
Maharashtra	AIRTEL	0.21	90.28%	100.00%	100.00%	100.00%	8.16	0	0.01%	0.00%	100.00%	100.00%	100.00%	100.00%	99.25%	100.00%	100.00%
	BSNL	6	90.00%	99.80%	81.00%	100.00%	8	0	0.01%	0.00%	100.00%	100.00%	100.00%	95.62%	95.37%	100.00%	100.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	NA	NA	NA	96.33%	100.00%	100.00%	100.00%
	TATA	1.86	97.16%	100.00%	100.00%	100.00%	3.29	0	0.00%	NA	100.00%	100.00%	100.00%	99.35%	99.39%	100.00%	100.00%
	VIL	0.4	100.00%	100.00%	NA	NA	2.54	0	NA	NA	NA	NA	NA	100.00%	100.00%	100.00%	NA
Mumbai	AIRTEL	0.2	93.69%	100.00%	100.00%	100.00%	6.91	0	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	99.36%	100.00%	100.00%
	MTNL	2	50.70%	71.20%	57.10%	57.10%	56.46	0	0.00%	NA	99.40%	100.00%	100.00%	99.94%	95.82%	99.95%	63.94%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	NA	NA	NA	96.41%	100.00%	100.00%	100.00%
	TATA	3.58	95.69%	100.00%	100.00%	100.00%	4.32	0	0.00%	NA	100.00%	100.00%	100.00%	99.94%	99.52%	100.00%	100.00%
	VIL	0.13	100.00%	100.00%	NA	NA	1.49	0	NA	NA	NA	NA	NA	100.00%	100.00%	100.00%	NA
North East	BSNL	5	95.00%	100.00%	93.00%	100.00%	6	0	0.01%	0.00%	100.00%	100.00%	100.00%	98.38%	98.38%	100.00%	100.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	NA	NA	NA	100.00%	100.00%	100.00%	100.00%
	VIL	0	100.00%	100.00%	NA	NA	0	0	NA	NA	NA	NA	NA	100.00%	100.00%	NA	NA
Odisha	AIRTEL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	99.14%	100.00%	100.00%
	BSNL	5	94.00%	100.00%	91.00%	100.00%	8	0	0.09%	0.00%	99.00%	100.00%	100.00%	96.65%	96.65%	100.00%	100.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	NA	NA	NA	97.14%	100.00%	100.00%	100.00%
	TATA	4.96	100.00%	100.00%	100.00%	100.00%	1.41	0	0.00%	NA	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	VIL	0.25	100.00%	100.00%	NA	NA	0.48	0	NA	NA	NA	NA	NA	100.00%	100.00%	100.00%	NA
Punjab	AIRTEL	0.52	9123%	100.00%	100.00%	100.00%	5.3	0	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	98.85%	100.00%	100.00%
	BSNL	6	9100%	100.00%	89.00%	100.00%	7	0	0.03%	0.00%	98.00%	100.00%	100.00%	97.53%	96.44%	100.00%	99.60%
	QTL	6.8	90.00%	100.00%	100.00%	100.00%	6.7	0	0.01%	0.00%	100.00%	100.00%	100.00%	97.25%	95.29%	100.00%	100.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	NA	NA	NA	97.92%	100.00%	100.00%	100.00%
	TATA	0.11	100.00%	100.00%	100.00%	100.00%	2.54	0	0.00%	NA	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Rajasthan	AIRTEL	0.4	86.00%	100.00%	100.00%	100.00%	5.25	0	0.01%	0.00%	100.00%	100.00%	100.00%	100.00%	98.78%	100.00%	100.00%
	BSNL	5	95.00%	100.00%	95.00%	100.00%	6	0	0.05%	0.00%	99.00%	100.00%	100.00%	95.45%	95.80%	100.00%	0.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	NA	NA	NA	95.71%	100.00%	100.00%	100.00%
	TATA	3.51	100.00%	100.00%	100.00%	100.00%	2.26	0	0.00%	NA	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	VIL	0.24	100.00%	100.00%	NA	NA	5.31	0	NA	NA	NA	NA	NA	100.00%	100.00%	100.00%	NA
Tamilnadu including Chennai	AIRTEL	0.99	88.75%	100.00%	100.00%	100.00%	9.88	0	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	98.39%	100.00%	100.00%
	BSNL	5	96.00%	100.00%	90.00%	100.00%	6	0	0.03%	0.00%	100.00%	100.00%	100.00%	98.90%	98.74%	100.00%	63.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	NA	NA	NA	95.05%	100.00%	100.00%	100.00%
	TATA	0.18	9167%	100.00%	100.00%	100.00%	8.67	0	0.00%	NA	100.00%	100.00%	100.00%	99.32%	100.00%	100.00%	100.00%
	VIL	0.44	100.00%	100.00%	NA	NA	3.33	0	NA	NA	NA	NA	NA	100.00%	100.00%	100.00%	NA
Uttar Pradesh (East)	AIRTEL	0.47	93.46%	100.00%	100.00%	100.00%	7.94	0	0.01%	0.00%	100.00%	100.00%	100.00%	100.00%	99.30%	100.00%	100.00%
	BSNL	5	85.00%	99.96%	90.00%	100.00%	7	0	0.06%	0.00%	100.00%	100.00%	100.00%	96.15%	96.79%	100.00%	100.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	NA	NA	NA	96.43%	100.00%	100.00%	100.00%
	TATA	2.99	100.00%	100.00%	100.00%	100.00%	1.19	0	0.00%	NA	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	VIL	0.12	100.00%	100.00%	NA	NA	0.48	0	NA	NA	NA	NA	NA	100.00%	100.00%	100.00%	NA
Uttar Pradesh (West)	AIRTEL	0.54	92.99%	100.00%	100.00%	100.00%	7.68	0	0.01%	0.00%	100.00%	100.00%	100.00%	100.00%	99.31%	100.00%	100.00%
	BSNL	6	93.00%	100.00%	95.00%	100.00%	6	0	0.06%	0.00%	99.00%	100.00%	100.00%	97.32%	96.92%	100.00%	100.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	NA	NA	NA	96.36%	100.00%	100.00%	100.00%
	TATA	2.3	100.00%	100.00%	100.00%	100.00%	0.95	0	0.00%	NA	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	VIL	105	100.00%	100.00%	NA	NA	4.1	0	NA	NA	NA	NA	NA	100.00%	100.00%	100.00%	NA
West Bengal	AIRTEL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	99.18%	100.00%	100.00%
	BSNL	4	86.00%	99.98%	81.00%	97.34%	5	0	0.00%	0.00%	98.00%	100.00%	100.00%	96.30%	96.30%	100.00%	100.00%
	RJIL	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	0.00%	NA	NA	NA	95.59%	100.00%	100.00%	100.00%
	TATA	0	100.00%	100.00%	100.00%	100.00%	0	0	0.00%	NA	100.00%	100.00%	100.00%	95.94%	100.00%	100.00%	100.00%
	VIL	139	100.00%	100.00%	NA	NA	3.33	0	NA	NA	NA	NA	NA	100.00%	100.00%	NA	NA

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

S. No.	Service Provider	LSA	Service Provisioning / Activation Time	Fault Repair/ Restoration Time		Billing Performance			Response Time to the Customer for assistance		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)		
			%age of connections provided within 15 days of registration of demand	% of faults repaired by next working day	% of faults repaired within 3 working day	%age of bills disputed	%age of complaints resolved within 4 weeks	%age of cases to whom refund of deposits is made within 60 days of closures	%age of calls answered by operator (Voice to voice) within 60 sec	%age of calls answered by operator (Voice to voice) within 90 sec	No. of intra network links having Bandwidth utilisation >90% during peak hours (TCBH)	No. of Upstream links for International connectivity having bandwidth utilisation >90% during peak hours (TCBH)	% International bandwidth utilization during peak hours (TCBH)(Enclose MRTG)	Broadband Connection Speed available (download) from ISP node to user	Service Availability/ Uptime (for all users) in %age		User reference point at POP/ISP Gateway node to ISP/NIXI	User reference point at ISP Gateway node to International nearest NAP port abroad (terrestrial)	User reference point at ISP Gateway node to International nearest NAP abroad (satellite)
			100%	>90%	=>99%	<2%	100% within 4 weeks	100% within 60 days	>60%	>80%	0	0	≤90%	>80%	>98%	<1%	<120 ms	<350 ms	<800 ms
1	ADN Broadband Pvt. Ltd.	Delhi	100.00	98.61	100.00	0.00	100.00	100.00	100.00	100.00	0.00	0.00	65.99	90.00	99.23	0.50	2.00	150.00	0.00
2	Airfiber Networks Pvt. Ltd.	Karnataka	100.00	96.00	99.90	0.00	100.00	100.00	94.00	99.00	0.00	0.00	70.92	99.00	100.00	0.50	23.00	246.00	0.00
		Tamilnadu	100.00	95.00	99.90	0.00	100.00	100.00	94.00	99.00	0.00	0.00	62.05	99.00	100.00	0.50	22.00	245.00	0.00
3	Airlink Communications Pvt. Ltd	All India	100.00	90.30	99.67	0.00	100.00	100.00	99.68	100.00	0.00	0.00	81.94	98.82	99.86	0.41	80.00	275.00	0.00
4	Airnet Cable and Datacom Pvt. Ltd.	Maharashtra	100.00	100.00	100.00	0.00	100.00	100.00	94.07	100.00	0.00	0.00	3.12	100.00	100.00	0.55	2.95	201.00	NA
		Mumbai	100.00	93.00	99.00	0.00	100.00	100.00	93.07	98.86	0.00	0.00	20.94	100.00	100.00	0.77	2.95	201.00	NA
5	Alliance Broadband Services Pvt. Ltd.	All India	100.00	91.15	100.00	0.00	100.00	100.00	83.33	100.00	0.00	0.00	59.28	97.13	99.46	0.00	2.00	4.00	102.00
6	Angel Air Network Solutions Private Limited	Punjab	100.00	100.00	100.00	0.00	100.00	100.00	100.00	100.00	0.00	0.00	81.00	90.00	100.00	0.00	20.00	25.00	40.00
		Rajasthan	100.00	100.00	100.00	0.00	100.00	100.00	100.00	100.00	0.00	0.00	81.00	90.00	100.00	0.00	20.00	25.00	40.00
7	ANI Network Pvt. Ltd.	Delhi	100.00	93.00	100.00	0.00	100.00	100.00	99.00	100.00	0.00	0.00	86.00	100.00	99.00	0.40	20.00	288.00	0.00
8	Apple Broadband Services Pvt. Ltd.	Andhra Pradesh	100.00	91.47	100.00	0.00	100.00	100.00	83.67	100.00	0.00	0.00	87.00	82.00	98.89	0.00	3.00	22.00	0.00
9	Asianet Satellite Communications Ltd.	All India	100.00	90.34	99.65	0.22	100.00	100.00	60.75	80.57	0.00	0.00	71.42	92.00	99.83	0.82	56.00	229.00	0.00
10	Atria Convergence Technologies Ltd.	All India	100.00	94.70	98.96	0.92	100.00	100.00	67.14	70.70	0.00	0.00	41.66	93.48	99.95	0.02	1.00	145.00	0.00
11	Balaji Teleworks Development Pvt Ltd	All India	100.00	92.00	99.80	0.00	100.00	100.00	80.00	92.00	0.00	0.00	87.60	87.00	99.37	0.90	67.00	326.00	0.00
12	Bharat Sanchar Nigam Ltd.	All India	100.00	94.34	99.74	0.10	100.00	97.36	89.71	92.18	0.00	0.00	61.00	94.09	99.41	0.30	45.20	110.90	0.00
13	Bharti Airtel Ltd.	All India	100.00	93.49	99.80	0.01	100.00	100.00	95.93	97.64	0.00	0.00	34.53	100.00	99.86	0.00	47.38	58.93	0.00
14	Bluelotus Support Services Pvt. Ltd. (formerly Limras Eronet Broadband Service Pvt Ltd)	All India	100.00	99.00	100.00	0.02	100.00	100.00	90.00	100.00	0.00	0.00	0.00	98.50	99.36	0.01	25.00	249.00	0.00
15	Candor Infosolution Pvt. Ltd.	Bihar	100.00	99.00	100.00	0.17	100.00	100.00	100.00	100.00	0.00	0.00	89.00	90.00	100.00	0.00	90.00	250.00	350.00
		Delhi	100.00	99.00	100.00	0.11	100.00	100.00	100.00	100.00	0.00	0.00	89.00	90.00	100.00	0.00	90.00	250.00	350.00
		Haryana	100.00	99.00	100.00	0.00	100.00	100.00	100.00	100.00	0.00	0.00	89.00	90.00	100.00	0.00	90.00	250.00	350.00
16	City Online Services Ltd	Andhra Pradesh	100.00	99.00	99.00	0.00	100.00	100.00	98.00	99.00	0.00	0.00	59.28	99.00	99.72	0.30	15.00	238.00	0.00
		Karnataka	100.00	98.00	99.00	0.00	100.00	100.00	95.50	98.00	0.00	0.00	77.50	97.87	99.72	0.57	18.00	280.00	0.00
17	D-Vois Communication Private Limited	All India	100.00	94.33	99.00	0.00	100.00	100.00	93.67	97.00	0.00	0.00	0.00	90.00	99.00	0.10	24.00	0.00	0.00
18	DDC Broadband Pvt. Ltd.	Delhi	100.00	97.67	100.00	0.00	100.00	100.00	94.70	94.70	0.00	0.00	88.16	98.00	100.00	0.30	11.00	244.00	0.00
19	DEN Broadband Limited	All India	100.00	98.42	99.90	0.00	100.00	100.00	85.57	91.53	0.00	0.00	72.88	91.00	99.09	0.71	80.00	329.00	0.00
20	Digital Network Associates Pvt. Ltd.	Maharashtra	100.00	91.78	99.47	0.00	100.00	100.00	67.85	83.75	0.00	0.00	80.00	83.00	99.82	0.20	4.00	255.00	600.00
		Mumbai	100.00	100.00	100.00	0.00	100.00	100.00	100.00	100.00	0.00	0.00	80.00	86.00	100.00	0.20	4.00	255.00	600.00
21	DL GTPL Broadband Pvt. Ltd.	Gujarat	100.00	94.33	99.66	0.00	100.00	100.00	88.67	93.00	0.00	0.00	86.36	90.00	99.46	0.00	15.00	300.00	0.00
		Maharashtra	100.00	96.00	99.66	0.00	100.00	100.00	96.00	98.00	0.00	0.00	86.36	90.00	99.41	0.00	15.00	300.00	0.00
22	DNA Infotel Pvt Ltd	Maharashtra	100.00	91.78	99.43	0.00	100.00	100.00	68.47	84.36	0.00	0.00	80.00	83.00	99.82	0.90	4.00	255.00	600.00
23	Dwan Supports Pvt. Ltd.	All India	100.00	95.67	100.00	0.00	100.00	100.00	91.00	95.33	0.00	0.00	85.67	95.33	99.86	0.04	44.00	244.00	460.00
24	Ethernet Xpress(I) Pvt. Ltd.	Maharashtra	100.00	96.00	99.43	0.26	100.00	100.00	85.00	85.00	0.00	0.00	20.00	90.00	100.00	0.11	30.00	300.00	650.00
25	Excell Media Pvt. Ltd.	Andhra Pradesh	100.00	90.17	99.17	0.00	100.00	100.00	96.91	97.69	0.00	0.00	75.34	98.60	99.73	0.50	10.00	300.00	0.00
		Karnataka	100.00	100.00	100.00	0.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	0.00

Annexure 4.3 (Contd.)

26	Excitel Broadband Private Limited	All India	100.00	91.06	99.60	0.00	100.00	100.00	62.50	82.00	0.00	0.00	78.50	100.00	99.73	0.00	4.00	199.00	0.00
27	Five Network Solution (India) Ltd.	All India	100.00	99.50	100.00	0.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	90.00	99.86	0.60	0.00	0.00	0.00
28	Fusionnet Web Services Pvt. Ltd.	All India	100.00	94.58	99.35	0.00	100.00	100.00	93.50	95.20	0.00	0.00	85.54	100.00	100.00	0.00	5.00	250.00	0.00
29	Genstar Network Solutions Pvt. Ltd.	Mumbai	100.00	98.00	100.00	0.00	100.00	100.00	80.00	85.00	0.00	0.00	82.00	99.00	99.41	0.00	1.00	48.00	80.00
30	GTPL Broadband Pvt. Ltd.	All India	100.00	95.77	99.38	0.00	100.00	100.00	98.40	99.50	0.00	0.00	42.73	94.00	99.06	0.00	11.00	300.00	0.00
31	GTPL KCBPL Broadband Private Limited	Kolkata	100.00	98.94	100.00	0.00	100.00	100.00	85.46	86.33	0.00	0.00	80.00	98.01	100.00	0.00	10.00	250.00	310.00
		Odisha	100.00	100.00	100.00	0.00	100.00	100.00	100.00	100.00	0.00	0.00	80.00	98.01	100.00	0.00	10.00	250.00	310.00
		West Bengal	100.00	98.49	100.00	0.00	100.00	100.00	85.46	86.33	0.00	0.00	80.00	98.01	100.00	0.00	10.00	250.00	310.00
32	Hathway Cable & Datacom Pvt. Ltd.	All India	100.00	91.94	99.42	0.63	100.00	100.00	92.17	93.38	0.00	0.00	78.73	90.00	99.82	0.25	75.00	263.30	0.00
33	Honesty Net Solutions (I) Pvt Ltd	All India	100.00	93.33	100.00	0.00	100.00	100.00	69.00	100.00	0.00	0.00	0.00	95.00	99.79	0.02	0.00	66.00	0.00
34	Indinet Service Pvt. Ltd	All India	100.00	91.67	100.00	0.00	100.00	100.00	71.05	84.04	0.00	0.00	80.88	95.00	98.87	0.50	55.00	251.67	NA
35	Instanet Technologies Pvt. Ltd.	Maharashtra	100.00	98.17	100.00	0.11	100.00	100.00	78.43	89.33	0.00	0.00	63.00	90.00	100.00	0.00	4.00	255.00	0.00
36	Intech Online Pvt. Ltd.	Maharashtra	100.00	90.58	99.47	1.30	100.00	100.00	96.37	96.37	0.00	0.00	27.94	87.66	99.86	0.07	15.00	89.33	455.00
		Mumbai	100.00	90.70	99.46	0.58	100.00	100.00	95.26	95.26	0.00	0.00	37.75	87.66	99.86	0.04	1.00	76.00	450.00
37	Intermedia Cable Communication Pvt Ltd	Maharashtra	100.00	97.90	99.50	0.00	100.00	100.00	97.00	99.00	0.00	0.00	85.00	90.00	99.86	0.00	56.00	250.00	0.00
38	Ishan Netsol Pvt Ltd	All India	100.00	91.31	100.00	0.00	100.00	100.00	67.26	84.75	0.00	0.00	67.93	91.00	98.82	0.00	100.00	225.00	0.00
39	Joister Infoserve Pvt. Ltd.	Maharashtra	100.00	93.00	100.00	0.00	100.00	100.00	83.00	87.00	0.00	0.00	87.00	99.00	100.00	0.98	1.00	225.00	265.00
		Mumbai	100.00	92.00	100.00	0.00	100.00	100.00	85.00	92.00	0.00	0.00	89.00	99.00	100.00	0.97	1.00	47.00	265.00
40	Juwariyah Networks Private Limited	Maharashtra	100.00	98.00	100.00	0.00	100.00	100.00	83.67	87.00	0.00	0.00	83.00	99.00	100.00	0.00	1.00	47.00	80.00
		Mumbai	100.00	98.00	100.00	0.00	100.00	100.00	83.67	87.00	0.00	0.00	78.00	99.00	100.00	0.00	1.00	47.00	80.00
41	K NET Solutions Private Limited	Tamilnadu	100.00	93.69	99.45	0.00	100.00	100.00	85.08	86.65	0.00	0.00	0.00	100.00	99.56	0.00	9.51	248.83	0.00
42	Kerala Vision Broad Band Ltd.	All India	100.00	92.33	99.00	0.00	100.00	100.00	75.60	83.89	0.00	0.00	45.42	99.00	99.18	0.00	16.00	266.00	0.00
43	Kernel Fibernet Online Network Pvt Ltd	Kerala	100.00	99.00	99.00	0.00	100.00	100.00	90.00	90.00	0.00	0.00	80.00	94.00	99.82	0.00	4.00	0.00	0.00
44	Kings Broadband Pvt. Ltd	All India	100.00	98.00	100.00	0.00	100.00	100.00	90.00	96.66	0.00	0.00	79.60	95.60	99.77	0.10	30.00	310.00	650.00
45	Mahanagar Telephone Nigam Ltd.	All India	93.93	72.91	79.52	0.00	100.00	79.89	96.16	98.32	0.00	0.00	48.46	89.70	99.51	0.50	35.35	297.31	0.00
46	Meghbela Cable & Broadband Services (P) Ltd	All India	100.00	95.00	100.00	1.79	100.00	100.00	95.00	100.00	0.00	0.00	74.00	95.00	100.00	0.00	60.00	150.00	0.00
47	Microscan Infocommtech Private Limited	Maharashtra	100.00	97.13	99.88	0.00	100.00	100.00	100.00	100.00	0.00	0.00	13.77	100.00	100.00	0.00	2.95	201.00	NA
		Mumbai	100.00	93.53	99.89	0.00	100.00	100.00	100.00	100.00	0.00	0.00	20.42	100.00	100.00	0.77	2.95	202.00	NA
48	Multicraft Digital Technologies Private Limited	All India	100.00	97.27	100.00	0.00	100.00	100.00	99.00	99.00	0.00	0.00	89.27	92.00	100.00	0.00	116.00	0.00	0.00
49	Net 9 Fibernet Pvt. Ltd. (formerly Net 9 Online Hathway Pvt. Ltd.)	Mumbai	100.00	97.52	100.00	0.00	100.00	100.00	100.00	100.00	0.00	0.00	87.94	90.00	99.68	0.31	94.67	303.33	0.00
50	Netplus Broadband Services Pvt. Ltd	All India	100.00	100.00	100.00	1.32	100.00	100.00	88.40	94.49	0.00	0.00	74.15	96.12	100.00	0.10	44.00	198.33	0.00
51	Nuron Networks Private Limited	Karnataka	100.00	90.76	99.00	0.00	100.00	100.00	72.00	89.00	0.00	0.00	0.00	90.00	100.00	0.10	16.00	23.00	21.00
52	ONEOTT ENTERTAINMENT LTD	All India	100.00	97.00	99.00	1.70	100.00	100.00	95.00	95.00	0.00	0.00	68.56	100.00	100.00	0.50	1.03	63.00	0.00
53	Orange Infocom Pvt. Ltd.	Maharashtra	100.00	100.00	100.00	0.00	100.00	100.00	95.00	94.00	0.00	0.00	48.20	100.00	100.00	0.49	4.00	225.00	0.00
54	Pacenet Meghbela Broadband Pvt. Ltd.	Kolkata	100.00	95.00	100.00	1.72	100.00	100.00	95.00	100.00	0.00	0.00	74.00	95.00	100.00	0.00	60.00	150.00	0.00
55	Paradise Telecom Pvt. Ltd.	Maharashtra	100.00	100.00	100.00	0.15	100.00	100.00	65.23	80.73	0.00	0.00	63.00	90.00	100.00	0.00	4.00	255.00	0.00
56	Pioneer Elabs Limited	All India	100.00	93.30	99.23	0.68	100.00	100.00	73.00	85.60	0.00	0.00	0.00	89.00	98.46	0.91	95.00	307.00	695.00
57	Quadrant Televantures Ltd.	All India	100.00	93.10	99.23	0.36	100.00	100.00	89.93	92.80	0.00	0.00	74.97	100.00	100.00	0.00	17.00	254.00	0.00
58	Quest Consultancy Pvt. Ltd.	Gujarat	100.00	95.00	100.00	0.07	100.00	100.00	89.00	99.00	0.00	0.00	82.40	99.00	98.66	0.30	11.00	255.00	630.00
59	Radinet Info Solutions Pvt Ltd	Madhya Pradesh	100.00	100.00	100.00	0.00	100.00	100.00	100.00	100.00	0.00	0.00	73.77	90.00	99.50	0.00	20.00	300.00	0.00
		Maharashtra	100.00	100.00	100.00	0.00	100.00	100.00	100.00	100.00	0.00	0.00	73.77	90.00	99.50	0.00	20.00	300.00	0.00
		Rajasthan	100.00	92.89	99.30	0.00	100.00	100.00	96.74	98.94	0.00	0.00	73.77	90.00	99.50	0.00	20.00	300.00	0.00
		Uttar Pradesh (W	100.00	100.00	100.00	0.00	100.00	100.00	100.00	100.00	0.00	0.00	73.77	90.00	99.50	0.00	20.00	300.00	0.00
60	RailTel Corporation of India Ltd.	All India	100.00	98.00	100.00	0.00	100.00	100.00	89.66	100.00	0.00	0.00	47.76	100.00	99.86	0.83	90.00	320.00	0.00

Annexure 4.3 (Contd.)

61	Rainbow Communications India Private Limited	Tamilnadu	100.00	100.00	99.00	0.00	100.00	100.00	75.00	90.00	0.00	0.00	0.00	95.00	99.30	0.50	14.00	275.00	0.00
62	Rajesh Digital & Datacom Pvt. Ltd.	Mumbai	100.00	98.00	100.00	0.00	100.00	100.00	97.00	97.00	0.00	0.00	87.00	83.00	99.86	0.00	46.00	250.00	500.00
63	Readylink Internet Services Limited	Tamilnadu	100.00	99.00	100.00	0.16	100.00	100.00	87.00	91.00	0.00	0.00	72.00	82.00	100.00	0.00	23.00	85.00	0.00
64	Reliance Jio Infocomm Ltd	All India	100.00	95.52	99.57	0.00	100.00	100.00	91.58	93.38	0.00	0.00	47.58	100.00	99.98	0.01	18.08	70.77	NA
65	RI Networks Pvt Ltd	All India	100.00	91.80	99.15	0.00	100.00	100.00	92.93	95.47	0.00	0.00	80.99	100.00	100.00	0.50	50.00	300.00	300.00
66	Shree Omkar Infocom Pvt. Ltd.	Maharashtra	100.00	98.00	100.00	0.00	100.00	100.00	93.00	98.00	0.00	0.00	65.00	98.00	100.00	0.50	2.00	124.00	590.00
67	Shyam Spectra Private Limited	All India	100.00	97.08	99.22	0.35	100.00	100.00	93.47	94.77	0.00	0.00	77.12	97.33	99.31	0.00	4.40	160.75	NA
68	Sikka Broadband(P) Ltd.	Uttar Pradesh (Ea	100.00	91.00	99.26	0.00	100.00	100.00	88.00	98.70	0.00	0.00	80.00	86.60	100.00	0.10	10.00	290.00	400.00
69	SITI Broadband Services Pvt. Ltd.	All India	100.00	90.37	99.23	0.00	100.00	100.00	89.67	93.67	0.00	0.00	70.17	95.00	99.29	0.90	2.00	90.00	0.00
70	Spiderlink Networks Pvt. Ltd.	Rajasthan	100.00	95.13	99.32	0.00	100.00	100.00	73.69	81.74	0.00	0.00	70.00	98.00	99.95	0.00	30.00	225.00	0.00
71	Sristi Sanchar Webnet Limited	Kolkata	100.00	95.70	100.00	0.00	100.00	100.00	85.67	100.00	0.00	0.00	79.05	91.74	99.23	0.00	50.00	208.00	199.00
72	Stampede Communications Pvt. Ltd.	Kerala	100.00	95.00	100.00	0.00	100.00	100.00	80.00	100.00	0.00	0.00	67.00	90.00	100.00	0.00	25.00	250.00	0.00
73	Tachyon Communications Private Limited	Uttar Pradesh (Ea	100.00	98.00	100.00	0.59	100.00	100.00	88.00	94.00	0.00	0.00	58.12	99.00	100.00	0.00	35.00	70.00	NA
74	Tata Play Broadband Private Limited (formerly Tata Sky Broadband Pvt.Ltd.)	All India	100.00	97.38	99.69	0.00	100.00	100.00	87.93	90.45	0.00	0.00	42.00	100.00	99.98	0.00	1.00	0.00	0.00
75	Tata Teleservices Limited	Andhra Pradesh	100.00	95.00	99.23	0.00	100.00	100.00	99.35	100.00	0.00	0.00	50.24	94.00	99.93	0.00	60.66	74.03	0.00
		Bihar	100.00	96.67	100.00	0.00	100.00	100.00	100.00	100.00	0.00	0.00	50.24	91.36	99.97	0.00	64.59	73.41	0.00
		Delhi	100.00	94.42	98.14	0.00	100.00	100.00	97.78	98.89	0.00	0.00	50.24	88.08	98.70	0.00	57.76	71.84	0.00
		Gujarat	100.00	91.75	97.94	0.00	100.00	100.00	94.44	100.00	0.00	0.00	50.24	95.00	99.90	0.00	47.01	81.96	0.00
		Karnataka	100.00	97.90	99.12	0.02	100.00	100.00	98.15	98.45	0.00	0.00	50.24	95.33	99.71	0.00	96.72	74.52	0.00
		Kerala	100.00	100.00	100.00	0.00	100.00	100.00	100.00	100.00	0.00	0.00	50.24	97.30	99.23	0.00	42.39	72.26	0.00
		Kolkata	100.00	100.00	100.00	0.00	100.00	100.00	92.21	92.21	0.00	0.00	50.24	84.78	99.89	0.00	46.74	74.66	0.00
		Punjab	100.00	100.00	100.00	0.00	100.00	100.00	100.00	100.00	0.00	0.00	50.24	95.96	100.00	0.00	68.18	61.98	0.00
		Rajasthan	100.00	100.00	100.00	0.00	100.00	100.00	100.00	100.00	0.00	0.00	50.24	87.12	98.22	0.00	65.47	71.00	0.00
		Tamilnadu	100.00	99.11	99.82	0.02	100.00	100.00	98.36	99.62	0.00	0.00	50.24	91.33	98.94	0.00	52.16	70.66	0.00
76	Tata Teleservices(Maharashtra) Ltd.	Maharashtra	100.00	96.05	99.01	0.06	100.00	100.00	99.25	99.39	0.00	0.00	68.00	93.78	99.85	0.00	44.09	72.49	0.00
		Mumbai	100.00	96.40	99.45	0.01	100.00	100.00	99.27	99.53	0.00	0.00	68.00	99.62	99.82	0.00	46.60	70.64	0.00
77	Tikona Infnnet Ltd.	All India	100.00	94.41	99.41	1.26	100.00	100.00	65.77	82.23	0.00	0.00	79.58	93.22	100.00	0.00	3.33	0.00	0.00
78	Vijaylakshmi Net Services Pvt.Ltd.	Andhra Pradesh	100.00	95.00	100.00	0.00	100.00	100.00	89.00	99.00	0.00	0.00	85.71	100.00	99.44	0.00	20.00	250.00	350.00
79	Vortex Netsol Pvt. Ltd.	Gujarat	100.00	100.00	100.00	0.00	100.00	100.00	95.00	85.00	0.00	0.00	83.00	100.00	100.00	0.50	70.00	210.00	0.00
		Maharashtra	100.00	100.00	100.00	0.00	100.00	100.00	95.00	85.00	0.00	0.00	83.00	100.00	100.00	0.50	70.00	210.00	0.00
		Mumbai	100.00	100.00	100.00	0.00	100.00	100.00	95.00	85.00	0.00	0.00	83.00	100.00	100.00	0.50	70.00	210.00	0.00
80	Wan and Lan Internet Pvt. Ltd.	Mumbai	100.00	100.00	100.00	0.00	100.00	100.00	90.00	90.00	0.00	0.00	88.00	90.00	100.00	0.00	20.00	40.00	80.00
81	WAVE Fiber Pvt.Ltd.	Andhra Pradesh	100.00	97.00	100.00	0.00	100.00	100.00	80.00	98.00	0.00	0.00	83.33	100.00	99.44	0.00	20.00	250.00	350.00
82	Weebo Networks Pvt Ltd.	All India	100.00	97.27	99.00	0.00	100.00	100.00	98.00	100.00	0.00	0.00	13.33	81.66	98.99	0.44	100.00	300.00	600.00
83	Wish Net Pvt. Ltd.	Andhra Pradesh	100.00	100.00	100.00	0.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	100.00	100.00	0.20	0.00	0.00	0.00
		Assam	100.00	98.06	100.00	0.00	100.00	100.00	98.03	99.43	0.00	0.00	50.31	100.00	100.00	0.30	23.00	0.00	0.00
		Bihar	100.00	99.08	100.00	0.00	100.00	100.00	99.19	98.53	0.00	0.00	50.31	100.00	100.00	0.30	23.00	0.00	0.00
		Kolkata	100.00	98.68	100.00	0.00	100.00	100.00	97.47	98.77	0.00	0.00	50.31	100.00	100.00	0.30	12.00	0.00	0.00
		Madhya Pradesh	100.00	98.42	100.00	0.00	100.00	100.00	96.69	97.67	0.00	0.00	50.31	100.00	100.00	0.30	23.00	0.00	0.00
		Odisha	100.00	98.08	100.00	0.00	100.00	100.00	99.19	98.53	0.00	0.00	50.31	100.00	100.00	0.30	23.00	0.00	0.00
		West Bengal	100.00	98.06	100.00	0.00	100.00	100.00	98.03	99.43	0.00	0.00	50.31	100.00	100.00	0.30	12.00	0.00	0.00
84	Yashash Cable Network Pvt Ltd	Karnataka	100.00	95.30	99.39	0.00	100.00	100.00	85.24	92.39	0.00	0.00	59.81	84.00	99.86	0.01	29.00	219.00	0.00
85	You Broadband India Ltd.	All India	100.00	93.07	99.91	0.00	100.00	100.00	96.97	98.57	0.00	0.00	76.56	87.18	98.86	0.00	9.00	269.00	0.00

Annexure 5.1: List of pay channels, offered by broadcasters to subscribers as reported to TRAI (New Regulatory Framework) - as on 31st December, 2022

Sl. No	Name of the broadcaster	Sl. No	Name of the channel	Declared as SD or HD
1	AETN 18 Media Pvt Limited	1	The History Channel	SD
		2	Histry TV 18 HD	HD
2	Asianet Star Communications Private Limited	3	Vijay TV	SD
		4	Vijay Super	SD
		5	Vijay HD	HD
		6	Vijay Takkar (Vijay Music)	SD
		7	Asianet	SD
		8	Asianet Plus	SD
		9	Asianet Movies	SD
		10	Suvarna Plus	SD
		11	Star Suvarna HD	HD
		12	Asianet HD	HD
		13	Star Suvarna	SD
		14	Vijay Super HD	HD
		15	Asianet Movies HD	HD
3	Bangla Entertainment Private Limited	16	SONY AATH	SD
		17	SONY Marathi	SD
4	BBC Global News India Private Limited	18	BBC World News	SD
		19	Cbeebies	SD
5	Bennett, Coleman & Company Limited	20	Zoom	SD
		21	Romedy Now	SD
		22	MN + (HD)	HD
		23	Mirror Now	SD
		24	ET NOW	SD
		25	Times Now	SD
		26	Times Now Navbharat HD	HD
		27	Movies Now HD	HD
		28	MNX HD	HD
		29	ET Now Swedesh	SD
30	MNX	SD		

Sl. No	Name of the broadcaster	Sl. No	Name of the channel	Declared as SD or HD
		31	Times Now World (HD)	HD
6	Celebrities Management Pvt Limited	32	Travel XP HD	HD
		33	Travel XP Tamil	SD
		34	Foodxp	SD
7	CSL Info Media Private Limited	35	JAN TV PLUS	SD
8	Direct New Private Limited	36	News X	SD
9	Discovery Communications India	37	Animal Planet	SD
		38	Discovery Channel	SD
		39	DTAMIL	SD
		40	Discovery Kids Channel	SD
		41	Discovery Science	SD
		42	Discovery Turbo	SD
		43	Investigation Discovery	SD
		44	Discovery HD	HD
		45	Animal Planet HD	HD
		46	TLC HD	HD
		47	Investigation Discovery HD	HD
		48	TLC	SD
		49	EUROSPORT HD	HD
50	EUROSPORT	SD		
10	Disney Broadcasting (India) Limited	51	Disney Junior	SD
		52	Super Hangama (Marvel HQ)	SD
		53	Disney International HD	HD
		54	Hungama TV	SD
		55	The Disney Channel	SD
		56	UTV Bindass	SD
		57	The Disney Channel HD	HD
11	Eenadu Televisoin Private Limited	58	ETV Telegu	SD
		59	ETV Andhra Pradesh	SD
		60	ETV - Telangana	SD
		61	ETV Cinema	SD

Sl. No	Name of the broadcaster	Sl. No	Name of the channel	Declared as SD or HD
		62	ETV Life	SD
		63	ETV Plus	SD
		64	ETV Abhiruchi	SD
		65	ETV HD	HD
		66	ETV Plus HD	HD
		67	ETV Cinema HD	HD
		68	ETV Balbharat Telugu	SD
		69	ETV Balbharat Hindi	SD
		70	ETV Balbharat kannada	SD
		71	ETV Balbharat Malayalam	SD
		72	ETV Balbharat Tamil	SD
		73	ETV Balbharat English	SD
		74	ETV Balbharat HD	HD
		75	ETV Balbharat SD	SD
12	IN 10 Media Private Limited	76	EPIC TV	SD
		77	Filamchi	SD
		78	Gubbare	SD
		79	Showbox	SD
		80	Ishara TV	SD
13	Information TV Private Limited	81	India News	SD
14	Fame Media Private Limited	82	4tv News	SD
15	Greycells18 Media Limited	83	Topper TV	SD
16	IBN Lokmat News Private Ltd	84	News 18 Lokmat	SD
17	Living Entertainment Enterprises Private Ltd	85	ZEE ZEST HD	HD
		86	LF HD	HD
18	Lifestyle and Media Broadcasting Limited	87	Good Times	SD
19	Lex Sportel Vision Private Limited	88	1SPORTS	SD
20	Mavis Satcom Limited	89	J Movies	SD
		90	Jaya Max	SD

Sl. No	Name of the broadcaster	Sl. No	Name of the channel	Declared as SD or HD
		91	Jaya Plus	SD
		92	Jaya TV HD	HD
21	MSM World Wide Factual Media Private Limited	93	SONY BBC EARTH	SD
		94	SONY BBC EARTH HD	HD
22	Media World Wide Limited	95	Travel XP	SD
23	New Delhi Television Limited	96	NDTV 24*7	SD
		97	NDTV India	SD
		98	NDTV Profit	SD
24	NGC Network (India) Pvt Limited	99	Fox Life	SD
		100	National Geographic Channel (NGC)	SD
		101	Fox Life HD	HD
		102	Nat Geo Wild	SD
		103	National Geographic HD	HD
		104	Nat Geo Wild HD	HD
25	Tarang Broadcasting Compnay Limited	105	Prarthana	SD
		106	Tarang	SD
		107	Tarang Music	SD
		108	Alankar	SD
26	Odisha Television Limited	109	Tarang HD	HD
27	Raj Television Network Limited	110	Raj Digital Plus	SD
		111	Raj Musix	SD
		112	Raj News	SD
		113	Raj TV	SD
28	Silverstar Communications Limited	114	Mega 24	SD
		115	Mega Musiq	SD
		116	Mega TV	SD
29	Culver Max Entertainment Private Limited	117	Sony YAY!	SD
		118	SONY MAX	SD
		119	SONY SAB	SD
		120	SONY ENTERTAINMENT CHANNEL (SET)	SD
		121	SONY PIX	SD

Sl. No	Name of the broadcaster	Sl. No	Name of the channel	Declared as SD or HD
		122	SONY MAX 2	SD
		123	SONY PAL	SD
		124	SONY ENTERTAINMENT CHANNEL HD	HD
		125	PIX HD	HD
		126	MAX HD	HD
		127	SONY Sports Ten 2 HD	HD
		128	SONY Sports Ten 3 HD	HD
		129	SONY Sports Ten 2	SD
		130	SONY Sports Ten 1	SD
		131	SONY Sports Ten 3	SD
		132	SONY Sports Ten 1 HD	HD
		133	SONY Wah	SD
		134	SAB HD	HD
		135	SONY Sports Ten 4	SD
		136	SONY Sports Ten 4 HD	HD
		137	SONY Sports Ten 5	SD
		138	SONY Sports Ten 5 HD	HD
30	Star India Private Limited	139	Star Sports 3	SD
		140	Star Sports 1 Tamil	SD
		141	Star Sports Select 2	SD
		142	Star Bharat	SD
		143	Star Gold 2 (Movies OK)	SD
		144	Star Sports 1 Hindi	SD
		145	Star Gold	SD
		146	Star Jalsha	SD
		147	Star Movies	SD
		148	Star Gold Select	SD
		149	Star Plus	SD
		150	Star Pravah	SD
		151	Star Sports 1	SD
		152	Star Sports 2	SD

Sl. No	Name of the broadcaster	Sl. No	Name of the channel	Declared as SD or HD
		153	Jalsha Movies	SD
		154	Star Sports HD 2	HD
		155	Star Sports HD 1	HD
		156	Star Bharat HD	HD
		157	Star Gold HD	HD
		158	Star Movies HD	HD
		159	Star Plus HD	HD
		160	Star Sports 1 HD Hindi	HD
		161	Star Sports Select 1	SD
		162	Star Movies Select HD	HD
		163	Star Sports First	SD
		164	MAA Gold	SD
		165	MAA Movies	SD
		166	MAA Music	SD
		167	MAA TV	SD
		168	Star Pravah HD	HD
		169	Star Jalsha HD	HD
		170	Jalsha Movies HD	HD
		171	Star Sports Select HD 1	HD
		172	Star Sports Select HD 2	HD
		173	MAA HD	HD
		174	Star Gold Select HD	HD
		175	MAA Movies HD	HD
		176	Star Sport 1 Telugu	SD
		177	Star Sport 1 Kannada	SD
		178	Star Utsav	SD
		179	Star Utsav Movies	SD
		180	Star Gold Romance	SD
		181	Star Gold Thrills	SD
		182	Pravah Pictures	SD
		183	Star Kiran	SD
		184	Star Movies Select	SD

Sl. No	Name of the broadcaster	Sl. No	Name of the channel	Declared as SD or HD
		185	Star Gold 2 HD	HD
		186	Star Sports 1Tamil HD	HD
		187	Star Sports 1Telugu HD	HD
		188	Star Kiran HD	HD
		189	Pravah Pictures HD	HD
31	SUN TV Network Limited	190	Adithya TV	SD
		191	Chintu TV	SD
		192	Chutti TV	SD
		193	Gemini Comedy	SD
		194	Gemini Life	SD
		195	Gemini Movies	SD
		196	Gemini Music	SD
		197	Gemini TV	SD
		198	KTV	SD
		199	Surya Movies	SD
		200	Kushi TV	SD
		201	SUN Life	SD
		202	Sun Music	SD
		203	Sun News	SD
		204	Surya Music	SD
		205	SUN TV	SD
		206	Surya Comedy	SD
		207	Surya TV	SD
		208	Udaya Comedy	SD
		209	Udaya Movies	SD
		210	Udaya Music	SD
		211	Udaya TV	SD
		212	Kochu TV	SD
		213	Sun TV HD	HD
		214	KTV HD	HD
		215	Sun Music HD	HD
		216	Gemini TV HD	HD

Sl. No	Name of the broadcaster	Sl. No	Name of the channel	Declared as SD or HD
		217	Gemini Music HD	HD
		218	Gemini Movies HD	HD
		219	Surya TV HD	HD
		220	Udaya TV HD	HD
32	Suryansh Broadcasting Private Limited	221	Flowers	SD
33	Warner Media India Private Limited	222	Cartoon Network	SD
		223	CNN International	SD
		224	POGO	SD
		225	Cartoon Network HD+	HD
34	TV 18 Broadcast Limited	226	CNN News 18	SD
		227	CNBC Bazaar	SD
		228	CNBC TV 18 Prime HD	HD
		229	CNBC Awaaz	SD
		230	News 18 Tamil Nadu	SD
		231	News 18 Kerala	SD
		232	News 18 Assam / North East	SD
		233	News 18 India	SD
		234	CNBC TV 18	SD
		235	News 18 Bihar Jharkhand	SD
		236	News 18 Madhya Pradesh / Chattisgarh	SD
		237	News 18 Rajasthan	SD
		238	News 18 Uttar Pradesh/ Uttaranchal	SD
		239	News 18 Jammu/Kashmir/Ladakh/Himachal	SD
		240	News 18 Kannada	SD
		241	News 18 Bangla	SD
242	News 18 Punjab / Haryana	SD		
243	News 18 Gujarati	SD		
244	News 18 Odia	SD		
35	TV Today Network Limited	245	Aaj Tak	SD
		246	India Today	SD

Sl. No	Name of the broadcaster	Sl. No	Name of the channel	Declared as SD or HD
		247	AAJ Tak HD	HD
		248	Good News Today	SD
36	Viacom 18 Media Private Limited	249	Colors	SD
		250	Comedy Central (HD)	HD
		251	MTV	SD
		252	NICK	SD
		253	NICK JR	SD
		254	SONIC	SD
		255	VH 1 (HD Distribution)	HD
		256	Colors Infinity HD	HD
		257	Colors Infinity	SD
		258	Colors HD	HD
		259	NICKS HD+	HD
		260	Colors Cineplex	SD
		261	MTV Beats	SD
		262	Colors Kannada HD	HD
		263	Colors Marathi HD	HD
		264	Colors Bangla HD	HD
		265	Colors Super	SD
		266	Colors Cineplex Bollywood	SD
		267	Sports18 1	SD
		268	Sports 18 1 HD	HD
		269	Colors Bangla	SD
		270	Colors Gujarati	SD
		271	Colors Kannada	SD
		272	Colors Marathi	SD
		273	Colors Odia	SD
		274	MTV Beats HD	HD
		275	Colors Tamil	SD
		276	Colors Cineplex HD	HD
		277	VH 1	SD
		278	Colors Tamil HD	HD

Sl. No	Name of the broadcaster	Sl. No	Name of the channel	Declared as SD or HD
		279	MTV HD	HD
		280	Colors Rishtey	SD
		281	Colors Kannada Cinema	SD
		282	Colors Gujarati Cinema	SD
		283	Comedy Central	SD
		284	Colors Bangla Cinema	SD
		285	Colors Cineplex Superhit	SD
37	Zee Akaash News Private Limited	286	Zee 24 Ghanta	SD
38	Zee Entertainment Enterprises Limited	287	Zee Bollywood	SD
		288	Zee Action	SD
		289	Zee Bangla Cinema	SD
		290	Zee Café HD	HD
		291	Zee Café	SD
		292	Zee Cinema	SD
		293	Zee Talkies	SD
		294	Zee TV	SD
		295	Zing	SD
		296	& Picture	SD
		297	Zee Bangla	SD
		298	Zee Marathi	SD
		299	Zee Zest	SD
		300	Zee TV HD	HD
		301	Zee Cinema HD	HD
		302	& TV	SD
		303	& TV HD	HD
		304	Zee Kannada	SD
		305	Zee Telugu	SD
		306	& Pictures HD	HD
		307	Zee Cinemalu	SD
		308	Zee Yuva	SD
		309	Zee Marathi HD	HD
		310	& Prive HD	HD

Sl. No	Name of the broadcaster	Sl. No	Name of the channel	Declared as SD or HD
		311	Zee Bangla HD	HD
		312	Zee Tamil HD	HD
		313	Zee Cinemalu HD	HD
		314	Zee Telugu HD	HD
		315	Zee Tamil	SD
		316	Zee Kannada HD	HD
		317	Zee Anmol Cinema	SD
		318	& Flix HD	HD
		319	& Flix	SD
		320	Zee Keralam HD	HD
		321	Zee Keralam	SD
		322	Zee Anmol	SD
		323	Big Magic	SD
		324	Zee Ganga	SD
		325	Zee Classic	SD
		326	&Xplore HD	HD
		327	ZEE Sarthak	SD
		328	Zee Talkies HD	HD
		329	Zee Punjabi	SD
		330	Zee Thirai	SD
		331	Zee Picchar	SD
		332	Zee Thirai HD	HD
		333	Zee Picchar HD	HD
		334	Zee Biskope	SD
39	Zee Media Corporation Limited	335	Zee 24 Taas	SD
		336	Zee Delhi NCR Haryan (Zee Odisha)	SD
		337	Zee Business	SD
		338	Zee Punjab Haryana Himachal	SD
		339	Zee Madhya Pradesh Chattisgarh	SD
		340	Zee Salaam	SD
		341	Zee 24 Kalak	SD
		342	WION	SD

Sl. No	Name of the broadcaster	Sl. No	Name of the channel	Declared as SD or HD
		343	Zee Uttar Pradesh Uttrakhand	SD
		344	Zee Hindustan	SD
		345	Zee Bihar Jharkhand	SD
		346	Zee News	SD
		347	Zee Rajasthan News	SD
40	Zoom Entertainment Network Limited	348	Movies Now	SD
41	Sidharth Broadcasting Private Limited	349	Sidharth TV	SD
		350	Jay Jagannath	SD
42	Sarthak Music Private Limited	351	Sidharth Bhakti	SD
		352	Sidharth Gold	SD
43	Kalaignar TV Pvt Limited	353	Kalaignar TV	SD
		354	Kalaignar Isai Aruvi	SD
		355	Kalaignar Siripolli	SD
		356	Kalaignar Murasu	SD
		357	Kalaignar Seithigal	SD

List of Major MSOs / HITS Operators

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

- 6. M/s NXT Digital Limited (HITS)**
IN Centre, 49/50 MIDC
12th Road, Andheri
MUMBAI-400093 (Maharashtra)
Ph: 022-28208585
Website : www.nxtdigital.co.in
Toll Free No. 18602120400 18002100400
- 7. M/s Fastway Transmission Pvt. Ltd..**
SCO-16-17, Top Floor
Sector-34-A, Chandigarh
Ph: 0161-4044444
Website : www.fastway.in
Toll Free No. 18001026602
- 8. M/s Tamil Nadu ARASU Cable TV Corporation Ltd.**
11/22, Mangadusamy Street, Nungambakkam,
Chennai-600034
Ph: 044-2843 2911
Fax : 044-2843 2913
Website : www.tactv.in
Toll Free No. 1800 425 2911
- 9. M/s Kerala Communicators Cable Ltd.**
CC -22/491, Girnar, Kadavanthara,
Cochin-682020 (Kerala)
Ph: 0484-2316441
Website : www.kccl.tv
Toll Free No. 18004195755
- 10. M/s Thamizhaga Cable TV Communication Pvt. Ltd.**
Old No. 150, New No. 48, Sami Naicken Street,
Chinthadripet, Chennai-6000002 (T.N.)
Ph: 044-49272222
Website : www.tccl.co.in
Toll Free No. 1800-102-9845
- 11. M/s Asianet Digital Network Pvt. Network**
2A, 2nd Floor, Leela Infopark
Technopark, Kazahakuttom,
Thiruvananthapuram-695581 (Kerala)
Ph: 0471-2700995
Fax : 0471-2527878
Website : www.asianetdigital.co.in
Toll Free No. 1800 425 4725

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

List of Pay DTH Operators

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

List of Pay IPTV Operators

List of IPTV Operators at the end of December 2022	
S.No.	Name of the IPTV Operator
1	Hyderabad Cable Digital Service Pvt. Ltd.
2	Bhoomika Digital Cable Services Pvt. Ltd.
3	Peak Air Pvt. Ltd.
4	Katalysts Productions Pvt. Ltd.
5	Andhra Pradesh State Fibernet Limited
6	Triple Play Teleservices (P) Ltd.
7	WI Bro Solutions Pvt. Ltd
8	Extreme Teleconnect Pvt. Ltd.
9	Delinet Broadband Pvt. Ltd
10	Den Networks Ltd.
11	Hathway Digital Limited
12	City Online Media Pvt. Ltd.
13	ACT Digital Home Entertainment Pvt. Ltd.
14	Kable First India Pvt. Ltd.
15	ACN Cable Pvt. Ltd.
16	UCN Network
17	Atria Convergence Technologies Ltd.
18	Skypro Communications
19	E2 Info Solutions
20	Assistive Netspeed Technologies Pvt. Ltd.
21	Bangalore Broadband Network (P) Ltd
22.	M/s Creative Cable Network
23.	M/s Wired Entertainment

Annexure 5.5: List of 113 existing cities with operational FM Radio Channels in India, as on 31st December, 2022

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

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

S. No.	City	Category	Channels
64	Kozhikode	C	4
65	Lucknow	A	6
66	Leh	Others	3
67	Madurai	B	4
68	Mangalore	C	3
69	Mehsana	D	2
70	Mumbai	A+	9
71	Muzaffarpur	C	4
72	Mysore	C	3
73	Nagpur	A	6
74	Nanded	C	3
75	Nasik	C	4
76	Nellore	C	1
77	Palampur	D	1
78	Panaji	D	2
79	Patiala	C	4
80	Patna	C	4
81	Porbandar	D	1
82	Punch	Others	2
83	Puducherry	C	4
84	Pune	A	6
85	Raigarh	D	1
86	Raipur	C	3
87	Rajahmundry	C	3
88	Rajkot	B	4
89	Ranchi	C	4
90	Rourkela	C	2
91	Salem	C	2
92	Sangli	C	4
93	Shillong	D	3
94	Shimla	D	3
95	Sholapur	C	4
96	Siliguri	C	3

S. No.	City	Category	Channels
97	Srinagar	C	4
98	Surat	A	6
99	Thiruvananthapuram	C	4
100	Thoothukudi	C	2
101	Thrissur	C	3
102	Tiruchirappalli	C	3
103	Tirunelveli	C	3
104	Tirupati	C	3
105	Udaipur	C	4
106	Ujjain	C	1
107	Vadodra	B	4
108	Varanasi	B	4
109	Vellore	C	2
110	Veraval	D	1
111	Vijayawada	B	3
112	Vishakapatnam	B	3
113	Warrangal	B	3
	Total		388

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