



# **Telecom Regulatory Authority of India**

## Yearly Performance Indicators Indian Telecom Sector (Fifth Edition)

2020

New Delhi, India

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# Snapshot

Total Subscribers1,173.83 Million% change over the previous year0.12%Urban Subscribers647.91 MillionRural Subscribers525.92 MillionMarket share of Private Operators88.74%Market share of PSU Operators11.26%Tele-density86.38%Urban Tele-density138.34%Rural Tele-density59.05%Wireless Subscribers59.05%Total Wireless Subscribers1,153.77 Million% change over the previous year2.34%Urban Subscribers629.67 MillionRural Subscribers524.11 MillionMarket share of Private Sector Operators89.42%Market share of Private Sector Operators10.58%Tele-density134.34%Rural Tele-density134.34%Rural Tele-density134.34%Rural Tele-density134.34%Rural Tele-density58.85%No. of total Public Mobile Radio Trunk Services (PMRTS)63.205No. of Very Small Aperture Terminals (VSAT)2.96,079Wireline Subscribers20.05 Million% change over the previous year-4.53%Urban Subscribers1.81 MillionMarket share of Private Operators1.81 MillionMural Subscribers20.05 SillionWireline Subscribers20.05 Sillion% change over the previous year-4.53%Urban Subscribers1.81 MillionMarket share of Private Operators49.49%Urban Subscribers1.81 MillionMarket share of PSU Operators	(Data As on 31 <sup>st</sup> December, 2020)				
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No. of total Public Mobile Radio Trunk Services (PMRTS)63,205No. of Very Small Aperture Terminals (VSAT)2,96,079Wireline Subscribers20.05 Million% change over the previous year-4.53%Urban Subscribers18.24 MillionRural Subscribers1.81 MillionMarket share of Private Operators50.51%Tele-density1.48%Urban Tele-density0.20%No. of Village Public Telephones (VPT)68,606	Urban Tele-density	134.34%			
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Wireline Subscribers20.05 Million% change over the previous year-4.53%Urban Subscribers18.24 MillionRural Subscribers1.81 MillionMarket share of Private Operators49.49%Market share of PSU Operators50.51%Tele-density1.48%Urban Tele-density3.89%Rural Tele-density0.20%No. of Village Public Telephones (VPT)68,606	No. of total Public Mobile Radio Trunk Services (PMRTS)	63,205			
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Rural Subscribers1.81 MillionMarket share of Private Operators49.49%Market share of PSU Operators50.51%Tele-density1.48%Urban Tele-density3.89%Rural Tele-density0.20%No. of Village Public Telephones (VPT)68,606	% change over the previous year	-4.53%			
Market share of Private Operators49.49%Market share of PSU Operators50.51%Tele-density1.48%Urban Tele-density3.89%Rural Tele-density0.20%No. of Village Public Telephones (VPT)68,606	Urban Subscribers	18.24 Million			
Market share of PSU Operators50.51%Tele-density1.48%Urban Tele-density3.89%Rural Tele-density0.20%No. of Village Public Telephones (VPT)68,606	Rural Subscribers	1.81 Million			
Tele-density1.48%Urban Tele-density3.89%Rural Tele-density0.20%No. of Village Public Telephones (VPT)68,606	Market share of Private Operators	49.49%			
Urban Tele-density3.89%Rural Tele-density0.20%No. of Village Public Telephones (VPT)68,606	Market share of PSU Operators	50.51%			
Rural Tele-density0.20%No. of Village Public Telephones (VPT)68,606	Tele-density	1.48%			
No. of Village Public Telephones (VPT) 68,606	Urban Tele-density	3.89%			
	Rural Tele-density	0.20%			
No. of Public Call Office (PCO) 1,40,546	No. of Village Public Telephones (VPT)	68,606			
	No. of Public Call Office (PCO)	1,40,546			

Internet/Broadband Subscribers	
Total Internet Subscribers	795.18 Million
% change over previous year	10.64%
Narrowband subscribers	47.77 Million
Broadband subscribers	747.41 Million
Wired Internet Subscribers	25.54 Million
Wireless Internet Subscribers	769.64 Million
Urban Internet Subscribers	487.01 Million
Rural Internet Subscribers	308.17 Million
Total Internet Subscribers per 100 population	58.51
Urban Internet Subscribers per 100 population	103.98
Rural Internet Subscribers per 100 population	34.60
Telecom Financial Data for the Calendar Year-2020	
Gross Revenue (GR) during the year 2020	Rs.2,74,208 Crore
% change in GR over the previous year	12.52%
Adjusted Gross Revenue (AGR) during the year 2020	Rs. 1,82,398 Crore
% change in AGR over the previous year	19%
Share of Public Sector Operators in Access AGR	7.15%
Broadcasting & Cable Services	
Number of private satellite TV channels permitted by the Ministry of I&B for uplinking only/ downlinking / uplinking	907
Number of Pay TV Channels	326
Number of private FM Radio Stations (excluding All India Radio)	367
Number of Pay Subscribers Active with Private DTH Operators	70.99 Million
Number of Operational Community Radio Stations	315
Number of pay DTH Operators	4
Revenue & Usage Parameters (for the Calendar Year 2020)	
Monthly ARPU for Wireless (Full Mobility) Service	Rs.94.87
Minutes of Usage (MOU) per subscriber per month - Wireless (Full Mobility) Service	759 Minutes
Average Revenue for wireless data per data subscribers per month for wireless services	Rs.128.61
Average revenue realization per subscriber per GB wireless data during the year	Rs.10.93
Average wireless data usage per data subscriber per month	11.76 GB

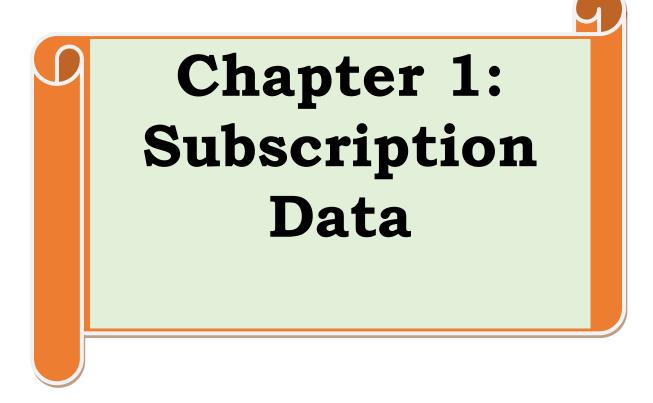
### Introduction

This Report presents the Key Parameters and growth trends for the Telecom Services in India for the calendar year 2020. To provide a broad perspective on the Telecom Services and 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). Chapter-2 covers the key revenue and usage parameters of Wireless services. Chapter-3 provides the analysis relating to the wireless data service and revenue from wireless data. Chapter-4 gives the financial data. The information relating to Cable TV, DTH & Radio Broadcast services is provided in Chapter-5.

- 2. Key indicators of the report are as follows:
  - i. The total number of telephone subscribers increased from 1,172.44 million at the end of Dec-2019 to 1,173.83 million at the end of Dec-2020
  - ii. Total internet subscribers increased from 718.74 million in the end of Dec-2019 to 795.18 million at the end of Dec-2020. During the same period Broadband subscriber base has also increased from 661.94 million to 747.41 million.
  - iii. ARPU per month increased from Rs.74.88 in the year 2019 to Rs.94.87 in the year 2020 and MoU per subscriber per month also increased from 701 minutes to 759 minutes during the same period.
  - iv. Number of total active subscribers with pay DTH operators is reported as 70.99 million at the end of Dec-2020.
  - v. Total Gross Revenue of telecom sector increased from Rs.2,43,705/- crore in Dec-2019 to Rs. 2,74,208/- crore in year 2020.

3. The Report has been prepared based on the information furnished by the Service Providers. It is also available on TRAI's website (www.trai.gov.in under the link <u>http://www.trai.gov.in/release-publication/reports/performance-indicators-reports</u>). For any suggestion or clarification pertaining to this report, the following persons may be contacted:

- 1. Dr. M.P. Tangirala, Pr. Advisor (F&EA), TRAI Tel. : +91-11-23221856, Fax.: +91-11-23235249 e-mail: mptangirala@trai.gov.in
- Shri Amit Sharma, Advisor (F&EA), TRAI Tele. : +91-11-23234367 e-mail : <u>advfea2@trai.gov.in</u>



<sup>------</sup>

Tele-density figures are derived from the subscriber data provided by the operators and the projection of population. With effect from 1<sup>st</sup> January, 2020, the projection of population is based on the 'Report of the Technical Group on Population Projections for India and States 2011 – 2036', which is available under the link <a href="https://main.mohfw.gov.in/sites/default/files/Population%20Projection%20Report%202011-2036%20-%20upload\_compressed\_0.pdf">https://main.mohfw.gov.in/sites/default/files/Population%20Projection%20Report%202011-2036%20-%20upload\_compressed\_0.pdf</a>
 Prior to that population projection was based on census data, 2001-2026, published by the Office of Registrar General & Census Commissioner of India.

<sup>•</sup> The Report has been prepared based on the information furnished by the Service Providers.

#### Section A : Access Service - An overview

 The number of telephone subscribers in India increased from 1,172.44 million at the end of Dec-19 to 1,173.83 million at the end of Dec-20, registering a yearly growth rate of 0.12%. The overall Teledensity\* in India declined from 88.56 at the end of Dec-19 to 86.38 at the end of Dec-20 at yearly decline rate of 2.47%.

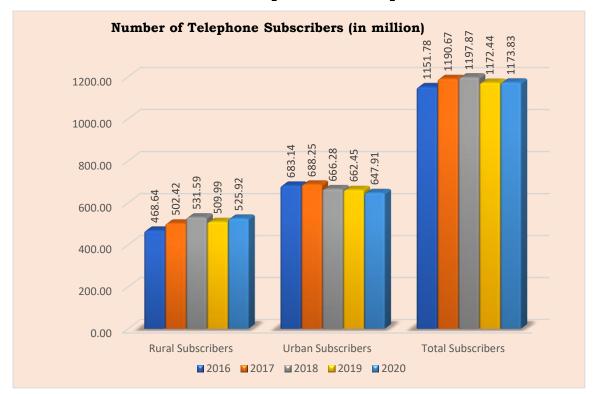


Chart 1.1: Trend of Telephone Subscriptions in India

2. Telephone subscription in Urban Areas declined from 662.45 million at the end of Dec-19 to 647.91 million at the end of Dec-20 at the yearly decline rate of 2.20%. Urban Tele-density also declined from 156.26% at the end of Dec-19 to 138.34% at the end of Dec-20 with yearly decline rate of 11.47%.

(Source-ITU)

<sup>\*</sup> Tele-density – Number of telephone connections (fixed lines and mobile phone subscribers) per 100 inhabitants within a geographical area.

3. Rural telephone subscription increased from 509.99 million at the end of Dec-19 to 525.92 million at the end of Dec-20 at the yearly growth rate of 3.12%. Rural Tele-density also increased from 56.67% at the end of Dec-19 to 59.05% at the end of Dec-20 with yearly growth rate of 4.20%.

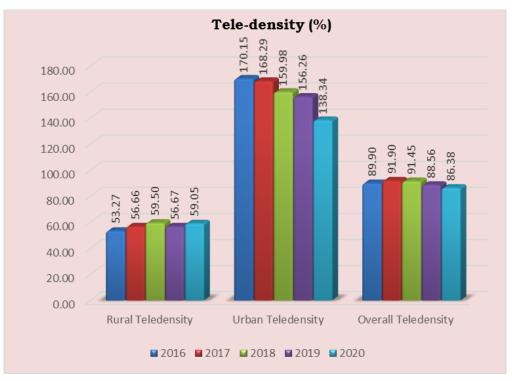


Chart 1.2: Trend of Tele-density in India

Table1.1: Subscriber Base & Tele-density - Rural & Urban

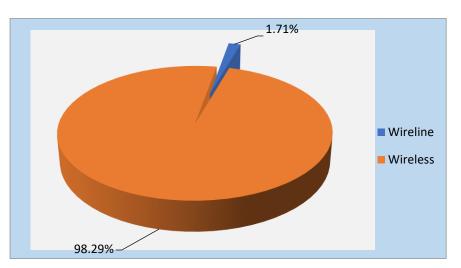
Year	Subscriber Base (million) Tele		e-density (%)			
ending	Rural	Urban	Total	Rural	Urban	Overall
2016	468.64	683.14	1151.78	53.27	170.15	89.90
2017	502.42	688.25	1190.67	56.66	168.29	91.90
2018	531.59	666.28	1197.87	59.50	159.98	91.45
2019	509.99	662.45	1172.44	56.67	156.26	88.56
2020	525.92	647.91	1173.83	59.05	138.34	86.38

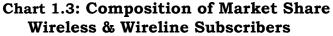
4. Out of the total telephone subscription, the shares of Rural telephone subscription increased from 43.50% at the end of Dec-19 to 44.80% at the end of Dec-20. However, share of Urban telephone subscription in total telephone subscription, decreased from 56.50% at the end of Dec-19 to 55.20% at the end of Dec-20. The following chart depicts the rural-urban market share of telephone subscribers at the end of Dec-20.

Network Type	Share (%)
Urban Wireless	53.64%
Rural Wireless	44.65%
Urban Wireline	1.55%
Rural Wireline	0.15%

 Table 1.2 : Composition of Telephone Subscribers

5. Out of 1,173.83 million of total telephone subscriber, the number of Wireless Telephone subscribers is 1,153.77 million and the number of Wireline Telephone subscribers is 20.05 million at the end of Dec-20. The following chart depicts the market share of Wireless and Wireline subscribers in India.





Service Area	Subscribers (million)			
	Dec-19	Dec-20	Yearly Net Additions	Rate of Yearly Growth (%)
Andhra Pradesh	88.38	89.00	0.62	0.70
Assam	23.72	24.17	0.45	1.91
Bihar	84.50	85.10	0.60	0.71
Delhi	56.22	55.90	-0.31	-0.56
Gujarat	68.64	68.75	0.11	0.15
Haryana	28.07	27.44	-0.63	-2.23
Himachal Pradesh	10.70	11.14	0.44	4.14
Jammu & Kashmir	10.45	11.96	1.51	14.41
Karnataka	69.51	69.41	-0.10	-0.15
Kerala	45.23	45.98	0.75	1.66
Madhya Pradesh	75.74	76.20	0.46	0.60
Maharashtra	94.01	94.54	0.52	0.55
Mumbai	41.17	38.01	-3.16	-7.67
North East	12.21	12.31	0.10	0.84
Orissa	33.23	33.72	0.49	1.48
Punjab	39.83	38.42	-1.42	-3.56
Rajasthan	65.84	65.63	-0.22	-0.33
Tamil Nadu	83.87	82.39	-1.49	-1.77
U.P.(E)	96.12	98.98	2.86	2.98
U.P.(W)	63.22	62.80	-0.42	-0.66
Kolkata	26.32	26.83	0.51	1.95
West Bengal	55.46	55.15	-0.31	-0.55
All India	1,172.44	1,173.83	1.39	0.12

Table 1.3: Service Area wise Access (Wireless+Wireline) Subscriber base

6. During the year 2020, Jammu & Kashmir service area has recorded the highest growth rate of 14.41% followed by Himachal Pradesh service area (4.14%). On the other hand, Mumbai service area showed maximum decline rate of 7.67% during the year 2020.

Service Area	Subscribers (million) as on 31 <sup>st</sup> December, 202			
	Total	Rural	Urban	% of Rural Subscribers
Andhra Pradesh	89.00	44.40	44.60	49.89
Assam	24.17	15.19	8.98	62.85
Bihar	85.10	55.60	29.51	65.33
Delhi	55.90	2.25	53.66	4.02
Gujarat	68.75	27.30	41.45	39.70
Haryana	27.44	12.05	15.39	43.91
Himachal Pradesh	11.14	7.52	3.62	67.48
Jammu & Kashmir	11.96	5.58	6.38	46.62
Karnataka	69.41	27.57	41.84	39.72
Kerala	45.98	21.24	24.74	46.20
Madhya Pradesh	76.20	34.41	41.79	45.16
Maharashtra	94.54	43.53	51.01	46.05
Mumbai	38.01	1.29	36.72	3.40
North East	12.31	6.55	5.76	53.19
Orissa	33.72	21.91	11.81	64.98
Punjab	38.42	13.17	25.25	34.28
Rajasthan	65.63	35.56	30.07	54.18
Tamil Nadu	82.39	23.87	58.51	28.98
U.P.(E)	98.98	61.35	37.64	61.98
U.P.(W)	62.80	29.68	33.12	47.26
Kolkata	26.83	1.85	24.99	6.88
West Bengal	55.15	34.07	21.08	61.78
All India	1,173.83	525.92	647.91	44.80

#### Table 1.4: Service Area wise Rural-Urban Subscribers

Service Area/	As on 3	1 <sup>st</sup> Decembe	er, 2019	As on 3	1 <sup>st</sup> Decembe	er, 2020
States	Rural Tele- density (%)	Urban Tele- density (%)	Total Tele- density (%)	Rural Tele- density (%)	Urban Tele- density (%)	Total Tele- density (%)
Andhra Pradesh	63.94	182.67	97.28	81.58	123.87	98.42
Assam	48.63	175.49	70.18	51.28	167.79	69.10
Bihar	42.77	158.71	58.92	40.76	119.14	52.80
Delhi	-	-	237.11	-	-	272.59
Gujarat	71.03	146.45	103.54	74.42	121.83	97.23
Haryana	70.97	139.27	96.99	69.22	128.17	93.29
Himachal Pradesh	109.51	411.44	146.53	113.45	478.12	150.86
J&K	49.62	159.81	81.22	58.23	155.61	87.38
Karnataka	71.38	162.78	108.05	72.92	144.51	103.97
Kerala	76.38	265.70	124.02	203.98	98.50	129.42
Madhya Pradesh	43.12	137.04	69.50	42.10	130.49	66.99
Maharashtra (incl. Mumbai)*	70.38	141.53	105.91	68.86	144.50	105.36
North East	54.32	169.34	84.24	63.69	111.80	79.75
Orissa	60.99	142.36	76.02	61.08	145.27	76.63
Punjab	78.10	177.56	123.83	73.71	185.14	121.94
Rajasthan	60.18	165.96	85.95	60.99	144.50	82.96
Tamil Nadu	100.40	124.46	115.68	65.29	141.54	105.75
Uttar Pradesh (incl. UPE & UPW)	44.76	134.95	65.84	49.69	120.72	66.91
West Bengal (incl. Kolkata)*	52.51	160.07	83.64	56.61	129.22	82.73
All India	56.67	156.26	88.56	59.05	138.34	86.38

Table 1.5 : Service Area wise Tele-density

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

#### Notes:-

Tele-density figures are derived from the subscriber data provided by the operators and the projection of population. With effect from 1<sup>st</sup> January, 2020, the projection of population is based on the 'Report of the Technical Group on Population Projections for India and States 2011 – 2036', which is available under the link <u>https://main.mohfw.gov.in/sites/default/files/Population%20Projection%20Report%202011-2036%20-%20upload compressed 0.pdf</u>

Prior to that population projection was based on census data, 2001-2026, published by the Office of Registrar General & Census Commissioner of India.

2. Delhi Service area, apart from the State of Delhi, includes wireless subscribers of the areas served by the local exchanges of Ghaziabad & Noida (in UP) and Gurgaon & Faridabad (in Haryana).

3. Data/information for Andhra Pradesh includes Telengana, Madhya Pradesh includes 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. 7. Kerala service area has the highest Rural Tele-density of 203.98 followed by Himachal Pradesh service area (113.45) at the end of Dec-20. On the other hand, Bihar service area have the lowest Rural Tele-density of 40.76 in the same period.

Service	Subscriber base (in million)			Rate of	Market Share as	Market Share
Provider	Dec-19	Dec-20	Yearly Net Addition/ decline	Growth (%)	on Dec-19 (%)	as on Dec-20 (%)
Reliance Jio	371.07	411.53	40.46	10.90	31.65	35.06
Bharti Airtel	331.61	343.27	11.67	3.52	28.28	29.24
Quadrant	0.20	0.20	0.01	2.54	0.02	0.02
BSNL	127.70	125.88	-1.82	-1.42	10.89	10.72
MTNL	6.50	6.28	-0.22	-3.41	0.55	0.53
Tata Tele.	1.79	1.66	-0.13	-7.38	0.15	0.14
Vodafone Idea	333.01	284.78	-48.24	-14.49	28.40	24.26
Reliance Com.	0.57	0.23	-0.34	-59.41	0.05	0.02
Total	1,172.44	1,173.83	1.39	0.12	100	100

Table 1.6: Service Provider-wise growth in Subscriber base

8. M/s Reliance Jio Infocomm Ltd has added maximum number of telephone subscribers (40.46 million net addition) during the year 2020. All service providers have registered decline in their subscriber base except M/s Reliance Jio Infocomm, Bharti Airtel Limited and Quadrant during the year 2020.

Table 1.7 : Service provider-wise Market Share of rural subscribersin their total subscribers – as on 31st December, 2020

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	411.53	172.82	41.99	32.86
Bharti	343.27	160.40	46.73	30.50
Vodafone Idea Ltd	284.78	152.98	53.72	29.09
BSNL	125.88	39.61	31.47	7.53
Tata	1.66	0.04	2.48	0.01
Quadrant	0.20	0.03	14.54	0.01
MTNL	6.28	0.05	0.72	0.01
Reliance Comm.	0.23	-	0.00	0.00
Total	1,173.83	525.92	44.80	100

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

## Section B: Wireless Service

S1.No.	Service Provider	Area of Operation
1	Bharti Airtel Ltd	All India
2	Reliance Communications/ Reliance Telecom Ltd	All India (except Assam & NE) / Kolkata, MP, WB, HP, Bihar, Odisha, Assam & NE
3	Vodafone Idea Ltd	All India
4	BSNL	All India (except Delhi & Mumbai)
5	MTNL	Delhi & Mumbai
6	Reliance Jio Infocom Ltd	All India

# Table 1.8: List of Cellular Mobile Service Providers currently providingservice [As on 31st December, 2020]

Source : DoT website

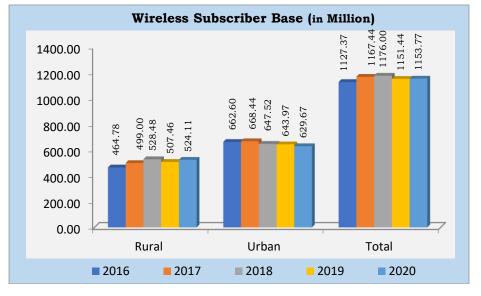
#### UL Access Services Licensees Virtual Network Operators (VNOs) who are providing services as on 31<sup>st</sup> December, 2020

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

Source : As reported by telecom service providers

10. Total Wireless subscribers increased from 1,151.44 million at the end of Dec-19 to 1,153.77 million at the end of Dec-20, thereby showing a yearly growth rate of 0.20%. During the year 2020, net addition of 2.34 million wireless subscribers was recorded.

- 11. The Rural Wireless subscribers increased from 507.46 million at the end of Dec-19 to 524.11 million at the end of Dec-20 with yearly growth rate of 3.28%
- 12. The urban wireless subscribers declined from 643.97 million at the end of Dec-19 to 629.67 million at the end of Dec-20 with yearly decline rate of 2.22%.
- 13. The following chart and table depict the trend of total, rural and urban wireless subscribers during last five years.



#### Chart 1.4: Trend of Wireless Subscriber Base

Year ending	Subscriber Base (million)			Tele-density (%)			
	Rural Urban Total		Rural	Urban	Overall		
Dec-16	464.78	662.60	1127.37	52.84	165.04	88.00	
Dec-17	499.00	668.44	1167.44	56.28	163.44	90.11	
Dec-18	528.48	647.52	1176.00	59.15	155.48	89.78	
Dec-19	507.46	643.97	1151.44	56.39	151.90	86.98	
Dec-20	524.11	629.67	1153.77	58.85	134.44	84.90	

- 14. Overall Wireless Teledensity declined from 86.98 at the end of Dec-19 to 84.90 at the end of Dec-20. Rural wireless Teledensity increased from 56.39 to 58.85, however Urban wireless Teledensity declined from 151.90 to 134.44 at the end of Dec-20.
- 15. The share of rural wireless subscription increased from 44.07% at the end of Dec-19 to 45.43% at the end of Dec-20, however the share of urban wireless subscription decreased from 55.93% to 54.57% during the same period.
- 16. The following chart depicts the composition of rural-urban market share in total wireless telephone subscribers during last five years.

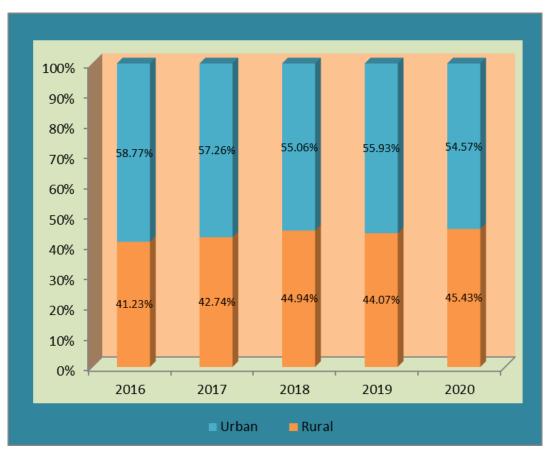


Chart 1.5: Composition of Wireless Market Share – Rural & Urban Subscribers

Service Provider	Subscri	ber Base (n	nillions)	Rate ofMarketMarlGrowthShareSha		
	Dec-19	Dec-20	Net Additions	(%)	Dec-19 (%)	Dec-20 (%)
Reliance Jio	370.02	408.77	38.76	10.47	32.14	35.43
Bharti	327.30	338.71	11.41	3.49	28.43	29.36
BSNL	118.12	118.71	0.59	0.50	10.26	10.29
MTNL	3.38	3.32	-0.06	-1.74	0.29	0.29
Vodafone IDEA	332.61	284.26	-48.36	-14.54	28.89	24.64
Reliance Comm. Group	0.018	0.011	-0.007	-40.43	0.002	0.001
Total	1,151.44	1,153.77	2.34	0.20	100	100

Table 1.10: Growth in Wireless Subscriber base

Note: The subscribers of M/s Bharti Airtel includes subscribers of M/s Tata Teleservices Ltd.

- 17. M/s Reliance Jio continued to the market leader with 35.43% market share of total wireless telephone subscriber base at the end of Dec-20 followed by M/s Bharti Telemedia Limited with 29.36% market share.
- 18. In term of net addition, M/s Reliance Jio Infocomm Ltd added maximum number of telephone subscribers of 38.76 million during the year 2020 and its yearly growth rate recorded as 10.47% during the year 2020.

Service Area		Subscriber	base (in milli	on)
	Dec-19	Dec-20	Net Additions	Rate of change (%)
Andhra Pradesh	87.02	87.62	0.59	0.68
Assam	23.61	24.05	0.44	1.86
Bihar	84.32	84.89	0.57	0.68
Delhi	52.95	52.59	-0.35	-0.67
Gujarat	67.45	67.78	0.33	0.50
Haryana	27.80	27.13	-0.66	-2.38
Himachal Pradesh	10.60	11.05	0.46	4.30
Jammu & Kashmir	10.32	11.80	1.48	14.35
Karnataka	67.39	67.23	-0.16	-0.24
Kerala	43.50	44.68	1.18	2.70
Madhya Pradesh	74.88	75.51	0.63	0.84
Maharashtra	92.62	93.27	0.65	0.70
Mumbai	38.10	34.99	-3.11	-8.15
North East	12.11	12.21	0.10	0.84
Odisha	33.01	33.51	0.50	1.52
Punjab	39.10	37.73	-1.38	-3.53
Rajasthan	65.33	65.16	-0.17	-0.26
Tamil Nadu	81.80	80.46	-1.34	-1.64
U.P.(E)	95.69	98.59	2.90	3.03
U.P.(W)	62.90	62.43	-0.47	-0.75
Kolkata	25.65	26.17	0.52	2.01
West Bengal	55.28	54.91	-0.37	-0.67
All India	1,151.44	1,153.77	2.34	0.20

#### Table 1.11: Service Area wise Wireless Subscriber base

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

Service Area	Subsc	riber base	(in million) -	- Dec-20
	Total	Rural	Urban	% of Rural Subscribers
Andhra Pradesh	87.62	44.28	43.33	50.54
Assam	24.05	15.18	8.87	63.12
Bihar	84.89	55.57	29.32	65.46
Delhi	52.59	2.25	50.35	4.27
Gujarat	67.78	27.23	40.56	40.17
Haryana	27.13	12.02	15.12	44.28
Himachal Pradesh	11.05	7.47	3.58	67.60
Jammu & Kashmir	11.80	5.57	6.24	47.16
Karnataka	67.23	27.48	39.75	40.88
Kerala	44.68	20.53	24.14	45.96
Madhya Pradesh	75.51	34.39	41.12	45.55
Maharashtra	93.27	43.37	49.90	46.49
Mumbai	34.99	1.29	33.70	3.70
North East	12.21	6.54	5.68	53.53
Odisha	33.51	21.88	11.64	65.28
Punjab	37.73	13.07	24.66	34.63
Rajasthan	65.16	35.53	29.64	54.52
Tamil Nadu	80.46	23.65	56.81	29.40
U.P.(E)	98.59	61.31	37.28	62.19
U.P.(W)	62.43	29.66	32.77	47.51
Kolkata	26.17	1.85	24.32	7.06
West Bengal	54.91	34.00	20.91	61.92
All India	1,153.77	524.11	629.67	45.43

#### Table 1.12: Service Area wise Wireless Rural-Urban Subscriber base

	As on 3	81 <sup>st</sup> Decembe	er, 2019	As on 3	1 <sup>st</sup> Decemb	oer, 2020
Service Area	Rural Tele- density (%)	Urban Tele- density (%)	Total Tele- density (%)	Rural Tele- density (%)	Urban Tele- density (%)	Total Tele- density (%)
A.P.	63.70	177.97	95.79	81.37	120.37	96.90
Assam	48.57	173.81	69.85	51.23	165.72	68.74
Bihar	42.76	157.92	58.80	40.74	118.36	52.67
Delhi	-	-	223.32	-	-	256.46
Gujarat	70.66	142.77	101.74	74.23	119.21	95.87
Haryana	70.71	137.22	96.04	69.02	125.90	92.24
H.P.	108.65	406.29	145.13	112.74	472.52	149.66
J&K	49.47	156.60	80.19	58.12	151.99	86.22
Karnataka	71.09	154.99	104.75	72.69	137.28	100.71
Kerala	72.67	257.95	119.29	197.20	96.14	125.76
M.P.	43.02	134.46	68.71	42.08	128.39	66.38
Maharashtra (incl. Mumbai)*	70.06	134.85	102.41	68.60	137.71	101.95
North East	54.16	167.15	83.56	63.58	110.08	79.11
Odisha	60.87	140.22	75.53	60.99	143.15	76.16
Punjab	77.30	173.56	121.56	73.12	180.84	119.75
Rajasthan	60.09	163.47	85.28	60.93	142.40	82.36
Tamil Nadu	99.35	120.56	112.83	64.69	137.42	103.28
Uttar Pradesh (incl. UPE&UPW)*	44.72	133.78	65.54	49.66	119.52	66.60
West Bengal (incl. Kolkata)*	52.41	157.31	82.77	56.50	126.87	81.81
All India	56.39	151.90	86.98	58.85	134.44	84.90

Table 1.13 : Service Area wise Wireless Tele-density

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

#### Notes:

Tele-density figures are derived from the subscriber data provided by the operators and the projection of population. With effect from 1<sup>st</sup> January, 2020, the projection of population is based on the 'Report of the Technical Group on Population Projections for India and States 2011 – 2036', which is available under the link <u>https://main.mohfw.gov.in/sites/default/files/Population%20Projection%20Report%202011-2036%20-%20upload\_compressed\_0.pdf</u>

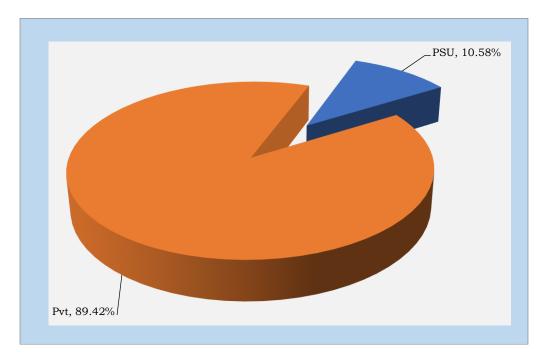
Prior to that population projection was based on census data, 2001-2026, published by the Office of Registrar General & Census Commissioner of India.

- 2. Delhi service area, apart from the State of Delhi, includes the areas served by the local exchanges of Ghaziabad & Noida (in UP) and Gurgaon & Faridabad (in Haryana).
- 3. Data/information for Andhra Pradesh includes Telengana, Madhya Pradesh includes 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.

Service Provider	Total number of wireless Subscribers (in millions)	Rural Subscribers (in millions)	% of Rural subscribers in total	Market Share of Rural Subscribers (%)
Bharti	338.71	160.40	47.36	30.60
Vodafone IDEA	284.26	152.98	53.82	29.19
Reliance Comm. Group	0.011	0.00	0.00	0.00
BSNL	118.71	37.89	31.92	7.23
MTNL	3.32	0.05	1.37	0.01
Reliance Jio	408.77	172.80	42.27	32.97
Total	1,153.77	524.11	45.43	100

Table 1.14 : Rural Wireless Subscriber base and Market Share

#### Chart 1.6: Composition of Public (PSUs) and Private sectors in Wireless Subscription as on 31.12.2020



20. Private telecom service providers hold 89.42% market share of total wireless telephone subscriptions and PSUs (BSNL & MTNL) hold only 10.58% market share of wireless telephone subscription as on 31<sup>st</sup> December, 2020.

## **Section C : Wireline Service**

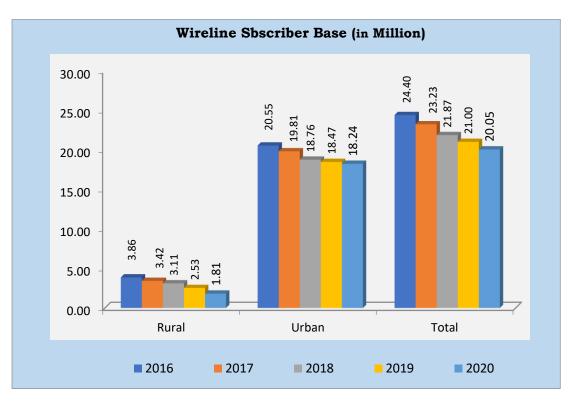
#### Table 1.15 : Service Providers providing Wireline Service

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

S1. No.	Name of the Service Provider	Area of Operation
1	Bharti Airtel Ltd	Andhra Pradesh (excluding Telangana) Delhi, Gujarat, Haryana, Jammu & Kashmir, Karnataka, Kerala, Kolkata, Madhya Pradesh (excluding Chhattisgarh), Chhattisgarh, Maharashtra (excluding Mumbai), Mumbai, Punjab, Rajasthan, Tamil Nadu (excluding Chennai), Chennai, UP-East and UP-West (excluding Uttarakhand).
2	BSNL	All India except Delhi & Mumbai
3	MTNL	Delhi & Mumbai
4	Quadrant Televentures Ltd.	Punjab
5	Reliance Communications Ltd.	Andhra Pradesh (excluding Telangana), Telangana, Bihar (Excluding Jharkhand), Jharkhand, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh (excluding Chhattisgarh), Chhattisgarh, Maharashtra (Excluding Mumbai & Goa) Goa, Mumbai, Orissa, Punjab, Rajasthan, Tamil Nadu (excluding Chennai), Chennai, UP-East, UP-West (Excluding Uttarakhand), Uttarakhand and West Bengal (Excluding Andaman & Nicobar and Sikkim))
	Tata Teleservices (Maharashtra) Ltd.	Maharashtra & Goa, Mumbai
6	Tata Teleservices Ltd.	Andhra Pradesh (Excluding Telangana), Telangana, Bihar (Excluding Jharkhand), Jharkhand, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Maharashtra (excluding Mumbai & Goa), Goa, Mumbai Madhya Pradesh (Excluding Chhattisgarh), Chhattisgarh, Orissa, Punjab, Rajasthan, Tamil Nadu (Excluding Chennai), Chennai, UP- East, UP-West (Excluding Uttarakhand), Uttarakhand and West Bengal (Excluding Andaman & Nicobar and Sikkim)

7	Vodafone Idea Ltd	Andhra Pradesh (Excluding Telangana), Telangana, Assam, Bihar (Excluding Jharkhand), Jharkhand, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh (Excluding Chhattisgarh), Chhattisgarh, Maharashtra (Excluding Mumbai & Goa), Goa, Mumbai Meghalaya, Orissa, Punjab, Rajasthan, Tamil Nadu (Excluding Chennai), UP-East, UP-West (Excluding Uttarakhand), Uttarakhand and West Bengal (Excluding Andaman & Nicobar and Sikkim)
8	Reliance Jio	Andhra Pradesh (Excluding Telangana), Telangana, Assam, Bihar (Excluding Jharkhand), Jharkhand, Delhi, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Kolkata, Madhya Pradesh (Excluding Chhattisgarh), Chhattisgarh, Maharashtra (Excluding Mumbai), Mumbai, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Punjab, Rajasthan, Tamil Nadu (Excluding Chennai), Chennai, UP- East, UP-West (Excluding Uttarakhand), Uttarakhand and West Bengal (Excluding Andaman & Nicobar and Sikkim)

- Total Wireline subscriber base decreased from 21 million at the end of Dec-19 to 20.05 million at the end of Dec-20 with yearly decline rate of 4.53%.
- 22. Detailed table on service provider wise wireline subscriber base in each service area is available at Annexure-1.2
- 23. Rural wireline subscriber base has shown decline of 28.28%, from
  2.53 Million at the end of Dec-19 to 1.81 million at the end of Dec-20.
  During the same period, Urban wireline subscription also recorded decline of 1.28%, from 18.47 million to 18.24 million.
- 24. The following chart and table depict the trend of wireline subscriber base and wireline tele-density (rural-urban) during the last five years.



**Chart 1.7: Trend of Wireline Subscriber Base** 

Year	Subscrib	oer Base (i	n million)	Wireline Tele-density		
ending	Rural	Urban	Total	Rural	Urban	Overall
Dec-16	3.86	20.55	24.40	0.44	5.12	1.90
Dec-17	3.42	19.81	23.23	0.39	4.84	1.79
Dec-18	3.11	18.76	21.87	0.35	4.50	1.67
Dec-19	2.53	18.47	21.00	0.28	4.36	1.59
Dec-20	1.81	18.24	20.05	0.20	3.89	1.48

25. Overall Wireline Tele-density declined from 1.59 at the end of Dec-19 to 1.48 at the end of Dec-20. During the same period Rural wireline tele-density declined from 0.28 to 0.20 and Urban wireline tele-density also declined from 4.36 to 3.89.

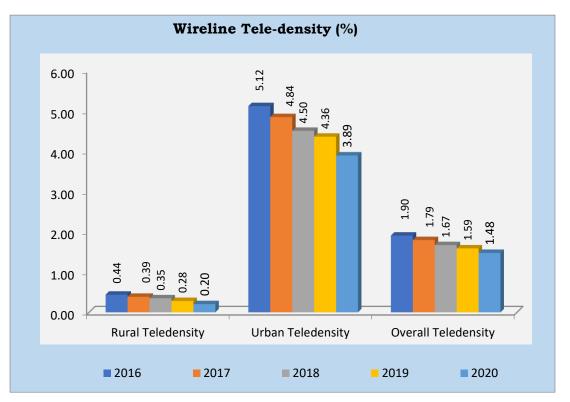


Chart 1.8: Trend of Wireline Tele-density (rural-urban)

 Table 1.17 : Service Provider wise growth in Wireline Subscriber base

Service	Subscr	iber Base	(million)	Rate of change	Market share-	Market share-
Provider	Dec-19	Dec-20	Net Addition	(%)	Dec-19 (%)	Dec-20 (%)
Reliance Jio	1.05	2.75	1.70	162.19	5.00	13.74
Vodafone Idea	0.40	0.52	0.12	29.80	1.91	2.60
Bharti	4.31	4.57	0.26	5.96	20.52	22.77
Quadrant	0.20	0.20	0.01	2.54	0.94	1.01
MTNL	3.12	2.96	-0.16	-5.22	14.87	14.76
Tata	1.79	1.66	-0.13	-7.38	8.51	8.26
BSNL	9.58	7.17	-2.41	-25.16	45.61	35.75
Reliance Comm	0.55	0.22	-0.33	-60.01	2.64	1.10
Total	21.00	20.05	-0.95	-4.53	100	100

- 26. M/s BSNL is the leading operator in wireline service with 7.17 million subscriber at the end of Dec-20 followed by Bharti with 4.57 million subscribers.
- 27. In term of net addition, only four service providers namely M/s Reliance Jio, M/s Vodafone Idea Limited, M/s Bharti Airtel Limited and M/s Quadrant showed positive growth with net additions 1.70, 0.12, 0.26, 0.01 million respectively during the year 2020. All other service providers showed decline in their wireline subscriber base during the year 2020.
- 28. In total wireline subscriber base, PSUs hold 50.51% of market share at the end of Dec-20 as against 60.47% at the end of Dec-19. Both PSUs, BSNL and MTNL showed decline in their wireline subscriber base during the year 2020.

Service	Subscribe	Share of Rural			
Provider	Rural Urban		Total	subscription (%)	
BSNL	1.73	5.44	7.17	24.10	
Bharti		4.57	4.57	-	
MTNL		2.96	2.96	-	
Tata	0.04	1.62	1.66	2.48	
Reliance	0.00	0.22	0.22	0.00	
Quadrant	0.03	0.17	0.20	14.54	
Vodafone		0.52	0.52	-	
Reliance Jio	0.02	2.74	2.75	0.61	
Total	1.81	18.24	20.05	9.05	

 Table 1.18 : Service Provider wise Subscriber base (Rural - Urban)

29. The following charts show the trend of share of rural-urban wireline subscription during last five years.

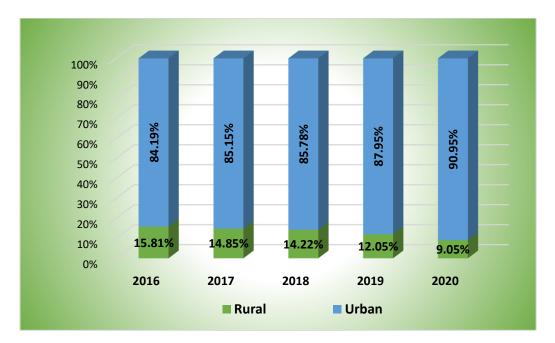


Chart 1.9: Composition of Wireline Subscriber base - Rural & Urban

30. As may be seen that share of rural wireline subscription showed declined trend year-on-year. The share of rural wireline subscribers was only 9.05% over the total wireline subscribers at the end of year 2020.

Service Area	Dec-19	Dec-20	Net Additions	Rate of Change (%)	
Andhra Pradesh	1.36	1.38	0.02	1.62	
Assam	0.11	0.13	0.01	11.95	
Bihar	0.18	0.21	0.03	19.02	
Delhi	3.27	3.31	0.04	1.21	
Gujarat	1.19	0.96	-0.23	-19.26	
Haryana	0.27	0.31	0.04	12.94	
Himachal Pradesh	0.10	0.09	-0.01	-12.07	
Jammu & Kashmir	0.13	0.16	0.03	19.26	
Karnataka	2.12	2.18	0.06	2.70	
Kerala	1.72	1.30	-0.42	-24.63	
Madhya Pradesh	0.86	0.69	-0.17	-19.76	
Maharashtra	1.39	1.27	-0.13	-9.07	
Mumbai	3.07	3.02	-0.05	-1.71	
North East	0.10	0.10	0.00	0.97	
Odisha	0.21	0.21	-0.01	-3.96	
Punjab	0.73	0.69	-0.04	-5.23	
Rajasthan	0.51	0.47	-0.05	-9.24	
Tamil Nadu	2.07	1.92	-0.15	-7.17	
U.P.(E)	0.42	0.39	-0.03	-8.28	
U.P.(W)	0.32	0.37	0.05	16.38	
Kolkata	0.67	0.67	0.00	-0.56	
West Bengal	0.18	0.24	0.07	36.37	
All India	21.00	20.05	-0.95	-4.53	

 Table 1.19: Service Area wise Wireline Subscriber base & Net

 Additions (in million)

31. As can be seen from the above table most of the LSA showed growth in their wireline subscriber base during the year 2020.

 Table 1.20: Service Area wise Wireline Rural-Urban Subscriber Base

 (in million)

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

32. In the above table, it can be seen that share of rural wireline subscribers in Himachal Pradesh and Kerala service areas was more than 50% of their total wireline subscribers at the end of Dec-20.

	As on 3	1 <sup>st</sup> Decemb	er, 2019	As on 31 <sup>st</sup> December, 2020			
Service Area	Rural Tele- density (%)	Urban Tele- density (%)	Total Tele- density (%)	Rural Tele- density (%)	Urban Tele- density (%)	Total Fele-density (%)	
Andhra Pradesh	0.24	4.70	1.49	0.21	3.51	1.52	
Assam	0.06	1.67	0.33	0.05	2.07	0.36	
Bihar	0.02	0.79	0.12	0.02	0.77	0.13	
Delhi	-	-	13.79	-	-	16.13	
Gujarat	0.37	3.69	1.80	0.19	2.63	1.36	
Haryana	0.26	2.05	0.94	0.20	2.27	1.05	
Himachal Pradesh	0.87	5.15	1.39	0.71	5.59	1.21	
Jammu & Kashmir	0.15	3.21	1.03	0.10	3.62	1.16	
Karnataka	0.29	7.79	3.30	0.23	7.23	3.26	
Kerala	3.71	7.75	4.73	6.78	2.36	3.66	
Madhya Pradesh	0.10	2.57	0.79	0.02	2.11	0.61	
Maharashtra (incl. Mumbai)*	0.32	6.68	3.50	0.25	6.79	3.41	
North East	0.15	2.19	0.68	0.11	1.72	0.65	
Orissa	0.12	2.14	0.49	0.10	2.12	0.47	
Punjab	0.79	4.00	2.27	0.59	4.30	2.19	
Rajasthan	0.09	2.48	0.67	0.05	2.10	0.59	
Tamil Nadu (incl. Chennai)	1.05	3.90	2.86	0.60	4.12	2.47	
Uttar Pradesh (incl. UPE & UPW)	0.04	1.16	0.31	0.03	1.20	0.31	
West Bengal (incl. Kolkata)*	0.10	2.76	0.87	0.12	2.35	0.92	
All India	0.28	4.36	1.59	0.20	3.89	1.48	

Table 1.21: Service Area wise Wireline Tele-density

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

#### Note:

1. Tele-density figures are derived from the subscriber data provided by the operators and the projection of population. With effect from 1<sup>st</sup> January, 2020, the projection of population is based on the 'Report of the Technical Group on Population Projections for India and States 2011 – 2036', which is available under the link <a href="https://main.mohfw.gov.in/sites/default/files/Population%20Projection%20Report%">https://main.mohfw.gov.in/sites/default/files/Population%20Projection%20Report%</a> 202011-2036%20-%20upload\_compressed 0.pdf

Prior to that population projection was based on census data, 2001-2026, published by the Office of General & Census Commissioner of India.

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.

#### **Public Call Offices (PCO)**

33. Total number of PCOs in the country declined from 1.98 lakh at the end of Dec-19 to 1.41 lakh at the end of Dec-20 with yearly declining rate of 28.98%. Detailed table of service provider wise PCOs is available at Annexure -1.3.

Service Provider	Dec-19	Dec-20	Rate of change (%)	Market share (%) (Dec-20)
BSNL	1,21,631	82,253	-32.37	58.52
MTNL	65,881	53,713	-18.47	38.22
Bharti	9,629	4,058	-57.86	2.89
Quadrant	750	522	-30.40	0.37
Total	1,97,891	1,40,546	-28.98	100

 Table 1.22 : Rate of change & Market share of PCOs

- 34. M/s BSNL is the market leader in term of number of PCOs with 58.52% of total number of PCOs followed by MTNL with 38.22% at the end of Dec-20.
- 35. It may be seen in the following chart that the number of PCOs in India continuously showing year-on-year declining trend. The following chart depicts the trend of number of PCOs in last five years.

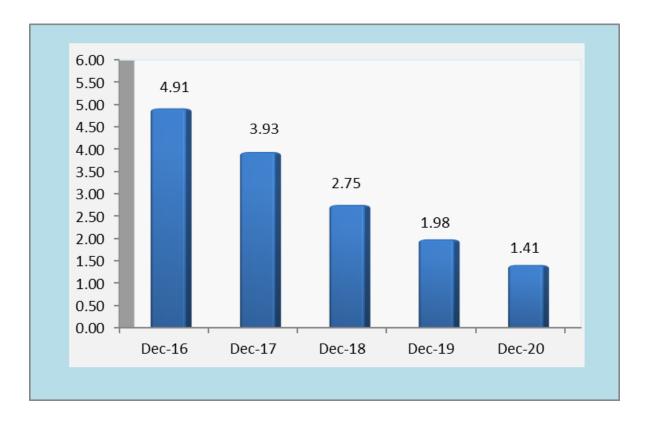


Chart 1.10: Trend of Number of PCOs in India (in lakh)

#### Village Public Telephones (VPTs)

- 36. There are 5,93,731 inhabited villages in India as per census 2001. At the end of Dec-20, 11.56% of the total inhabited villages in India have been connected by VPTs.
- 37. Number of VPTs declined from 68,784 at the end of Dec-19 to 68,606 at the end of Dec-20 with yearly decline rate of 0.26%. As per the informaion received in TRAI as on December, 2020 only M/s BSNL is providing VPT service in India. Service area wise detailed table of VPT is available at Annexure -1.4.

38. The following chart depicts the trend of number of VPTs in India during last five years.

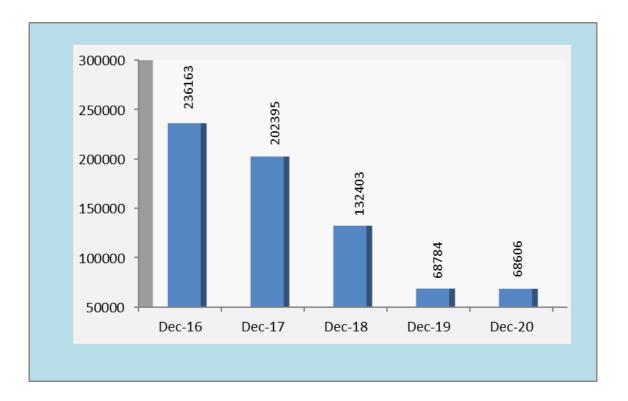


Chart 1.11: Trend of Number of VPTs in India

#### Section D : Internet Service

39. This section summarizes information submitted by 396 operators for the year ending 2020. Part-I consists of information of Internet services (both narrowband and broadband), Part-II consists of broadband services and Part-III covers narrowband services.

#### Part-I : Internet<sup>†</sup> Service (broadband<sup>‡</sup> + narrowband<sup>§</sup>)

- 40. As per reports received from operators, total number of internet subscribers increased from 718.74 million at the end of Dec-19 to 795.18 million at the end of Dec-20 with yearly growth rate of 10.64%. Out of total 795.18 million internet subscribers, number of broadband subscribers is 747.41 million and number of narrowband subscribers is 47.77 million at the end of Dec-20.
- 41. Wireless Internet subscribers increased from 696.36 million at the end of Dec-19 to 769.64 million at the end of Dec-20 with yearly growth rate of 10.52%. Wired Internet subscribers increased from 22.39 million at the end of Dec-19 to 25.54 million at the end of Dec-20 with yearly growth rate of 14.07%.
- 42. Number of Broadband subscribers increased from 661.94 million at the end of Dec-19 to 747.41 million at the end of Dec-20 with yearly growth rate of 12.91%. However, the number of Narrowband subscribers declined from 56.81 million at the end of Dec-19 to 47.77 million at the end of Dec-20 with yearly declining rate of 15.91%.

<sup>&</sup>lt;sup>†</sup> Internet: Interconnected global networks that use the internet protocol.

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

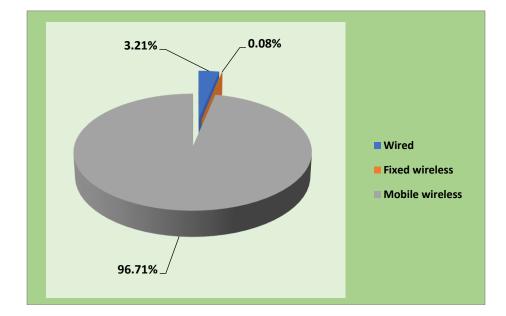
<sup>&</sup>lt;sup>§</sup> Narrowband: Internet access with a capacity of less than 512 Kbit/s in one or both directions.

			Mode of Access							
Segment	Wired Subscribers (in million)		Wireless Subscribers (in million)						Total	
			Fixed Wireless (Wi-Fi, Wi-Max, Radio & VSAT)		Mobile Wireless (Phone + Dongle)		Total Wireless		Subscribers (in million)	
	Dec-19	Dec-20	Dec-19	Dec-20	Dec-19	Dec-20	Dec-19	Dec-20	Dec-19	Dec-20
Broadband	19.14	22.29	0.61	0.65	642.19	724.46	642.80	725.12	661.94	747.41
Narrowband	3.25	3.24	0.01	0.004	53.55	44.52	53.56	44.53	56.81	47.77
Total	22.39	25.54	0.62	0.66	695.74	768.99	696.36	769.64	718.74	795.18

Table 1.23 : Trend of Internet subscriber base

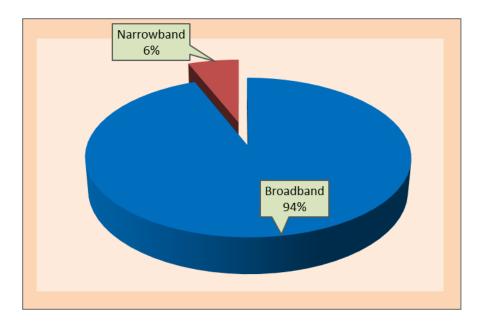
43. The following charts present the composition of Internet Subscribers by mode of access and composition of Broadband & Narrowband subscription.

#### Chart 1.12: Composition of Internet subscription as on 31<sup>st</sup> December, 2020



44. More than 96% of total internet subscribers use wireless mobile technology to access internet services.

45. Out of total internet subscription, the share of broadband subscription is 93.99% and the share of narrowband subscription is only 6.01% as on 31<sup>st</sup> December, 2020. The following chart depicts the composition of market share of broadband and narrowband subscriptions.



### Chart 1.13 : Composition of Broadband & Narrowband subscription as on 31<sup>st</sup> December, 2020

- 46. Number of rural internet subscribers increased from 268.43 million at the end of Dec-19 to 308.17 million at the end of Dec-20 and the number of urban internet subscribers also increased from 450.31 million to 487.01 million during the same period.
- 47. Out of 747.41 million broadband subscribers, number of rural broadband subscribers is 284.64 million and number of urban broadband subscribers is 462.77 million.
- 48. Out of 47.77 million narrowband subscribers, number of rural narrowband subscribers is 23.53 million and number of urban narrowband subscribers is 24.24 million.

 49. The service area wise urban/rural break up of internet subscribers (narrowband and broadband) as on 31<sup>st</sup> December, 2020 is as per the following table: -

Telecom Service	Narro	wband	Broad	dband	Total In	Total Internet	
Area	Rural	Urban	Rural	Urban	Rural	Urban	
Andhra Pradesh	1.74	1.60	25.61	33.64	27.35	35.24	
Assam	0.57	0.30	8.54	6.01	9.12	6.31	
Bihar	2.91	1.09	30.10	18.91	33.01	20.00	
Delhi	0.11	2.86	0.60	39.64	0.71	42.50	
Gujarat	0.77	0.98	13.99	33.07	14.76	34.05	
Haryana	0.37	0.46	6.63	10.31	7.00	10.77	
Himachal Pradesh	0.17	0.14	4.01	2.24	4.18	2.39	
Jammu & Kashmir	0.32	0.20	3.18	4.35	3.50	4.54	
Karnataka	1.35	1.43	16.26	29.87	17.61	31.30	
Kerala	0.65	0.87	11.40	16.72	12.05	17.59	
Kolkata	0.12	1.19	1.32	15.96	1.44	17.15	
Madhya Pradesh	1.76	1.58	19.71	29.87	21.46	31.45	
Maharashtra	1.77	1.93	26.11	39.21	27.88	41.14	
Mumbai	0.08	1.98	1.82	27.55	1.90	29.54	
North East	0.24	0.19	4.25	4.05	4.49	4.24	
Orissa	0.84	0.28	12.43	7.10	13.27	7.38	
Punjab	0.46	0.71	8.34	18.09	8.80	18.80	
Rajasthan	1.42	1.22	19.27	21.93	20.70	23.15	
Tamil Nadu	1.60	1.79	13.00	38.06	14.61	39.85	
Uttar Pradesh(East)	3.32	1.42	28.00	25.84	31.33	27.27	
Uttar Pradesh(West)	1.20	1.17	14.14	23.60	15.33	24.76	
West Bengal	1.76	0.84	15.93	16.76	17.69	17.61	
Total	23.53	24.24	284.64	462.77	308.17	487.01	

Table 1.24: Break up of Rural-Urban internet subscriber base (in million)

 50. The following table depicts the number of internet subscribers of top ten service providers and their market share as on 31<sup>st</sup> December, 2020: -

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

Table 1.25: Internet Subscriber Base and Market Share of top 10Service Providers – Dec-20

- 51. M/s Reliance Jio Infocomm Ltd holds the top position with 51.67% market share of total internet subscribers followed by Bharti Airtel Ltd. with 25.28%. Top 10 Service Providers together hold 99.36% share of total internet subscriber base at the end of Dec-20.
- 52. Detailed table of number of subscriber base (Broadband & Narrowband subscribers) of all the service providers is available at Annexure-1.5.

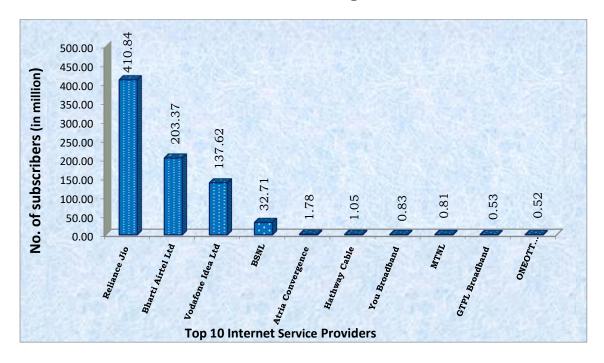
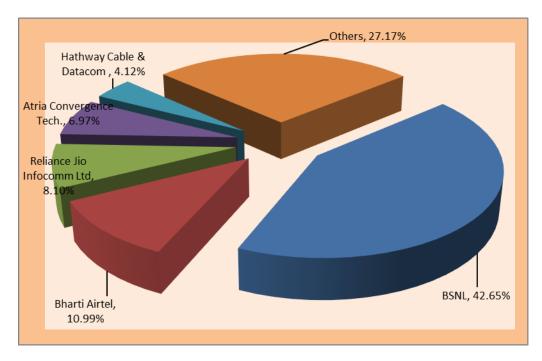


Chart 1.14 : Subscriber base of top ten Service Providers

53. Out of total 25.54 million wired internet subscribers, BSNL holds 42.65% market share with 10.89 million subscribers, followed by Bharti with 2.81 million subscribers at the end of Dec-20.

Chart 1.15 : Composition of Wired Internet subscribers as on 31<sup>st</sup> December, 2020



54. In wireless internet segment, Reliance Jio holds 53.11% market share with 408.77 million subscribers followed by Bharti Airtel Ltd. with 200.56 million wireless internet subscribers at the Dec-20.

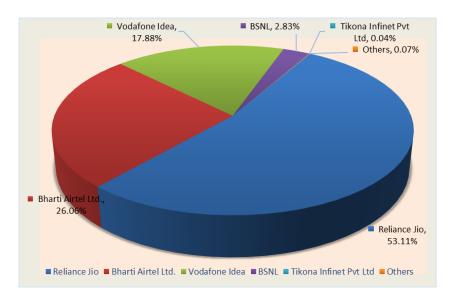


Chart 1.16 : Composition of Wireless Internet subscription

55. The following chart depicts the technology-wise distribution of wireless internet subscriptions.

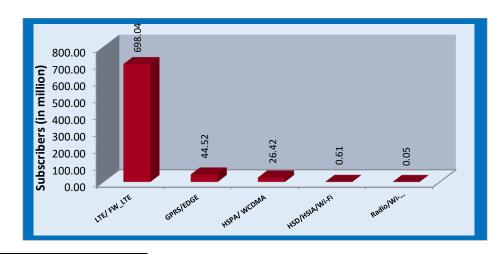


Chart 1.17 : Technology\*\* trend for Wireless Internet Access- Dec-20

<sup>\*\*</sup> Long Term Evolution (LTE), Fixed Wireless Long Term Evolution (FW\_LTE), General packet Radio Service (GPRS), Enhanced Data for GSM (Global system for mobile communications) Evolution (EDGE), High Speed Packet Access (HSPA), Wideband Code Division Multiple Access (WCDMA), High Speed Data (HSD), High Speed Internet Access (HSIA), Wireless Fidelity (Wi-Fi), Worldwide Interoperability for Microwave Access (Wi-Max), Very Small Aperture Terminal (VSAT)

56. The following chart depicts the technology-wise distribution of wired internet subscriptions.

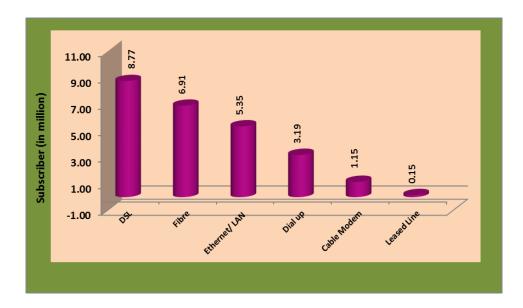


Chart 1.18 : Technology<sup>††</sup> trend for Wired Internet Access – Dec-20

57. Number of internet subscribers per 100 populations (internet teledensity) increased from 54.29 as on 31<sup>st</sup> December, 2019 to 58.51 as on 31<sup>st</sup> December, 2020. Rural internet tele-density increased from 29.83 to 34.60 and urban internet tele-density decreased from 106.22 to 103.98 from Dec-19 to Dec-20.

Year	Internet Sı	ubscribers	s (million)	Internet tele-density (%)			
ending	Rural	Rural Urban Total		Rural	Urban	Overall	
2016	115.06	276.44	391.50	13.08	68.86	30.56	
2017	132.03	313.92	445.96	14.89	76.76	34.42	
2018	213.30	390.91	604.21	23.87	93.86	46.13	
2019	268.43	450.31	718.74	29.83	106.22	54.29	
2020	308.17	487.01	795.18	34.60	103.98	58.51	

Table 1.26 : Subscriber Base & Tele-density - Rural & Urban

<sup>††</sup> DSL – Digital Subscriber Line, LAN – Local Area Network

100 population at the end of Dec-20										
Service Area	Internet Subscribers (in million)			Internet subscribers per 100 population						
	Rural	Urban	Total	Rural	Urban	Total				
Andhra Pradesh	27.35	35.24	62.59	50.26	97.90	69.22				
Assam	9.12	6.31	15.43	30.77	117.93	44.11				
Bihar	33.01	20.00	53.01	24.20	80.75	32.89				
Delhi	0.71	42.50	43.20	-	-	210.65				
Gujarat	14.76	34.05	48.81	40.25	100.07	69.04				
Haryana	7.00	10.77	17.77	40.22	89.71	60.42				
Himachal Pradesh	4.18	2.39	6.57	63.09	314.81	88.92				
Jammu & Kashmir	3.50	4.54	8.04	36.54	110.71	58.75				
Karnataka	17.61	31.30	48.91	46.58	108.10	73.26				
Kerala	12.05	17.59	29.64	115.71	70.05	83.43				
Madhya Pradesh	21.46	31.45	52.91	26.26	98.21	46.52				
Maharashtra	27.88	41.14	69.01		116.40	70.95				
Mumbai	1.90	29.54	31.44	45.75	116.42	79.85				
North East	4.49	4.24	8.73	43.68	82.17	56.53				
Orissa	13.27	7.38	20.65	36.99	90.78	46.92				
Punjab	8.80	18.80	27.59	49.23	137.86	87.59				
Rajasthan	20.70	23.15	43.85	35.50	111.24	55.42				
Tamil Nadu	14.61	39.85	54.45	39.94	96.39	69.89				
UP (East)	31.33	27.27	58.59		00 77	40.00				
UP (West)	15.33	24.76	40.09	25.47	88.77	40.82				
Kolkata	1.44	17.15	18.59	20.14	07 50	F4 07				
West Bengal	17.69	17.61	35.30	30.14	97.50	54.37				
Total	308.17	487.01	795.18	34.60	103.98	58.51				

Table 1.27: Service Area wise number of Internet Subscribers per100 population at the end of Dec-20

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

Notes:

- The projection of population. With effect from 1<sup>st</sup> January, 2020, the projection of population is based on the 'Report of the Technical Group on Population Projections for India and States 2011 – 2036', which is available under the link <u>https://main.mohfw.gov.in/sites/default/files/Population%20Projection%20Report%202011-2036%20-%20upload\_compressed 0.pdf</u>
   Prior to that population projection was based on census data, 2001-2026, published by the Office of Registrar General & Census Commissioner of India.
- No. of total internet subscribers per 100 population is derived from 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 <u>https://main.mohfw.gov.in/sites/default/files/ Population%20Projection%20Report %202011-2036%20-%20upload compressed 0.pdf</u>
- 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.

- 58. Top five service areas in terms of internet subscriptions (wired + wireless) as on 31<sup>st</sup> December, 2020 are Maharashtra (69.01 million), Andhra Pradesh (62.59 million), U.P.(East) (58.59 million), Tamil Nadu including Chennai (54.45 million) and Bihar (53.01 million).
- 59. Top five service areas in terms of internet subscribers per 100 population (internet tele-density) are Delhi (210.65), Himachal Pradesh (88.92), Punjab (87.59), Kerala (83.43) and Maharashtra (79.85). Bihar service area has the lowest number of internet subscribers (32.89) per 100 population.
- 60. Kerala service area has the highest Rural internet tele-density (115.71) among all service areas. The average rural internet teledensity in India is 34.60 as on 31<sup>st</sup> December, 2020.
- 61. Share of private internet service providers in respect of subscriber base, increased from 95.62% at the end of 2019 to 95.74% at the end of 2020. The following charts present the composition of market share of PSUs and Private Internet service providers as on Dec-20.

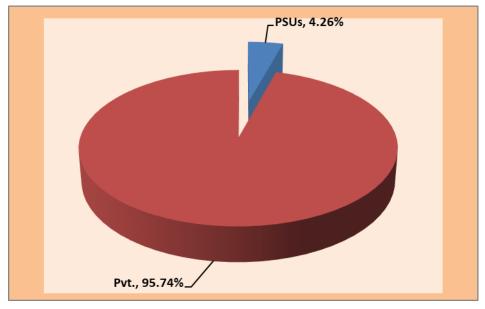


Chart 1.2 : Market share of PSUs and Private Internet Service Providers

### **ISP Connectivity**

62. The International Internet bandwidth owned by various service providers is reported to be 20,811 Gbps at the year ending Dec-20 as compared to 15,526 Gbps at the year ending Dec-19.

### Internet Telephony#

63. As per the reports received from 15 service providers, providing Internet Telephony services, the total outgoing minutes of usage (MoU) for internet telephony is 665.21 million during the year 2020 as compare to 774.09 million during the year 2019. List of Internet Telephony Service providers is available at **Annexure-1.7**.

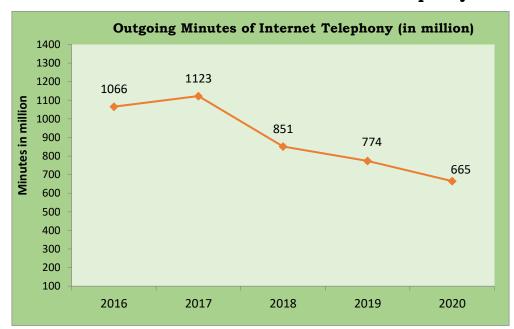


Chart 1.20 : Trends in MOU for Internet Telephony

<sup>&</sup>lt;sup>‡‡</sup> Internet Telephony : Internet telephony is used as a generic term for the conveyance of voice, fax and related services, partially or wholly over packet-based, IP-based networks.

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

- 64. The total number of broadband subscribers increased from 661.94 million at the end of Dec-19 to 747.41 million at the end of Dec-20 with yearly growth rate of 12.91%. Out of total number of broadband subscribers, number of wired broadband subscribers are 22.29 million and number of wireless broadband subscribers are 725.12 million at the end of Dec-20.
- 65. Top five broadband (wired+wireless) service providers in term of subscribers as on 31<sup>st</sup> December, 2020 are Reliance Jio (410.84 million), Bharti Airtel (179 million), Vodafone Idea Ltd (120.77 million), BSNL (26.32 million) and Atria Convergence Technologies Pvt. Ltd. (1.78 million).
- 66. In wired broadband segment, BSNL holds 34.53% market share with 7.70 million subscribers followed by Bharti with 2.81 million subscribers at the end of Dec-20.
- 67. In wireless broadband segment, Reliance Jio holds 56.37% market share with 408.77 million subscribers followed by Bharti Airtel Ltd. (24.30%) with 176.19 million subscribers at the end of Dec-20.
- 68. Top five service areas in respect of broadband subscriptions at Q.E. Dec-20 are Maharashtra (65.32 million), Andhra Pradesh including Telengana (59.26 million), U.P.-East (53.85 million), Tamil Nadu (51.06 million) and Madhya Pradesh (49.58 million).
- 69. The following chart depicts the composition of technology wise broadband subscriptions as on 31<sup>st</sup> December, 2020.

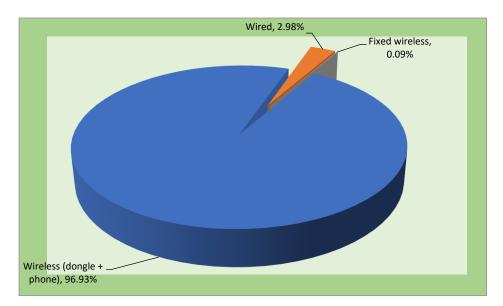


Chart 1.21 : Composition of Broadband subscription – Technology wise

70. Mobile Device (dongle+phone) is the most popular mode of broadband access and it constitutes 96.93% of total broadband subscribers at the end of Dec-20. On the other hand, share of wired internet subscribers is only 2.98% during the same period.

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

- 71. Total number of narrowband subscribers declined from 56.81 million at the end of Dec-19 to 47.77 million at the end of Dec-20 with the yearly decline rate of 15.91%. Out of 47.77 million narrowband subscribers, number of Wired Narrowband subscribers are 3.24 million and number of Wireless Narrowband subscribers are 44.53 million at the end of Dec-20.
- 72. The top five narrowband (wired + wireless) service providers in term of subscriber base are Bharti Airtel (24.37 million), Vodafone Idea Ltd (16.85 million), BSNL (6.39 million), MTNL (0.11 million) and You Broadband India Pvt. Ltd. (0.02 million) at the end of Dec-20.

- 73. In wired narrowband segment, BSNL holds 98.50% market share with3.20 million subscribers followed by You Broadband India Pvt. Ltd.with 0.02 million subscribers at the end of Dec-20.
- 74. In wireless narrowband segment, Bharti Airtel holds 54.74% market share with 24.37 million subscribers followed by Vodafone Idea Limited with 16.85 million subscribers at the end of Dec-20.
- 75. The following chart depicts the composition of technology wise narrowband subscription as on 31<sup>st</sup> December, 2020.

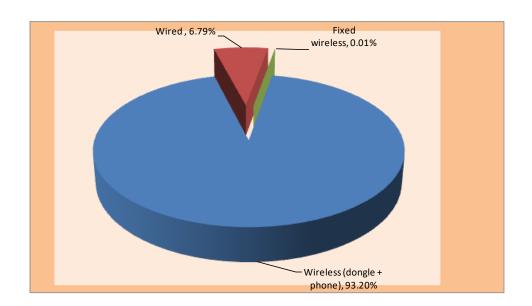


Chart 1.22 : Composition of Narrowband subscription – Technology wise

### Section E : Other Value Added Services - PMRTS & VSAT

### Public Mobile Radio Trunk Services (PMRTS)

76. The subscriber base of Public Mobile Radio Trunk Service (PMRTS) increased from 59,089 at the end of Dec-19 to 63,205 at the end of Dec-20 with yearly growth rate of 6.97%.

S1. No.	Name of the Service Provider	Subscriber Base as on 31.12.2019	Subscriber Base as on 31.12.2020	Net Addition in Subscribers	% Market share as on 31.12.2020
1	Arya Omnitalk Radio Trunking Services Pvt. Ltd.	49,043	52,516	3,473	83.09
2	Procall Ltd.	3,270	3,369	99	5.33
3	Inative Networks Pvt Ltd	1,820	1,820	0	2.88
4	Quick Call	2,144	2,029	-115	3.21
5	Smartalk Pvt Ltd	1,074	1,486	412	2.35
6	Bhilwara Telenet Services Pvt Ltd	870	864	-6	1.37
7	Wiwanet Solutions Pvt Ltd	409	690	281	1.09
8	Airtalk Solutions & Services Pvt Ltd	459	431	-28	0.68
	Total	59,089	63,205	4,116	100

#### Table 1.28 : PMRTS Subscriber base - Service Provider wise

 M/s Arya Omnitalk Radio Trunking Services Pvt. Ltd. is the market leader in PMRTS with 83% share of total subscription as on 31<sup>st</sup> Dec-20. Detailed table on Service Area wise subscriber base of PMRTS is available at Annexure-1.6. 78. The following chart depicts the trend of number of PMRTS subscribers during last five years.

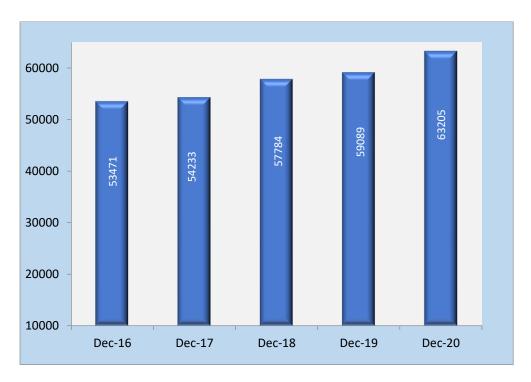


Chart 1.23 : Trend of number of PMRTS subscribers

### Very Small Aperture Terminal (VSAT)

- 79. The total number of Very Small Aperture Terminal (VSAT) subscribers decreased from 2,98,464 at the end of Dec-19 to 2,96,079 at the end of Dec-20. Net loss in VSAT subscribers during the year 2020 has been 2,385 at the yearly decline rate of 0.80%.
- 80. Hughes Communication Limited continues to be the market leader with subscriber base of 1,25,371 followed by Bharti Airtel Ltd with subscriber base of 75,978 at the end of Dec-20.

Sr.	Name of Service Providers	Subscriber Quarter		Addition	Market Share (%)
No		Dec-19	Dec-20	during the year 2020	Dec-20
1	Hughes Communications Ltd.	1,19,292	1,25,371	6,079	42.34
2	Bharti Airtel Limited	80,857	75,978	-4,879	25.66
3	Tatanet Services	66,367	75,743	9,376	25.58
4	HCL Comnet	16,442	8,036	-8,406	2.71
5	BSNL	12,869	8,322	-4,547	2.81
6	Infotel Satcom	2,587	2,579	-8	0.87
7	Cloudcast Digital (eartwhile Planetcast Media Services)	50	50	0	0.02
	Total	2,98,464	2,96,079	-2,385	100

Table 1.29 : VSAT Service Providers currently providing service &their subscriber base

 M/s Tatanet Services has recorded maximum net addition of 9,376 subscribers followed by M/s Hughes Communications Ltd. (6,079 subscribers) during the year 2020.

Chart 1.24 : Trend of Number of VSAT Subscribers



# Chapter 2: Revenue and Usage Wireless Services

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<sup>•</sup> 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.

<sup>•</sup> ARPU arrived after adjusting interconnect usage charges and roaming settlement charges.

<sup>•</sup> The data contained in the section A & B covers the licensees, who have been providing service during the entire period from 1<sup>st</sup> January, 2020 to 31<sup>st</sup> December, 2020 in the various service areas.

 The following table presents a Key Indicators of Wireless Revenue and Usage for the year 2020, with compared to the previous year 2019 and yearly growth.

Parameter	Year 2019	Year 2020	Yearly Changes (%)
Share of prepaid subscribers	95.46%	95.21%	-0.26
Incoming MOUs per subscriber per month	349	380	8.97
Outgoing MOUs per subscriber per month	352	379	7.67
Total MOUs per subscriber per month	701	759	8.32
No. of outgoing SMS per subscriber per month	17	16	-7.24
Average Revenue per user (ARPU) per month (Rs.)	74.88	94.87	26.71

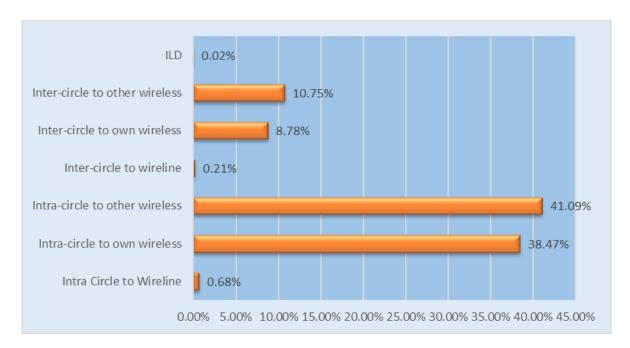
Table 2.1 : Key Indicators – Wireless Service

 Share of prepaid wireless subscriber over total wireless subscribers decreased from 95.46% at the end of 2019 to 95.21% at the end of 2020. The following chart depicts Category-wise share (%) of wireless prepaid subscribers at the end of the year 2019 and 2020.

Chart 2.1: % Share of Prepaid Subscribers over total wireless subscribers



 The following chart depicts % break-up of outgoing minutes from Home Service Area to inter-circles and intra-circles for wireless service: -



### Chart 2.2: % break-up of outgoing minutes from Home Service Area (HSA) during the year 2020

### A. <u>Revenue</u>

4. Average Revenue per User (ARPU) per month =

## $\frac{1}{3} X \frac{\text{Qtly Revenue adjusted for interconnect usage charges and roaming settlement charges}}{\text{Average subscribers during the quarter}}$

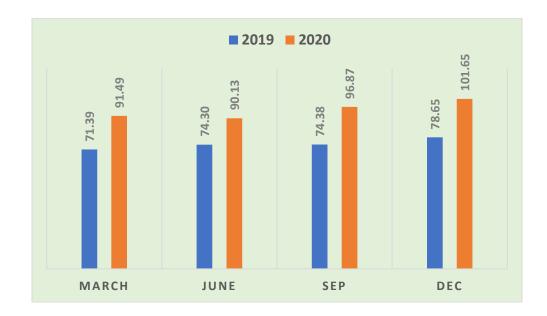
- 5. Average Revenue Per User (ARPU) per month for wireless service increased from Rs.74.88 during the year 2019 to Rs.94.87 during the year 2020, thereby showing a yearly growth rate of 26.71%.
- 6. The following table presents the ARPU per month for various categories of circles and various platforms for payment viz. post-paid and pre-paid.

Category	Post	Postpaid		paid	Blended	
Category	2019	2020	2019	2020	2019	2020
Circle A	298.23	264.11	76.40	99.82	86.75	107.87
Circle B	271.25	237.07	64.02	86.06	67.91	89.11
Circle C	176.68	182.20	64.58	86.35	68.20	90.37
Metro	237.94	199.80	43.31	58.31	72.44	80.55
All India	259.02	226.83	66.48	88.37	74.88	94.87

Table 2.2 : Average Revenue Per User (ARPU) per month (Rs.)

- Average Revenue Per User (ARPU) per month for postpaid service declined from Rs.259.02 during the year 2019 to Rs.226.83 during the year 2020. ARPU per month for prepaid service increased from Rs.66.48 during the year 2019 to Rs.88.37 during the year 2020.
- 8. The following chart presents the Quarterly trend for ARPU per month during the year 2019 and 2020.

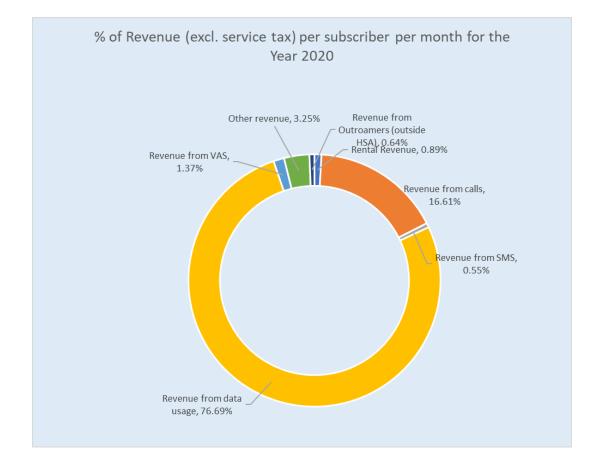
### Chart 2.3: Quarterly Trend of ARPU (Rs.) per month of Wireless Service



SI. No.	Item	Revenue (excl. service tax) per subscriber per month for the Year 2019	Revenue (excl. service tax) per subscriber per month for the Year 2020
1	Rental Revenue	31.07	0.95
2	Revenue from calls	8.12	17.72
3	Revenue from SMS	0.85	0.59
4	Revenue from data usage	42.37	81.81
5	Revenue from VAS	2.22	1.46
6	Other revenue	2.12	3.47
7	Revenue from Outroamers (outside HSA)	1.48	0.68
8	Total revenue from subscribers (1+2+3+4+5+6+7)	88.23	106.68
9	Net inter-operable settlement charges receivable	-13.35	-11.80
10	Net Revenue (ARPU) (8+9)	74.88	94.87

Table 2.3 : Composition of Average Revenue Per User (ARPU)per month (Rs.)

- 9. As can be seen in the above table, composition of ARPU increased in revenue from calls, revenue from data usage and other revenue in the year 2020 as compared to the year 2019.
- 10. Per month ARPU for wireless data usage increased from Rs.42.37 during the year 2019 to Rs.81.81 during the year 2020 and per month ARPU for voice call also increased Rs.8.12 to Rs.17.72 during the same period.
- 11. The following chart presents the comparison of share of Revenue as a percentage of total Revenue during the year 2020.



## Chart 2.4: Composition of Revenue of wireless Service during the year 2020

 It may be seen in the above chart that revenue from data usage comprises about 76.69% of total revenue from wireless services during the year 2020.

### B. <u>Usage Pattern</u>

- 15. Average Minutes of Usage (MOUs) per subscriber per month increased from 701 during the year 2019 to 759 during the year 2020 with yearly growth rate of 8.32%.
- 16. The following table presents the Minutes of Usage per subscriber per month for various categories of circles and various platforms for payment viz. post-paid and pre-paid.

Segment	MOUs	Year	Circle A	Circle B	Circle C	Metros	All India
	Outgoing	2019	344.10	368.20	422.67	284.43	336.34
	MOU	2020	348.80	338.54	387.94	287.67	332.02
Destacid	Incoming	2019	316.73	352.31	356.63	240.21	300.80
Postpaid	MOU	2020	309.96	314.14	394.20	231.07	295.93
	Tetal MOII	2019	660.83	720.50	779.30	524.65	637.14
	Total MOU	2020	658.75	652.67	782.14	518.75	627.95
	Outgoing	2019	315.10	347.60	409.42	419.34	352.38
	MOU	2020	346.59	372.57	443.02	445.51	380.95
Dropoid	Incoming MOU	2019	297.74	360.17	452.31	340.17	351.09
Prepaid		2020	337.44	384.20	476.17	406.69	384.36
	<b>M</b> 4 1 MOU	2019	612.84	707.77	861.74	759.52	703.47
	Total MOU	2020	684.03	756.77	919.19	852.19	765.31
	Outgoing	2019	316.45	347.99	409.85	399.15	351.68
	MOU	2020	346.70	371.88	440.71	420.70	378.65
Blended	Incoming	2019	298.62	360.03	449.23	325.21	348.89
Bielided	MOU	2020	336.10	382.79	472.74	379.08	380.21
	Total MOU	2019	615.08	708.01	859.08	724.36	700.58
Total MC	Total MOU	2020	682.79	754.67	913.46	799.78	758.86

Table 2.4: - Category-wise Minutes of Usages (MOUs) per subscriber per month

- 17. Minutes of Usage (MOUs) per subscriber per month for postpaid services declined from 637 during the year 2019 to 628 during the year 2020 however, MoUs for prepaid services increased from 703 to 765 during the same period.
- 18. Outgoing MoUs per subscriber per month increased from 352 during the year 2019 to 379 during the year 2020 and Incoming MoUs per subscriber per month also increased from 349 to 380 during the same period.

Cotorrar	Post	paid	Prej	paid	Blended	
Category	2019	2020	2019	2020	2019	2020
Circle A	45	43	19	16	20	18
Circle B	36	42	14	13	14	14
Circle C	21	23	19	18	19	18
Metros	31	27	14	12	17	15
All India	36	35	16	15	17	16

Table 2.5: Category-wise average number of outgoing SMS persubscriber per month

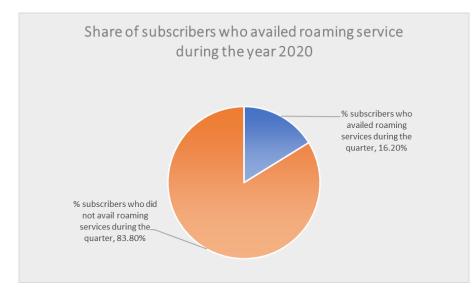
- Average number of outgoing SMS per subscriber per month decreased from 17 during the year 2019 to 16 during the year 2020.
- 20. The following table presents the percentage break-up of outgoing minutes of usage from home service area to various categories of termination networks.

## Table 2.6: Category-wise % break-up of outgoing minutes from HomeService Areas (HSA) for wireless service during the year 2020

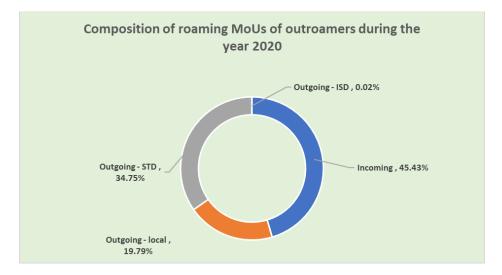
Category	Intra Circle to Wireline	Intra- circle to own wireless	Intra- circle to other wireless	Inter- circle to wireline	Inter- circle to own wireless	Inter- circle to other wireless	ILD
Circle A	0.93%	39.57%	45.59%	0.24%	6.12%	7.52%	0.03%
Circle B	0.53%	38.51%	41.73%	0.16%	8.37%	10.68%	0.02%
Circle C	0.31%	42.40%	35.71%	0.18%	10.38%	11.02%	0.01%
Metros	1.11%	27.86%	33.66%	0.33%	16.08%	20.90%	0.06%
All India	0.68%	38.47%	41.09%	0.21%	8.78%	10.75%	0.02%

21. Out of total number of wireless subscribers, about 16.20% wireless subscribers availed roaming service during the year 2020. The chart given below presents the share of wireless subscribers who availed roaming service during the year 2020.

### Chart 2.5: Share of subscribers who availed roaming service during the year 2020



22. The chart given below presents the composition of roaming MoUs of outroamers (who had availed roaming services) during the year 2020.



### Chart 2.6: Composition of roaming MoUs of outroamers during the year 2020

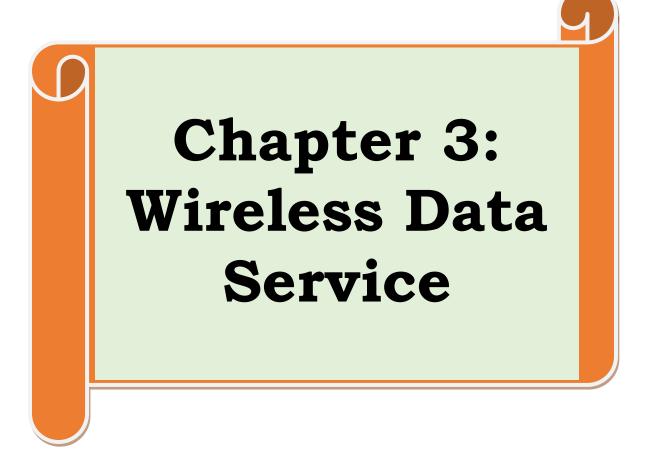
### C. <u>Average revenue per outgoing minute for usage from Home</u> <u>Service Area (HSA)</u>

- 23. 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 for usage from Home Service Area (HSA) as defined below would be a realistic indicator of average tariff levels.
- 24. Average Revenue per Outgoing Minute for usage from HSA =  $\frac{\text{Rental revenue + revenue from outgoing calls from HSA}}{\text{No.of outgoing minutes from HSA}}$
- 25. The table below provides the Average Revenue per Outgoing Minute for usage from HSA during the year 2020.

## Table 2.7: Average Revenue per Outgoing Minute for usage from HSA(in Rs. per minute) during the year 2020

Category	Postpaid		Prepaid		Blended	
	2019	2020	2019	2020	2019	2020
Circle A	0.56	0.14	0.12	0.05	0.14	0.06
Circle B	0.45	0.14	0.11	0.05	0.11	0.05
Circle C	0.23	0.10	0.10	0.05	0.10	0.05
Metros	0.56	0.13	0.10	0.04	0.15	0.05
All India	0.49	0.13	0.11	0.05	0.12	0.05

26. Average subscriber revenue per outgoing minute for wireless service from home service area declined from Rs.0.12 during the year 2019 to Rs.0.05 during the year 2020.



- As per information received from the wireless access service providers, number of wireless data subscribers has increased from 695.76 million at the year ending 2019 to 769 million at the year ending 2020 with yearly growth rate of 10.53%. The number of wireless data subscribers was 227.91 million at the year ending 2013.
- 2. Total number of wireless telephone subscribers was 1153.77 million at the year ending 2020. Out of total number of wireless telephone subscribers, the number of wireless data subscriber was 769 million at the year ending 2020. Thereby, share of wireless data subscribers was 66.65% of total wireless telephone subscribers at the year ending 2020.

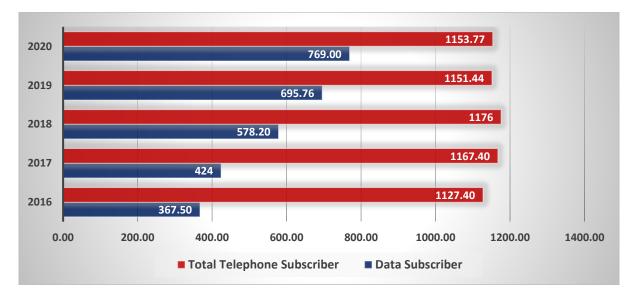


Chart 3.1: Trend of total wireless telephone subscribers and total wireless data subscribers (in Million)

- Total volume of wireless data usage increased from 76,319 million GB during the year 2019 to 103,522 million GB during the year 2020 with yearly growth of 35.64%.
- Total volume of Wireless data usage comprises of data usage by 2G,
   3G, 4G and CDMA data subscribers. Technology-wise distribution of volume of wireless data usage is mentioned in the following table.

Year Ending	2G Data Usage	3G Data Usage	4G Data Usage	CDMA Data Usage	Total Volume of Data Usage
2016	477	1,221	2,775	169	4,642
2017	423	3,187	16,426	56	20,092
2018	443	5,654	40,304	3	46,404
2019	488	4,705	71,125	-	76,319
2020	669	3,055	99,798	-	1,03,522

Table 3.1 : Wireless data usage (in million GB per year)

- 5. 4G technology (LTE Long Term Technology) was introduced in India during the year 2016. During a short period of time, 4G data technology became the market leader in wireless data usage with total volume of 99,798 million GB during the year 2020.
- 6. Out of total volume of wireless data usage of 103,522 million GB in the year 2020, 4G (LTE) technology has major part of 96.40% with volume of 99,798 million GB. Shares of 2G and 3G data usage are 0.65% and 2.95% respectively in total volume of wireless data usage in the year 2020.
- Share of technology-wise data usage during the year 2020 is depicted in the following chart.

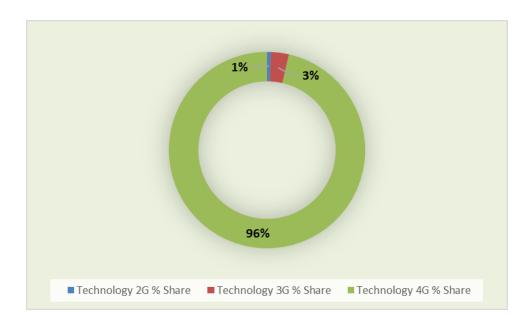
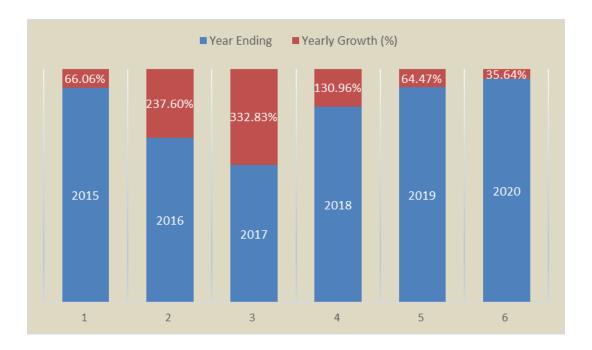


Chart 3.2 : Share of 2G, 3G, and 4G data usage during 2020

8. The following chart depicts the trend of yearly growth of volume of wireless data usage during last five years.

Chart 3.3: Trend of yearly growth in volume of wireless data usage (%)



- 9. Total volume of wireless data usage increased by 35.64% in the year 2020 over previous year, as compared to the yearly growth rate of 64.47% in the year 2019. However, the growth rate in volume of wireless data usage were recorded 332.83% and 130.96% in the years 2017 and 2018 over previous year.
- 10. Total revenue from wireless data usage increased from Rs. 59,334 crore in the year 2019 to Rs. 113,156 crore in the year 2020 with yearly growth rate of 90.71%. The total revenue from wireless data usages was Rs. 22,265 crore in the year 2014.

Year	Total Wireless Data Revenue	YoY Growth
2014	22,265	-
2015	31,120	39.77%
2016	35,079	12.72%
2017	38,882	10.84%
2018	54,671	40.61%
2019	59,334	8.53%
2020	113,156	90.71%

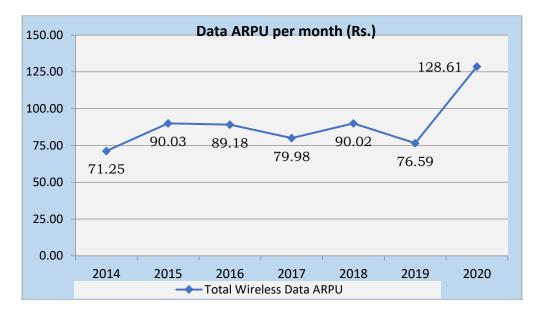
Chart 3.4 : Trend of Wireless Data Revenue (in crore Rs.) per year

- Average Revenue for wireless data usage (Data ARPU) per data subscriber per month increased from Rs. 76.59 in the year 2019 to Rs. 128.61 in the year 2020.
- 12. Average revenue for data services has been derived on dividing of total yearly revenue of wireless data services by the average number of wireless data subscribers during the year. The following table and chart show the trend of Average Revenue Per Data User (data ARPU) per month for wireless data usage during the year 2014 to 2020.

Year	Total Wireless Data ARPU
2014	71.25
2015	90.03
2016	89.18
2017	79.98
2018	90.02
2019	76.59
2020	128.61

Table 3.2 : Average Revenue for wirelessdata usage perdata subscriber per month (in Rs.)

Chart 3.5: Trend of Average Wireless Data Revenue per data subscriber per month (Data ARPU in Rs.)



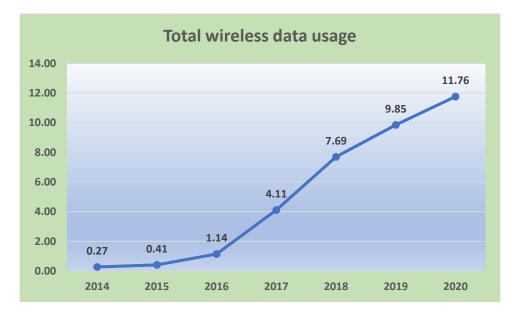
 The following table and chart show the trend of Average Wireless Data Usage (in GB) per data subscriber per month during the year 2014 to 2020.

Year Ending	2G Data Usage	3G Data Usage	4G Data Usage	CDMA Data Usage	GSM Data Usage	Total Wireless Data Usage
2014	0.14	0.62		1.72	0.23	0.27
2015	0.20	0.75		2.53	0.35	0.41
2016	0.23	0.79	12.42	2.31	1.16	1.14
2017	0.30	2.29	7.95	3.67	4.13	4.11
2018	0.54	5.26	9.73	2.15	7.69	7.60
2019	0.64	7.05	11.26	0.00	9.85	9.85
2020	1.16	8.26	12.71	0.00	11.77	11.76

Table 3.3 : Average Wireless Data Usage (in GB) per data user per month

14. Average wireless data usage per wireless data subscriber per month increased from 9.85 GB during the year 2019 to 11.76 GB during the year 2020. The average wireless data usage per wireless data subscribers per month was 0.27 GB per month in the year 2014.

### Chart 3.6 : Trend of Average Wireless Data Usage (in GB) per active data user per month

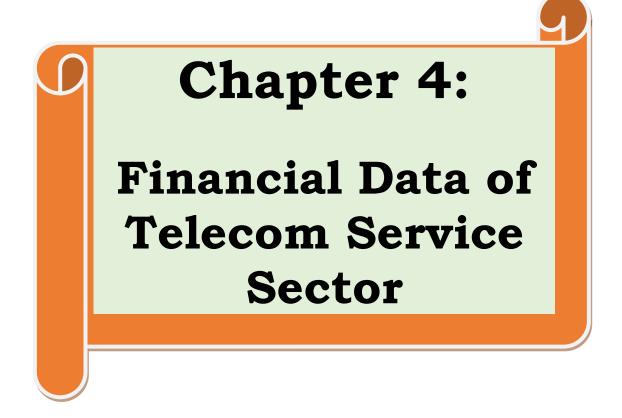


15. The following table depicts the average revenue realization per subscriber for per GB wireless data usage.

Year	Total wireless data revenue realization per GB
2014	268.97
2015	226.30
2016	75.57
2017	19.35
2018	11.78
2019	7.77
2020	10.93

Table 3.4 : Average revenue realization per subscriber for Per GB wireless data (in Rs.)

- 16. Average wireless data revenue realization per subscriber has been calculated in respect of total wireless data revenue and volume of total wireless data usage reported by the access service providers.
- 17. The average revenue realization per subscriber per GB for wireless data in the year 2014 was Rs.269 per GB and in the year 2015, it was Rs.226 per GB. On introduction of 4G (LTE) technology in India, the same was sharply declined to Rs.75.57 per GB during the year 2016. However, average revenue realization per subscriber per GB for wireless data usage has been increased from Rs.7.77 per GB in the year 2019 to Rs.10.93 per GB in the year 2020.



(Rupees in C				
Particulars <sup>§§</sup>	Calendar Year, 2019	Calendar Year, 2020	Yearly Growth (%)	
Gross Revenue (GR)	2,43,705	2,74,208	12.52	
Adjusted Gross Revenue (AGR)	1,53,272	1,82,398	19	
License Fee	12,279	14,596	18.87	
Spectrum Usage Charges	4,546	5,781	27.18	
Pass Through Charges (GR-AGR)	90,433	91,810	1.52	

Table 4.1: Gross Revenue (GR), Adjusted Gross Revenue (AGR), LicenseFee (LF) & Spectrum Charges

- 1 Gross Revenue (GR) increased from Rs.2,43,705 crore in the year 2019 to Rs.2,74,208 crore in the year 2020 with yearly growth rate of 12.52%. Adjusted Gross Revenue (AGR) also increased from Rs.1,53,272 crore in the year 2019 to Rs.1,82,398 crore in the year 2020 with yearly growth rate of 19%.
- 2 Pass through charges increased by 1.52% from Rs.90,433 crore in the year 2019 to Rs.91,810 crore in the year 2020. Pass-through charges as a percentage of Gross Revenue are 33.48% in 2020 as against 37.11% in the previous year.

II. Roaming revenues actually passed on to other eligible/entitled telecommunication service providers; and

<sup>&</sup>lt;sup>§§</sup> 1. Gross Revenue is inclusive of installation charges, late fees, sale proceeds of handsets (or any other terminal equipment etc.), revenue on account of interest, dividend, value added services, supplementary services, access or interconnection charges, roaming charges, revenue from permissible sharing of infrastructure and any other miscellaneous revenue, without any set-off for related item of expense etc.

<sup>2.</sup> Adjusted Gross Revenue: The following shall be excluded from the Gross Revenue to arrive at the AGR:

I. PSTN related call charges (Access Charges) actually paid to other eligible/entitled telecommunication service providers within India;

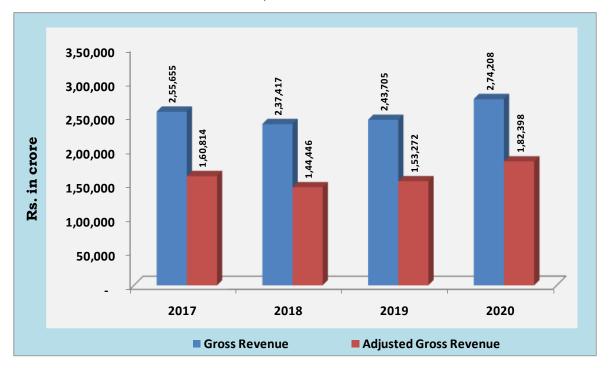
III. Service Tax on provision of service and Sales Tax actually paid to the Government if gross revenue had included as component of Sales Tax and Service Tax

<sup>3.</sup>License Fee means a fee payable by Licensee at prescribed intervals and rates for the period of the Licence. 4. Spectrum Usage Charge is payable by the licensees providing mobile access services, as a percentage of their Adjusted Gross Revenue (AGR).

<sup>4.</sup> Pass through charges means the charges excluded from gross revenue to arrive at adjusted gross revenue for the purpose of levying licence fee.

- Spectrum Usage Charges (SUC) yearly increased by 27.18% from Rs.4,546 crore in the year 2019 to Rs.5,781 crore in the year 2020.
   License Fee also yearly increased by 18.87% from Rs.12,279 crore to Rs.14,596 crore during the same period.
- 4. The following charts depicts the trend of GR and AGR of telecom sector during last four years.

### Chart 4.1: Comparison of Gross Revenue and Adjusted Gross Revenue (crore Rs.)



5. The following table depicts the service category wise comparison of GR, AGR, License Fee, SUC and Pass Through Charges for the year 2019 and 2020.

Table 4.2: Service-wise Gross Revenue, Adjusted Gross Revenue,License Fee and Spectrum Charges

(Rs. i	n Crore)
--------	----------

					1	
Service	Year	YEAT   ACCESS   NLU   ILU   '		Others (V-SAT, MNP, ISP)	Total	
Gross Revenue	2019	174881	41055	12389	15380	243705
Gloss Revenue	2020	203850	40190	13496	16672	274208
Adjusted Gross	2019	112990	32620	6078	1583	153272
Revenue	2020	143415	30679	6504	1801	182398
License Fee	2019	9064	2610	486	120	12279
License Fee	2020	11484	2456	520	136	14596
Spectrum	2019	4529	0	0	17	4546
Usage Charge	2020	5766	0	0	15	5781
Pass Through	2019	61891	8435	6311	13797	90433
Charge	2020	60435	9511	6993	14871	91810

# Table 4.3: Yearly Growth of Service-wise Gross Revenue, Adjusted GrossRevenue, License Fee and Spectrum Charges for the year 2020

Service***	Gross Revenue	Adjusted Gross Revenue	Gross Eee		Pass Through Charges
Access	16.56%	26.93%	26.70%	27.30%	-2.35%
NLD	-2.11%	-5.95%	-5.90%		12.76%
ILD	8.93%	6.99%	7.03%		10.80%
Others (V-SAT, MNP,ISP)	8.40%	13.76%	13.47%	-7.61%	7.79%
Overall	12.52%	19.00%	18.87%	27.18%	1.52%

<sup>\*\*\* 1.</sup> Access service means telecommunication service provided to subscribers by means of a telecommunication system for the conveyance of voice or non-voice messages through wired or wireless telegraphy on the network of the Access Service Provider.
2. National Long Distance (NLD) service refers to the carriage of switched-bearer telecommunication services over a long distance network.

5. ISP stands for Internet Service Providers

<sup>3.</sup> International Long Distance (ILD) Service is defined as a network carriage service, providing the NLD Operators in the country, International connectivity to Network facilities operated by foreign carriers in other countries

<sup>4.</sup> MNP (Mobile Number Portability) means a service which allows subscribers to retain their existing telephone number when they switch from one access service provider to another irrespective of mobile technology or from one technology to another of the same or any other access service provider

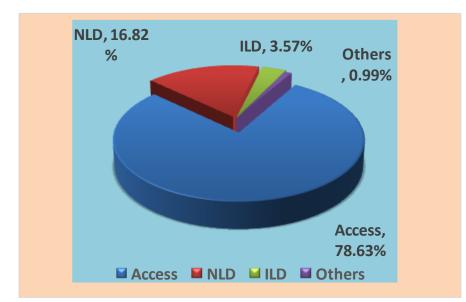


Chart 4.2: Service wise composition of Adjusted Gross Revenue for the year 2020

6 Access services contributed 78.63% of the total Adjusted Gross Revenue of telecom services. In Access services, Gross Revenue (GR), Adjusted Gross Revenue (AGR), License Fee and Spectrum Usage Charges (SUC) increased by 16.56%, 26.93%, 26.70% and 27.30% respectively in the year 2020 over the year 2019. However, Pass Through Charges declined by 2.35% during the same period.

Sl.No.	Access Service	Calendar Year	Calendar Year	Yearly	
	Provider	2019	2020	Growth (%)	
1	Reliance Jio	44,800	61,785	37.91	
2	Bharti	28,827	41,931	45.45	
3	Vodafone	26,625	26,756	0.49	
4	BSNL 8,392		8,735	4.09	
5	Tata	2,137	2,372	10.99	
6	MTNL	ITNL 1,738		-12.24	
7	Reliance	457	302	-33.90	
8	Quadrant	11	-1	-104.82	
9	V-Con Mobile & Infra Pvt. Ltd.	1	9	557.86	
Gran	d Total (Access)	112,991	1,43,415	26.93	

 Table 4.4: Access Service – Service Provider wise Adjusted Gross Revenue

 (Rs. in Crore)

#### Chart 4.3: Composition of Adjusted Gross Revenue (in crore Rs.) of Access Service Providers for the year 2020

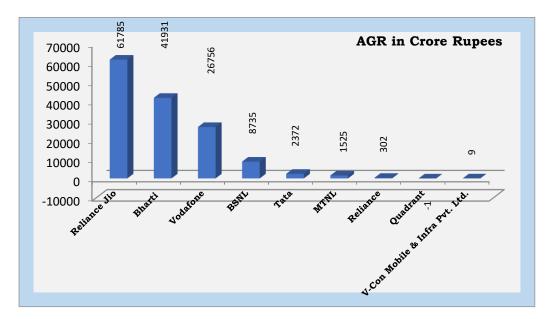
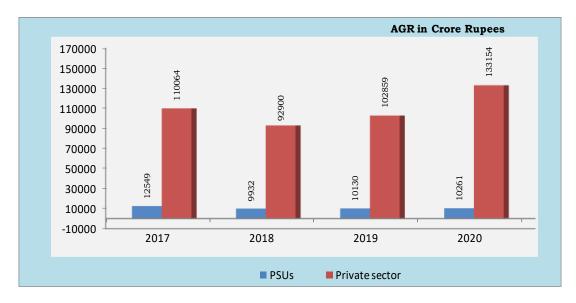


Chart 4.4: Composition of Public/Private sector of Adjusted Gross Revenue (Access Service) (in crore Rs.)



 Public Sector Undertakings' (PSUs) share in the Access AGR of telecom services is 7.15% for the year 2020 as compared to 8.97% in the previous year. Following table depicts the share of PSUs vs. Private Sector in total access AGR during last four years.

# Table 4.5: Access Service – Share of PSUs and Private Sector inAdjusted Gross Revenue

(Rs. in Crore)

Calendar Year	PSUs	Private sector	Total	Share of PSUs	
2017	12,549	1,10,064	1,22,613	10.23%	
2018	9,932	92,900	1,02,832	9.66%	
2019	10,130	1,02,859	1,12,989	8.97%	
2020	10,261	1,33,154	1,43,415	7.15%	

Table 4.6: Category-wise Adjusted Gross Revenue (AGR) ofAccess Service

(Rs. in Crore)

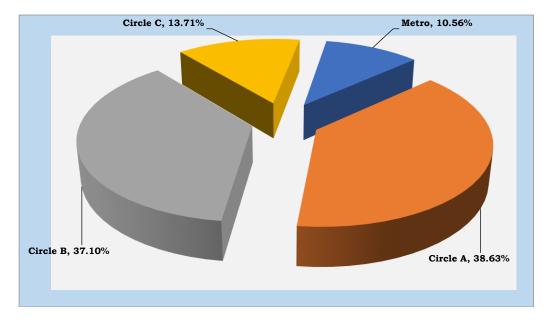
	(105.111								
Category <sup>†††</sup>	Adjusted Gro (Acc	Yearly							
	2019	2020	Growth (%)						
Metro	13,444	15,144	12.64						
Circle A	44,631	55,400	24.13						
Circle B	40,434	53,207	31.59						
Circle C	14,481	19,664	35.79						
Total	112,990	1,43,415	26.93						

<sup>†††</sup> **Category-A circles** – Andhra Pradesh, Gujarat, Karnataka, Maharashtra and Tamilnadu (including Chennai)

(Source- DoT License Agreement)

**Category-B circles** – Haryana, Kerala, Madhya Pradesh, Punjab, Rajasthan, Uttar Pradesh (East & West), West Bengal

**Category-C circles** – Assam, Bihar, Himachal Pradesh, Jammu & Kashmir, North East and Orissa **Metro circles** – Delhi, Mumbai and Kolkata



#### Chart 4.5: Category wise Share of Adjusted Gross Revenue for the year 2020

#### Notes:

- 1. Source: Figures are un-audited and as submitted by the Operators.
- 2. The figures have been regrouped wherever considered necessary for analysis purpose.
- 3. The figures are additions of four quarters of the calendar year, i.e. QE March, June, September and December.
- 3. The Spectrum usage charges (mostly) are now reported on "Payment for the current Quarter to Quarter" basis. However, some operators are reporting on payment basis or on estimate basis on projected AGR for next quarters.
- 4. Metro area includes Delhi, Mumbai and Kolkata only. Chennai is clubbed with Tamilnadu.
- 5. Where '2019' stands for year starting from 1<sup>st</sup> January 2019 to 31<sup>st</sup> December 2019 and '2020' stands for year starting from 1<sup>st</sup> January 2020 to 31<sup>st</sup> December 2020.

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

S.No	Parameter	As on 31.12.2019	As on 31.12.2020
1	Number of Private satellite TV channels permitted by the Ministry of I&B for uplinking only/downlinking only/ uplinking and downlinking both	918	907
2	Number of Pay TV Channels as reported by broadcasters	332	326
3	Number of FM Radio stations (excluding All India Radio)	368	367
4	Number of Private DTH Operators	4	4
6	Number of net Active DTH Subscribers	69.98 Million	70.99 Million
8	Number of Operational Community Radio Stations (CRS)	278	315

#### Table 5.1: Key Parameters - Broadcasting & Cable Services

#### A. Satellite TV Channels

 A total of 907 private satellite TV channels have been permitted by the Ministry of Information and Broadcasting (MIB) for uplinking only/downlinking only/both uplinking and downlinking, as on 31<sup>st</sup> December, 2020.

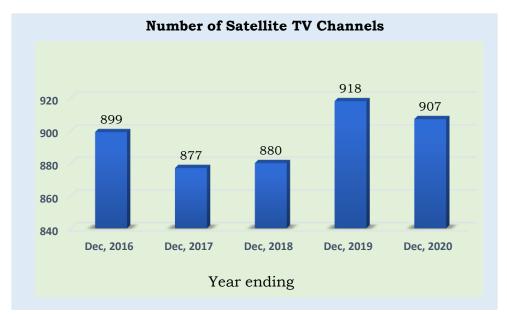


Chart 5.1: Trend of number of Satellite TV Channels

#### B. Pay TV Channels

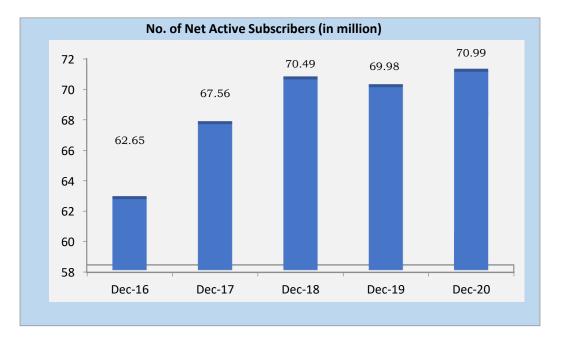
- 2. Telecom Regulatory Authority of India (TRAI), in March, 2017, notified the new regulatory framework for Broadcasting and Cable services. The framework comprises of Tariff Order 2017, Interconnection Regulations 2017 and Quality of Service & Consumer Protection Regulations 2017. The framework was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

#### C. Cable TV Sector

5. Digitization, with addressability, of cable TV sector has been completed. The country achieved 100% digitization of Cable TV network. This is a stupendous achievement making India as the only large country where 100% digital cable has been achieved through mandatory regulations.

#### D. Direct-to-Home (DTH) Sector

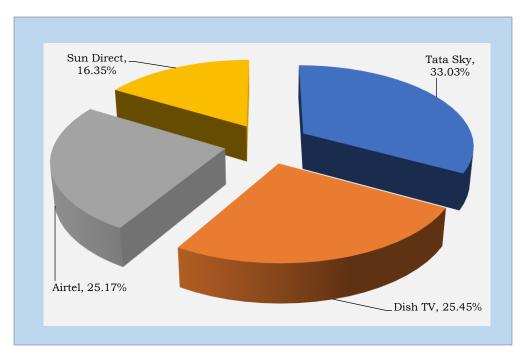
- Since its introduction in the year 2003, Indian DTH service has displayed a phenomenal growth. During the period ending 31<sup>st</sup> December, 2020, there were 4 pay DTH service providers in India. List and details of pay DTH service providers is placed at Annexure-5.2.
- 7. Pay DTH has attained net pay active subscriber base of around 70.99 million with 4 pay DTH service providers as on 31<sup>st</sup> December, 2020 as compared to 69.98 million subscribers with 4 pay DTH service providers as on 31<sup>st</sup> December, 2019. This is in addition to the subscribers of the free DTH services of Doordarshan. Yearly increase rate of 1.44% has been recorded in pay active subscriber base in the year 2020 as compared to the previous year.
- 8. The following chart depict the yearly trend of number of pay active subscribers of pay DTH service during last five years.



#### Chart 5.2: Trend of Net Active subscribers (in million) of pay DTH service

9. The following chart depicts the service provider wise composition of market shares of net active subscriber base as on 31.12.2020.

# Chart 5.3: Composition of market share in respect of Net Active subscriber base of Pay DTH Service Providers



 M/s Tata Sky is the market leader with 33.03% market share of total net pay active DTH subscribers followed by M/s Dish TV with 25.45% as on 31<sup>st</sup> December, 2020.

#### E. FM Radio Services

- 11. Apart from the radio Stations operated by All India Radio, the public broadcaster, as on 31<sup>st</sup> December 2020, there are 367 operational private FM Radio stations in 105 cities with operational 31 Private FM Radio broadcaster as compared to 368 operational private FM Radio stations in 105 existing cities with operational 33 FM Radio broadcaster as on 31<sup>st</sup> December 2019.
- 12. The following chart depicts the trend of number of operational FM radio stations in India as on year ending 2016 to 2020.

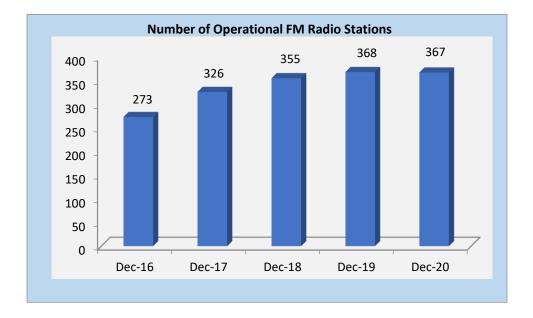
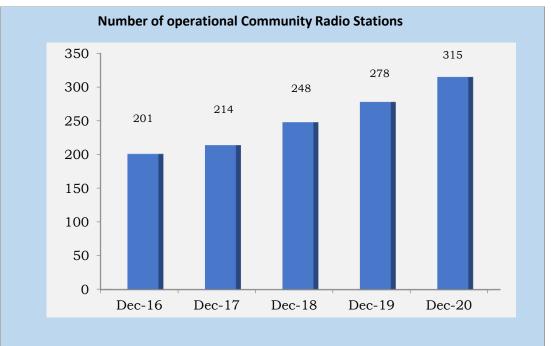


Chart 5.4: Trend of number of Operational FM Radio Stations

 A list of existing cities with operational FM radio channels is placed at Annexure 5.3.

#### D. Community Radio Stations##

14. As on 31<sup>st</sup> December 2020, 315 Community Radio stations are operational as compared to 278 Community Radio station as on 31<sup>st</sup> December, 2019. The yearly trend of the number of operational community radio stations is depicted in the chart below.



#### Chart 5.5 : Yearly Growth in number of Operational Community Radio Stations (CRS)

**Source:** Ministry of Information & Broadcasting (MIB)

<sup>&</sup>lt;sup>‡‡‡</sup> Community radio station usually is a short-range, not-for-profit radio station or channel that caters for the information needs of people living in a particular locality, in the languages and formats that are most adapted to the local context. Community Radio Stations (CRS) are essentially low power radio stations to be set up and operated by the local communities.

# Annexures

	Vodafor	ie Idea	Bh	arti	Relianc	e Com.	BS	NL	МT	'nl	Reliance	Jio (LTE)	Tot	al	
Service Area	Dec-19	Dec-20	Dec-19	Dec-20	Dec-19	Dec-20	Dec-19	Dec-20	Dec-19	Dec-20	Dec-19	Dec-20	Dec-19	Dec-20	Net Additions
Andhra Pradesh	18,885,514	16,142,823	28873882	30433618	2176	1177	9914603	9670536			29346713	31369643	87,022,888	87,617,797	594909.00
Assam	4,633,250	3,354,187	8358529	8881995			2743312	2959676			7872608	8851010	23,607,699	24,046,868	439169.00
Bihar	15,431,406	12,378,262	35456281	35117840	383	190	5310328	5946966			28123388	31448264	84,321,786	84,891,522	569736.00
Delhi	17,701,405	15,602,750	15572477	15847702	1729	513			2186235	2169449	17485005	18974028	52,946,851	52,594,442	-352409.00
Gujarat	27,506,873	25,021,411	10962911	11444492	577	271	6085008	5891420			22893405	25426122	67,448,774	67,783,716	334942.00
Haryana	9,156,703	8,052,103	4479975	5079438	140	89	4955027	5094145			9203509	8907509	27,795,354	27,133,284	-662070.00
Himachal Pradesh	934,451	711,847	3424834	3327293	105	97	2767116	3010300			3471715	4004237	10,598,221	11,053,774	455553.00
Jammu & Kashmir	561,433	524,869	4544784	5548416	0	0	1264988	1264351			3949544	4464159	10,320,749	11,801,795	1481046.00
Karnataka	12,007,384	9,583,667	28630803	29491199	1550	1938	7324448	7257790			19423779	20894958	67,387,964	67,229,552	-158412.00
Kerala	18,471,237	17,317,452	5531696	6487239	625	489	10936754	10960864			8561983	9911644	43,502,295	44,677,688	1175393.00
Madhya Pradesh	24926265	21372271	14769663	14711874	738	518	6315355	6271291			28865775	33150116	74,877,796	75,506,070	628274.00
Maharashtra	39676542	32852288	15970302	17904801	1082	463	7089469	6933418			29884843	35578402	92,622,238	93,269,372	647134.00
Mumbai	13468986	9330964	9800346	9856523	2420	952			1190068	1148184	13634278	14652911	38,096,098	34,989,534	-3106564.00
North East	1926024	1467590	5227184	5312862	0	0	1466782	1366913			3492349	4067072	12,112,339	12,214,437	102098.00
Orissa	3430621	2536251	11756381	10858137	368	219	6023748	6414057			11802088	13705976	33,013,206	33,514,640	501434.00
Punjab	9712824	8711158	10342217	10666819	279	353	5723473	5855940			13325697	12490810	39,104,490	37,725,080	-1379410.00
Rajasthan	13958201	12229571	21334295	21562650	333	332	6139102	6364204			23897943	25004662	65,329,874	65,161,419	-168455.00
Tamil Nadu	21164029	19066507	25604916	26051251	3200	1248	12461401	11016854			22568898	24328225	81,802,444	80,464,085	-1338359.00
UP(E)	26665805	23421596	30864257	33434345	856	431	11654121	11644758			26509498	30092918	95,694,537	98,594,048	2899511.00
UP(W)	24679320	20332967	13545301	15801717	306	270	5941889	5883811			18731325	20410003	62,898,141	62,428,768	-469373.00
Kolkata	7679355	6957077	6354972	5904209	36	28	1856520	2448590			9760191	10857344	25,651,074	26,167,248	516174.00
West Bengal	20035243	17287656	15891719	14983747	814	976	2142879	2453707			17211626	20183313	55,282,281	54,909,399	-372882.00
Total	332,612,871	284,255,267	327,297,725	338,708,167	17,717	10,554	118,116,323	118,709,591	3,376,303	3,317,633	370,016,160	408,773,326	1,151,437,099	1,153,774,538	2,337,439

#### **Annexure 1.1: Wireless Subscriber Base**

Note: The subscribers of M/s Bharti Airtel includes subscribers of M/s Tata Teleservices Ltd.

	Bha	arti	Reli	ance	Qua	drant	Ta	ta	МТ	'nL	BSN	1L	Voda	fone	Reliar	nce Jio	T	otal	
Service Area	Dec-19	Dec-20	Dec-19	Dec-20	Dec-19	Dec-20	Dec-19	Dec-20	Dec-19	Dec-20	Dec-19	Dec-20	Dec-19	Dec-20	Dec-19	Dec-20	Dec-19	Dec-20	Net Additions
Andhra Pradesh	215,233	246,692	32460	21834			171926	153579			789437	606606	46465	62310	100155	286558	1,355,676	1,377,579	21,903
Assam											97819	84922	3390	3450	11219	37495	112,428	125,867	13,439
Bihar			2203	19			8334	7421			151311	132134	1920	1830	15319	71741	179,087	213,145	34,058
Delhi	1,484,992	1,494,955	75735	36827			146623	142655	1410426	1337088	0		69085	76847	81880	219994	3,268,741	3,308,366	39,625
Gujarat	97,525	116,751	11058	3734			86137	81225			826150	512515	31785	33437	139023	214473	1,191,678	962,135	-229,543
Haryana	21,975	28,229	1815	13			39029	36637			185133	136906	330	330	24024	105429	272,306	307,544	35,238
Pradesh			1343	3			1957	1747			97819	79352	60	30	355	8143	101,534	89,275	-12,259
Kashmir				-			0	0			123459	92451	0	0	9284	65858	132,743	158,309	25,566
Karnataka	726,529	803,607	103570	27087			275474	260894			900147	780432	58047	103002	57051	203107	2,120,818	2,178,129	57,311
Kerala	63,134	64,547	11847	5438			19586	19128			1610709	1145302	5640	6120	12900	58634	1,723,816	1,299,169	-424,647
Madhya Pradesh	240,471	260,190	5316	5			13635	11692			553213	273161	1980	3585	49614	144815	864,229	693,448	-170,781
Maharashtra	107,293	141,296	38805	11732			262002	231376			920456	769408	26480	29353	36998	82652	1,392,034	1,265,817	-126,217
Mumbai	390,886	383,653	149162	75997			542573	494995	1712597	1623003	0	0	71215	95971	206351	346561	3,072,784	3,020,180	-52,604
North East											93865	73283	240	270	4675	26189	98,780	99,742	962
Orissa			1771	б			8588	8115			191530	155552	5730	6210	7218	36440	214,837	206,323	-8,514
Punjab	138,041	142,858	10165	2228	197881	202915	12093	12870			331049	242734	3000	3240	36878	84121	729,107	690,966	-38,141
Rajasthan	57,267	71,438	13830	4715			11569	11590			377178	266161	13590	16490	41247	96716	514,681	467,110	-47,571
Tamil Nadu	547,511	554,373	52922	24465			122882	120947			1238419	948714	25660	39955	84261	234581	2,071,655	1,923,035	-148,620
U.P.(E)	62,411	74,102	3213	25			8297	7540			294482	173983	19740	20020	33807	111337	421,950	387,007	-34,943
U.P.(W)	24,538	43,370	2276	8			4792	4480			222530	156018	5490	5220	57397	159845	317,023	368,941	51,918
Kolkata	131949	140369	34760	7330			50247	46980			407553	338083	11840	13740	33036	119138	669,385	665,640	-3,745
West Bengal			1615	13			2477	2322			167020	201006	120	120	8,010	40,974	179,242	244,435	65,193
Total	4,309,755	4,566,430	553,866	221,479	197,881	202,915	1,788,221	1,656,193	3,123,023	2,960,091	9,579,279	7,168,723	401,807	521,530	1,050,702	2,754,801	21,004,534	20,052,162	-952,372

#### **Annexure 1.2: Wireline Subscriber Base**

Name of the Circle/Service	Service Provider	Number of PCOs as on	Number of PCOs as on
Area		31.12.2019	31.12.2020
Andhra Pradesh	Bharat Sanchar Nigam Ltd.	4,912	3,616
(Excluding Telangana)	Bharti Group	184	0
Telangana	Bharat Sanchar Nigam Ltd.	4097	3,993
	Bharti Group		181
Assam	Bharat Sanchar Nigam Ltd.	915	624
Bihar (excluding Jharkhand)	Bharat Sanchar Nigam Ltd.	822	591
Jharkhand	Bharat Sanchar Nigam Ltd.	2,441	2,410
Delhi	Bharti Group	330	330
	Mahanagar Telephone Nigam Ltd./MTNL	45,694	38,936
Gujarat	Bharat Sanchar Nigam Ltd.	7,509	4,680
	Bharti Group	14	16
Haryana	Bharat Sanchar Nigam Ltd.	789	415
	Bharti Group	138	134
Himachal Pradesh	Bharat Sanchar Nigam Ltd.	730	618
Jammu & Kashmir	Bharat Sanchar Nigam Ltd.	973	372
Karnataka	Bharat Sanchar Nigam Ltd.	13,348	8,752
	Bharti Group	3,036	2,713
	Bharat Sanchar Nigam Ltd.	12,585	10,326
Kerala	Bharti Group	397	382
Kolkata	Bharat Sanchar Nigam Ltd.	2,189	1,884
	Bharti Group	37	26
Madhya Pradesh	Bharat Sanchar Nigam Ltd.	8,865	5,476
(excluding Chhattisgarh)	Bharti Group	1,338	0
Chhatisgarh	Bharat Sanchar Nigam Ltd.	925	182
Maharashtra & Goa	Bharat Sanchar Nigam Ltd.	16,209	6,910
Mumbai	Bharti Group	50	50
	Mahanagar Telephone Nigam Ltd./MTNL	20,187	14,777
Arunachal Pradesh	Bharat Sanchar Nigam Ltd.	1,352	9
Manipur	Bharat Sanchar Nigam Ltd.	772	772
Meghalaya	Bharat Sanchar Nigam Ltd.	255	94
Mizoram	Bharat Sanchar Nigam Ltd.	115	105
Nagaland	Bharat Sanchar Nigam Ltd.	0	0
Tripura	Bharat Sanchar Nigam Ltd.	483	472

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

Annexure	1.3	(contd.)
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Name of the Circle/Service Area	Service Provider	Number of PCOs as on 31.12.2019	Number of PCOs as on 31.12.2020
Orissa	Bharat Sanchar Nigam Ltd.	1,283	1,044
Punjab	Bharat Sanchar Nigam Ltd.	1,455	1,182
	Bharti Group	9	4
	Quadrant	750	522
Rajasthan	Bharat Sanchar Nigam Ltd.	2,064	991
	Bharti Group	209	209
Tamilnadu	Bharat Sanchar Nigam Ltd.	18,639	10,813
(excluding chennai)	Bharti Group	3,814	0
Chennai	Bharat Sanchar Nigam Ltd.	7,239	6,841
Uttar Pradesh- East	Bharat Sanchar Nigam Ltd.	7,225	3,602
	Bharti Group	73	0
Uttar Pradesh -	Bharat Sanchar Nigam Ltd.	1,448	1,157
West (excluding Uttarakhand)	Bharti Group	0	13
Uttarakhand	Bharat Sanchar Nigam Ltd.	500	368
West Bengal (excl. Andaman & Nicobar and Sikkim)	Bharat Sanchar Nigam Ltd.	1,453	391
Andaman and Nicobar	Bharat Sanchar Nigam Ltd.	39	32
Skkim	Bharat Sanchar Nigam Ltd.	0	0
	Total	1,97,891	137,015

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

Name of Circle/Service Area	Service Provider	Number of VPTs as on 31.12.2019	Number of VPTs as on 31.12.2020
Andhra Pradesh (Excluding Telangana)	Bharat Sanchar Nigam Ltd.	2098	2052
Telangana	Bharat Sanchar Nigam Ltd.	844	844
Assam	Bharat Sanchar Nigam Ltd.	105	105
Bihar (excluding Jharkhand)	Bharat Sanchar Nigam Ltd.	5893	5893
Jharkhand	Bharat Sanchar Nigam Ltd.	221	221
Gujarat	Bharat Sanchar Nigam Ltd.	5278	5278
Haryana	Bharat Sanchar Nigam Ltd.	462	462
Himachal Pradesh	Bharat Sanchar Nigam Ltd.	1875	1875
Jammu & Kashmir	Bharat Sanchar Nigam Ltd.	810	810
Karnataka	Bharat Sanchar Nigam Ltd.	3656	3656
Kerala	Bharat Sanchar Nigam Ltd.	331	331
Kolkata	Bharat Sanchar Nigam Ltd.	130	130
Madhya Pradesh (excl. Chhattisgarh)	Bharat Sanchar Nigam Ltd.	9907	9907
Chhatisgarh	Bharat Sanchar Nigam Ltd.	193	193
Maharashtra (incl. Mumbai & Goa)	Bharat Sanchar Nigam Ltd.	7846	7846
Arunachal Pradesh	Bharat Sanchar Nigam Ltd.	623	623
Manipur	Bharat Sanchar Nigam Ltd.	93	93
Meghalaya	Bharat Sanchar Nigam Ltd.	207	207
Mizoram	Bharat Sanchar Nigam Ltd.	12	12
Nagaland	Bharat Sanchar Nigam Ltd.	25	25
Tripura	Bharat Sanchar Nigam Ltd.	222	222
Orissa	Bharat Sanchar Nigam Ltd.	1554	1554
Punjab	Bharat Sanchar Nigam Ltd.	4625	4493
Rajasthan	Bharat Sanchar Nigam Ltd.	0	0
Tamil Nadu (incl. Chennai)	Bharat Sanchar Nigam Ltd.	5478	5478
Uttar Pradesh- East	Bharat Sanchar Nigam Ltd.	568	568
Uttarakhand	Bharat Sanchar Nigam Ltd.	2121	2121
Uttar Pradesh – West (excluding Uttarakhand)	Bharat Sanchar Nigam Ltd.	1637	1637
West Bengal (excluding Andaman & Nicobar and Sikkim)	Bharat Sanchar Nigam Ltd.	11557	11557
Andaman and Nicobar	Bharat Sanchar Nigam Ltd.	93	93
Sikkim	Bharat Sanchar Nigam Ltd.	320	320
Total		68,784	68,606

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

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

S.No.	Name of the Service Provider:	Narrowband	Broadband	Total
39	CSC e-Governance Services India Ltd.	0	32046	32046
40	Vasai Cable Pvt. Ltd.	0	29806	29806
41	Shyam Spectra Private Limited	0	29118	29118
42	DNA Infotel Pvt Ltd	0	27744	27744
43	Airlink Communications Pvt. Ltd	0	24876	24876
44	ESTO BROADBAND Pvt. Ltd.	0	24479	24479
45	Sikka Broadband(P) Ltd.	0	23526	23526
46	MICROSCAN COMPUTERS PVT LTD	6797	16541	23338
47	Ortel Communication Ltd.	0	22099	22099
48	Digital Network associates Pvt. Ltd	0	20991	20991
49	City Online Services Ltd	0	20347	20347
50	World Phone Internet Services Pvt Ltd	0	20325	20325
51	Tata Teleservices Limited	2	20214	20216
52	Rajesh Digital & Data Com Pvt. Ltd.	16	19570	19586
53	Ethernet Xpress India Pvt. Ltd	0	17668	17668
54	Tachyon Communications Pvt. Ltd.	0	17621	17621
55	B2H Infonet Pvt Ltd	0	17126	17126
56	Quest Consultancy Pvt. Ltd.	0	16101	16101
57	IKF Technologies Ltd	0	15852	15852
58	Shree Omkar Infocom Pvt. Ltd.	0	15737	15737
59	Sai Prasad Internet Services Pvt. Ltd.	0	15682	15682
60	RI Networks Pvt Ltd	0	15401	15401
61	Yashash Cable Network Pvt Ltd	0	15376	15376
62	Tata Communications Limited	136	14779	14915
63	United Telecoms Ltd.	0	14639	14639
64	SUPER SONIC BROADBAND PVT LTD	0	14506	14506
	Meghbela Cable & Broadband Services (P)		10001	10001
65 66	Ltd Readylink Internet Services Pvt Ltd	0	12981 12439	12981 12439
00	Multicraft Digital Technologies Private		12109	12105
67	Limited	0	11122	11122
68	Intermedia Cable Communication Pvt Ltd	0	11077	11077
69	Nuron Networks India Private Limited	0	10615	10615
70	Spiderlink Networks Pvt. Ltd.	0	10126	10126
71	Pioneerelabs	351	9643	9994
72	North East Dataa Network Pvt Ltd.	0	9928	9928
73	Radinet Info Solutions Pvt Ltd	0	9319	9319
74	Limerick Technologies Pvt Ltd	0	9261	9261
75	DL GTPL BROADBAND PVT LTD	0	9215	9215
76	Net 9 Online Hathway Private Limited	0	8969	8969
77	Veloxr Telecom Pvt. Ltd. (Shree Balaji Infoway Pvt Ltd.)	0	8535	8535

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

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

S.No.	Name of the Service Provider:	Narrowband	Broadband	Total
160	Aeroway Networks Pvt Ltd.	0	1232	1232
161	CJ Online Pvt. Ltd.	0	1222	1222
162	United Stars Network Private Limited	0	1221	1221
163	DA Smartzone Pvt Ltd	0	1213	1213
164	Zoram Business Enterprise Private Limited	0	1200	1200
165	Amar Broadband Private Limited	0	1125	1125
166	ACN Fiber Pvt. Ltd.	0	1100	1100
167	Touch Net India Pvt. Ltd.	0	1060	1060
168	Aerocast Networks Pvt Ltd.	0	1036	1036
169	Net Access Internet India Private Limited	0	1018	1018
170	Rida Communication Pvt. Ltd.	0	1011	1011
171	NGC Broadband Pvt. Ltd.	0	997	997
172	JBN Online Private Limited.	0	982	982
173	Southnet Broadband Pvt. Ltd.	0	978	978
174	AHM Digital Network Pvt Ltd	0	970	970
175	HOSTAXIS NETWORKS PVT LTD	0	948	948
176	E I DOT Com Pvt. Ltd.	0	938	938
177	Grace Teleinfra Pvt Ltd	0	927	927
178	Touchnet Broadband Services Pvt Ltd	0	918	918
179	Telosy Telecom Pvt. Ltd.	0	912	912
180	Sanchit Infocom Pvt Ltd	0	909	909
181	Uzaina Business India Pvt Ltd	0	900	900
182	Speedmaxx Digital Networks Pvt Ltd	0	897	897
183	Japra Tele Link Pvt. Ltd.	0	893	893
184	NetMagic Solutions(P) Ltd.	0	892	892
185	KGS NETWORKS PRIVATE LIMITED	0	889	889
186	FASTNET COMMUNICATION PVT LTD	175	701	876
187	Ficus Telecom Pvt. Ltd.	0	873	873
188	ADRI INFOCOM PVT. LTD.	0	866	866
189	SKY ONLINE TECHNOSYSTEM PVT LTD	0	863	863
190	Rajesh Patel Net Services Pvt. Ltd.	12	849	861
191	SEFARO NETWORKS PRIVATE LTD	0	860	860
192	DREAMLINK TECHNOLOGIES PVT LTD	0	848	848
193	Datawave IT solutions Pvt. Ltd.	0	842	842
194	Fttx Broadband Pvt. Ltd.	0	780	780
195	Darer Internet Services Pvt. Ltd.	0	771	771
195	Ani Broadband Service Pvt. Ltd.	0	763	763
190	Bandwidth Infinity Pvt Ltd	0	703	703
197	REVOLUTION BROADBAND PVT LTD	0	744 720	744 720
198	Spirenet Digital Communications Pvt. Ltd.	0	720	720
199	JB Jain Broadband Solutions Private		120	120
200	Limited.	0	719	719

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

S.No.	Name of the Service Provider:	Narrowband	Broadband	Total
241	Sysnet Broadband Services Pvt. Ltd.	0	429	429
242	Allied IT Infrastructures & Services Pvt. Ltd.	0	421	421
243	Moradabad Internet Services Pvt Ltd	0	420	420
244	Gleam Worldwide Services Pvt. Ltd.	0	408	408
245	KSK Broadband Pvt Ltd	0	402	402
246	Citylink Broadband Services Pvt. Ltd.	0	395	395
247	Sify Technologies Ltd.	205	186	391
248	Fastx Broadband Private Limited	0	389	389
249	Vardaan Netservices Pvt. Ltd.	0	386	386
250	Gorakhpur Net Services Pvt. Ltd.	0	385	385
251	Pulse Telesystems Pvt. Ltd.	0	379	379
252	Bhiwani Communications Pvt. Ltd.	0	375	375
253	WINDSOR INTERNET PVT LTD	0	374	374
254	Spider Broadband and Cable Pvt Ltd	0	364	364
255	HELM CONSULTANTS PVT LTD	363	0	363
256	Briskcom Infoway Pvt. Ltd.	0	348	348
257	Skylink Fibernet Pvt. Ltd.	0	335	335
258	Oistel Telecom Pvt. Ltd.	166	166	332
259	Sai Akshay Internet Services Pvt Ltd.	0	332	332
260	CATLA IT&ENGG. CO. PVT LTD.	0	327	327
261	Twincity Communication Private Limited	0	325	325
000	Antariksh Broadband & Wireless Solutions	202	0	202
262		323	0	323
263	VISPUTES INTERNET PRIVATE LIMITED WAVETREE NETWORKS PVT LTD	0	300	300
264 265	Sheen Telecom Consultants Pvt Ltd	0	299 292	299 292
265	Smeen Telecom Consultants PVL Ltd SmartLink Broadband Services	0	292	
267	Dhanam Internet Services India Pvt. Ltd.	0	291	291 289
267	ALWAR ONLINE PVT LTD	0	289	289
269	Goodwill Smartlink Pvt. Ltd.	0	283	283
209	AUSPICE INFRATAL PVT LTD	0	275	277
270	A-Net Communication India Pvt.Ltd.	146	123	273
272	Sense Connect IT Pvt. Ltd.	0	267	267
272	Singh Internet Services Pvt. Ltd.	0	260	260
274	Kataria Net Solutions Pvt. Ltd.	0	255	255
275	Cityline Networks Pvt Ltd	0	251	253
276	Verizon Communications India Pvt. Ltd.	0	247	231
277	Faiconet Internet Pvt Ltd	0	247	247
278	Development Logics Solutions Pvt Ltd	0	241	243
279	Oasis Cable Pvt Ltd.	235	0	235
280	Khetan Cable Network (P) Ltd	0	228	233

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

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

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

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

#### Annexure 1.6

## List of Service Providers which reported IP Telephony Minutes as on 31.12.2020

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

CN-	Omonotino Area		Subscriber Base		
SNo.	Operative Area	Service Provider	31.12.2019	31.12.2020	
1	Delhi(Faridabad/ Gurgaon)	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	5,588	7,715	
		Procall(Delhi)	2,980	2,988	
		Total	8,568	10,703	
2	Mumbai (Navi Mumbai)	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	8,242	8,886	
		Smartalk (Mumbai)	636	816	
		Bhilwara Telenet(Mumbai)	31.12.2019         5,588         2,980         8,568         8,242	864	
		Airtalk Solutions & Services Pvt. Ltd	459	413	
		Total	10,207	10,997	
3	Kolkata	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	2410	1743	
		Total	2,410	1,743	
4	TN(Chennai)	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	7492	7,655	
		Quick Calls	551	487	
		Total	8,043	8,142	
5	Karnataka (Bangalore)	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	7061	7195	
		Quick Calls	745	532	
		Total	7806	7,727	
6	Andhra Pradesh (Vishakhapatnam &	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1885	6671	
	Hyderabad)	Quick Calls (Hyderabad Urban)	848	1010	
		Total	2,733	7,681	
7	Madhya Pradesh ( Indore)	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1576	1,646	
		Total	1576	1646	

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

# C--h-----th

## Annexure- 1.7 (Contd.)

SNo.	Omenative Area	Service Provider	Subscriber Base		
SNO.	Operative Area	Service Provider	31.12.2019	31.12.2020	
8	Rajasthan (Jaipur)	Procall	290	381	
		Arya Omnitalk Radio Trunking Services Pvt.Ltd.	514	890	
		Total	804	1,271	
9	Gujarat (Ahmedaba/Surat/Vado dara/ Bharuch/Dahej/ Kutch/Amrela /	Arya Omnitalk Radio Trunking Services Pvt.Ltd. (Ahmedaba/Surat/Vadoda ra/ Bharuch/Dahej)	7120	7,056	
	Jamnagar)	Inative Network Pvt. Ltd. (Ahmedaba/Surat/Vadoda ra/ Bharuch/ Kutch/Amrela / Jamnagar)	1820	1820	
		Total	8940	8,876	
10	Maharashtra (Pune)	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1840	2025	
		Smartalk	438	670	
		Total	2,270	2,695	
11	Kerala (Cochin City & Quilon)	Wiwanet Solutions Pvt. Ltd.	409	690	
		Arya Omnitalk Radio Trunking Services Pvt.Ltd.	955	1034	
		Total	1,364	1,724	
	Grand 7	Fotal	59,089	63,205	

#### Annexure 5.1

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

S. No	Name of the broadcaster	S1. No	Name of the channel	Genre as per new Regulatory framework	Language	Declared as SD or HD
1	AETN 18 Media Pvt Limited	1	The History Channel	Infotainment	Hindi	SD
		2	History TV 18 HD	Infotainment	Hindi	HD
		3	Vijay TV	GEC	Tamil	SD
		4	Vijay Super	GEC	Tamil	SD
		5	Vijay HD	GEC	Tamil	HD
		6	Vijay Music	Music	Tamil	SD
2	Asianet Star	7	Asianet	GEC	Malayalam	SD
	Communications Private Limited	8	Asianet Plus	GEC	Malayalam	SD
		9	Asianet Movies	Movies	Malayalam	SD
		10	Suvarna Plus	Movies	Kannada	SD
		11	Star Suvarna HD	GEC	Kannada	HD
		12	Asianet HD	GEC	Malayalam	HD
		13	Star Suvarna	GEC	Kannada	SD
3	Bangla Entertainment Private Limited	14	AATH	GEC	Bangla	SD
	Filvate Linnted	15	SONY Marathi	GEC	Marathi	SD
4	BBC Global News India Private Limited	16	BBC World News	News	English	SD
		17	Cbeebies	Kids	English	SD
		18	Zoom	GEC	Hindi	SD
		19	Romedy Now	Movies	English	SD
		20	MN +	Movies	English	HD
5	Bennett, Coleman &	21	Mirror Now	News	English/ Hindi	SD
	Company Limited	22	ET NOW	News	English/ Hindi	SD
		23	Times Now	News	English/ Hindi	SD
		24	Romedy Now HD	Movies	English	HD
		25	Movies Now HD	Movies	English	HD

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

S. No	Name of the broadcaster	S1. No	Name of the channel	Genre as per new Regulatory framework	Language	Declared as SD or HD
			HD			
		51	Hungama TV	Kids	English/ Hindi	SD
		52	The Disney Channel	Kids	English/ Hindi	SD
		53	UTV HD	Movies	Hindi	HD
		54	UTV Bindass	GEC	Hindi	SD
		55	UTV Action	Movies	Hindi	SD
		56	ETV	GEC	Telugu	SD
		57	ETV Andhra Pradesh	News	Telugu	SD
		58	ETV - Telangana	News	Telugu	SD
		59	ETV Cinema	Movies	Telugu	SD
11	Eenadu Televisoin Private Limited	60	ETV Life	GEC	Telugu	SD
		61	ETV Plus	GEC	Telugu	SD
		62	ETV Abhiruchi	GEC	Telugu	SD
		63	ETV HD	GEC	Telugu	HD
		64	ETV Plus HD	GEC	Telugu	HD
		65	ETV Cinema HD	Movies	Telugu	HD
		66	EPIC TV	Infotainment	English/ Hindi	SD
12	IN 10 Media Private	67	Filamchi	Movies	Bohjpuri	SD
	Limited	68	Gubbare	Kids	Hindi	SD
13	Fame Media Private Limited	69	4tv News	News	Urdu/ Hindi	SD
14	Greycells18 Media Limited	70	Topper TV	Miscellaneous	English	SD
15	IBN Lokmat News Private Ltd	71	News 18 Lokmat	News	Hindi	SD
16	Living Entertainment	72	ZEE ZEST HD	Infotainment	Hindi	HD
	Enterprises Private Ltd	73	Living Travelz	Infotainment	Hindi	SD
17	Lifestyle and Media Broadcasting Limited	74	Good Times	Miscellaneous	English	SD
18	Lex Sportel Vision Private Limited	75	1SPORTS	Sports	English	SD
		76	J Movies	Movies	Tamil	SD
19	Mavis Satcom Limited	77	Jaya Max	Music	Tamil	SD
		78	Jaya Plus	News	Tamil	SD

S. No	Name of the broadcaster	S1. No	Name of the channel	Genre as per new Regulatory framework	Language	Declared as SD or HD
		79	Jaya TV HD	GEC	Tamil	HD
20	MSM World Wide Factual Media Private	80	SONY BBC EARTH	Infotainment	English/ Hindi	SD
	Limited	81	SONY BBC EARTH HD	Infotainment	English/ Hindi	HD
21	Media World Wide Limited	82	Travel XP	Infotainment	English	SD
22	New Delhi Television	83	NDTV 24*7	News	English	SD
	Limited	84	NDTV India	News	Hindi	SD
		85	NDTV Profit	News	English	SD
		86	Fox Life	Infotainment	English/ Hindi	SD
		87	National Geographic Channel (NGC)	Infotainment	English/ Hindi	SD
23	NGC Network (India)	88	Fox Life HD	Infotainment	English/ Hindi	HD
	Pvt Limited	89	Nat Geo Wild	Infotainment	English/ Hindi	SD
		90	National Geographic HD	Infotainment	English/ Hindi	HD
		91	Nat Geo Wild HD	Infotainment	English/ Hindi	HD
		92	Baby TV HD	Kids	English/ Hindi	HD
24	NOIDA Software Technology Park Limited	93	NHK World Premium (HD Distribution)	Infotainment	Japanese	HD
		94	Prarthana	Devotional	Odia	SD
25	Odisha Television	95	Tarang	GEC	Odia	SD
	Limited	96	Tarang Music	Music	Odia	SD
		97	Alankar	Movies	Odia	SD
26	Parshavnath Media Private Limited	98	Dangal Kannada	GEC	Kannada	SD
		99	Raj Digital Plus	Movies	Tamil	SD
27	Raj Television Network	100	Raj Musix	Music	Tamil	SD
	Limited	101	Raj News	News	Tamil	SD
		102	Raj TV	GEC	Tamil	SD
28	Silverstar	103	Mega 24	GEC	Tamil	SD
	Communications Limited	104	Mega Musiq	Music	Tamil	SD
		105	Mega TV	GEC	Tamil	SD

S. No	Name of the broadcaster	S1. No	Name of the channel	Genre as per new Regulatory framework	Language	Declared as SD or HD
		106	Sony YAY!	Kids	English	SD
		107	SET MAX	Movies	Hindi	SD
		108	SAB	GEC	Hindi	SD
		109	SONY ENTERTAINME NT CHANNEL (SET)	GEC	Hindi	SD
		110	PIX	Movies	English	SD
		111	SIX	Sports	English/ Hindi	SD
		112	MAX 2	Movies	Hindi	SD
		113	PAL	GEC	Hindi	SD
		114	SET HD	GEC	Hindi	HD
29	Sony Pictures Networks India Private	115	SIX HD	Sports	English/ Hindi	HD
	Limited	116	PIX HD	Movies	English	HD
		117	MAX HD	Movies	Hindi	HD
		118	Ten 2 HD	Sports	English/ Hindi	HD
		119	Ten 3 HD	Sports	English/ Hindi	HD
		120	Ten 2	Sports	English/ Hindi	SD
		121	Ten 1	Sports	English	SD
		122	Ten 3	Sports	English/ Hindi	SD
		123	Ten 1 HD	Sports	English	HD
		124	SONY Wah	Movies	Hindi	SD
		125	SAB HD	GEC	Hindi	HD
		126	Star Sports 3	Sports	English/ Hindi	SD
		127	Star Sports 1 Tamil	Sports	Tamil	SD
30	Star India Private	128	Star Sports Select 2	Sports	English/ Hindi	SD
50	Limited	129	Star Bharat	GEC	Hindi	SD
		130	Star Gold 2 (Movies OK)	Movies	Hindi	SD
		131	Star Sports 1 Hindi	Sports	Hindi	SD
		132	Star Gold	Movies	Hindi	SD

S. No	Name of the broadcaster	S1. No	Name of the channel	Genre as per new Regulatory framework	Language	Declared as SD or HD
		133	Star Jalsha	GEC	Bangla	SD
		134	Star Movies	Movies	English	SD
		135	Star Gold Select	Movies	Hindi	SD
		136	Star Plus	GEC	Hindi	SD
		137	Star Pravah	GEC	Marathi	SD
		139	Star Sports 2	Sports	English/ Hindi	SD
		140	Star World	GEC	English	SD
		141	Jalsha Movies	Movies	Bangla	SD
		142	Star Sports HD 2	Sports	English/ Hindi	HD
		143	Star Sports HD 1	Sports	English/ Hindi	HD
		144	Star Bharat HD	GEC	Hindi	HD
		145	Star Gold HD	Movies	Hindi	HD
		146	Star Movies HD	Movies	English	HD
		147	Star Plus HD	GEC	Hindi	HD
		148	Star Sports 1 HD Hindi	Sports	Hindi	HD
	Star India Private Limited	149	Star Sports Select 1	Sports	English/ Hindi	SD
	Limited	150	Star Movies Select HD	Movies	English	HD
		151	Star World HD	GEC	English	HD
		152	Star Sports First	Sports	English/ Hindi	SD
		153	MAA Gold	Movies	Telugu	SD
		154	MAA Movies	Movies	Telugu	SD
		155	MAA Music	Music	Telugu	SD
		156	MAA TV	GEC	Telugu	SD
		157	Star Pravah HD	GEC	Marathi	HD
		158	Star Jalsha HD	GEC	Bangla	HD
		159	Jalsha Movies HD	Movies	Bangla	HD
		160	Star Sports Select HD 1	Sports	English/ Hindi	HD
		161	Star Sports Select HD 2	Sports	English/ Hindi	HD
		162	MAA HD	GEC	Telugu	HD

S. No	Name of the broadcaster	S1. No	Name of the channel	Genre as per new Regulatory framework	Language	Declared as SD or HD
		163	Star Gold Select HD	Movies	Hindi	HD
		164	MAA Movies HD	Movies	Telugu	HD
		165	Star World Prmiere HD	GEC	English	HD
		166	Star Sport 1 Telugu	Sports	Telugu	SD
		167	Star Sport 1 Kannada	Sports	Kannada	SD
		168	Star Sports 1 Bangla	Sports	Bangla	SD
		169	Star Utsav	GEC	Hindi	SD
		170	Star Sports 1 Marathi	Sports	Marathi	SD
		171	Star Utsav Movies	Movies	Hindi	SD
		172	Adithya TV	GEC	Tamil	SD
		173	Chintu TV	Kids	Kannada	SD
		174	Chutti TV	Kids	Tamil	SD
		175	Gemini Comedy	GEC	Telugu	SD
		176	Gemini Life	GEC	Telugu	SD
		177	Gemini Movies	GEC	Telugu	SD
		178	Gemini Music	Music	Telugu	SD
		179	Gemini TV	GEC	Telugu	SD
		180	KTV	GEC	Tamil	SD
		181	Surya Movies	GEC	Malayalam	SD
		182	Kushi TV	Kids	Telugu	SD
		183	SUN Life	GEC	Tamil	SD
31	SUN TV Network	184	Sun Music	Music	Tamil	SD
	Limited	185	Sun News	News	Tamil	SD
		186	Surya Music	Music	Malayalam	SD
		187	SUN TV	GEC	Tamil	SD
		188	Surya Comedy	GEC	Malayalam	SD
		189	Surya TV	GEC	Malayalam	SD
		190	Udaya Comedy	GEC	Kannada	SD
		191	Udaya Movies	GEC	Kannada	SD

S. No	Name of the broadcaster	S1. No	Name of the channel	Genre as per new Regulatory framework	Language	Declared as SD or HD
		192	Udaya Music	Music	Kannada	SD
		193	Udaya TV	GEC	Kannada	SD
		194	Kochu TV	Kids	Malayalam	SD
		195	Sun TV HD	GEC	Tamil	HD
		196	KTV HD	GEC	Tamil	HD
		197	Sun Music HD	Music	Tamil	HD
		198	Gemini TV HD	GEC	Telugu	HD
		199	Gemini Music HD	Music	Telugu	HD
		200	Gemini Movies HD	GEC	Telugu	HD
		201	Surya TV HD	GEC	Malayalam	HD
		202	Udaya TV HD	GEC	Kannada	HD
32	Suryansh Broadcasting Private Limited	203	Flowers	GEC	Malayalam	SD
		204	Cartoon Network	Kids	Hindi	SD
33	Turner International India Pvt Ltd	205	CNN International	News	English	SD
		206	POGO	Kids	Hindi	SD
		207	Cartoon Network HD+	Kids	Hindi	HD
		208	CNN News 18	News	English	SD
		209	CNBC Bajaar	News	Gujarati	SD
		210	CNBC TV 18 Prime HD	News	English	HD
		211	CNBC Awaaz	News	Hindi	SD
34	TV 18 Broadcast	212	News 18 Tamil Nadu	News	Tamil	SD
	Limited	213	News 18 Kerala	News	Malayalam	SD
		214	News 18 Assam / North East	News	Assamese	SD
		215	News 18 India	News	Hindi	SD
		216	CNBC TV 18	News	English	SD
		217	News 18 Bihar Jharkhand	News	Hindi	SD
		218	News 18 Madhya Pradesh / Chattisgarh	News	Hindi	SD

S. No	Name of the broadcaster	S1. No	Name of the channel	Genre as per new Regulatory framework	Language	Declared as SD or HD
		219	News 18 Rajasthan	News	Hindi	SD
		220	News 18 Uttar Pradesh/ Uttaranchal	News	Hindi	SD
		221	News 18 Urdu	News	Urdu	SD
		222	News 18 Kannada	News	Kannada	SD
		223	News 18 Bangla	News	Bangla	SD
		224	News 18 Punjab / Haryana / Himanchal Pradesh	News	Punjabi	SD
		225	News 18 Gujarati	News	Gujarati	SD
		226	News 18 Odia	News	Odia	SD
	TV Today Network Limited	227	Aaj Tak	News	Hindi	SD
35		228	India Today	News	English	SD
		229	AAJ Tak HD	News	Hindi	HD
		230	Aaj Tak Tez	News	Hindi	SD
		231	Colors	GEC	Hindi	SD
		232	Comedy Central (HD)	GEC	English	HD
		233	MTV	Music	Hindi	SD
		234	NICK	Kids	Hindi	SD
		235	NICK JR	Kids	English	SD
		236	SONIC	Kids	Hindi	SD
		237	VH 1 (HD Distribution)	Music	English	HD
36	Viacom 18 Media Private Limited	238	Colors Infinity HD	GEC	English	HD
		239	Colors Infinity	GEC	English	SD
		240	Colors HD	GEC	Hindi	HD
		241	NICKS HD+	Kids	Hindi	HD
		242	Colors Cineplex	Movies	Hindi	SD
		243	MTV Beats	Music	Hindi	SD
		244	Colors Kannada HD	GEC	Kannada	HD
		245	Colors Marathi HD	GEC	Marathi	HD

S. No	Name of the broadcaster	S1. No	Name of the channel	Genre as per new Regulatory framework	Language	Declared as SD or HD
		246	Colors Bangla HD	GEC	Bangla	HD
		247	Colors Super	GEC	Kannada	SD
		248	Colors Bangla	GEC	Bangla	SD
		249	Colors Gujarati	GEC	Gujarati	SD
		250	Colors Kannada	GEC	Kannada	SD
		251	Colors Marathi	GEC	Marathi	SD
		252	Colors Oriya	GEC	Oriya	SD
		253	MTV Beats HD	Music	Hindi	HD
		254	Colors Tamil	GEC	Tamil	SD
		255	Colors Cineplex HD	Movies	Hindi	HD
		256	VH 1	Music	English	SD
		257	Colors Tamil HD	GEC	Tamil	HD
		258	MTV HD+	Music	Hindi	HD
		259	Colors Rishtey	GEC	Hindi	SD
		260	Colors Kannada Cinema	Movies	Kannada	SD
		261	Colors Gujarati Cinema	Movies	Gujarati	SD
		262	Comedy Central	GEC	English	SD
		263	Rishtey Cineplex	Movies	Hindi	SD
		264	Colors Bangla Cinema	Movies	Bangla	SD
37	Zee Akaash News Private Limited	265	Zee 24 Ghanta	News	Bangla	SD
		266	Zee Bollywood	Movies	Hindi	SD
		267	Zee Action	Movies	Hindi	SD
		268	Zee Bangla Cinema	Movies	Bangla	SD
38	Zee Entertainment	269	Zee Café HD	GEC	English	HD
	Enterprises Limited	270	Zee Café	GEC	English	SD
		271	Zee Cinema	Movies	Hindi	SD
		272	Zee Talkies	Movies	Marathi	SD
		273	Zee TV	GEC	Hindi	SD
		274	Zing	Music	Hindi	SD

S. No	Name of the broadcaster	S1. No	Name of the channel	Genre as per new Regulatory framework	Language	Declared as SD or HD
		275	& Picture	Movies	Hindi	SD
		276	Zee Bangla	GEC	Bangla	SD
		277	Zee Marathi	GEC	Marathi	SD
		278	Zee Zest	Infotainment	English/ Hindi	SD
		279	Zee TV HD	GEC	Hindi	HD
		280	Zee Cinema HD	Movies	Hindi	HD
		281	& TV	GEC	Hindi	SD
		282	& TV HD	GEC	Hindi	HD
		283	Zee Kannada	GEC	Kannada	SD
		284	Zee Telugu	GEC	Telugu	SD
		285	& Pictures HD	Movies	English/ Hindi	HD
		286	Zee Cinemalu	Movies	Telugu	SD
	Zee Entertainment	287	Zee Yuva	GEC	Marathi	SD
	Enterprises Limited	288	Zee Marathi HD	GEC	Marathi	HD
		289	& Prive HD	Movies	English	HD
		290	Zee Bangla HD	GEC	Bangla	HD
		291	Zee Tamil HD	GEC	Tamil	HD
		292	Zee Cinemalu HD	Movies	Telugu	HD
		293	Zee Telugu HD	GEC	Telugu	HD
		294	Zee Tamil	GEC	Tamil	SD
		295	Zee Kannada HD	GEC	Kannada	HD
		296	Zee Anmol Cinema	Movies	Hindi	SD
		297	& Flix HD	Movies	English	HD
		298	& Flix	Movies	English	SD
		299	Zee Keralam HD	GEC	Malayalam	HD
		300	Zee Keralam	GEC	Malayalam	SD
		301	Zee Vajwa	Music	Hindi	SD
		302	Zee Anmol	GEC	Hindi	SD
		303	Big Magic	GEC	Hindi	SD
		304	Big Ganga	GEC	Bhojpuri	SD

S. No	Name of the broadcaster	S1. No	Name of the channel	Genre as per new Regulatory framework	Language	Declared as SD or HD
		305	Zee Classic	Movies	Hindi	SD
		306	&Xplore HD	Movies	Hindi	HD
		307	ZEE Sarthak	GEC	Odia	SD
		308	Zee Talkies HD	Movies	Marathi	HD
		309	Zee Punjabi	GEC	Punjabi	SD
		310	Zee Thirai	Movies	Tamil	SD
		311	Zee Picchar	Movies	Kannada	SD
		312	Zee Biskope	Movies	Bhojpuri	SD
		313	Zee 24 Taas	News	Marathi	SD
		314	Zee Odisha	News	Odia	SD
		315	Zee Business	News	Hindi	SD
	Zee Media Corporation	316	Zee Punjab Haryana Himachal	News	Hindi	SD
39		317	Zee Madhya Pradesh Chattisgarh	News	Hindi	SD
	Limited	318	Zee Salaam	News	Urdu	SD
		319	Zee 24 Kalak	News	Hindi	SD
		320	WION	News	Hindi	SD
		321	Zee Uttar Pradesh Uttrakhand	News	Hindi	SD
		322	Zee Hindustan	News	Hindi	SD
		323	Zee Bihar Jharkhand	News	Hindi	SD
		324	Zee News	News	Hindi	SD
		325	Zee Rajasthan News	News	Hindi	SD
40	Zoom Entertainment Network Limited	326	Movies Now	Movies	English	SD

#### Annexure 5.2

# **List of Pay DTH Operators**

### 1. M/s. Tata Sky Ltd.,

Tata Communications Complex, Mandi Road, PO Chattarpur, New Delhi – 110 074 Tel: 011-6616 3000 Fax-022-6616 3030 Website : <u>www.tatasky.com</u> 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 : <u>www.dishtv.in</u>

### 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 : <u>www.sundirect.in</u> 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 : <u>www.airtel.in</u> Toll Free No. 18001036065

# Annexure 5.3

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

# List of 105 existing cities with operational FM Radio Channels in India as on $31^{st}$ December, 2020

S.No	City	Category	Stations
29	Dhule	С	3
30	Dhubri	others	1
31	Durg-Bhillaina	D	1
32	Erode	С	2
33	Gangtok	D	2
34	Gorakhpur	С	4
35	Gulbarga	С	1
36	Guwahati	С	4
37	Gwalior	С	4
38	Haflong	D	1
39	Hissar	D	4
40	Hubli - Dharwad	С	2
41	Hyderabad	А	8
42	Indore	В	4
43	Itanagar	D	2
44	Jabalpur	В	4
45	Jaipur	А	6
46	Jalandhar	С	4
47	Jalgaon	С	4
48	Jammu	С	3
49	Jamnagar	С	1
50	Jamshedpur	В	4
51	Jhansi	С	4
52	Jodhpur	С	4
53	Junagarh	D	1
54	Kannur	С	3
55	Kanpur	А	6
56	Karnal	D	3
57	Kolhapur	С	4
58	Kolkata	A+	7
59	Kota	С	4
60	Kozhikode	С	4

S.No	City	Category	Stations
61	Lucknow	A	6
62	Madurai	В	4
63	Mangalore	С	3
64	Mehsana	D	1
65	Mumbai	A+	9
66	Muzaffarpur	С	4
67	Mysore	С	3
68	Nagpur	A	6
69	Nanded	С	3
70	Nasik	С	4
71	Nellore	С	1
72	Palampur	D	1
73	Panaji	D	2
74	Patiala	С	4
75	Patna	В	4
76	Puducherry	С	4
77	Pune	А	6
78	Raigarh	D	1
79	Raipur	С	3
80	Rajahmundry	С	2
81	Rajkot	В	4
82	Ranchi	С	4
83	Rourkela	С	3
84	Salem	С	2
85	Sangli	С	5
86	Shillong	D	3
87	Shimla	D	3
88	Sholapur	С	4
89	Siliguri	С	3
90	Srinagar	С	4
91	Surat	A	6
92	Thiruvananthapuram	С	4

S.No	City	Category	Stations		
93	Thrissur	C	3		
94	Tiruchy	C	3		
95	Tirunelveli	C	3		
96	Tirupati	C	2		
97	Tuticorin	C	2		
98	Udaipur	C	4		
99	Ujjain	C	1		
100	Vadodra	В	4		
101	Varanasi	В	5		
102	Vellore	C	2		
103	Vijayawada	В	2		
104	Vishakapatnam	В	3		
105	Warrangal	C	2		
	Total				

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

# Disclaimer

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