



Telecom Regulatory Authority of India

Yearly Performance Indicators Indian Telecom Sector (Fourth Edition)

2019

New Delhi, India

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Snapshot

(Data As on 31st December, 2019)			
Telecom Subscribers (Wireless +Wireline)			
Total Subscribers	1,172.44 Million		
% change over the previous year	-2.12%		
Urban Subscribers	662.45 Million		
Rural Subscribers	509.99 Million		
Market share of Private Operators	88.55%		
Market share of PSU Operators	11.45%		
Tele-density	88.56		
Urban Tele-density	156.26		
Rural Tele-density	56.67		
Wireless Subscribers			
Total Wireless Subscribers	1,151.44 Million		
% change over the previous year	-2.09%		
Urban Subscribers	643.97 Million		
Rural Subscribers	507.46 Million		
Market share of Private Sector Operators	89.45%		
Market share of Public Sector Operators	10.55%		
Tele-density	86.98		
Urban Tele-density	151.90		
Rural Tele-density	56.39		
No. of total Public Mobile Radio Trunk Services (PMRTS)	59,089		
No. of Very Small Aperture Terminals (VSAT)	2,98,464		
Wireline Subscribers			
Total Wireline Subscribers	21 Million		
% change over the previous year	-3.95%		
Urban Subscribers	18.47 Million		
Rural Subscribers	2.53 Million		
Market share of Private Operators	39.53%		
Market share of PSU Operators	60.47%		
Tele-density	1.59		
Urban Tele-density	4.36		
Rural Tele-density	0.28		
No. of Village Public Telephones (VPT)	68,784		
No. of Public Call Office (PCO)	1,97,891		

Internet/Broadband Subscribers	
Total Internet Subscribers	718.74 Million
% change over previous year	18.95%
Narrowband subscribers	56.806 Million
Broadband subscribers	661.938 Million
Wired Internet Subscribers	22.386 Million
Wireless Internet Subscribers	696.36 Million
Urban Internet Subscribers	450.31 Million
Rural Internet Subscribers	268.43 Million
Total Internet Subscribers per 100 population	54.29
Urban Internet Subscribers per 100 population	106.22
Rural Internet Subscribers per 100 population	29.83
Telecom Financial Data for the Calendar Year-2019	
Gross Revenue (GR) during the year 2019	`2,43,705 Crore
% change in GR over the previous year	2.65%
Adjusted Gross Revenue (AGR) during the year 2019	`1,53,272 Crore
% change in AGR over the previous year	6.11%
Share of Public Sector Operators in Access AGR	8.97%
Broadcasting & Cable Services	
Number of private satellite TV channels permitted by the Ministry of I&B for uplinking only/downlinking/uplinking	918
Number of Pay TV Channels	332
Number of private FM Radio Stations (excluding All India Radio)	368
Number of Pay Subscribers Active with Private DTH Operators	69.98 Million
Number of Operational Community Radio Stations	278
Number of pay DTH Operators	4
Revenue & Usage Parameters (for the Calendar Year 2019)	
Monthly ARPU for Wireless (Full Mobility) Service	`74.88
Minutes of Usage (MOU) per subscriber per month - Wireless (Full Mobility) Service	701 Minutes
Average Revenue for wireless data per data subscribers per month for (including LTE)	`76.59
Average revenue realization per subscriber per GB wireless data during the quarter	`7.77
Average wireless data usage per data subscriber per month	9.85 GB

Introduction

This Report presents the Key Parameters and growth trends for the Telecom Services in India for the calendar year 2019. 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 Data services. Chapter-3 gives the financial and accounting data. The information relating to Cable TV, DTH & Radio Broadcast services is provided in Chapter-4.

- 2. The Report has been prepared based on the information furnished by the Service Providers. It is also available on TRAI's website (www.trai.gov.in under the link http://www.trai.gov.in/release-publication/reports/performance-indicators-reports). For any suggestion or clarification pertaining to this report, the following persons may be contacted:
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Chapter 1: Subscription Data

• In this report, Tele-density is based on the population projections from census

data published by the Office of Registrar General & Census Commissioner of India.

• The Report has been prepared based on the information furnished by the Service Providers.

Section A: Access Service - An overview

1. The number of telephone subscribers in India decreased from 1,197.87 million at the end of Dec-18 to 1,172.44 million at the end of Dec-19, registering a yearly decline rate of 2.12%. The overall Tele-density* in India declined from 91.45 at the end of Dec-18 to 88.56 at the end of Dec-19 at yearly decline rate of 3.15%.

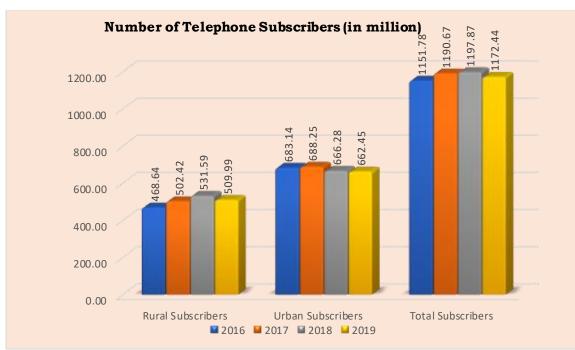


Chart 1.1: Trend of Telephone Subscriptions in India

2. Telephone subscription in Urban Areas declined from 666.28 million at the end of Dec-18 to 662.45 million at the end of Dec-19 at the yearly decline rate of 0.57%. Urban Tele-density also declined from 159.98 at the end of Dec-18 to 156.26 at the end of Dec-19 with yearly decline rate of 2.33%.

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

3. Rural telephone subscription decreased from 531.59 million at the end of Dec-18 to 509.99 million at the end of Dec-19 at the yearly decline rate of 4.06%. Rural Tele-density also decreased from 59.50 at the end of Dec-18 to 56.67 at the end of Dec-19 with yearly decline rate of 4.75%.

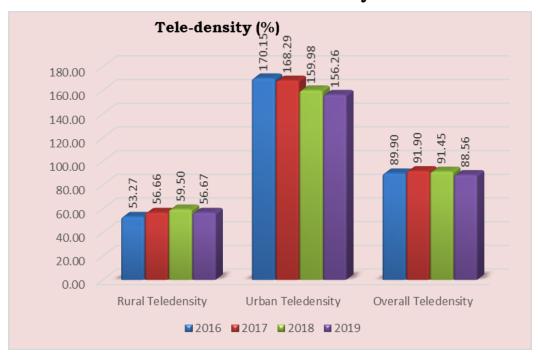


Chart 1.2: Trend of Tele-density in India

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

Year	Subscril	oer Base (million)	Te	ele-densi	ty
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

4. Out of the total telephone subscription, the shares of Rural telephone subscription decreased from 44.38% at the end of Dec-18 to 43.50% at

the end of Dec-19. However, share of Urban telephone subscription in total telephone subscription, increased from 55.62% at the end of Dec-18 to 56.50% at the end of Dec-19. The following chart depicts the rural-urban market share of telephone subscribers at the end of Dec-19.

Table 1.2: Composition of Telephone Subscribers

Network Type	Share (%)
Urban Wireless	54.93%
Rural Wireless	43.28%
Urban Wireline	1.58%
Rural Wireline	0.22%

5. Out of 1,172.44 million of total telephone subscriber, the number of Wireless Telephone subscribers is 1,151.44 million and the number of Wireline Telephone subscribers is 21 million at the end of Dec-19. The following chart depicts the market share of Wireless and Wireline subscribers in India.

Chart 1.3: Composition of Market Share Wireless & Wireline Subscribers

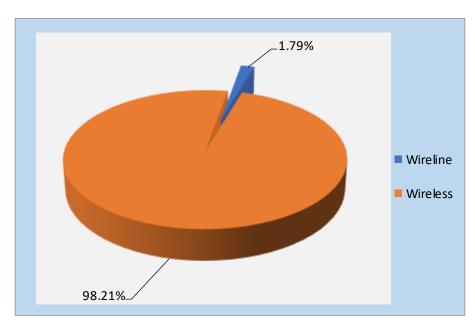


Table 1.3: Service Area wise Access (Wireless+Wireline) Subscriber base

Service Area	Subscribers (million)			
	Dec-18	Dec-19	Yearly Net Additions	Rate of Yearly Growth (%)
Andhra Pradesh	88.64	88.38	-0.27	-0.30
Assam	21.86	23.72	1.86	8.49
Bihar	88.32	84.50	-3.82	-4.33
Delhi	54.33	56.22	1.88	3.46
Gujarat	71.87	68.64	-3.23	-4.50
Haryana	27.96	28.07	0.11	0.38
Himachal Pradesh	10.62	10.70	0.08	0.73
Jammu & Kashmir	11.61	10.45	-1.16	-9.97
Karnataka	70.79	69.51	-1.28	-1.81
Kerala	45.56	45.23	-0.33	-0.72
Madhya Pradesh	77.83	75.74	-2.09	-2.68
Maharashtra	96.58	94.01	-2.56	-2.65
Mumbai	40.48	41.17	0.69	1.69
North East	11.78	12.21	0.44	3.70
Orissa	33.37	33.23	-0.14	-0.43
Punjab	40.11	39.83	-0.28	-0.69
Rajasthan	66.93	65.84	-1.09	-1.62
T.N. (incl. Chennai)	84.97	83.87	-1.10	-1.29
U.P.(E)	102.24	96.12	-6.12	-5.99
U.P.(W)	65.06	63.22	-1.85	-2.84
Kolkata	27.79	26.32	-1.47	-5.29
West Bengal	59.14	55.46	-3.68	-6.22
All India	1,197.87	1,172.44	-25.42	-2.12

6. During the year 2019, Assam service area has recorded the highest growth rate of 8.49% followed by North East service area (3.70%). On the other hand, Jammu & Kashmir service area showed maximum decline rate of 9.97% during the year 2019.

Table 1.4: Service Area wise Rural-Urban Subscribers

Service Area	Subscribers (million) as on 31st December, 201			
	Total	Rural	Urban	% of Rural Subscribers
Andhra Pradesh	88.38	41.77	46.61	47.26
Assam	23.72	13.64	10.08	57.52
Bihar	84.50	52.80	31.71	62.48
Delhi	56.22	1.57	54.64	2.80
Gujarat	68.64	26.80	41.84	39.04
Haryana	28.07	12.71	15.35	45.30
Himachal Pradesh	10.70	7.02	3.68	65.58
Jammu & Kashmir	10.45	4.55	5.90	43.57
Karnataka	69.51	27.50	42.01	39.56
Kerala	45.23	20.84	24.38	46.09
Madhya Pradesh	75.74	33.79	41.95	44.61
Maharashtra	94.01	43.14	50.87	45.89
Mumbai	41.17	1.83	39.33	4.46
North East	12.21	5.82	6.39	47.70
Orissa	33.23	21.73	11.49	65.41
Punjab	39.83	13.57	26.26	34.07
Rajasthan	65.84	34.86	30.98	52.95
T.N. (incl. Chennai)	83.87	26.55	57.33	31.65
U.P.(E)	96.12	54.24	41.88	56.43
U.P.(W)	63.22	28.76	34.45	45.50
Kolkata	26.32	1.95	24.37	7.41
West Bengal	55.46	34.53	20.93	62.26
All India	1,172.44	509.99	662.45	43.50

Table 1.5: Service Area wise Tele-density

Service Area/	As on 31	L st Decemb	er, 2018	As on 31	l st Decemb	er, 2019
States	Rural Teledensity	Urban Teledensity	Total Teledensity	Rural Teledensity	Urban Teledensity	Total Teledensity
Andhra Pradesh	65.38	182.58	98.25	63.94	182.67	97.28
Assam	45.14	165.80	65.35	48.63	175.49	70.18
Bihar	45.52	165.79	62.23	42.77	158.71	58.92
Delhi	-	-	235.65	-	=	237.11
Gujarat	75.07	155.63	109.53	71.03	146.45	103.54
Haryana	67.23	148.79	97.88	70.97	139.27	96.99
Himachal Pradesh	121.57	327.43	146.50	109.51	411.44	146.53
J&K	61.63	164.75	90.99	49.62	159.81	81.22
Karnataka	67.01	177.25	110.87	71.38	162.78	108.05
Kerala	77.92	266.76	125.52	76.38	265.70	124.02
Madhya Pradesh	46.30	139.42	72.29	43.12	137.04	69.50
Maharashtra (incl. Mumbai)*	74.91	142.94	108.61	70.38	141.53	105.91
North East	49.34	176.07	82.01	54.32	169.34	84.24
Orissa	61.72	144.80	76.90	60.99	142.36	76.02
Punjab	79.99	181.26	125.98	78.10	177.56	123.83
Rajasthan	63.77	165.26	88.45	60.18	165.96	85.95
Tamil Nadu (incl. Chennai)	89.02	134.97	117.77	100.40	124.46	115.68
Uttar Pradesh (incl. UPE & UPW)	49.22	139.13	70.12	44.76	134.95	65.84
West Bengal (incl. Kolkata)*	61.72	158.30	89.62	52.51	160.07	83.64
All India	59.50	159.98	91.45	56.67	156.26	88.56

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

Notes:-

- 1. Tele-density figures are derived from the subscriber data provided by the operators and the population projections, for Urban and Rural areas, of the country, published by the Office of the Registrar General & Census Commissioner, India.
- 2. Delhi Service area, apart from the State of Delhi, includes wireless subscribers of the areas served by the local exchanges of Ghaziabad & Noida (in UP) and Gurgaon & Faridabad (in Haryana).
- 3. Data/information for Andhra Pradesh includes Telengana, Madhya Pradesh includes 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. Himachal Pradesh service area has the highest Rural Tele-density of 109.51 followed by Tamil Nadu service area (100.40) at the end of Dec-19. On the other hand, Bihar service area have the lowest Rural Teledensity of 42.77 in the same period.

Table 1.6: Service Provider-wise growth in Subscriber base

Comico	Subscriber base (in million)			Rate of	Market	Market
Service Provider	Dec-18	Dec-19	Yearly Net Addition/ decline	Growth (%)	Share as on Dec-18 (%)	Share as on Dec-19 (%)
Reliance Jio	280.12	371.07	90.95	32.47	23.38	31.65
BSNL	125.81	127.70	1.88	1.50	10.50	10.89
MTNL	6.74	6.50	-0.24	-3.57	0.56	0.55
Bharti Airtel	344.30	331.61	-12.69	-3.69	28.74	28.28
Quadrant	0.23	0.20	-0.03	-12.89	0.02	0.02
Vodafone Idea	419.03	333.01	-86.01	-20.53	34.98	28.40
Reliance Com.	0.78	0.57	-0.21	-26.56	0.06	0.05
Tata Tele.	20.86	1.79	-19.07	-91.43	1.74	0.15
Total	1,197.87	1,172.44	-25.42	-2.12	100	100

8. M/s Reliance Jio Infocomm Ltd has added maximum number of telephone subscribers (90.95 million net addition) during the year 2019. All service providers have registered decline in their subscriber base except M/s Reliance Jio Infocomm and BSNL during the year 2019.

Table 1.7: Service provider-wise Market Share of rural subscribers in their total subscribers – as on 31st December, 2019

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

9. M/s Vodafone Idea Ltd is the service provider with highest proportion of rural subscribers (51.78%), followed by Bharti Airtel (43.87%) to their total number of telephone subscribers at the end of Dec-19.

Section B: Wireless Service

Table 1.8: List of Cellular Mobile Service Providers currently providing service [As on 31st December, 2019]

Sl.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

Source: DoT website

UL Access Services Licensees Virtual Network Operators (VNOs) who are providing services as on 31st December, 2019

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 decreased from 1,176.00 million at the end of Dec-18 to 1,151.44 million at the end of Dec-19, thereby showing a yearly decline rate of 2.09%. During the year 2019, net decline of 24.56 million wireless subscribers was recorded.
- 11. The Rural Wireless subscribers declined from 528.48 million at the end of Dec-18 to 507.46 million at the end of Dec-19 with yearly decline rate of 3.98%

- 12. The urban wireless subscribers declined from 647.52 million at the end of Dec-18 to 643.97 million at the end of Dec-19 with yearly decline rate of 0.55%.
- 13. The following chart and table depict the trend of total, rural and urban wireless subscribers during last four years.

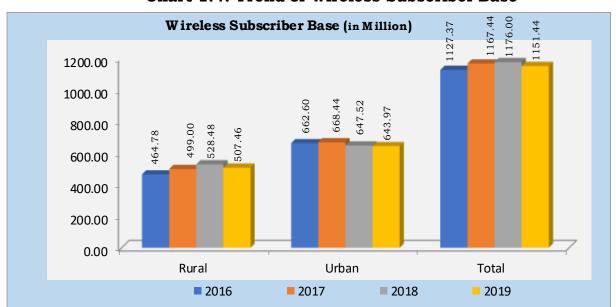


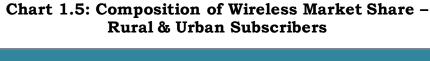
Chart 1.4: Trend of Wireless Subscriber Base

Table 1.9: Wireless Subscriber Base & Tele-density - Rural & Urban

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

14. Overall Wireless Teledensity declined from 89.78 at the end of Dec-18 to 86.98 at the end of Dec-19. Rural wireless Teledensity declined

- from 59.15 to 56.39 and Urban wireless Teledensity also declined from 155.48 to 151.90 at the end of Dec-19.
- 15. The share of rural wireless subscription decreased from 44.94% at the end of Dec-18 to 44.07% at the end of Dec-19, however the share of urban wireless subscription increased from 55.06% to 55.93% during the same period.
- 16. The following chart depicts the composition of rural-urban market share in total wireless telephone subscribers during last four years.



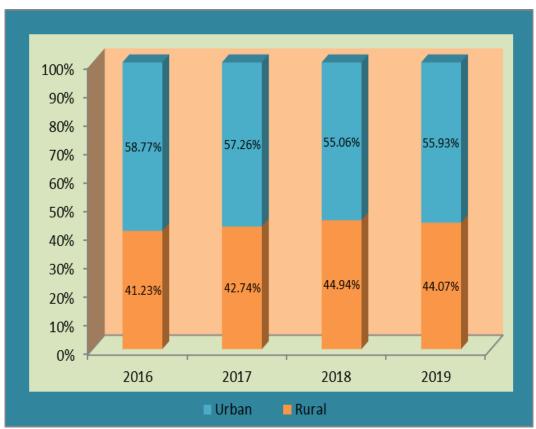


Table 1.10: Growth in Wireless Subscriber base

Service Provider	Subscri	ber Base (n	nillions)	Rate of Growth	Market Share	Market Share
	Dec-18	Dec-19	Net Additions	(%)	Dec-18 (%)	Dec-19 (%)
Reliance Jio	280.12	370.02	89.90	32.09	23.82	32.14
BSNL	114.37	118.12	3.74	3.27	9.73	10.26
MTNL	3.47	3.38	-0.10	-2.84	0.30	0.29
Bharti	340.26	327.30	-12.96	-3.81	28.93	28.43
Reliance Comm. Group	0.022	0.018	-0.004	-19.97	0.002	0.002
Vodafone IDEA	418.75	332.61	-86.13	-20.57	35.61	28.89
Total	1,176.00	1,151.44	-24.56	-2.09	100	100

Note: * The subscribers of M/s Bharti Airtel includes subscribers of M/s Tata Teleservices Ltd. **Dec-18 Total includes M/s Tata Teleservices

- 17. M/s Reliance Jio became the market leader with 32.14% market share of total wireless telephone subscriber base at the end of Dec-19 and M/s Vodafone Idea Ltd slipped at second position with 28.89% market share.
- 18. In term of net addition, M/s Reliance Jio Infocomm Ltd added maximum number of telephone subscribers of 89.90 million during the year 2019 and its yearly growth rate recorded as 32.09% during the year 2019.

Table 1.11: Service Area wise Wireless Subscriber base

Service Area	Subscriber base (in million)					
	Dec-18	Dec-19	Net Additions	Rate of change (%)		
Andhra Pradesh	87.21	87.02	-0.19	-0.22		
Assam	21.74	23.61	1.86	8.57		
Bihar	88.08	84.32	-3.76	-4.27		
Delhi	51.13	52.95	1.82	3.55		
Gujarat	70.65	67.45	-3.20	-4.53		
Haryana	27.68	27.80	0.12	0.42		
Himachal Pradesh	10.50	10.60	0.09	0.90		
Jammu & Kashmir	11.51	10.32	-1.19	-10.30		
Karnataka	68.62	67.39	-1.24	-1.80		
Kerala	43.65	43.50	-0.15	-0.33		
Madhya Pradesh	76.90	74.88	-2.03	-2.64		
Maharashtra	95.01	92.62	-2.39	-2.51		
Mumbai	37.54	38.10	0.55	1.47		
North East	11.67	12.11	0.44	3.80		
Orissa	33.14	33.01	-0.12	-0.37		
Punjab	39.32	39.10	-0.21	-0.54		
Rajasthan	66.39	65.33	-1.06	-1.59		
T.N. (incl. Chennai)	82.75	81.80	-0.95	-1.15		
U.P.(E)	101.79	95.69	-6.10	-5.99		
U.P.(W)	64.75	62.90	-1.85	-2.86		
Kolkata	27.06	25.65	-1.41	-5.22		
West Bengal	58.89	55.28	-3.61	-6.13		
All India	1,176.00	1,151.44	-24.56	-2.09		

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

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

Service Area	Subscriber base (in million) – Dec-19				
	Total	Rural	Urban	% of Rural Subscribers	
Andhra Pradesh	87.02	41.61	45.41	47.82	
Assam	23.61	13.63	9.98	57.73	
Bihar	84.32	52.77	31.55	62.59	
Delhi	52.95	1.57	51.37	2.97	
Gujarat	67.45	26.66	40.79	39.52	
Haryana	27.80	12.67	15.13	45.58	
Himachal Pradesh	10.60	6.96	3.64	65.68	
Jammu & Kashmir	10.32	4.54	5.78	43.99	
Karnataka	67.39	27.39	40.00	40.64	
Kerala	43.50	19.83	23.67	45.59	
Madhya Pradesh	74.88	33.71	41.17	45.02	
Maharashtra	92.62	42.94	49.69	46.36	
Mumbai	38.10	1.83	36.26	4.81	
North East	12.11	5.81	6.30	47.96	
Orissa	33.01	21.69	11.32	65.71	
Punjab	39.10	13.43	25.67	34.35	
Rajasthan	65.33	34.81	30.52	53.29	
T.N. (incl. Chennai)	81.80	26.27	55.53	32.11	
U.P.(E)	95.69	54.18	41.51	56.62	
U.P.(W)	62.90	28.74	34.16	45.69	
Kolkata	25.65	1.95	23.70	7.60	
West Bengal	55.28	34.46	20.82	62.34	
All India	1,151.44	507.46	643.97	44.07	

Table 1.13: Service Area wise Wireless Tele-density

	As on 3	1st Decembe	r, 2018	As on 31st December, 2019		
Service Area	Rural Teledensity	Urban Teledensity	Total Teledensity	Rural Feledensity	Urban Teledensity	Total Teledensity
A.P.	65.02	177.85	96.66	63.70	177.97	95.79
Assam	45.07	164.03	64.99	48.57	173.81	69.85
Bihar	45.49	164.75	62.06	42.76	157.92	58.80
Delhi	-	-	221.76	-	-	223.32
Gujarat	74.59	151.92	107.67	70.66	142.77	101.74
Haryana	66.93	146.66	96.89	70.71	137.22	96.04
H.P.	120.56	321.30	144.88	108.65	406.29	145.13
J&K	61.51	162.16	90.17	49.47	156.60	80.19
Karnataka	66.62	169.30	107.47	71.09	154.99	104.75
Kerala	73.68	258.48	120.26	72.67	257.95	119.29
M.P.	46.17	136.70	71.43	43.02	134.46	68.71
Maharashtra (incl. Mumbai)*	74.49	136.14	105.03	70.06	134.85	102.41
North East	49.13	173.78	81.27	54.16	167.15	83.56
Orissa	61.58	142.43	76.35	60.87	140.22	75.53
Punjab	79.00	176.96	123.48	77.30	173.56	121.56
Rajasthan	63.64	162.72	87.73	60.09	163.47	85.28
Tamil Nadu (incl. Chennai)	87.85	130.75	114.69	99.35	120.56	112.83
Uttar Pradesh (incl. UPE&UPW)*	49.17	137.94	69.80	44.72	133.78	65.54
West Bengal (incl. Kolkata)*	61.57	155.20	88.61	52.41	157.31	82.77
All India	59.15	155.48	89.78	56.39	151.90	86.98

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

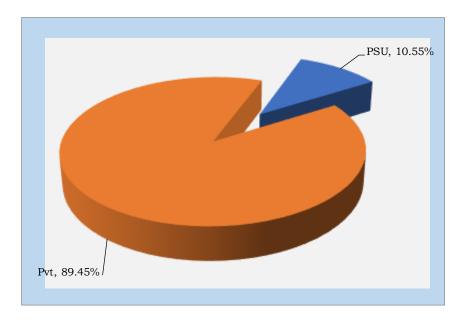
Notes:

- 1. Teledensity figures are derived from the subscriber data provided by the operators and the population projections, for Urban and Rural areas, of the country, published by the Office of the Registrar General & Census Commissioner, India.
- 2. Delhi service area, apart from the State of Delhi, includes the areas served by the local exchanges of Ghaziabad & Noida (in UP) and Gurgaon & Faridabad (in Haryana).
- 3. Data/information for Andhra Pradesh includes Telengana, Madhya Pradesh includes Chhatishgarh, Bihar includes Jharkhand, Maharashtra includes Goa, Uttar Pradesh includes Uttarakhand, West Bengal includes Sikkim and North-East includes Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland & Tripura states.

Table 1.14: Rural Wireless Subscriber base and Market Share

Service Provider	Total number of wireless Subscribers (in millions)	Rural Subscribers (in millions)	% of Rural subscribers in total	Market Share of Rural Subscribers (%)
Vodafone IDEA	332.61	172.44	51.85	33.98
Reliance Jio	370.02	152.14	41.12	29.98
Bharti	327.30	145.48	44.85	28.67
BSNL	118.12	37.35	31.62	7.36
MTNL	3.38	0.05	1.35	0.01
Reliance Comm. Group	0.02	0.00	0.00	-
Total	1,151.44	507.46	44.07	100

Chart 1.6: Composition of Public (PSUs) and Private sectors in Wireless Subscription as on 31.12.2019



20. Private telecom service providers hold 89.45% market share of total wireless telephone subscriptions and PSUs (BSNL & MTNL) hold only 10.55% market share of wireless telephone subscription as on 31st December, 2019.

Section C: Wireline Service

Table 1.15: Service Providers providing Wireline Service

[As on 31st December, 2019]

S1.	Name of the Service Provider	Area of Operation
1	Bharti Airtel Ltd	Telangana, Delhi, Gujarat, Haryana, Karnataka, Kerala, Kolkata, Madhya Pradesh (excluding Chhattisgarh), Chhattisgarh, Maharashtra (excluding Mumbai), Mumbai, Punjab, Rajasthan, Tamilnadu (excluding Chennai), Chennai, UP-East and UP-West(excluding Uttarakhand).
2	BSNL	All India except Delhi & Mumbai
3	MTNL	Delhi & Mumbai
4	Quadrant Televentures Ltd.	Punjab
5	Reliance Communications Ltd.	Andhra Pradesh (excluding Telangana), Telangana, Bihar (Excluding Jharkhand), Jharkhand, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh (excluding Chattisgarh), Chattisgarh, Maharashtra (Excluding Mumbai & Goa) Goa, Mumbai, Orissa, Punjab, Rajasthan, Tamilnadu (excluding Chennai), Chennai, UP-East, UP-West (Excluding Uttarakhand), Uttarakhand and West Bengal (Excluding Andaman & Nicobar and Sikkim))
	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 Chattisgarh), Chattisgarh, Orissa, Punjab, Rajasthan, Tamilnadu (Excluding Chennai), Chennai, UP-East, UP-West (Excluding Uttarakhand), Uttarakhand and West Bengal (Excluding Andaman & Nicobar and Sikkim)

		A 11 D 1 1 (D 1 1: M1) M1
		Andhra Pradesh (Excluding Telangana), Telangana,
		Assam, Bihar (Excluding Jharkhand), Jharkhand,
		Delhi, Gujarat, Haryana, Himachal Pradesh,
		Karnataka, Kerala, Kolkata, Madhya Pradesh
7	Vodafone Idea Ltd	(Excluding Chattisgarh), Chattisgarh, Maharashtra
1	Vodalone idea Lid	(Excluding Mumbai & Goa), Goa, Mumbai
		Meghalaya, Orissa, Punjab, Rajasthan, Tamilnadu
		(Excluding Chennai), UP-East, UP-West (Excluding
		Uttarakhand), Uttarakhand and West Bengal
		(Excluding Andaman & Nicobar and Sikkim)
		Andhra Pradesh (Excluding Telangana), Telangana,
		Assam, Bihar (Excluding Jharkhand), Jharkhand,
		Delhi, Gujarat, Haryana, Himachal Pradesh, Jammu
		& Kashmir, Karnataka, Kerala, Kolkata, Madhya
		Pradesh (Excluding Chattisgarh), Chattisgarh,
8	Reliance Jio	Maharashtra (Excluding Mumbai), Mumbai,
		Manipur, Meghalaya, Mizoram, Nagaland, Orissa,
		Punjab, Rajasthan, Tamilnadu (Excluding Chennai),
		Chennai, UP-East, UP-West (Excluding
		Uttarakhand), Uttarakhand and West Bengal
		(Excluding Andaman & Nicobar and Sikkim)

- 21. Total Wireline subscriber base declined from 21.87 million at the end of Dec-18 to 21 million at the end of Dec-19 with yearly decline rate of 3.95%.
- 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 18.66%, from 3.11 Million at the end of Dec-18 to 2.53 million at the end of Dec-19. During the same period, Urban wireline subscription also recorded decline of 1.51%, from 18.76 million to 18.47 million.
- 24. The following chart and table depict the trend of wireline subscriber base and wireline tele-density (rural-urban) during the last four years.

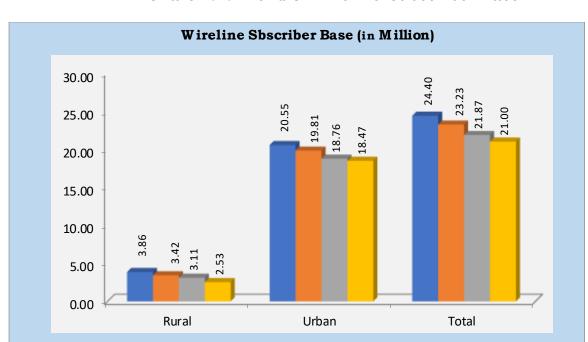


Chart 1.7: Trend of Wireline Subscriber Base

Table 1.16: Wireline Subscriber Base & Tele-density - Rural & Urban

Year	Subscrib	er 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

25. Overall Wireline Tele-density declined from 1.67 at the end of Dec-18 to 1.59 at the end of Dec-19. During the same period Rural wireline tele-density declined from 0.35 to 0.28 and Urban wireline tele-density also declined from 4.50 to 4.36.

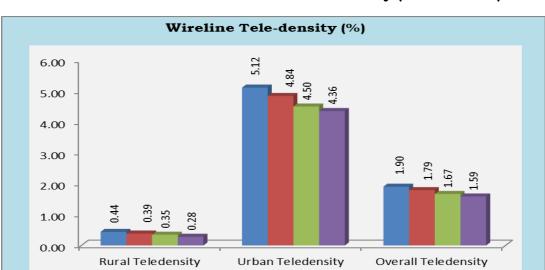


Chart 1.8: Trend of Wireline Tele-density (rural-urban)

Table 1.17: Service Provider wise growth in Wireline Subscriber base

Service	Subscriber Base (million)			Rate of change	Market share-	Market share-
Provider	Dec-18	Dec-19	Net Addition	(%)	Dec-18 (%)	Dec-19 (%)
BSNL	11.44	9.58	-1.86	-16.26	52.31	45.61
Bharti	4.04	4.31	0.27	6.62	18.49	20.52
MTNL	3.26	3.12	-0.14	-4.34	14.93	14.87
Tata	1.86	1.79	-007	-3.67	8.49	8.51
Reliance Comm	0.76	0.55	-0.20	-26.76	3.46	2.64
Quadrant	0.23	0.20	-0.03	-12.89	1.04	0.94
Vodafone	0.28	0.40	0.12	42.15	1.29	1.91
Reliance Jio	-	1.05	1.05	-	-	5.00
Total	21.87	21.00	-0.86	-3.95	100	100

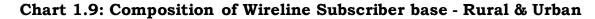
26. M/s BSNL is the leading operator in wireline service with 9.58 million subscriber at the end of Dec-19 followed by Bharti with 4.31 million subscribers.

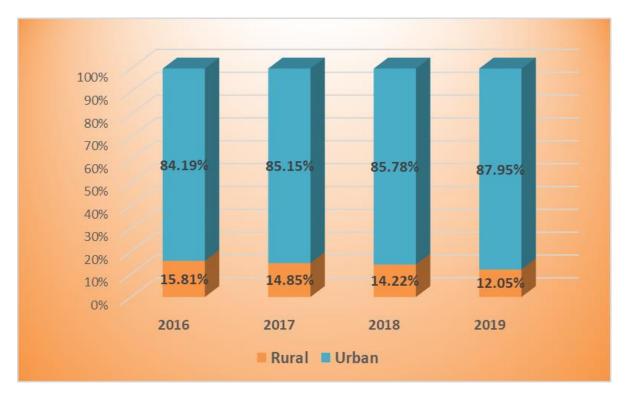
- 27. In term of net addition, only M/s Bharti Airtel and M/s Vodafone showed positive growth with net additions 0.27 million and 0.12 million respectively during the year 2019. M/s Reliance Jio also started providing its services in wireline sector and added 1.05 million subscribers since December, 2018 to December, 2019. All other service providers showed decline in their wireline subscriber base during the year.
- 28. In total wireline subscriber base, PSUs hold 60.47% of market share at the end of Dec-19 as against 67.24% at the end of Dec-18. However, both PSUs, BSNL and MTNL showed decline in their wireline subscriber base during the year 2019.

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

Service	Subscribe	Share of Rural		
Provider	Rural	Urban	Total	subscription (%)
BSNL	2.44	7.14	9.58	25.48
Bharti		4.31	4.31	
MTNL		3.12	3.12	
Tata	0.05	1.74	1.79	2.62
Reliance	0.001	0.55	0.55	0.18
Quadrant	0.04	0.16	0.20	19.49
Vodafone		0.40	0.40	
Reliance Jio	0.003	1.05	1.05	0.28
Total	2.53	18.47	21.00	12.03

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





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 12.05% over the total wireline subscribers at the end of year 2019.

Table 1.19: Service Area wise Wireline Subscriber base & Net Additions (in million)

Service Area	Dec-18	Dec-19	Net Additions	Rate of Change (%)
Andhra Pradesh	1.43	1.36	-0.07	-5.16
Assam	0.12	0.11	-0.01	-5.62
Bihar	0.24	0.18	-0.06	-24.19
Delhi	3.20	3.27	0.07	2.04
Gujarat	1.22	1.19	-0.03	-2.45
Haryana	0.28	0.27	-0.01	-3.48
Himachal Pradesh	0.12	0.10	-0.02	-13.93
Jammu & Kashmir	0.11	0.13	0.03	26.03
Karnataka	2.17	2.12	-0.05	-2.16
Kerala	1.91	1.72	-0.18	-9.67
Madhya Pradesh	0.93	0.86	-0.06	-6.63
Maharashtra	1.57	1.39	-0.18	-11.29
Mumbai	2.94	3.07	0.13	4.48
North East	0.11	0.10	-0.01	-7.39
Orissa	0.24	0.21	-0.02	-9.59
Punjab	0.79	0.73	-0.06	-8.12
Rajasthan	0.55	0.51	-0.03	-5.60
T.N. (incl. Chennai)	2.22	2.07	-0.15	-6.78
U.P.(E)	0.45	0.42	-0.03	-6.43
U.P.(W)	0.31	0.32	0.01	2.42
Kolkata	0.73	0.67	-0.06	-8.10
West Bengal	0.25	0.18	-0.07	-27.50
All India	21.87	21.00	-0.86	-3.95

31. All the service areas showed decline in their wireline subscriber base except Delhi, Jammu & Kashmir, Mumbai and UP (W) during the year 2019.

Table 1.20: Service Area wise Wireline Rural-Urban Subscriber Base (in million)

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

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-19.

Table 1.21: Service Area wise Wireline Teledensity

	As on 31	st Decemb	er, 2018	As on 31st December, 2019			
Service Area	Rural Teledensity	Urban Teledensity	Total Teledensity	Rural Teledensity	Urban Teledensity	Total Feledensity	
Andhra Pradesh	0.36	4.73	1.58	0.24	4.70	1.49	
Assam	0.07	1.77	0.36	0.06	1.67	0.33	
Bihar	0.03	1.04	0.17	0.02	0.79	0.12	
Delhi	-	-	13.89	-	-	13.79	
Gujarat	0.48	3.71	1.86	0.37	3.69	1.80	
Haryana	0.30	2.14	0.99	0.26	2.05	0.94	
Himachal Pradesh	1.01	6.13	1.63	0.87	5.15	1.39	
Jammu & Kashmir	0.12	2.59	0.83	0.15	3.21	1.03	
Karnataka	0.39	7.94	3.39	0.29	7.79	3.30	
Kerala	4.24	8.28	5.26	3.71	7.75	4.73	
Madhya Pradesh	0.14	2.73	0.86	0.10	2.57	0.79	
Maharashtra (incl. Mumbai)*	0.42	6.79	3.57	0.32	6.68	3.50	
North East	0.21	2.28	0.74	0.15	2.19	0.68	
Orissa	0.14	2.37	0.55	0.12	2.14	0.49	
Punjab	0.99	4.30	2.49	0.79	4.00	2.27	
Rajasthan	0.13	2.54	0.72	0.09	2.48	0.67	
Tamil Nadu (incl. Chennai)	1.17	4.22	3.08	1.05	3.90	2.86	
Uttar Pradesh (incl. UPE & UPW)	0.06	1.19	0.32	0.04	1.16	0.31	
West Bengal (incl. Kolkata)*	0.16	3.10	1.01	0.10	2.76	0.87	
All India	0.35	4.50	1.67	0.28	4.36	1.59	

^{*} Population data/projections are available state-wise only

Note: 1. Teledensity figures are derived from the subscriber data provided by the operators and the population projections, for Urban and Rural areas, of the country, published by the Office of the Registrar General & Census Commissioner, India.

^{2.} Data/information for Andhra Pradesh includes Telengana, Madhya Pradesh includes 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 2.75 lakh at the end of Dec-18 to 1.98 lakh at the end of Dec-19 with yearly declining rate of 28.05%. Detailed table of service provider wise PCOs is available at **Annexure -1.3**.

Table 1.22: Rate of change & Market share of PCOs

Service Provider	Dec-18	Dec-19	Rate of change (%)	Market share (%) (Dec-19)
BSNL	194023	121631	-37.31%	61.46%
MTNL	68579	65881	-3.93%	33.29%
Bharti	11010	9629	-12.54%	4.87%
Quadrant	1420	750	-47.18%	0.38%
Total	275032	197891	-28.05%	100.00%

- 34. M/s BSNL is the market leader in term of number of PCOs with 61.46% of total number of PCOs followed by MTNL with 33.29% at the end of Dec-19.
- 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 four years.

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

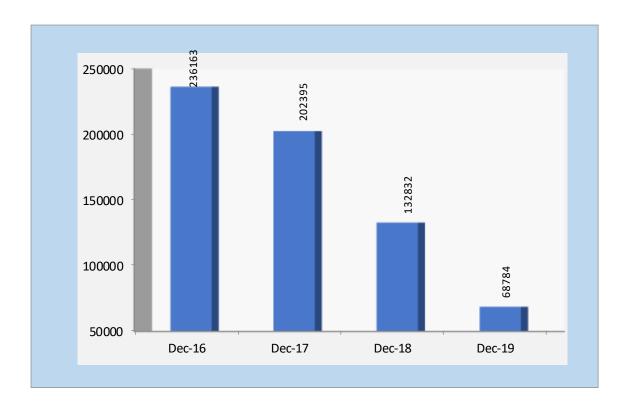


Village Public Telephones (VPTs)

- 36. There are 5,93,731 inhabited villages in India as per census 2001. At the end of Dec-19, 11.59% of the total inhabited villages in India have been connected by VPTs.
- 37. Number of VPTs declined from 1,32,832 at the end of Dec-18 to 68,784 at the end of Dec-19 with yearly decline rate of 48.22%. As per the information received in TRAI as on December, 2019 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 four years.

Chart 1.11: Trend of Number of VPTs in India



Section D: Internet Service

39. This section summarizes information submitted by 358 operators for the year ending 2019. **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[†] Service (broadband[‡] + narrowband[§])

- 40. As per reports received from operators, total number of internet subscribers increased from 604.21 million at the end of Dec-18 to 718.74 million at the end of Dec-19 with yearly growth rate of 18.95%. Out of total 718.74 million internet subscribers, number of broadband subscribers is 661.94 million and number of narrowband subscribers is 56.81 million at the end of Dec-19.
- 41. Wireless Internet subscribers increased from 582.79 million at the end of Dec-18 to 696.36 million at the end of Dec-19 with yearly growth rate of 19.49%. Wired Internet subscribers increased from 21.42 million at the end of Dec-18 to 22.39 million at the end of Dec-19 with yearly growth rate of 4.49%.
- 42. Number of Broadband subscribers increased from 525.36 million at the end of Dec-18 to 661.94 million at the end of Dec-19 with yearly growth rate of 26%. However, the number of Narrowband subscribers declined from 78.86 million at the end of Dec-18 to 56.81 million at the end of Dec-19 with yearly declining rate of 27.97%.

[†] Internet: Interconnected global networks that use the internet protocol.

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

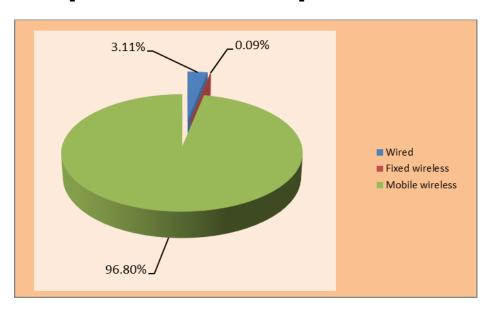
[§] Narrowband: Internet access with a capacity of less than 512 Kbit/s in one or both directions.

Table 1.23: Trend of Internet subscriber base

Segment	Mode of Access									
	Wired Subscribers (in million)		Wireless Subscribers (in million)						Total	
			Fixed Wireless (Wi-Fi, Wi-Max, Radio & VSAT)				Total Wireless		Subscribers (in million)	
	Dec-18	Dec-19	Dec-18	Dec-19	Dec-18	Dec-19	Dec-18	Dec-19	Dec-18	Dec-19
Broadband	18.17	19.14	0.43	0.61	506.76	642.19	507.19	642.80	525.36	661.94
Narrowband	3.26	3.25	0.01	0.01	75.59	53.55	75.60	53.56	78.86	56.81
Total	21.42	22.39	0.44	0.62	582.35	695.74	582.79	696.36	604.21	718.74

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

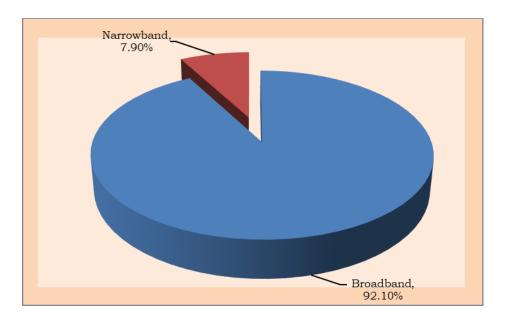
Chart 1.12: Composition of Internet subscription as on 31st December, 2019



- 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 92.10% and the share of narrowband subscription is only 7.90% as

on 31st December, 2019. The following chart depicts the composition of market share of broadband and narrowband subscriptions.

Chart 1.13: Composition of Broadband & Narrowband subscription as on 31st December, 2019



- 46. Number of rural internet subscribers increased from 213.30 million at the end of Dec-18 to 268.43 million at the end of Dec-19 and the number of urban internet subscribers increased from 390.91 million to 450.31 million during the same period.
- 47. Out of 661.94 million broadband subscribers, number of rural broadband subscribers is 240.75 million and number of urban broadband subscribers is 421.19 million.
- 48. Out of 56.81 million narrowband subscribers, number of rural narrowband subscribers is 27.69 million and number of urban narrowband subscribers is 29.12 million.
- 49. The service area wise urban/rural break up of internet subscribers (narrowband and broadband) as on 31st December, 2019 is as per the following table.

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

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

50. The following table depicts the number of internet subscribers of top ten service providers and their market share as on 31st December, 2019.

Table 1.25: Internet Subscriber Base and Market Share of top 10
Service Providers – Dec-19

S.No	Service Providers	No. of Internet Subscribers	Share (%)
1	Reliance Jio Infocomm Ltd	370872755	51.60
2	Bharti Airtel Ltd.	167027305	23.24
3	Vodafone Idea Limited	142068179	19.77
4	Bharat Sanchar Nigam Ltd.	30262689	4.21
5	Atria Convergence Technologies Pvt. Ltd.	1518853	0.21
6	Mahanagar Telephone Nigam Ltd.	1092201	0.15
7	Hathway Cable & Datacom Pvt. Ltd.	898834	0.13
8	You Broadband India Pvt. Ltd.	785284	0.11
9	GTPL Broadband Pvt. Ltd.	325927	0.05
10	Excitel Broadband Private Limited	319323	0.04
	Total of Top 10 ISPs	715171350	99.50
	Others	3572151	0.50
	Grand Total	718743501	100

- 51. M/s Reliance Jio Infocomm Ltd holds the top position with 51.60% market share of total internet subscribers followed by Bharti Airtel Ltd. with 23.24%. Top 10 Service Providers together hold 99.50% share of total internet subscriber base at the end of Dec-19.
- 52. Detailed table of number of subscriber base (Broadband & Narrowband subscribers) of all the service providers is available at Annexure-1.5.

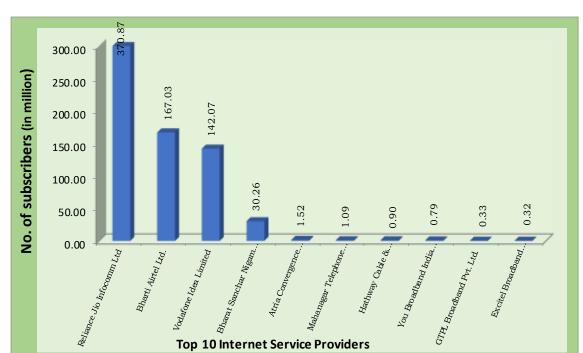


Chart 1.14: Subscriber base of top ten Service Providers

53. Out of total 22.39 million wired internet subscribers, BSNL holds 51.75% market share with 11.59 million subscribers, followed by Bharti with 2.42 million subscribers at the end of Dec-19.

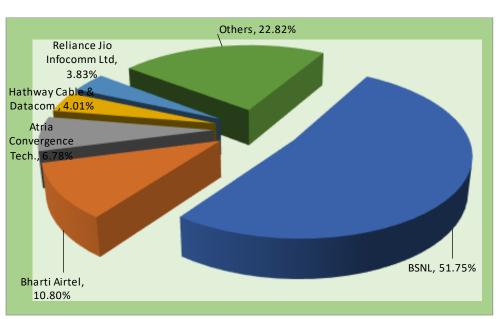


Chart 1.15 : Composition of Wired Internet subscribers as on $31^{\rm st}$ December, 2019

54. In wireless internet segment, Reliance Jio holds 53.14% market share with 370.02 million subscribers followed by Bharti Airtel Ltd. with 164.61 million wireless internet subscribers at the QE Dec-19.

Reliance Jio, 53.14%

Chart 1.16: Composition of Wireless Internet subscription

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

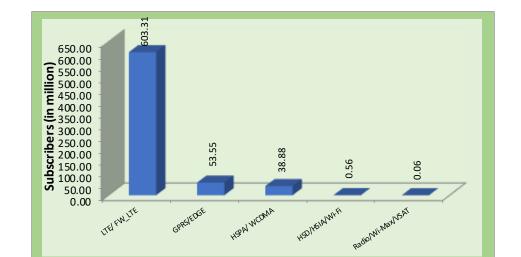


Chart 1.17: Technology** trend for Wireless Internet Access-Dec-19

39

^{**} 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.

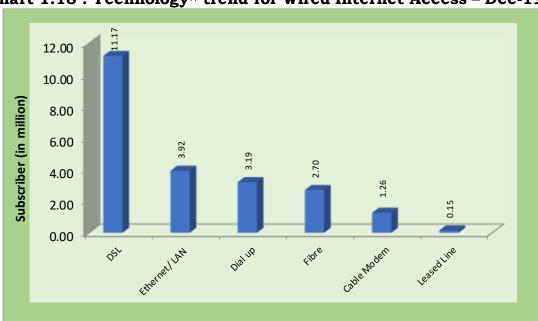


Chart 1.18: Technology^{††} trend for Wired Internet Access - Dec-19

57. Number of internet subscribers per 100 populations (internet teledensity) increased from 46.13 as on 31st December, 2018 to 54.29 as on 31st December, 2019. Rural internet tele-density increased from 23.87 to 29.83 and urban internet tele-density increased from 93.86 to 106.22 from Dec-18 to Dec-19.

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

Year	Internet Subscribers (million)			(million)			Intern	et tele-d	ensity
ending	Rural	Rural Urban		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			

^{††} DSL – Digital Subscriber Line, LAN – Local Area Network

Table 1.27: Service Area wise number of Internet Subscribers per 100 population at the end of Dec-19

Service Area	Intern	net Subsc in million		Interne	t subscri O populat	-
	Rural	Urban	Total	Rural	Urban	Total
Andhra Pradesh	23.93	32.80	56.74	36.63	128.57	62.45
Assam	7.71	5.80	13.51	27.47	100.97	39.96
Bihar	26.78	19.75	46.53	21.69	98.88	32.45
Delhi	0.75	39.21	39.96	-	-	168.53
Gujarat	13.04	31.28	44.32	34.56	109.49	66.85
Haryana	6.58	10.30	16.89	36.75	93.45	58.35
Himachal Pradesh	3.74	2.16	5.90	58.29	241.68	80.78
Jammu & Kashmir	1.52	2.94	4.46	16.58	79.69	34.68
Karnataka	15.69	29.20	44.90	40.74	113.14	69.79
Kerala	10.64	15.79	26.43	39.00	172.05	72.48
Madhya Pradesh	18.71	28.52	47.24	23.88	93.16	43.34
Maharashtra	24.09	37.33	61.42	20.02	102.62	71 74
Mumbai	1.43	28.72	30.15	39.93	103.63	71.74
North East	3.85	3.81	7.66	35.94	100.92	52.84
Orissa	11.74	6.90	18.64	32.94	85.47	42.64
Punjab	8.25	17.30	25.55	47.49	116.96	79.43
Rajasthan	19.11	22.06	41.17	32.99	118.15	53.74
Tamil Nadu	13.33	37.09	50.42	50.42	80.53	69.55
UP (East)	26.97	24.85	51.82	24.54	0.4.40	0.5.00
UP (West)	13.16	22.90	36.07	21.64	84.42	36.32
Kolkata	1.38	15.73	17.11	25.05	111 61	FO 10
West Bengal	16.03	15.86	31.88	25.05 1	111.61	50.10
Total	268.43	450.31	718.74	29.83	106.22	54.29

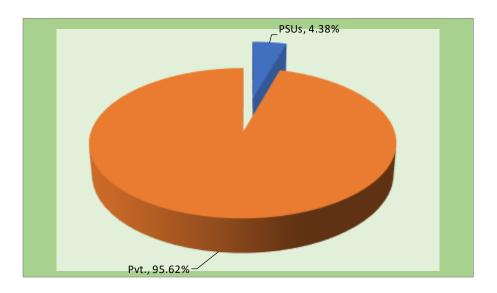
^{*} Population data/projections are available state-wise only.

Notes:

- 1. No. of total internet subscribers per 100 population is derived from the subscriber data provided by the operators and the population projections of the country, published by the Office of the Registrar General & Census Commissioner, India.
- 2. Data/information for Andhra Pradesh includes Telengana, Madhya Pradesh includes 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 31st December, 2019 are Maharashtra (61.42 million), Andhra Pradesh (56.74 million), U.P.(East) (51.82 million), Tamil Nadu including Chennai (50.42 million) and Madhya Pradesh (47.24 million).
- 59. Top five service areas in terms of internet subscribers per 100 population (internet tele-density) are Delhi (168.53), Himachal Pradesh (80.78), Punjab (79.43), Kerala (72.48) and Maharashtra (71.74). Bihar service area has the lowest number of internet subscribers (32.45) per 100 population.
- 60. Himachal Pradesh service area has the highest Rural internet teledensity (58.29) among all service areas. The average rural internet teledensity in India is 29.83 as on 31st December, 2019.
- 61. Share of private internet service providers in respect of subscriber base, increased from 95.01% at the end of 2018 to 95.62% at the end of 2019. The following charts present the composition of market share of PSUs and Private Internet service providers as on Dec-19.

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 15,526 Gbps at the year ending Dec-19 as compared to 7,840 Gbps at the year ending Dec-18.

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 774.09 million during the year 2019 as compare to 851 million during the year 2018. List of Internet Telephony Service providers is available at **Annexure-1.7**.

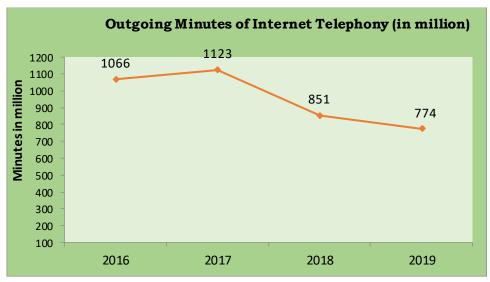


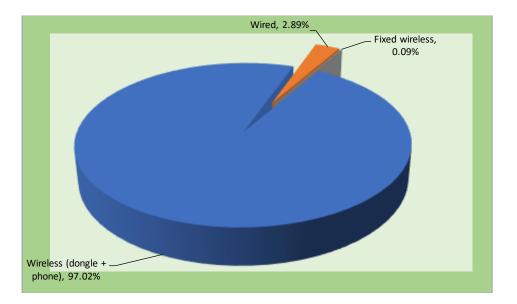
Chart 1.20: Trends in MOU for Internet Telephony

^{‡‡} 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 525.36 million at the end of Dec-18 to 661.94 million at the end of Dec-19 with yearly growth rate of 26%. Out of total number of broadband subscribers, number of wired broadband subscribers are 19.14 million and number of wireless broadband subscribers are 642.80 million at the end of Dec-19.
- 65. Top five broadband (wired+wireless) service providers in term of subscribers as on 31st December, 2019 are Reliance Jio (370.87 million), Bharti Airtel (140.40 million), Vodafone Idea Ltd (118.45 million), BSNL (23.96 million) and Atria Convergence Technologies Pvt. Ltd. (1.52 million).
- 66. In wired broadband segment, BSNL holds 42.31% market share with 8.39 million subscribers followed by Bharti with 2.42 million subscribers at the end of Dec-19.
- 67. In wireless broadband segment, Reliance Jio holds 57.56% market share with 370.02 million subscribers followed by Bharti Airtel Ltd. (21.47%) with 137.98 million subscribers at the end of Dec-19.
- 68. Top five service areas in respect of broadband subscriptions as on 31st December, 2019 are Maharashtra (56.36 million), Andhra Pradesh including Telengana (52.63 million), Tamil Nadu including Chennai (46.74 million), UP (East) (46.65 million) and Madhya Pradesh (42.91 million).
- 69. The following chart depicts the composition of technology wise broadband subscriptions as on 31st December, 2019.

Chart 1.21: Composition of Broadband subscription – Technology wise



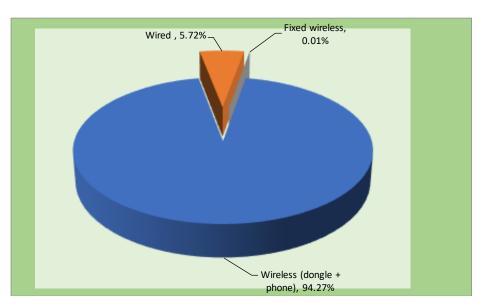
70. Mobile Device (dongle+phone) is the most popular mode of broadband access and it constitutes 97.02% of total broadband subscribers at the end of Dec-19. On the other hand, share of wired internet subscribers is only 2.89% during the same period.

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

- 71. Total number of narrowband subscribers declined from 78.86 million at the end of Dec-18 to 56.81 million at the end of Dec-19 with the yearly decline rate of 27.97%. Out of 56.81 million narrowband subscribers, number of Wired Narrowband subscribers are 3.25 million and number of Wireless Narrowband subscribers are 53.56 million at the end of Dec-19.
- 72. The top five narrowband (wired + wireless) service providers in term of subscriber base are Bharti Airtel (26.63 million), Vodafone Idea Ltd (23.61 million), BSNL (6.30 million), MTNL (0.20 million) and You Broadband India Pvt. Ltd. (0.01 million) at the end of Dec-19.

- 73. In wired narrowband segment, BSNL holds 98.73% market share with 3.195 million subscribers followed by You Broadband India Pvt. Ltd. with 0.015 million subscribers at the end of Dec-19.
- 74. In wireless narrowband segment, Bharti Airtel holds 49.73% market share with 26.63 million subscribers followed by Vodafone Idea Limited with 23.61 million subscribers at the end of Dec-19.
- 75. The following chart depicts the composition of technology wise narrowband subscription as on 31st December, 2019.

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 Trund Service (PMRTS) increased from 57,784 at the end of Dec-18 to 59,089 at the end of Dec-19 with yearly growth rate of 2.26%.

Table 1.28: PMRTS Subscriber base - Service Provider wise

S1. No.	Name of the Service Provider	Subscriber Base as on 31.12.2018	Subscriber Base as on 31.12.2019	Net Addition in Subscribers	% Market share as on 31.12.2019
1	Arya Omnitalk Radio Trunking Services Pvt. Ltd.	48,121	49,043	922	83.00
4	Procall Ltd.	3,218	3,270	52	5.53
2	Inative Networks Pvt Ltd	1,820	1,820	0	3.08
3	Quick Call	2,065	2,144	79	3.63
5	Smartalk Pvt Ltd	968	1,074	106	1.82
6	Bhilwara Telenet Services Pvt Ltd	870	870	0	1.47
7	Wiwanet Solutions Pvt Ltd	361	409	48	0.69
8	Airtalk Solutions & Services Pvt Ltd	361	459	98	0.78
	Total	57,784	59,089	1,305	100

77. M/s Arya Omnitalk Radio Trunking Services Pvt. Ltd. is the market leader in PMRTS with 83% share of total subscription as on 31st Dec19. 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 four years.

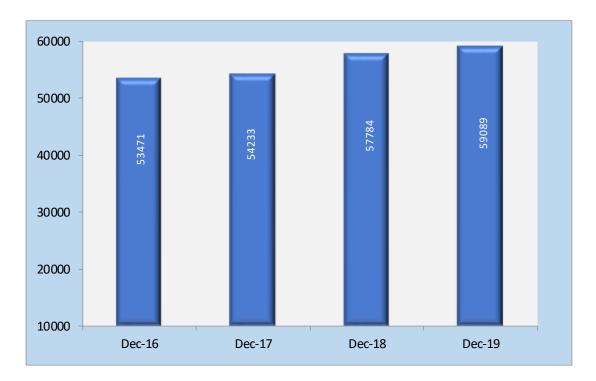


Chart 1.23: Trend of number of PMRTS subscribers

Very Small Aperture Terminal (VSAT)

- 79. The total number of Very Small Aperture Terminal (VSAT) subscribers increased from 2,87,424 at the end of Dec-18 to 2,98,464 at the end of Dec-19. Net addition in VSAT subscribers during the year 2019 has been 11,040 at the yearly growth rate of 3.84%.
- 80. Hughes Communication Limited continues to be the market leader with subscriber base of 1,19,292 followed by Bharti Airtel Ltd with subscriber base of 80,857 at the end of Dec-19.

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

Sr.	Name of Service Providers	Subscriber Quarter		Addition	Market Share (%)
No		Dec-18	Dec-19	during the year 2019	Dec-19
1	Hughes Communications Ltd.	1,03,168	1,19,292	16,124	39.97
2	Bharti Airtel Limited	79,604	80,857	1,253	27.09
3	Tatanet Services	67,584	66,367	-1,217	22.24
4	HCL Comnet	18,154	16,442	-1,712	5.51
5	BSNL	16,307	12,869	-3,438	4.31
6	Infotel Satcom	2,533	2,587	54	0.87
7	Cloudcast Digital (eartwhile Planetcast Media Services)	74	50	-24	0.02
	Total	2,87,424	2,98,464	11,040	100

81. M/s Hughes Communications Ltd. has recorded maximum net addition of 16,124 subscribers followed by M/s Bharti Airtel Ltd (1,253 subscribers) during the year 2019.

Chart 1.24: Trend of Number of VSAT Subscribers



Chapter 2: Revenue and Usage Wireless Services

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

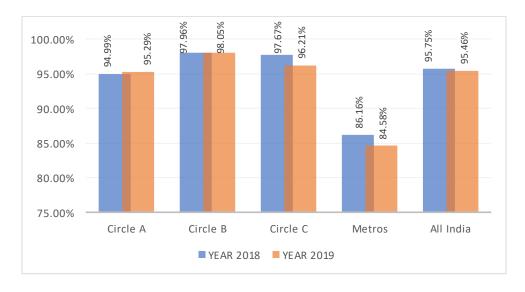
1. The following table presents a Key Indicators of Wireless Revenue and Usage for the year 2019, with compare to the previous year 2018 and yearly growth.

Table 2.1: Key Indicators - Wireless Service

Parameter	Year 2018	Year 2019	Yearly Changes (%)
Share of prepaid subscribers	95.75%	95.46%	-0.30
Incoming MOUs per subscriber per month	310	349	12.58
Outgoing MOUs per subscriber per month	312	352	12.82
Total MOUs per subscriber per month	622	701	12.70
No. of outgoing SMS per subscriber per month	18	17	-5.56
Average Revenue per user (ARPU) per month (`)	70.55	74.88	6.14

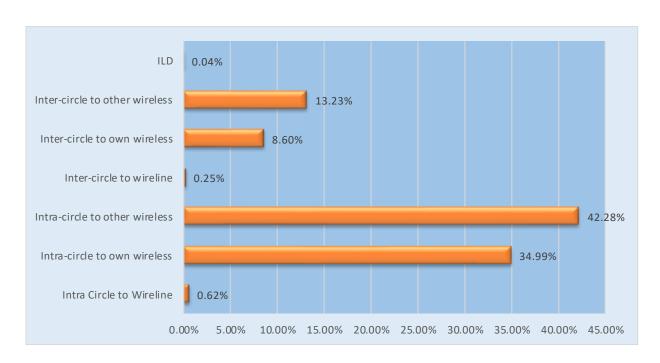
2. Share of prepaid wireless subscriber over total wireless subscribers decreased from 95.75% at the end of 2018 to 95.46% at the end of 2019. The following chart depicts Category-wise share (%) of wireless prepaid subscribers at the end of the year 2018 and 2019.

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



3. 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 2019



A. Revenue

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

1/3 X Qtly Revenue adjusted for interconnect usage charges and roaming settlement charges Average subscribers during the quarter

- 5. Average Revenue Per User (ARPU) per month for wireless service increased from `70.55 during the year 2018 to `74.88 during the year 2019, thereby showing a yearly growth rate of 6.14%.
- 6. The following table presents the ARPU per month for various categories of circles and various platforms for payment viz. post-paid and prepaid.

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

Catagogg	Post	paid	Prep	aid	Blended	
Category	2018	2019	2018	2019	2018	2019
Circle A	335.54	298.23	68.90	76.40	82.54	86.75
Circle B	305.79	271.25	57.64	64.02	62.86	67.91
Circle C	233.39	176.68	61.02	64.58	65.05	68.20
Metro	316.67	237.94	28.62	43.31	68.44	72.44
All India	315.59	259.02	59.42	66.48	70.55	74.88

- 7. Average Revenue Per User (ARPU) per month for postpaid service declined from `315.59 during the year 2018 to `259.02 during the year 2019. ARPU per month for prepaid service increased from `59.42 during the year 2018 to `66.48 during the year 2019.
- 8. The following chart presents the Quarterly trend for ARPU per month during the year 2018 and 2019.

Chart 2.3: Quarterly Trend of ARPU (`) per month of Wireless Service

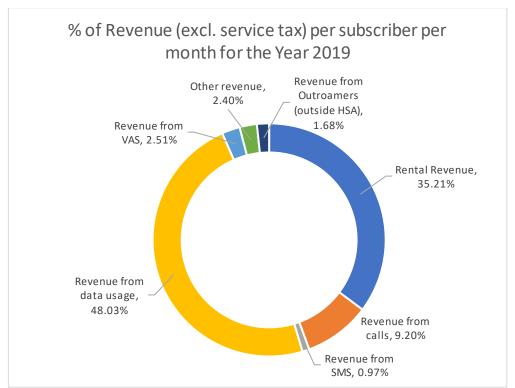


Table 2.3 : Composition of Average Revenue Per User (ARPU) per month (`)

SI. No.	Item	Revenue (excl. service tax) per subscriber per month for the Year 2018	Revenue (excl. service tax) per subscriber per month for the Year 2019
1	Rental Revenue	22.99	31.07
2	Revenue from calls	13.55	8.12
3	Revenue from SMS	1.40	0.85
4	Revenue from data usage	41.05	42.37
5	Revenue from VAS	2.68	2.22
6	Other revenue	2.25	2.12
7	Revenue from Outroamers (outside HSA)	1.78	1.48
8	Total revenue from subscribers (1+2+3+4+5+6+7)	85.69	88.23
9	Net inter-operable settlement charges receivable	-15.14	-13.35
10	Net Revenue (ARPU) (8+9)	70.55	74.88

- 9. As can be seen in the above table, composition of ARPU declined in all segments except rental revenue and revenue from data usage in the year 2019 as compare to the year 2018.
- 10. Per month ARPU for wireless data usage increased from `41.05 during the year 2018 to `42.37 during the year 2019. On the other hand, per month ARPU for voice call declined from `13.55 to `8.12 during the same period.
- 11. The following chart presents the comparison of share of Revenue as a percentage of total Revenue during the year 2019.





14. It may be seen in the above chart that revenue from data usage comprises about 48.03% of total revenue from wireless services during the year 2019.

B. <u>Usage Pattern</u>

- 15. Average Minutes of Usage (MOUs) per subscriber per month increased from 622 during the year 2018 to 701 during the year 2019 with yearly growth rate of 12.63%.
- 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.

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

Segment	MOUs	Year	Circle A	Circle B	Circle C	Metros	All India
	Outgoing	2018	383	400	549	366	394
	MOU	2019	344	368	423	284	336
Dantonaid	Incoming	2018	346	379	404	323	350
Postpaid	MOU	2019	317	352	357	240	301
	/N - 4 - 1 M/OII	2018	729	779	954	689	744
	Total MOU	2019	661	721	779	525	637
	Outgoing	2018	281	298	348	398	308
	MOU	2019	315	348	409	419	352
D '1	Incoming	2018	260	318	404	286	308
Prepaid	MOU	2019	298	360	452	340	351
	// - 4 - 1 N/OII	2018	540	616	752	684	617
	Total MOU	2019	613	708	862	760	703
	Outgoing	2018	286	300	353	394	312
	MOU	2019	316	348	410	399	352
D1 1 - 1	Incoming	2018	264	320	404	291	310
Blended	MOU	2019	299	360	449	325	349
	Model MOT	2018	550	619	757	685	622
	Total MOU	2019	615	708	859	724	701

- 17. Minutes of Usage (MOUs) per subscriber per month for postpaid services declined from 744 during the year 2018 to 637 during the year 2019 however, MoUs for prepaid services increased from 617 to 703 during the same period.
- 18. Outgoing MoUs per subscriber per month increased from 312 during the year 2018 to 352 during the year 2019 and Incoming MoUs per subscriber per month also increased from 310 to 349 during the same period.

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

Octomore.	Post	Postpaid		paid	Blended	
Category	2018		2018	2019	2018	2019
Circle A	99	45	20	19	24	20
Circle B	38	36	15	14	15	14
Circle C	32	21	15	19	15	19
Metros	20	31	14	14	15	17
All India	57	36	16	16	18	17

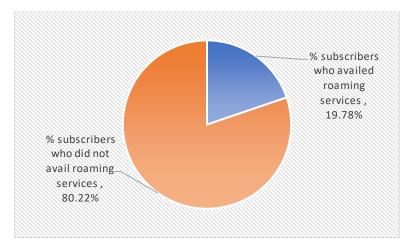
- 19. Average number of outgoing SMS per subscriber per month decreased from 18 during the year 2018 to 17 during the year 2019.
- 20. The following table presents the percentage break-up of outgoing minutes of usage from home service area to various categories of termination networks.

Table 2.6: Category-wise % break-up of outgoing minutes from Home Service Areas (HSA) for GSM service during the year 2019

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	0.74%	36.52%	46.15%	0.27%	6.40%	9.88%	0.03%
Circle B	0.49%	35.71%	43.16%	0.20%	7.89%	12.51%	0.04%
Circle C	0.26%	37.60%	38.74%	0.20%	9.76%	13.42%	0.01%
Metros	1.27%	23.76%	33.30%	0.40%	15.82%	25.35%	0.09%
All India	0.62%	34.99%	42.28%	0.25%	8.60%	13.23%	0.04%

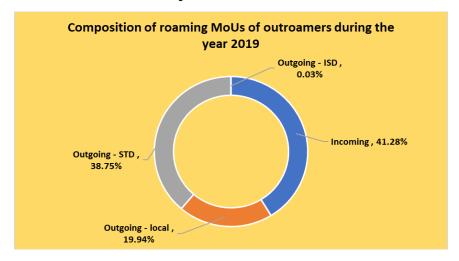
21. Out of total number of wireless subscribers, about 20% wireless subscribers availed roaming service during the year 2019. The chart given below presents the share of wireless subscribers who availed roaming service during the year 2019.

Chart 2.5: Share of subscribers who availed roaming service during the year 2019



22. The chart given below presents the composition of roaming MoUs of outroamers (who had availed roaming services) during the year 2019.

Chart 2.6: Composition of roaming MoUs of outroamers during the year 2019



C. Average revenue per outgoing minute for usage from Home Service Area (HSA)

- 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 2019.

Table 2.7: Average Revenue per Outgoing Minute for usage from HSA (in Rs. per minute) during the year 2019

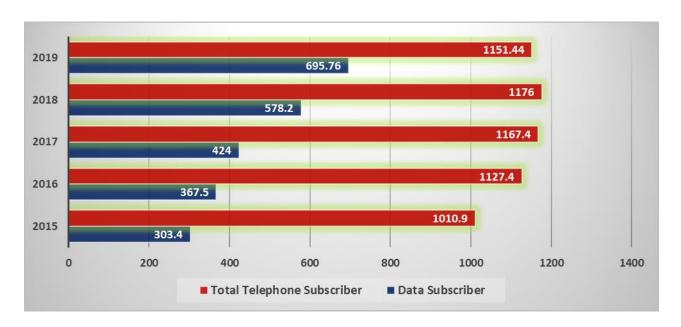
Category	Postpaid		Prepaid		Blended	
	2018	2019	2018	2019	2018	2019
Circle A	0.37	0.56	0.13	0.12	0.15	0.14
Circle B	0.36	0.45	0.12	0.11	0.13	0.11
Circle C	0.19	0.23	0.10	0.10	0.10	0.10
Metros	0.37	0.56	0.09	0.10	0.13	0.15
All India	0.35	0.49	0.12	0.11	0.13	0.12

26. Average subscriber revenue per outgoing minute for wireless service from home service area declined from `0.13 during the year 2018 to ` 0.12 during the year 2019.

Chapter 3: Wireless Data Service

- 1. As per information received from the wireless access service providers, number of wireless data subscribers has increased from 578.20 million at the year ending 2018 to 695.76 million at the year ending 2019 with yearly growth rate of 20.33%. The number of wireless data subscribers was 227.91 million at the year ending 2013.
- 2. Total number of wireless telephone subscribers was 1151.44 million at the year ending 2019. Out of total number of wireless telephone subscribers, the number of wireless data subscriber was 695.76 million at the year ending 2019. Thereby, share of wireless data subscribers was 60.43% of total wireless telephone subscribers at the year ending 2019.

Chart 3.1: Trend of total wireless telephone subscribers and total wireless data subscribers



3. Total volume of wireless data usage increased from 46,404 million GB during the year 2018 to 76,319 million GB during the year 2019 with yearly growth of 64.47%.

4. 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.

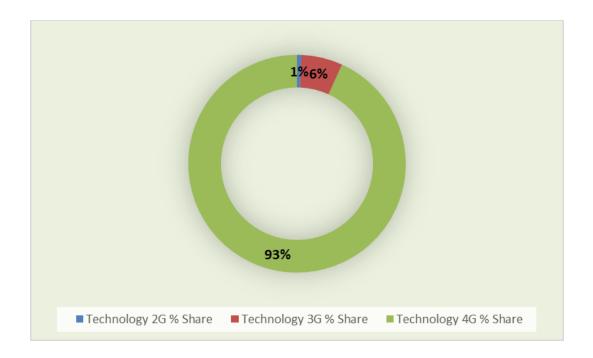
Table 3.1: Wireless data usage (in million GB per year)

Year Ending	2G Data Usage	3G Data Usage	4G Data Usage	CDMA Data Usage	Total Volume of Data Usage
2015	479	700		196	1,375
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

- 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 71,125 million GB during the year 2019.
- 6. Out of total volume of wireless data usage of 76,319 million GB in the year 2019, 4G (LTE) technology has the major part of 93.20% with volume of 71,125 million GB. Shares of 2G and 3G data usage are 0.64% and 6.16% respectively in total volume of wireless data usage in the year 2019.

7. Share of technology-wise data usage during the year 2019 is depicted in the following chart.

Chart 3.2: Share of 2G, 3G, and 4G data usage during 2019



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

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



- 9. Total volume of wireless data usage increased by 64.47% in the year 2019 over previous year, as compared to the yearly growth rate of 130.96% in the year 2018. However, the growth rate in volume of wireless data usage were recorded 237.6% and 332.83% in the years 2016 and 2017 over previous year.
- 10. Total revenue from wireless data usage increased from `54,671 crore in the year 2018 to `59334 crore in the year 2019 with yearly growth rate of 8.53%. The total revenue from wireless data usages was `22,265 crore in the year 2014.

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

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%		

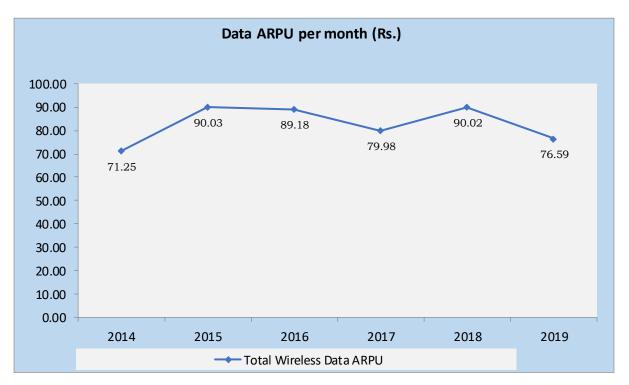
11. Average Revenue for wireless data usage (Data ARPU) per data subscriber per month decreased from `90.02 in the year 2018 to `76.59 in the year 2019.

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 2019.

Table 3.2: Average Revenue for wireless data usage per data subscriber per month (in `)

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

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



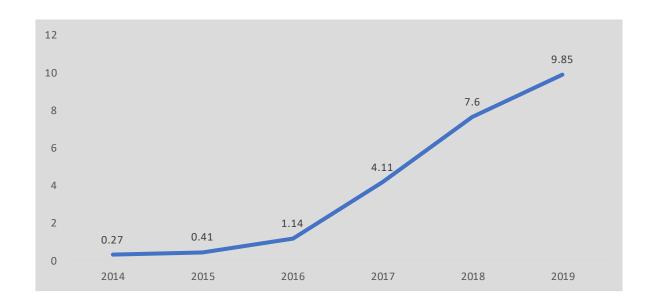
13. The following table and chart show the trend of Average Wireless Data Usage (in GB) per data subscriber per month during the year 2014 to 2019.

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

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

14. Average wireless data usage per wireless data subscriber per month increased from 7.60 GB during the year 2018 to 9.85 GB during the year 2019. 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.

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

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			

- 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 for wireless data in the year 2014 was `269 per GB and in the year 2015, it was `226 per GB. On introduction of 4G (LTE) technology in India, average cost to subscriber for wireless data usage sharply declined to `75.57 per GB during the year 2016. Further, average cost to subscriber for wireless data declined from `11.78 per GB in the year 2018 to `7.77 per GB in the year 2019.

- 18. Average cost to subscriber of GSM data shows declining trend over the last five years and it declined from `289 per GB in the year 2014 to `7.77 per GB in the year 2019. However, average cost to subscriber for overall wireless data service shows declining trend over the period.
- 19. Declining trend of data revenue to subscriber shows intense market competition in data services in the telecom market. This has led to a situation where even a person living below poverty line can easily afford mobile data service and avail various kinds of Government and commercial services. This has facilitated the financial inclusion of the masses living on the fringe. Accordingly, the Authority has continued with its policy of 'forbearance' in the Telecom Tariff.

Chapter 4:

Financial Data of Telecom Service Sector

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

(`in Crore)

Particulars ^{§§}	Calendar Year, 2018	Calendar Year, 2019	Yearly Growth (%)
Gross Revenue (GR)	2,37,417	2,43,705	2.65
Adjusted Gross Revenue (AGR)	1,44,446	1,53,272	6.11
License Fee	11,641	12,279	5.48
Spectrum Usage Charges	4,186	4,546	8.59
Pass Through Charges (GR-AGR)	92,971	90,433	-2.73

Gross Revenue (GR) increased from `2,37,417 crore in the year 2018 to `2,43,705 crore in the year 2019 with yearly growth rate of 2.65%. Adjusted Gross Revenue (AGR) also increased from `1,44,446 crore in the year 2018 to `1,53,272 crore in the year 2019 with yearly growth rate of 6.11%.

^{§§ 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 in frastructure and any other miscella neous revenue, without any set-off for related item of expense etc.

^{2.} Adjusted Gross Revenue: The following shall be excluded from the Gross Revenue to arrive at the AGR:

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

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

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

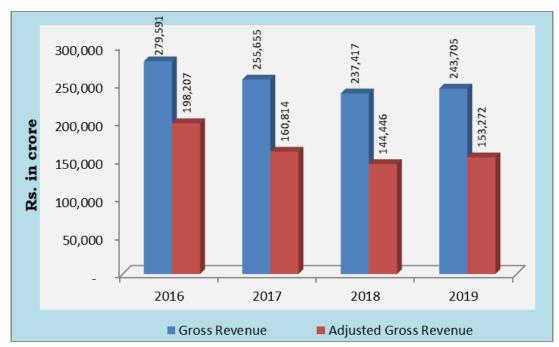
^{3.} License Fee means a fee payable by Licensee at prescribed intervals and rates for the period of the Licence.

^{4.} Spectrum Usage Charge is payable by the licensees providing mobile access services, as a percentage of their Adjusted Gross Revenue (AGR).

^{4.} Pass through charges means the charges excluded from gross revenue to arrive at adjusted gross revenue for the purpose of levying licence fee.

- Pass through charges declined by 2.73% from `92,971 crore in the year 2018 to `90,433 crore in the year 2019. Pass-through charges as a percentage of Gross Revenue are 37.11% in 2019 as against 39.16% in the previous year.
- 3 Spectrum Usage Charges (SUC) yearly increased by 8.59% from 4,186 crore in the year 2018 to `4,546 crore in the year 2019. License Fee also yearly increased by 5.48% from `11,641 crore to `12,279 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 ')



5. The following table depicts the service category wise comparison of GR, AGR, License Fee, SUC and Pass Through Charges for the year 2018 and 2019.

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

(`in Crore)

Service	Year	Access	NLD	ILD	Others (V-SAT, MNP, ISP)	Total
Gross Revenue	2018	167415	41117	12914	15971	237417
Gloss Revenue	2019	174881	41055	12389	15380	243705
Adjusted Gross	2018	102832	33977	6262	1376	144446
Revenue	2019	112990	32620	6078	1583	153272
License Fee	2018	8317	2719	501	104	11641
License ree	2019	9064	2610	486	120	12279
Spectrum	2018	4169	0	0	17	4186
Usage Charge	2019	4529	0	0	17	4546
Pass Through	2018	64583	7141	6652	14596	92971
Charge	2019	61891	8435	6311	13797	90433

Table 4.3: Yearly Growth of Service-wise Gross Revenue, Adjusted Gross Revenue, License Fee and Spectrum Charges for the year 2019

Service***	Gross Revenue	Gross		Spectrum Charges	Pass Through Charges	
Access	4.46%	9.88%	8.98%	8.64%	-4.17%	
NLD	-0.15%	-3.99%	-4.01%	-	18.12%	
ILD	-4.06%	-2.93%	-2.99%	-	-5.12%	
Others (V-SAT, MNP,ISP)	-3.70%	15.10%	15.10%	-1.86%	-5.48%	
Overall	2.65%	6.11%	5.48%	8.59%	-2.73%	

^{*** 1.} 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.

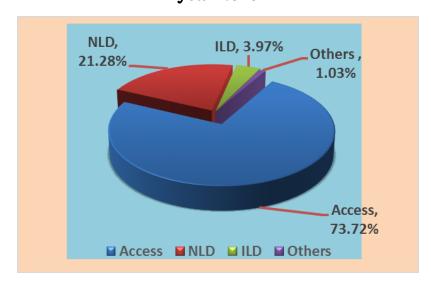
^{2.} National Long Distance (NLD) service refers to the carriage of switched-bearer telecommunication services over a long distance network.

^{3.} 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

^{4.} 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

^{5.} ISP stands for Internet Service Providers

Chart 4.2: Service wise composition of Adjusted Gross Revenue for the year 2019



Access services contributed 73.72% 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 4.46%, 9.88%, 8.98% and 8.64% respectively in the year 2019 over the year 2018. However, Pass Through Charges declined by 4.17% during the same period.

Table 4.4: Access Service – Service Provider wise Adjusted Gross Revenue
(`in Crore)

S1.No.	Access Service Provider	Calendar Year 2018	Calendar Year 2019	Yearly Growth (%)	
1	Reliance Jio	31,097	44,800	44.06	
2	Bharti	26,971	28,827	6.88	
3	Vodafone	24,173	26,625	10.15	
4	BSNL	8,072	8,392	3.97	
5	Idea	7,777	0	0	
6	Tata	1,987	2,137	7.59	
7	MTNL	1,860	1,738	-6.56	
8	Reliance	522	457	-12.45	
9	Telenor	294	0	0	
10	Quadrant	79	11	-86.08	
11	V-Con Mobile & Infra Pvt. Ltd.	0	1	-	
Gran	d Total (Access)	102,832	112,991	9.88	

Chart 4.3: Composition of Adjusted Gross Revenue (in crore `) of Access Service Providers for the year 2019

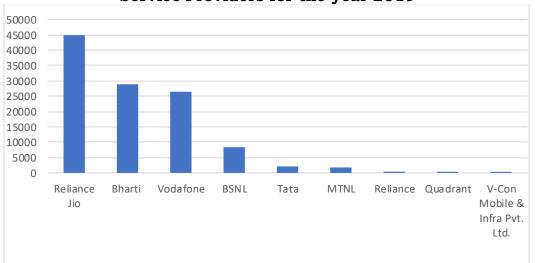
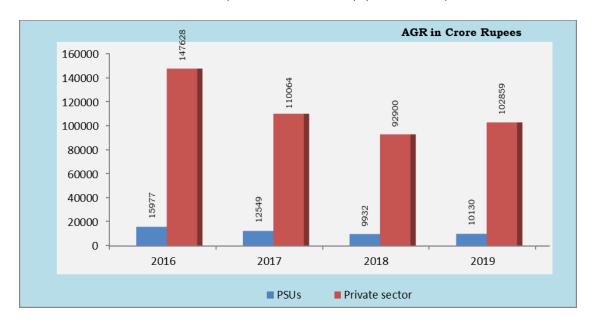


Chart 4.4: Composition of Public/Private sector of Adjusted Gross Revenue (Access Service) (in crore `)



7. Public Sector Undertakings' (PSUs) share in the Access AGR of telecom services is 8.97% for the year 2019 as compared to 9.66% 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 in Adjusted Gross Revenue

(`in Crore)

Calendar Year	PSUs	Private sector Total		Share of PSUs	
2016	15,977	1,47,628	1,63,605	9.77%	
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%	

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

(`in Crore)

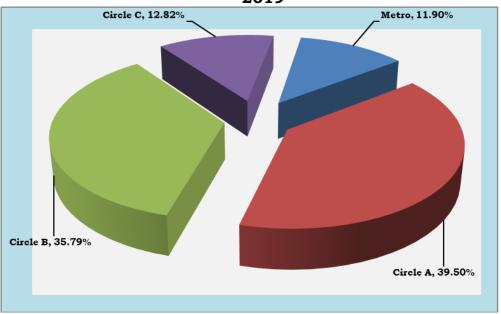
Category	Adjusted Gro (Acc	Yearly	
	2018	2019	Growth (%)
Metro	12,438	13,444	8.09
Circle A	41,383	44,631	7.85
Circle B	36,109	40,434	11.98
Circle C	12,902	14,481	12.24
Total	102,832	112,990	9.88

^{†††} **Category-A circles** – Andhra Pradesh, Gujarat, Karnataka, Maharashtra and Tamilnadu (including Chennai)

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 2019



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 '2018' stands for year starting from 1st January 2018 to 31st December 2018 and '2019' stands for year starting from 1st January 2019 to 31st December 2019.



Chapter 5:

Performance of Cable TV, DTH and Radio Broadcasting Services

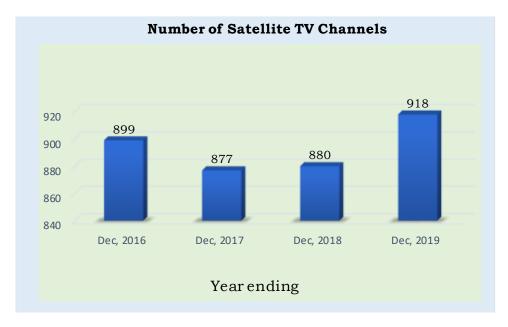
Table 5.1: Key Parameters - Broadcasting & Cable Services

S.No	Parameter	As on 31.12.2018	As on 31.12.2019
1	Number of Private satellite TV channels permitted by the Ministry of I&B for uplinking only/downlinking only/uplinking and downlinking both	880	918
2	Number of Pay TV Channels as reported by broadcasters	330	332
3	Number of FM Radio stations (excluding All India Radio)	355	368
4	Number of Private DTH Operators	5	4
6	Number of net Active DTH Subscribers	70.49 Million	69.98 Million
8	Number of Operational Community Radio Stations (CRS)	248	278

A. Satellite TV Channels

1. A total of 918 private satellite TV channels have been permitted by the Ministry of Information and Broadcasting (MIB) for uplinking only/downlinking/uplinking, as on 31st December, 2019.

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 3rd July 2018 with revised timelines for implementation. All the timelines prescribed in the above-mentioned framework commenced from 3rd July 2018. The new regulatory framework has come into effect on 29th December 2018.
- 3. As per the Telecommunication (Broadcasting and Cable) Services (Eighth) (Addressable Systems) Tariff Order, 2017 dated 3rd March 2017, every broadcaster has to offer all its channels on 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 3rd March 2017, there were 332 pay channels, as on 31st December 2019 which included 234 SD pay TV channels and 98 HD Pay TV channels. A list of Maximum Retail Prices (MRP) of pay channels offered by broadcasters for subscribers as reported to TRAI is attached as **Annexure-5.1**.

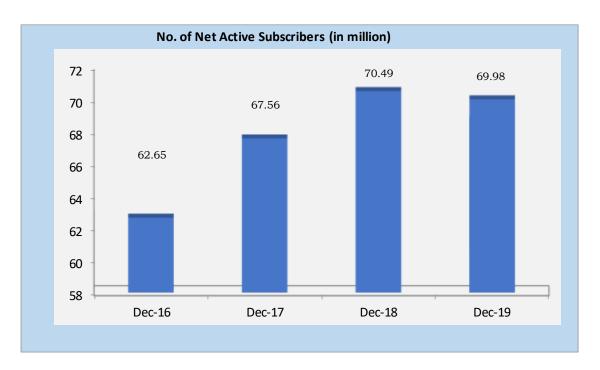
C. Cable TV Sector

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

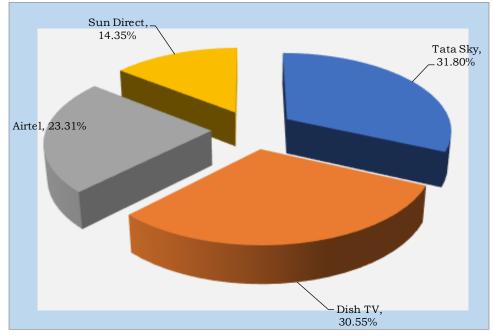
- 6. Since its introduction in the year 2003, Indian DTH service has displayed a phenomenal growth. During the period ending 31st December, 2019, there were 4 pay DTH service providers in India. List and details of pay DTH service providers is placed at **Annexure-5.2.**
- 7. Pay DTH has attained net pay active subscriber base of around 69.98 million with 4 pay DTH service providers as on 31st December, 2019 as compared to 70.49 million subscribers with 5 pay DTH service providers as on 31st December, 2018. This is in addition to the subscribers of the free DTH services of Doordarshan. Yearly decline rate of 0.72% has been recorded in pay active subscriber base in the year 2019 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 four 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 31.12.2019.

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

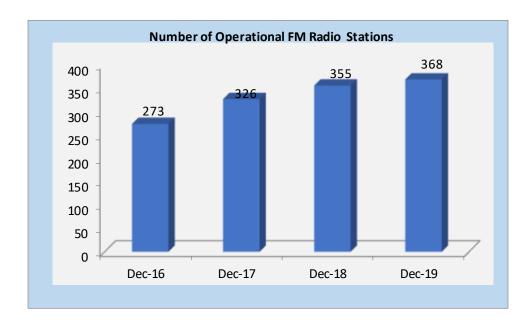


10. M/s Tata Sky is the market leader with 31.80% market share of total net pay active DTH subscribers followed by M/s Dish TV with 30.55% as on 31st December, 2019.

E. FM Radio Services

- 11. Apart from the radio Stations operated by All India Radio, the public broadcaster, as on 31st December 2019, there are 368 operational private FM Radio stations in 105 cities with operational 33 Private FM Radio broadcaster as compared to 355 operational private FM Radio stations in 97 existing cities with operational 33 FM Radio broadcaster as on 31st December 2018.
- 12. The following chart depicts the trend of number of operational FM radio stations in India as on year ending 2016 to 2019.

Chart 5.4: Trend of number of Operational FM Radio Stations



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

D. Community Radio Stations##

14. As on 31st December 2019, 278 Community Radio stations are operational as compared to 248 Community Radio station as on 31st December, 2018. The yearly trend of the number of operational community radio stations is depicted in the chart below.

Number of operational Community Radio Stations

250
200
201
214
200
150
50
Dec-16
Dec-17
Dec-18
Dec-19

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

Source: Ministry of Information & Broadcasting (MIB)

the local context. Community Radio Stations (CRS) are essentially low power radio stations to be set up and operated by the local communities.

Annexures

Annexure 1.1: Wireless Subscriber Base

Service Area	Vodafo	ne Idea	Bharti		Reliance Com.		BS	SNL MTNI		MTNL Reliance		Reliance Jio (LTE)		tal	
Service Area	Dec-18	Dec-19	Dec-18	Dec-19	Dec-18	Dec-19	Dec-18	Dec-19	Dec-18	Dec-19	Dec-18	Dec-19	Dec-18	Dec-19	Net Additions
Andhra Pradesh	231,44,533	188,85,514	297,98,728	28873882	2,298	2176	101,45,072	9914603			224,22,936	29346713	872,14,332	870,22,888	(1,91,444)
Assam	53,03,241	46,33,250	83,82,180	8358529			24,18,559	2743312			56,39,950	7872608	217,43,930	236,07,699	18,63,769
Bihar	234,17,362	154,31,406	393,46,424	35456281	129	383	48,90,882	5310328			201,19,506	28123388	880,84,753	843,21,786	(37,62,967)
Delhi	195,70,240	177,01,405	151,64,364	15572477	3,920	1729	•		22,20,516	2186235	141,08,953	17485005	511,30,428	529,46,851	18,16,423
Gujarat	339,47,738	275,06,873	123,22,135	10962911	314	577	57,75,864	6085008			177,20,545	22893405	706,50,660	674,48,774	(32,01,886)
Haryana	112,47,676	91,56,703	38,12,942	4479975	90	140	49,04,904	4955027			68,80,952	9203509	276,79,502	277,95,354	1,15,852
Himachal Pradesh	13,71,833	9,34,451	36,15,762	3424834	72	105	27,67,116	2767116			27,44,696	3471715	105,03,770	105,98,221	94,451
Jammu & Kashmir	13,39,981	5,61,433	56,42,025	4544784		0	12,14,265	1264988			33,09,640	3949544	115,05,911	103,20,749	(11,85,162)
Karnataka	159,23,911	120,07,384	271,86,628	28630803	3,155	1550	71,01,238	7324448			152,58,054	19423779	686,23,440	673,87,964	(12,35,476)
Kerala	204,04,012	184,71,237	51,31,817	5531696	317	625	108,50,884	10936754			69,42,760	8561983	436,47,974	435,02,295	(1,45,679)
Madhya Pradesh	321,85,390	24926265	156,17,229	14769663	589	738	61,19,647	6315355			210,44,892	28865775	769,04,354	748,77,796	(20,26,558)
Maharashtra	489,16,041	39676542	164,04,201	15970302	923	1082	69,07,764	7089469			211,32,249	29884843	950,08,751	926,22,238	(23,86,513)
Mumbai	157,76,272	13468986	84,47,178	9800346	5,427	2420			12,54,382	1190068	112,09,409	13634278	375,42,819	380,96,098	5,53,279
North East	20,67,625	1926024	53,35,815	5227184	-	0	16,42,752	1466782			26,22,832	3492349	116,69,024	121,12,339	4,43,315
Orissa	58,85,690	3430621	131,14,987	11756381	75	368	55,27,595	6023748			80,78,892	11802088	331,35,081	330,13,206	(1,21,875)
Punjab	114,94,406	9712824	103,62,648	10342217	137	279	53,35,427	5723473			11234533	13325697	393,18,570	391,04,490	(2,14,080)
Rajasthan	187,51,708	13958201	233,57,048	21334295	243	333	56,94,204	6139102			184,58,434	23897943	663,85,627	653,29,874	(10,55,753)
Tamil Nadu (incl. Chennai)	253,32,666	21164029	257,71,495	25604916	3,390	3200	119,09,640	12461401			182,21,611	22568898	827,50,790	818,02,444	(9,48,346)
UP(E)	365,64,291	26665805	327,24,449	30864257	624	856	118,20,748	11654121			189,14,302	26509498	1017,89,901	956,94,537	(60,95,364)
UP(W)	295,13,753	24679320	137,72,831	13545301	60	306	59,23,283	5941889			141,77,099	18731325	647,52,363	628,98,141	(18,54,222)
Kolkata	96,74,397	7679355	64,39,985	6354972	42	36	17,92,484	1856520			80,72,806	9760191	270,62,732	256,51,074	(14,11,658)
West Bengal	269,12,269	20035243	185,08,444	15891719	333	814	16,30,129	2142879			118,02,717	17211626	588,92,438	552,82,281	(36,10,157)
Total	4187,45,035	3326,12,871	3402,59,315	3272,97,725	22,138	17,717	1143,72,457	1181,16,323	34,74,898	33,76,303	2801,17,768	3700,16,160	11759,97,150	11514,37,099	(245,60,051)

Dec-18 Total include M/s Tata

Annexure 1.2: Wireline Subscriber Base

Complete Asses	Bha	rti	Relia	ınce	Quad	rant	Ta	ata	мт	'nL	BS	NL	Voda	fone	Relia	ance Jio	T	otal	
Service Area	Dec-18	Dec-19	Dec-18	Dec-19	Dec-18	Dec-19	Dec-18	Dec-19	Dec-18	Dec-19	Dec-18	Dec-19	Dec-18	Dec-19	Dec-18	Dec-19	Dec-18	Dec-19	Net Additions
Andhra Pradesh	174,826	215,233	46,869	32460			174,471	171926			998,736	789437	34,580	46465		100155	1,429,482	1,355,676	-73,806
Assam											116,309	97819	2,820	3390		11219	119,129	112,428	-6,701
Bihar			3,540	2203			8,410	8334			222,513	151311	1,770	1920		15319	236,233	179,087	-57,146
Delhi	1,382,801	1,484,992	124,216	75735			154,349	146623	1,490,886	1410426		0	51,070	69085		81880	3,203,322	3,268,741	65,419
Gujarat	82,520	97,525	20,620	11058			89,660	86137			1,008,211	826150	20,539	31785		139023	1,221,550	1,191,678	-29,872
Haryana	22,800	21,975	2,894	1815			36,258	39029			220,020	185133	150	330		24024	282,122	272,306	-9,816
Pradesh			3,035	1343			1,831	1957			113,046	97819	60	60		355	117,972	101,534	-16,438
Kashmir								0			105,329	123459		0		9284	105,329	132,743	27,414
Karnataka	671,236	726,529	140,110	103570			274,109	275474			1,039,637	900147	42,475	58047		57051	2,167,567	2,120,818	-46,749
Kerala	59,997	63,134	17,170	11847			19,413	19586			1,809,217	1610709	2,550	5640		12900	1,908,347	1,723,816	-184,531
Madhya Pradesh	242,111	240,471	10,724	5316			15,770	13635			656,076	553213	870	1980		49614	925,551	864,229	-61,322
Maharashtra	88,787	107,293	49,324	38805			289,655	262002			1,123,163	920456	18,343	26480		36998	1,569,272	1,392,034	-177,238
Mumbai	363,306	390,886	179,535	149162			571,166	542573	1,773,866	1712597		0	53,050	71215		206351	2,940,923	3,072,784	131,861
North East											106,397	93865	270	240		4675	106,667	98,780	-7,887
Orissa			2,520	1771			7,463	8588			225,488	191530	2,160	5730		7218	237,631	214,837	-22,794
Punjab	128,549	138,041	10,571	10165	227,164	197881	14,096	12093			411,522	331049	1,620	3000		36878	793,522	729,107	-64,415
Rajasthan	53,518	57,267	20,999	13830			12,273	11569			451,088	377178	7,320	13590		41247	545,198	514,681	-30,517
Tamil Nadu (incl. Chennai)	555,593	547,511	72,696	52922			118,701	122882			1,456,658	1238419	18,675	25660		84261	2,222,323	2,071,655	-150,668
U.P.(E)	66,088	62,411	6,174	3213			8,215	8297			358,611	294482	11,840	19740		33807	450,928	421,950	-28,978
U.P.(W)	23,323	24,538	3,749	2276			5,342	4792			273,129	222530	3,990	5490		57397	309,533	317,023	7,490
Kolkata	126,895	131949	39,764	34760			52,749	50247			500,573	407553	8,390	11840		33036	728,371	669,385	-58,986
West Bengal			1,694	1615			2,410	2477			242,995	167020	120	120		8,010	247,219	179,242	-67,977
Total	4,042,350	4,309,755	756,204	553,866	227,164	197,881	1,856,341	1,788,221	3,264,752	3,123,023	11,438,718	9,579,279	282,662	401,807	0	1,050,702	21,868,191	21,004,534	-863,657

Annexure 1.3: Service Area and Operator wise details of PCOs

Name of the		Number of	Number of		
Circle/Service	Service Provider	PCOs as on	PCOs as on		
Area		31.12.2018	31.12.2019		
Andhra Pradesh	Bharat Sanchar Nigam Ltd.	6,965	4,912		
(Excluding Telangana)	Bharti Group	181	184		
Telangana	Bharat Sanchar Nigam Ltd.	5,188	4097		
Assam	Bharat Sanchar Nigam Ltd.	4,877	915		
Bihar (excluding Jharkhand)	Bharat Sanchar Nigam Ltd.	1,117	822		
Jharkhand	Bharat Sanchar Nigam Ltd.	2,441	2,441		
Delhi	Bharti Group	330	330		
	Mahanagar Telephone Nigam Ltd./MTNL	46,349	45,694		
Gujarat	Bharat Sanchar Nigam Ltd.	18,200	7,509		
	Bharti Group	14	14		
Haryana	Bharat Sanchar Nigam Ltd.	1,357	789		
	Bharti Group	141	138		
Himachal Pradesh	Bharat Sanchar Nigam Ltd.	877	730		
Jammu & Kashmir	Bharat Sanchar Nigam Ltd.	1,056	973		
Karnataka	Bharat Sanchar Nigam Ltd.	17,527	13,348		
	Bharti Group	3,356	3,036		
	Bharat Sanchar Nigam Ltd.	15,316	12,585		
Kerala	Bharti Group	28	397		
Kolkata	Bharat Sanchar Nigam Ltd.	3,527	2,189		
	Bharti Group	28	37		
Madhya Pradesh	Bharat Sanchar Nigam Ltd.	15,786	8,865		
(excluding Chhattisgarh)	Bharti Group	1,573	1,338		
Chhatisgarh	Bharat Sanchar Nigam Ltd.	1,004	925		
Maharashtra & Goa	Bharat Sanchar Nigam Ltd.	34,172	16,209		
Mumbai	Bharti Group	50	50		
	Mahanagar Telephone Nigam Ltd./MTNL	22,230	20,187		
Arunachal Pradesh	Bharat Sanchar Nigam Ltd.	1,352	1,352		
Manipur	Bharat Sanchar Nigam Ltd.	846	772		
Meghalaya	Bharat Sanchar Nigam Ltd.	431	255		
Mizoram	Bharat Sanchar Nigam Ltd.	130	115		
Nagaland	Bharat Sanchar Nigam Ltd.	118	0		
Tripura	Bharat Sanchar Nigam Ltd.	524	483		

Annexure 1.3 (contd.)

		minerale 1.0 (conta.)					
Name of the		Number of	Number of				
Circle/Service	Service Provider	PCOs as on	PCOs as on				
Area		31.12.2018	31.12.2019				
Orissa	Bharat Sanchar Nigam Ltd.	1,707	1,283				
Punjab	Bharat Sanchar Nigam Ltd.	1,900	1,455				
	Bharti Group	18	9				
	Quadrant	1,420	750				
Rajasthan	Bharat Sanchar Nigam Ltd.	3,134	2,064				
	Bharti Group	209	209				
Tamilnadu	Bharat Sanchar Nigam Ltd.	31,314	18,639				
(excluding chennai)	Bharti Group	4,584	3,814				
Chennai	Bharat Sanchar Nigam Ltd.	8,307	7,239				
Uttar Pradesh- East	Bharat Sanchar Nigam Ltd.	8,565	7,225				
	Bharti Group	77	73				
Uttar Pradesh -	Bharat Sanchar Nigam Ltd.	1,880	1,448				
West (excluding Uttarakhand)	Bharti Group	13	0				
Uttarakhand	Bharat Sanchar Nigam Ltd.	921	500				
West Bengal (excl. Andaman & Nicobar	Bharat Sanchar Nigam Ltd.	3,342					
and Sikkim)			1,453				
Andaman and	Bharat Sanchar Nigam Ltd.	142					
Nicobar			39				
Skkim	Bharat Sanchar Nigam Ltd.	0	0				
	Total	2,75,032	1,97,891				

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

Name of Circle/Service Area	Service Provider	Number of VPTs as on	Number of VPTs as on				
A 11 D 1 1 /D 1 1'	D1 + 0 1 N' 1+1	31.12.2018	31.12.2019				
Andhra Pradesh (Excluding Telangana)	Bharat Sanchar Nigam Ltd.	2,787	2,098				
Telangana	Bharat Sanchar Nigam Ltd.	1,333	844				
Andhra Pradesh (Including	Bharat Sanchar Nigam Ltd.	4,120	2,942				
Telangana)	-						
Assam	Bharat Sanchar Nigam Ltd.	105	105				
Bihar (excluding Jharkhand)	Bharat Sanchar Nigam Ltd.	6,368	5893				
Jharkhand	Bharat Sanchar Nigam Ltd.	489	221				
Bihar (including Jharkhand)	Bharat Sanchar Nigam Ltd.	6,857	6,114				
Gujarat	Bharat Sanchar Nigam Ltd.	5,297	5278				
Haryana	Bharat Sanchar Nigam Ltd.	687	462				
Himachal Pradesh	Bharat Sanchar Nigam Ltd.	2,209	1875				
Jammu & Kashmir	Bharat Sanchar Nigam Ltd.	1,060	810				
Karnataka	Bharat Sanchar Nigam Ltd.	4,075	3656				
Kerala	Bharat Sanchar Nigam Ltd.	349	331				
Kolkata	Bharat Sanchar Nigam Ltd.	130	130				
Madhya Pradesh (excl. Chhattisgarh)	Bharat Sanchar Nigam Ltd.	39,692	9907				
Chhatisgarh	Bharat Sanchar Nigam Ltd.	453	193				
Madhya Pradesh (incl. Chhattisgarh)	Bharat Sanchar Nigam Ltd.	40,145	10,100				
Maharashtra (incl. Mumbai & Goa)	Bharat Sanchar Nigam Ltd.	8166	7,846				
Arunachal Pradesh	Bharat Sanchar Nigam Ltd.	1054	623				
Manipur	Bharat Sanchar Nigam Ltd.	418	93				
Meghalaya	Bharat Sanchar Nigam Ltd.	270	207				
Mizoram	Bharat Sanchar Nigam Ltd.	83	12				
Nagaland	Bharat Sanchar Nigam Ltd.	41	25				
Tripura	Bharat Sanchar Nigam Ltd.	222	222				
Orissa	Bharat Sanchar Nigam Ltd.	1819	1554				
Punjab	Bharat Sanchar Nigam Ltd.	5104	4625				
Rajasthan	Bharat Sanchar Nigam Ltd.	1212	0				
Tamil Nadu (incl. Chennai)	Bharat Sanchar Nigam Ltd.	6086	5478				
Uttar Pradesh- East	Bharat Sanchar Nigam Ltd.	981	568				
Uttarakhand	Bharat Sanchar Nigam Ltd.	3473	2121				
Uttar Pradesh – West (excluding	Bharat Sanchar Nigam Ltd.	1994	1637				
Uttarakhand)	Brade Sarona Mgan Bea.	1331	1007				
Uttar Pradesh – West (including Uttarakhand)	Bharat Sanchar Nigam Ltd.	5467	3,758				
West Bengal (excluding Andaman & Nicobar and Sikkim)	Bharat Sanchar Nigam Ltd.	36,352	11557				
Andaman and Nicobar	Bharat Sanchar Nigam Ltd.	94	93				
Sikkim	Bharat Sanchar Nigam Ltd.	429	320				
West Bengal (including Andaman & Nicobar)	Bharat Sanchar Nigam Ltd.	36,446	11,970				
,	Total						

Annexure 1.5 : Internet Service Provider(ISP) wise Internet Subscriber base as on 31.12.2019

		Narrowband	Broadband	Total
S.No.	Name of the Service Provider	Subscribers	Subscribers	Internet
		0	25005255	Subscribers
1	Reliance Jio Infocomm Ltd	0	370872755	370872755
2	Bharti Airtel Ltd.	26632137	140395168	167027305
3	Vodafone Idea Limited	23614475	118453704	142068179
4	Bharat Sanchar Nigam Ltd.	6299248	23963441	30262689
5	Atria Convergence Technologies Pvt. Ltd.	0	1518853	1518853
6	Mahanagar Telephone Nigam Ltd.	201088	891113	1092201
7	Hathway Cable & Datacom Pvt. Ltd.	0	898834	898834
8	You Broadband India Pvt. Ltd.	14675	770609	785284
9	GTPL Broadband Pvt. Ltd.	0	325927	325927
10	Excitel Broadband Private Limited	0	319323	319323
11	Tikona Infinet Ltd. Infinet Ltd. (HCL Infinet Ltd.)	0	256944	256944
12	Planet E-Shop Holdings India Ltd.	0	247193	247193
13	D-Vois Broadband Private Limited	0	230035	230035
14	Asianet Satellite Communications Ltd.	0	216927	216927
15	Alliance Broadband Services Pvt. Ltd.	0	213906	213906
16	Quadrant Televentures Ltd. (HFCL Infotel Ltd.)	102	194696	194798
17	INTECH ONLINE PVT LTD	0	193855	193855
18	Joister Infoserve Pvt. Ltd.	0	151975	151975
19	Indinet Service Pvt Ltd	0	126278	126278
20	DEN Broadband Private Limited	0	119912	119912
21	RailTel Corporation of India Ltd.	0	117347	117347
22	Tata Teleservices Limited	385	78992	79377
23	ANI network Pvt Ltd	0	61910	61910
24	Wish Net Pvt. Ltd.	0	61769	61769
25	Five Network Solution (India) Ltd.	0	56716	56716
26	Airlink Communications Pvt. Ltd	0	56621	56621
27	Nextra Teleservices Pvt. Ltd.	0	55462	55462
28	Tata Sky Broadband Private Limited	0	51742	51742
29	Honesty Net Solutions (I) Pvt Ltd	94	42809	42903
30	Fusionnet Web Services Pvt. Ltd.	0	38765	38765
31	Airnet Cable And Datacom Pvt Ltd	0	38243	38243
32	Citycom Networks Pvt. Ltd.	0	35366	35366
33	CSC e-Governance Services India Ltd.	0	32751	32751
34	Limras Eronet Broadband Service Pvt Ltd	5406	27054	32460
35	Ishan Netsol Pvt Ltd	0	32356	32356

S.No.	Name of the Service Provider	Narrowband Subscribers	Broadband Subscribers	Total Internet
5.110.	nume of the between flowings	Subscribers	Dubscribers	Subscribers
36	Wan and Lan Internet Pvt. Ltd.	0	30869	30869
37	K NET SOLUTIONS PVT LTD	0	27992	27992
38	Digital Satellite Connect Pvt. Ltd.	0	24267	24267
39	Vasai Cable Pvt. Ltd.	0	21884	21884
40	Hi Reach Broadband Pvt. Ltd.	0	21825	21825
41	City Online Services Ltd	0	21354	21354
42	DNA Infotel Pvt Ltd	0	21344	21344
43	MICROSCAN COMPUTERS PVT LTD	7230	13262	20492
44	SITI Broadband Services Pvt. Ltd.	0	19458	19458
45	Ortel Communication Ltd.	0	18534	18534
46	Rajesh Digital Datacom Pvt Ltd	21	17221	17242
47	Sikka Broadband(P) Ltd.	0	15525	15525
48	IKF Technologies Ltd	0	15350	15350
49	Digital Network associates Pvt. Ltd	0	15172	15172
50	Tata Communications Limited	214	14570	14784
51	Netplus Broadband Services Pvt. Ltd	0	14532	14532
52	Quest Consultancy Pvt. Ltd.	0	14375	14375
53	Meghbela Cable & Broadband Servies (P) Ltd	0	13781	13781
54	Geocity Network Solutions Pvt. Ltd.	0	12187	12187
55	Sifi Online Pvt. Ltd.	0	11646	11646
56	World Phone Internet Services Pvt Ltd	0	11641	11641
57	United Telecoms Ltd.	0	10090	10090
58	Sai Prasad Internet Pvt Ltd	0	10062	10062
59	Pioneerelabs Pvt Ltd	351	9643	9994
60	RI Networks Pvt Ltd	0	9945	9945
61	North East Dataa Network Pvt Ltd.	0	9754	9754
62	Shree Omkar Infocom Pvt. Ltd.	0	9541	9541
63	Yashash Cable Network Pvt Ltd	0	9395	9395
64	Tachyon Communications Pvt. Ltd.	0	8848	8848
65	CANDOR INFOSOLUTION PVT LTD	8496	0	8496
66	Net 9 Online Hathway Private Limited	0	8429	8429
67	Intermedia Cable Communication Pvt Ltd	0	8185	8185
68	Cityzone Infonet Pvt. Ltd	0	7612	7612
69	Jetway Broadband India Pvt.Ltd.	0	7567	7567
70	Foxtel Telecommunications Pvt Ltd	7325	0	7325
71	DL GTPL BROADBAND PVT LTD	0	7304	7304
72	Readylink Internet Services Pvt Ltd	28	7204	7232
73	Wow Solutions & System Pvt Ltd	0	7063	7063

S.No.	Name of the Service Provider	Narrowband Subscribers	Broadband Subscribers	Total Internet Subscribers
74	Apna Telelink Ltd.	0	6984	6984
75	Shree Balaji Infoway Pvt Ltd	0	6680	6680
76	Kappa Internet Services Pvt Ltd.	0	6611	6611
77	Limerick Technologies Pvt Ltd	0	6363	6363
78	Bittel Telecom Pvt.Ltd	0	6329	6329
79	Reliance Communications Limited	157	6037	6194
80	SSCN PVT LTD	0	6079	6079
81	Broadband Pacenet (I) Pvt. Ltd.	0	6038	6038
82	Swiftmail Communications Ltd.	200	5650	5850
83	L S Fibernet Pvt. Ltd.	0	5427	5427
84	Spiderlink Networks Pvt. Ltd.	0	5139	5139
85	Swiftnet Broadband Pvt Ltd	0	4816	4816
86	IAXN Telecom Pvt. Ltd.	0	4766	4766
87	Siliguri Internet & Cable TV Pvt. Ltd.	0	4553	4553
88	Multicraft Digital Technologies Private Limited	0	4538	4538
89	Mukand Infotel Pvt. Ltd.	4415	0	4415
90	GBPS Networks Pvt. Ltd.	0	4344	4344
91	Blazenet Ltd.	0	4017	4017
92	Multinet (Udaipur) Pvt. Ltd.	0	4002	4002
93	SUPER SONIC BROADBAND PVT LTD	0	3850	3850
94	Five Net Service Provider Pvt Ltd	0	3848	3848
95	CHANNEL III INTERNET PVT LTD	0	3637	3637
96	Zoram Business Enterprise Private Limited	0	3624	3624
97	Vision Smartlink Networking Pvt. Ltd.	0	3616	3616
98	Sonali Internet Services Pvt Ltd	0	3583	3583
99	GIGATEL NETWORKS PVT LTD	0	3442	3442
100	Powernet Communication Pvt Ltd	3381	0	3381
101	LM ENERGY & SOFTWARE PVT LTD	0	3345	3345
102	GETWAY BROADBAND PVT LTD	0	3214	3214
103	Juweriyah Networks Pvt Ltd	0	3208	3208
104	Rainbow Internet teleservices Pvt Ltd	16	3184	3200
105	Spacenet Internet Services Pvt Ltd	0	3144	3144
106	Star Broadband Services (I) Pvt Ltd	0	3076	3076
107	Airgenie Communications Pvt. Ltd.	0	2877	2877
108	WSNS PVT LTD	0	2763	2763
109	S.S.Netcom Pvt Ltd	0	2704	2704
110	Angel Air Network Solutions Private Limited	0	2698	2698
111	TGN NETWOKS PVT LTD	0	2679	2679

		Narrowband	Broadband	Total
S.No.	Name of the Service Provider	Subscribers	Subscribers	Internet Subscribers
112	Kaizen Infonet Pvt Ltd	0	2526	2526
113	Chandra Net Pvt. Limited	0	2435	2435
114	Pink Broadband Services Pvt. Ltd.	1711	720	2431
115	NISS INTERNET SERVICES PVT. LTD.	0	2391	2391
116	Blu Ultraband Internet Services Private Limited	0	2293	2293
117	TRANSMEDIA TECHNOLOGIES (AP) PVT LTD	0	2183	2183
118	F/X Wireless Technology Services Pvt. Ltd.	0	2016	2016
119	SMARTLINK SOLUTIONS PVT. LTD.	0	1965	1965
120	Symbois Creations Pvt. Ltd.	0	1919	1919
121	Aerocast Networks Pvt Ltd.	0	1877	1877
122	Speed Online.net Pvt. Ltd.	0	1872	1872
123	Galaxynet Connections Pvt Ltd	0	1835	1835
124	Capture Network Systems Pvt. Ltd.	288	1517	1805
125	Jetspot Networks Pvt. Ltd.	0	1792	1792
126	INET FIBER INDIA PVT LTD	0	1767	1767
127	Assistive networks & technologie Pvt Ltd	0	1701	1701
128	ULTRANET INFOTECH SOLUTION PRIVATE LIMITED	0	1600	1600
129	Nettlinx Ltd.	0	1591	1591
130	SCUD COMMUNICATION PVT LTD	0	1576	1576
131	Touch Net India Pvt. Ltd.	0	1570	1570
132	Elyzium Technologies Pvt. Ltd.	0	1532	1532
133	Southern Online Bio Technologies Ltd.	1	1527	1528
134	Sphier Infotech Pvt. Ltd.	0	1515	1515
135	Wnet Telecom Private Limited	0	1501	1501
136	delDSL Internet Pvt Ltd	0	1437	1437
137	Netfirre Communications Pvt Ltd	0	1408	1408
138	Bakcom Networks India Pvt Ltd	0	1398	1398
139	Prompt infracom Pvt Ltd	0	1387	1387
140	Imperium Digital Network Pvt. Ltd.	0	1322	1322
141	Rajesh Patel Net Services Pvt. Ltd.	13	1299	1312
142	Fiberzone Communications Pvt. Ltd.	0	1310	1310
143	Skylink Fibernet Pvt. Ltd.	0	1307	1307
144	HARDWORK CABLE & INTERNET SERVICES PVT LTD	0	1306	1306
145	MAKS COMMUNICATIONS PVT.LTD.	0	1248	1248
146	Hughes Communications India Ltd.	125	1052	1177

S.No.	Name of the Service Provider	Narrowband Subscribers	Broadband Subscribers	Total Internet
				Subscribers
147	Aeroway Networks Pvt Ltd.	0	1162	1162
148	GIGACAST NETWORK PVT LTD	0	1151	1151
149	Smart Net India Pvt Ltd	0	1128	1128
150	CJ Online Pvt. Ltd.	0	1127	1127
151	Click4Net Internet Services Private Limited	0	1127	1127
152	ACN Fiber Pvt. Ltd.	0	1107	1107
153	Craze IT Solutions Pvt Ltd	0	1100	1100
154	DA Smartzone Pvt Ltd	0	1037	1037
155	SS FIBER NET OPTICAL COMMUNICATION PVT. LTD	0	1014	1014
156	Amar Broadband Private Limited	0	973	973
157	AHM Digital Network Pvt Ltd	0	970	970
158	Sanchit Infocomm Pvt Ltd	0	968	968
159	Touchnet Broadband Services Pvt. Ltd.	0	956	956
160	Karunay Internet Private Limited	0	947	947
161	Grace Teleinfra Pvt Ltd	0	927	927
162	Deenet Services Pvt Ltd	0	907	907
163	Correl IT Services Pvt. Ltd.	0	893	893
164	Ficus Telecom Pvt. Ltd.	0	873	873
165	Varesha Air World Networks Pvt Ltd	433	433	866
166	Sky Online Technosystem Pvt Ltd	0	863	863
167	Japra Tele Link Pvt. Ltd.	0	859	859
168	NetMagic Solutions(P) Ltd.	0	855	855
169	Dreamlink Technologies Pvt Ltd	0	848	848
170	Fastnet Communication Pvt Ltd	211	632	843
171	NGC Broadband Pvt. Ltd.	833	0	833
172	ESTO BORADNAD PVT LTD./ESTO INTERNET PVT LTD	0	824	824
173	SVD DIGITAL NETWORKS PVT LTD	0	781	781
174	Ani Broadband Service Pvt. Ltd.	0	763	763
175	Datawave IT solutions Pvt. Ltd.	0	761	761
176	Daksh Broadband Services Pvt Ltd	0	732	732
177	Light Air Transmission Pvt. Ltd.	363	363	726
178	Cloudnet Communications Pvt Ltd	0	714	714
179	SPIRENET DIGITAL COMMUNICATION PVT LTD	0	704	704
180	Unitel Media Pvt Ltd	0	697	697
181	HOSTAXIS NETWORKS PVT LTD	0	695	695
182	Acegen Broadband Pvt. Ltd	0	678	678

S.No.	Name of the Service Provider	Narrowband Subscribers	Broadband Subscribers	Total Internet Subscribers
183	HPS DIGITAL BROADBAND PVT LTD	0	672	672
184	Telosy Telecom Pvt. Ltd.	0	662	662
185	DATAMAX TECHNOLOGY PVT LTD	64	582	646
186	SEFARO NETWORKS PRIVATE LTD	0	642	642
187	Darer Internet Services Pvt. Ltd.	0	636	636
188	Speedmaxx Digital Networks Pvt Ltd	0	633	633
189	Primenet Global Ltd.	0	623	623
190	Wi-Link Network Pvt. Ltd	0	614	614
191	Netvision Awadh Networks Pvt Ltd	137	474	611
192	Packenet Solutions Pvt. Ltd.	0	602	602
193	Laironet Communication Pvt Ltd	0	599	599
194	STN Communication & Advertising Pvt Ltd.	1	593	594
195	WEBRIDERS INTERNET PVT LTD	0	594	594
196	ADRI INFOCOM PVT. LTD.	0	578	578
197	Alphanet Broadband Pvt Ltd	0	571	571
198	Reticule Infotech Pvt. Ltd.	0	560	560
199	Alegra Communication Pvt Ltd	0	552	552
200	Digital2Virtual ISP Pvt. Ltd.	0	549	549
201	VIVA Communications Pvt Ltd	0	542	542
202	Rida Communication Pvt. Ltd.	0	526	526
203	Data Ingenious Global Ltd	4	514	518
204	Sify Technologies Ltd.	264	238	502
205	Power Grid Corporation of India Ltd.	0	490	490
206	ELECON INFOTMATION TECHNOLOGY LTD	0	483	483
207	HELM CONSULTANTS PVT LTD	193	274	467
208	Oasis Cable Pvt Ltd.	0	445	445
209	Tamana Winet Pvt. Ltd.	0	418	418
210	Shree Manoranjan Broadband Pvt Ltd	0	410	410
211	Spider Broadband and Cable Pvt Ltd	0	409	409
212	Oistel Telecom Pvt. Ltd.	203	203	406
213	VRD Web Services Pvt Ltd	0	404	404
214	REVOLUTION BROADBAND PVT LTD	0	397	397
215	CNS INFOTEL SERVICES PVT LTD	0	392	392
216	Pulse Telesystems Pvt. Ltd.	0	391	391
217	SmartLink Broadband Services	0	385	385
218	WINDSOR INTERNET PVT LTD	0	374	374
219	Panav Network and Communications Private Limited	0	368	368

S.No.	Name of the Service Provider	Narrowband Subscribers	Broadband Subscribers	Total Internet Subscribers
220	Kartik Network Pvt. Ltd.	0	364	364
221	Gorakhpur Net Services Pvt. Ltd.	0	363	363
222	Gleam Worldwide Services Pvt. Ltd.	0	341	341
223	BASS JOKERNET PRIVATE LIMITED	0	338	338
224	Bass Networks Pvt Ltd	0	338	338
225	Sai Akshay Internet Services Pvt Ltd.	0	332	332
226	CATLA IT&ENGG. CO. PVT LTD.	0	327	327
227	Moradabad Internet Dervices Pvt Ltd	0	327	327
228	ALWAR ONLINE PVT LTD	0	325	325
229	Twincity Communication Private Limited	0	325	325
230	Development Logics Solutions Pvt Ltd	0	307	307
231	Bhiwani Communications Pvt. Ltd.	73	233	306
232	PANCHSHEEL BROADBAND SERVICES'S PVT LTD.	0	305	305
233	NR DATA SERVICE PVT LTD	0	302	302
234	AUSPICE INFRATAL PVT LTD	166	129	295
235	Citylink Broadband Services Pvt. Ltd.	0	293	293
236	Harisree CableNet Pvt. Ltd.	0	289	289
237	Lotus Broadband Pvt Ltd	0	289	289
238	Dhanam Internet Services India Pvt. Ltd.	0	289	289
239	Goodwill Smartlink Pvt. Ltd.	0	277	277
240	NEXTGEN COMPUSOFT PVT LTD	0	272	272
241	Singh Internet Services Pvt. Ltd.	0	260	260
242	Quick Link Broadband And Services Pvt. Ltd	0	255	255
243	WAVETREE NETWORKS PVT LTD	0	255	255
244	ANTARIKSH BROADBAND & WIRELESS SOLUTIONS PVT LTD	254	0	254
245	Cityline Networks Pvt Ltd	0	251	251
246	Airmesh Communications Limited	0	246	246
247	Anushree Digital Network Pvt Ltd	0	246	246
248	Faiconet Internet Pvt Ltd	0	245	245
249	SOUTHNET BROADBAND PVT LTD	0	243	243
250	Khetan Cable Network (P) Ltd	0	228	228
251	Barani Data Solutions Private Limited	227	0	227
252	Visputes Internet Private Limited	0	227	227
253	VMO BROADBAND PVT LTD	225	0	225
254	ACEBROWSE PVT LTD	0	219	219
255	Smart Wi5 Pvt. Ltd.	0	218	218
256	CIT SOLUTIONS PVT. LTD.	0	217	217

S.No.	Name of the Service Provider	Narrowband Subscribers	Broadband Subscribers	Total Internet Subscribers
257	Srinagar Technology Consultants Ltd	213	0	213
258	Wi5 Internet Services P Limited	0	212	212
259	Microsense Pvt. Ltd.	0	209	209
260	Saibaba Broadband Pvt. Ltd.	0	206	206
261	Shineplus Networks Pvt Ltd	0	202	202
262	Fastx Broadband Private Limited	0	199	199
263	Ceralink Communication Pvt Ltd	0	196	196
264	Suncity Broadband Pvt Ltd.	0	190	190
265	Satpar Infotech Pvt Ltd	0	175	175
266	STN Infotech Pvt. Ltd	0	175	175
267	Gazillio Technologies Pvt. Ltd.	0	172	172
268	Kataria Net Solutions Pvt. Ltd.	0	170	170
269	Optisky Fiber Pvt Ltd	0	168	168
270	Proline Datatech Sercivces Pvt Ltd	0	161	161
271	Verizon Communications India Pvt. Ltd.	0	160	160
272	AIRMAX INTERNET PVT LTD	0	158	158
273	Nanjil Internet Services Pvt. Ltd.	0	158	158
274	NETTECH INFOVISION PVT LTD	0	158	158
275	PMG NETWORKD PVT LTD	0	153	153
276	Pimoony Broadband Serives Pvt Ltd	0	152	152
277	Sense Connect IT Pvt. Ltd.	0	146	146
278	ERNET India	52	89	141
279	Achiever Communication and Services Pvt. Ltd.	0	141	141
280	Global India Tele Infra Pvt. Ltd.	36	100	136
281	Texes Connect Private Limited	112	24	136
282	AT&T Global Network Services India Private Limited	0	128	128
283	MLC INTERNET PVT LTD	0	126	126
284	Mediatesh Communication Pvt. Ltd.	0	125	125
285	Sri Ram Broadband Services Pvt. Ltd.	0	125	125
286	Royal Wireless Services Pvt Ltd	0	120	120
287	Shri Vinayagaa Internet Pvt Ltd	0	119	119
288	V NET NETWORKS PVT. LTD	0	118	118
289	Micronova Network Solutions Ltd	4	111	115
290	AirFiber IT Solutions Pvt. Ltd	0	112	112
291	Shri Ram Braoadband Services Pvt Ltd	0	112	112
292	White Stallion Networks Pvt. Ltd.	0	108	108
293	Pronoc Technologies Pvt. Ltd.	0	107	107
294	Telstra Telecommunications Pvt. Ltd.	0	105	105

S.No.	Name of the Service Provider	Narrowband Subscribers	Broadband Subscribers	Total Internet Subscribers
295	Omkar Net Services Pvt. Ltd.	0	102	102
296	Shreepad Communication Pvt. Ltd.	0	100	100
297	SATH TECHNOLOGIES PVT LTD	0	99	99
298	S A INTERNET SOLUTION PVT LTD	0	98	98
299	Cheetah Networks Pvt Ltd	0	94	94
300	Invensys Networks pvt ltd	0	91	91
301	Radinet Info Solutions Pvt Ltd	0	91	91
302	Infinity Wwireless Services Pvt. Ltd.	0	89	89
303	Netwire Iinternet Solutions Pvt. Ltd.	0	89	89
304	Airtechzone Services India Pvt Ltd	85	0	85
305	ARP INFONET PVT. LTD.	0	84	84
306	Vidarbha Wi-Fi & Network Services Pvt. Ltd.	84	0	84
307	Dream Plus Multi Services Pvt. Ltd.	0	82	82
308	DRONAGIRI INFOTECH PVT LTD	0	81	81
309	TRIPLE LINK PVT LTD	0	75	75
310	Malang Solutions Pvt. Ltd.	0	73	73
311	Mtel Networks Pvt. Ltd.	0	73	73
312	BSL Technologies Pvt. Ltd.	0	67	67
313	M-TEL Networks (P) Ltd	0	65	65
314	Wireline Solution(India) Pvt. Ltd.	0	65	65
315	Veer Point Pvt. Ltd.	0	60	60
316	Airlink Broadband Pvt Ltd	0	56	56
317	Infiber Broadnet Pvt. Ltd.	0	56	56
318	QBC Infotech Pvt. Ltd.	0	54	54
319	City Broadband Pvt. Ltd.	0	52	52
320	Edge Telecommunications Pvt. Ltd.	0	50	50
321	Divine Broadband Services Pvt Ltd	0	44	44
322	GURU NETCOMM PVT LTD	0	41	41
323	CLASSIC INTERNET AND CABLE SERVICES PVT LTD	40	0	40
324	KKM Broadband Internet Pvt Ltd	0	36	36
325	JAI MATA DI TELECTRONIX PVT LTD	0	34	34
326	Navariya Satellite Services Pvt.Ltd.	33	0	33
327	Mesh Infranet Pvt Ltd	0	32	32
328	Dreamnet Pvt.Ltd.	0	30	30
329	Sanyog Networks Pvt Ltd	0	29	29
330	SUN BOARDBAND AND DATA SERVICES PVT LTD	0	28	28
331	WE INTERNET LIMITED	0	27	27

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

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

Annexure 1.6: List of Service Providers which reported IP Telephony Minutes as on 31.12.2019

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.

Annexure 1.7: Service Area wise PMRTS subscriber Base

ON-	O	0	Subscri	ber Base
SNo.	Operative Area	Service Provider	31.12.2018	31.12.2019
1	Delhi(Faridabad/	Arya Omnitalk Radio	6015	5500
	Gurgaon)	Trunking Services Pvt.Ltd.	6015	5588
		Procall(Delhi)	2938	2980
		Procall (Faridabad)		
		Procall (Gurgaon)		
		Total	8953	8568
2	Mumbai (Navi Mumbai)	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	8375	8242
		Smartalk (Mumbai)	526	636
		Bhilwara Telenet(Mumbai)	870	870
		Airtalk Solutions & Services Pvt. Ltd	361	459
		Total	10132	10207
3	Kolkata	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	2467	2410
		Total	2467	2410
4	TN(Chennai)	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	7177	7492
		Quick Calls	592	551
		Total	7769	8043
5	Karnataka (Bangalore)	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	7231	7061
		Quick Calls	602	745
		Total	7833	7806
6	Andhra Pradesh (Vishakhapatnam &	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	5408	1885
	Hyderabad)	Quick Calls (Hyderabad Urban)	871	848
		Total	6279	2733
7	Madhya Pradesh (Indore)	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1363	1576
		Total	1363	1576

Annexure- 1.7 (Contd.)

SNo.	Omanatina Anaa	Service Provider	Subscrib	er Base
SNO.	Operative Area	Service Provider	31.12.2018	31.12.2019
8	Rajasthan (Jaipur)	Procall	280	290
		Arya Omnitalk Radio Trunking Services Pvt.Ltd.	531	514
		Total	811	804
9	Gujarat (Ahmedaba/Surat/Vado dara/Bharuch/Dahej/ Kutch/Amrela/	Arya Omnitalk Radio Trunking Services Pvt.Ltd. (Ahmedaba/Surat/Vadoda ra/ Bharuch/Dahej)	6811	7120
	Jamnagar)	Inative Network Pvt. Ltd. (Ahmedaba/Surat/Vadoda ra/ Bharuch/ Kutch/Amrela/ Jamnagar)	1820	1820
		Total	8630	8940
10	Maharashtra (Pune)	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1904	1840
		Smartalk	442	438
		Total	2346	2270
11	Kerala (Cochin City & Quilon)	Wiwanet Solutions Pvt. Ltd.	361	409
		Arya Omnitalk Radio Trunking Services Pvt.Ltd.	839	955
		Total	1200	1364
	Grand 1	l'otal	57,784	59,089

Annexure 5.1: MRP (in `) of pay channels, offered by broadcasters to subscriber as reported to TRAI (New Regulatory Framework)

S.No	Name of the broadcaster	Sl. No	Name of the channel	Genre as per new Regulatory framework	Language	MRP as per New Regulatory Framework 2017 (in Rs) (Excluding Taxes)	Declared as SD or HD
1	AETN 18 Media Pvt Limited	1	The History Channel	Infotainment	Hindi	3.00	SD
		2	FY1 TV18	Infotainment	English	0.25	SD
		3	FY1 TV18 (HD)	Infotainment	English	1.00	HD
		4	Histroy TV 18 HD	Infotainment	Hindi	7.00	HD
2	Asianet Star Communications	5	Vijay TV	GEC	Tamil	12.00	SD
	Private Limited	6	Vijay Super	GEC	Tamil	1.00	SD
		7	Vijay HD	GEC	Tamil	19.00	HD
		8	Asianet	GEC	Malayalam	12.00	SD
		9	Asianet Plus	GEC	Malayalam	5.00	SD
		10	Asianet Movies	Movies	Malayalam	12.00	SD
		11	Suvarna Plus	Movies	Kannada	1.00	SD
		12	Star Suvarna HD	GEC	Kannada	19.00	HD
		13	Asianet HD	GEC	Malayalam	19.00	HD
		14	Star Suvarna	GEC	Kannada	9.00	SD
3	Bangla Entertainment Private	15	AATH	GEC	Bangla	4.00	SD
	Limited	16	SONY Marathi	GEC	Marathi	4.00	SD
4	BBC Global News India Private	17	BBC World News	News	English	1.00	SD
5	Bennett, Coleman & Company	18	Zoom	GEC	Hindi	0.50	SD
	Limited	19	Romedy Now	Movies	English	6.00	SD
		20	MN +	Movies	English	10.00	HD
		21	Mirror Now	News	English/Hindi	0.50	SD
		22	ET NOW	News	English/Hindi	3.00	SD
		23	Times Now	News	English/Hindi	3.00	SD
		24	Romedy Now HD	Movies	English	9.00	HD
		25	Movies Now HD	Movies	English	12.00	HD
		26	MNX HD	Movies	English	9.00	HD
		27	MNX	Movies	English	6.00	SD
		28	Times Now World	News	English	5.00	HD
6	Celebrities Management Pvt Limited	29	Travel XP HD	Miscellaneous	English	9.00	HD
		30	Travel XP Tamil	Miscellaneous	Tamil	1.50	SD
7	CSL Info Media Private Limited	31	JAN TV PLUS	News	Hindi	50.00	SD
8	Discovery Communications India	32	Animal Planet	Infotainment	English/Hindi	2.00	SD
		33	Discovery Channel	Infotainment	English/Hindi	4.00	SD
		34	Discovery Channel – Tamil	Infotainment	Tamil	4.00	SD
		35	Discovery Kids Channel	Kids	English	3.00	SD
		36	Discovery Science	Infotainment	English/Hindi	1.00	SD
		37	Discovery Turbo	Infotainment	English/Hindi	1.00	SD
		38	Discovery Jeet	GEC	Hindi	1.00	SD
		39	Discovery HD World	Infotainment	English	6.00	HD
		40	Animal Planet HD World	Infotainment	English/Hindi	3.00	HD
		41	TLC HD world	Infotainment	English/Hindi	3.00	HD
		42	Discovery Jeet HD	GEC	Hindi	2.00	HD
		43	TLC	Infotainment	English/Hindi	2.00	SD
		44	Dsport	Sports	English	4.00	SD

_	Discourse Bosse describes (Todie)	- 45	D: I:			2.00	a=
9	Disney Broadcasting (India) Limited	45	Disney Junior UTV Movies	Kids	English	3.00	SD
		47	Marvel HQ	Movies	Hindi	3.00	SD
		48	Disney International	Kids	English/Hindi	12.00	SD
		40	HD	GEC	English	12.00	HD
		49	Hungama TV	Kids	English/Hindi	1.00	SD
		50	The Disney Channel	Kids	English/Hindi	8.00	SD
		51	UTV HD	Movies	Hindi	8.00	HD
		52	UTV Bindass	GEC	Hindi	0.10	SD
		53	UTV Action	Movies	Hindi	2.00	SD
10	Eenadu Televisoin Private	54	ETV	GEC	Telugu	17.00	SD
	Limited	55	ETV Andhra Pradesh	News	Telugu	1.00	SD
		56	ETV - Telangana	News	Telugu	1.00	SD
		57	ETV Cinema	Movies	Telugu	6.00	SD
		58	ETV Life	GEC	Telugu	1.00	SD
		59	ETV Plus	GEC	Telugu	7.00	SD
		60	ETV Abhiruchi	GEC	Telugu	2.00	SD
		61	ETV HD	GEC	Telugu	19.00	HD
		62	ETV Plus HD	GEC	Telugu	9.00	HD
		63	ETV Cinema HD	Movies	Telugu	8.00	HD
		64	ETV Abhiruchi HD	GEC	Telugu	3.00	HD
		65	ETV Life HD	GEC	Telugu	2.00	HD
11	EPIC Television Networks Pvt Limited	66	EPIC TV	Infotainment		2.00	SD
12	Fame Media Private Limited	67	4tv News	News	Urdu/Hindi	1.00	SD
13	Greycells 18 Media Limited	68	Topper TV	Miscellaneous	English	59.32	SD
14	IBN Lokmat News Private Ltd	69	News 18 Lokmat	News	Hindi	0.10	SD
15	Lex Sportel Vision Private	70	1SPORTS	Sports	English	4.00	SD
	Limited			-	_		
16	Living Entertainment Enterprises Private Ltd	71	Living Foodz HD	Infotainment	Hindi	10.00	HD
		72	Living Travelz	Infotainment	Hindi	0.10	SD
17	Mavis Satcom Limited	73	J Movies	Movies	Tamil	2.25	SD
		74	Jaya Max	Music	Tamil	2.25	SD
		75	Jaya Plus	News	Tamil	0.50	SD
		76	Jaya TV HD	GEC	Tamil	6.00	HD
18	MSM World Wide Factual Media Private Limited	77	SONY BBC EARTH	Infotainment	English/Hindi	4.00	SD
	Private Limited	78	SONY BBC EARTH HD	Infotainment	English/Hindi	10.00	HD
19	Media World Wide Limited	79	Travel XP	Miscellaneous	English	3.00	SD
20	Lifestyle and Media Broadcasting Limited	80	Good Times	Miscellaneous	English	1.50	SD
21	New Delhi Television Limited	81	NDTV 24*7	News	English	3.00	SD
		82	NDTV India	News	Hindi	1.00	SD
		83	NDTV Profit	News	English	1.00	SD
22	NGC Network (India) Pvt Limited	84	Fox Life	Miscellaneous		1.00	SD
		85	National Geographic	Infotainment	English/Hindi	1.00	SD
		86	Channel (NGC) Fox Life HD	Miscellaneous	English/Hindi	1.00	HD
		87	Nat Geo Wild	Infotainment	English/Hindi	0.10	SD
		88	National Geographic	Infotainment	English/Hindi	10.00	HD
		89	National Geographic	Infotainment	Tamil	1.00	SD
		90	Tamil Nat Geo Wild HD	Infoto:	English/II:n-1:	5.00	ш
		91	National Geographic	Infotainment Infotainment	English/Hindi Telugu	1.00	HD SD
		92	Telugu Baby TV HD	T7: 3	E 1: 1 (TT: 1:	1.00	III
		94	Dany IV HD	Kids	English/Hindi	1.00	HD

23	NOIDA Software Technology Park Limited	93	NHK World Premium (HD Distribution)	Infotainment	Japanese	1800.00	HD
24	Odisha Television Limited	94	Prarthana	Devotional	Odia	2.00	SD
		95	Tarang	GEC	Odia	10.00	SD
		96	Tarang Music	Music	Odia	2.00	SD
		97	Alankar	Movies	Odia	4.00	SD
25	Raj Television Network Limited	98	Raj Digital Plus	Movies	Tamil	1.50	SD
		99	Raj Musix	Music	Tamil	1.00	SD
		100	Raj News	News	Tamil	0.25	SD
		101	Raj TV	GEC	Tamil	3.00	SD
26	Sarthak Entertainment Pvt Limited	102	ZEE Sarthak	GEC	Odia	12.00	SD
27	Silverstar Communications	103	Mega 24	GEC	Tamil	1.00	SD
	Limited	104	Mega Musiq	Music	Tamil	2.00	SD
		105	Mega TV	GEC	Tamil	3.00	SD
28	Sony Pictures Networks India	106	Sony YAY!	Kids	English	2.00	SD
	Private Limited	107	AXN	GEC	English	5.00	SD
		108	SET MAX	Movies	Hindi	12.00	SD
		109	MIX	Music	Hindi	1.00	SD
		110	SAB	GEC	Hindi	12.00	SD
		111	SONY ENTERTAINMENT CHANNEL (SET)	GEC	Hindi	12.00	SD
		112	PIX	Movies	English	10.00	SD
		113	SIX	Sports	English/Hindi	15.00	SD
		114	MAX 2	Movies	Hindi	1.00	SD
		115	PAL	GEC	Hindi	1.00	SD
		116	SET HD	GEC	Hindi	19.00	HD
		117	SIX HD	Sports	English/Hindi	19.00	HD
		118	PIX HD	Movies	English	15.00	HD
		119	MAX HD	Movies	Hindi	17.00	HD
		120	SONY ESPN HD	Sports	English/Hindi	7.00	HD
		121	Ten 2 HD	Sports	English/Hindi	17.00	HD
		122	Ten 3 HD	Sports	English/Hindi	17.00	HD
		123	SONY ESPN	Sports	English/Hindi	5.00	SD
		124	AXN HD	GEC	English	7.00	HD
		125	Ten 2	Sports	English/Hindi	15.00	SD
		126	Ten 1	Sports	English	19.00	SD
		127	Ten 3	Sports	English/Hindi	17.00	SD
		128	Ten 1 HD	Sports	English	19.00	HD
		129	SONY Wah	Movies	Hindi	1.00	SD
		130	SAB HD	GEC	Hindi	19.00	HD

29	Star India Private Limited	131	Cton Cnorta 2	G 4	E 1.1 (III. 1.1	1.00	CD
29	Star India Private Limited	131	Star Sports 3 Star Sports 1 Tamil	Sports	English/Hindi	17.00	SD
		133	Star Sports 1 Tallin Star Sports Select 2	Sports	Tamil	7.00	SD
		134	Star Sports Select 2	Sports	English/Hindi	10.00	SD
			Movies OK	GEC	Hindi	1.00	SD
		135		Movies	Hindi		SD
		136	Star Sports 1 Hindi	Sports	Hindi	19.00	SD
		137	Star Gold	Movies	Hindi	8.00	SD
		138	Star Jalsha	GEC	Bangla	12.00	SD
		139	Star Movies	Movies	English	12.00	SD
		140	Star Gold Select	Movies	Hindi	7.00	SD
		141	Star Plus	GEC	Hindi	12.00	SD
		142	Star Pravah	GEC	Marathi	9.00	SD
		143	Star Sports 1	Sports	English/Hindi	19.00	SD
		144	Star Sports 2	Sports	English/Hindi	5.00	SD
		145	Star World	GEC	English	8.00	SD
		146	Jalsha Movies	Movies	Bangla	6.00	SD
		147	Star Sports HD 2	Sports	English/Hindi	19.00	HD
		148	Star Sports HD 1	Sports	English/Hindi	19.00	HD
		149	Star Bharat HD	GEC	Hindi	19.00	HD
		150	Star Gold HD	Movies	Hindi	10.00	HD
		151	Star Movies HD	Movies	English	19.00	HD
		152	Star Plus HD	GEC	Hindi	19.00	HD
		153	Star World Prmiere	GEC	English	9.00	HD
			HD		Ü		
		154	Star Sports 1 HD	Sports	Hindi	19.00	HD
		155	Star Sports Select 1	Sports	English/Hindi	19.00	SD
		156	Star Movies Select HD	Movies	English	10.00	HD
		157	Star World HD	GEC	English	9.00	HD
		158	Star Sports First	Sports	English/Hindi	0.10	SD
		159	MAA Gold	Movies	Telugu	2.00	SD
		160	MAA Movies	Movies	Telugu	10.00	SD
		161	MAA Music	Music	Telugu	1.00	SD
		162	MAA TV	GEC	Telugu	12.00	SD
		163	Star Pravah HD	GEC	Marathi	15.00	HD
		164	Star Jalsha HD	GEC	Bangla	19.00	HD
		165	Jalsha Movies HD	Movies	Bangla	19.00	HD
		166	Star Sports Select HD	Sports	English/Hindi	19.00	HD
		167	Star Sports Select HD	Sports	English/Hindi	10.00	HD
		168	MAA HD	GEC	Telugu	19.00	HD
		169	Star Gold Select HD	Movies	Hindi	8.00	HD
		170	MAA Movies HD	Movies	Telugu	19.00	HD
		171	Star Sport 1 Telugu	Sports	Telugu	19.00	SD
		172	Star Sport 1 Kannada	Sports	Kannada	19.00	SD
		173	Star Sports 1 Bangla	Sports	Bangla	19.00	SD
		174	Star Utsav	GEC	Hindi	1.00	SD
		175	Star Sports 1 Marathi			8.00	
		176	Star Utsav Movies	Sports	Marathi	1.00	SD
		1/0	Star Otsav Movies	Movies	Hindi	1.00	SD

30	SUN TV Network Limited	177	Adithya TV	GEC	Tamil	9.00	SD
		178	Chintu TV	Kids	Kannada	6.00	SD
		179	Chutti TV	Kids	Tamil	6.00	SD
		180	Gemini Comedy	GEC	Telugu	5.00	SD
		181	Gemini Life	GEC	Telugu	5.00	SD
		182	Gemini Movies	GEC	Telugu	17.00	SD
		183	Gemini Music	Music	Telugu	4.00	SD
		184	Gemini News	News	Telugu	0.10	SD
		185	Gemini TV	GEC	Telugu	19.00	SD
		186	KTV	GEC	Tamil	19.00	SD
		187	Surya Movies	GEC	Malayalam	11.00	SD
		188	Kushi TV	Kids	Telugu	4.00	SD
		189	SUN Life	GEC	Tamil	9.00	SD
		190	Sun Music	Music	Tamil	6.00	SD
		191	Sun News	News	Tamil	1.00	SD
		192	Surya Music	Music	Malayalam	4.00	SD
		193	SUN TV	GEC	Tamil	19.00	SD
		194	Surya Comedy	GEC	Malayalam	4.00	SD
		195	Surya TV	GEC	Malayalam	12.00	SD
		196	Udaya Comedy	Movies	Kannada	6.00	SD
		197	Udaya Movies	GEC	Kannada	16.00	SD
		198	Udaya Music	Music	Kannada	6.00	SD
		199	Udaya News	News	Kannada	0.10	SD
		200	Udaya TV	GEC	Kannada	17.00	SD
		201	Kochu TV	Kids	Malayalam	5.00	SD
		202	Sun TV HD	GEC	Tamil	19.00	HD
		203	KTV HD	GEC	Tamil	19.00	HD
		204	Sun Music HD	Music	Tamil	19.00	HD
		205	Gemini TV HD	GEC	Telugu	19.00	HD
		206	Gemini Music HD	Music	Telugu	19.00	HD
		207	Gemini Movies HD	GEC	Telugu	19.00	HD
		208	Surya TV HD	GEC	Malayalam	19.00	HD
		209	Udaya TV HD	GEC	Kannada	19.00	HD
31	Suryansh Broadcasting Private Limited	210	Flowers	GEC	Malayalam	10.00	SD
32	Turner International India Pvt Ltd	211	Cartoon Network	Kids	Hindi	4.25	SD
		212	CNN International	News	English	0.50	SD
		213	НВО	Movies	English	10.00	SD
		214	POGO	Kids	Hindi	4.25	SD
		215	Cartoon Network	Kids	Hindi	5.00	HD
			HD+	Mus	IIII		1117
		216	WB	Movies	English	1.00	SD
L		217	HBO HD	Movies	English	12.00	HD

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33	TV 18 Broadcast Limited	218	CNN News 18	News	English	0.50	SD
		219	CNBC Bajaar	News	Gujarati	1.00	SD
		220	CNBC TV 18 Prime HD	News	English	1.00	HD
		221	CNBC Awaaz	News	Hindi	1.00	SD
		222	News 18 Tamil Nadu	News	Tamil	0.10	SD
		223	News 18 Kerala	News	Malayalam	0.10	SD
		224	News 18 Assam/	News	Assamese	0.10	SD
			North East				
		225	News 18 India	News	Hindi	0.10	SD
		226	CNBC TV 18	News	English	4.00	SD
		227	News 18 Bihar Jharkhand	News	Hindi	0.10	SD
		228	News 18 Madhya	News	Hindi	0.10	SD
			Pradesh / Chattisgarh				52
		229	News 18 Rajasthan	News	Hindi	0.10	SD
		230	News 18 Uttar	News	Hindi	0.10	SD
	•	231	Pradesh/ Uttaranchal News 18 Urdu	Norma	Urdu	0.10	SD
	1	232	News 18 Kannada	News News	Kannada	0.10	SD
		233	News 18 Bangla	News	Bangla	0.10	SD
		234	News 18 Punjab /	News	Punjabi	0.10	SD
			Haryana / Himanchal	11CW3	i unjavi	J.10	
			Pradesh				
		235	News 18 Gujarati	News	Gujarati	0.10	SD
		236	News 18 Odia	News	Odia	0.10	SD
34	TV Today Network Limited	237	Aaj Tak	News	Hindi	0.75	SD
		238	India Today	News	English	1.00	SD
		239	AAJ Tak HD	News	Hindi	1.50	HD
		240	Aaj Tak Tez	News	Hindi	0.25	SD
35	Viacom 18 Media Private Limited	241	Colors	GEC	Hindi	12.00	SD
		242	Comedy Central (HD)	GEC	English	9.00	HD
		243	MTV	Music	Hindi	3.00	SD
		244	NICK	Kids	Hindi	6.00	SD
		245	NICK JR	Kids	English	1.00	SD
		246	SONIC	Kids	Hindi	2.00	SD
		247	VH 1 (HD	Music	English	2.00	HD
			Distribution)				
		248	Colors Infinity HD	GEC	English	9.00	HD
		249	Colors Infinity	GEC	English	5.00	SD
		250	Colors HD	GEC	Hindi	19.00	HD
		251	NICKS HD+	Kids	Hindi	10.00	HD
		252	Colors Cineplex	Movies	Hindi	3.00	SD
		253	MTV Beats	Music	Hindi	0.10	SD
		254	Colors Kannada HD	GEC	Kannada	19.00	HD
		255	Colors Marathi HD	GEC	Marathi	17.00	HD
		256	Colors Bangla HD	GEC	Bangla	14.00	HD
		257	Colors Super	GEC	Kannada	3.00	SD
		258	Colors Bangla	GEC	Bangla	7.00	SD
		259	Colors Gujarati Colors Kannada	GEC	Gujarati	5.00	SD
		260 261	Colors Kannada Colors Marathi	GEC	Kannada	12.00	SD
		261		GEC	Marathi	10.00	SD
			Colors Oriya	GEC	Oriya	1.00	SD
		263 264	MTV Beats HD Colors Tamil	Music	Hindi	3.00	HD
		265	Colors Cineplex HD	GEC	Tamil	5.00	SD
		266	VH 1	Movies	Hindi English	1.00	HD SD
		267	Colors Tamil HD	Music GEC	English Tamil	7.00	HD
		268	MTV HD+	Music	Hindi	5.00	HD
		269	Colors Rishtey	GEC	Hindi	1.00	SD
		270	Colors Kannada	Movies	Kannada	2.00	SD
			Cinema	1110 1105			
		271	Colors Gujarati	Movies	Gujarati	1.00	SD
		272	Cinema Comody Control	CEC	T	<i>5</i> 00	G.F.
		272	Colors Rangle Cinema	GEC	English	5.00	SD
		273	Colors Bangla Cinema	Movies	Bangla	1.00	SD
			1				1

36	Zee Akaash News Private Limited	274	Zee 24 Ghanta	News	Bangla	0.10	SD
37	Zee Entertainment Enterprises	275	Zee Bollywood	Movies	Hindi	2.00	SD
	Limited	276	Zee Action	Movies	Hindi	1.00	SD
		277	Zee Bangla Cinema	Movies	Bangla	2.00	SD
		278	Zee Café HD	GEC	English	19.00	HD
		279	Zee Café	GEC	English	15.00	SD
		280	Zee Cinema	Movies	Hindi	15.00	SD
		281	Zee Talkies	Movies	Marathi	2.00	SD
		282	Zee TV	GEC	Hindi	12.00	SD
		283	Zing	Music	Hindi	0.10	SD
		284	& Picture	Movies	Hindi	6.00	SD
		285	Zee Bangla	GEC	Bangla	12.00	SD
		286	Zee Marathi	GEC	Marathi	12.00	SD
		287	Living Foodz	Infotainment	English/Hindi	1.00	SD
		288	Zee TV HD	GEC	Hindi	19.00	HD
		289	Zee Cinema HD	Movies	Hindi	19.00	HD
		290	& TV	GEC	Hindi	12.00	SD
		291	& TV HD	GEC	Hindi	19.00	HD
		292	Zee Kannada	GEC	Kannada	12.00	SD
		293	Zee Telugu	GEC	Telugu	12.00	SD
		294	& Pictures HD	Movies	English/Hindi	19.00	HD
		295	Zee Cinemalu	Movies	Telugu	10.00	SD
		296	Zee Yuva	GEC	Marathi	1.00	SD
		297	Zee Marathi HD	GEC	Marathi	19.00	HD
		298	& Prive HD	Movies	English	19.00	HD
		299	Zee Bangla HD	GEC	Bangla	19.00	HD
		300	Zee Tamil HD	GEC	Tamil	19.00	HD
		301	Zee Cinemalu HD	Movies	Telugu	16.00	HD
		302	Zee Telugu HD	GEC	Telugu	19.00	HD
		303	Zee Tamil	GEC	Tamil	10.00	SD
		304	Zee Kannada HD	GEC	Kannada	19.00	HD
		305	Zee Anmol Cinema	Movies	Hindi	0.10	SD
		306	& Flix HD	Movies	English	19.00	HD
		307	& Flix	Movies	English	15.00	SD
		308	Zee Keralam HD	GEC	Malayalam	8.00	HD
		309	Zee Keralam	GEC	Malayalam	0.10	SD
		310	Zee ETC	Music	Hindi	0.10	SD
		311	Zee Anmol	GEC	Hindi	0.10	SD
		312	Big Magic	GEC	Hindi	0.10	SD
		313	Big Ganga	GEC	Bhojpuri	0.50	SD
		314	Zee Classic	Movies	Hindi	0.50	SD
		315	&Xplore HD	Movies	Hindi	4.00	HD
		316	Zee Talkies HD	Movies	Marathi	19.00	HD
		317	Zee Biskope	Movies	Bhojpuri	0.10	SD

38	Zee Media Corporation Limited	318	Zee 24 Taas	News	Marathi	0.10	SD
		319	Zee Odisha	News	Odia	0.10	SD
		320	Zee Business	News	Hindi	0.10	SD
		321	Zee Punjab Haryana	News	Hindi	0.10	SD
			Himachal				
		322	Zee Madhya Pradesh	News	Hindi	0.10	SD
			Chattisgarh				
		323	Zee Salaam	News	Urdu	0.10	SD
		324	Zee 24 Kalak	News	Hindi	0.10	SD
		325	Zee Punjabi	GEC	Punjabi	3.00	SD
		326	WION	News	Hindi	1.00	SD
		327	Zee Uttar Pradesh	News	Hindi	0.10	SD
			Uttrakhand				
		328	Zee Hindustan	News	Hindi	0.10	SD
		329	Zee Bihar Jharkhand	News	Hindi	0.10	SD
		330	Zee News	News	Hindi	0.10	SD
		331	Zee Rajasthan News	News	Hindi	0.10	SD
39	Zoom Entertainment Network	332	Movies Now	Movies	English	10.00	SD
	Limited						

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: www.tatasky.com

2. M/s Dish TV India Ltd.

FC-19, Sector-16A, Film City,

Noida-201301

Tel: 91-120-2467005 / 2467000

Fax: 91-120-4357082 Website: <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: www.sundirect.in

4. Bharti Telemedia Ltd.

Airtel Centre, Plot No 16, Udyog Vihar Phase IV,, Gurgaon – 122 015

Ph: 0124-422222 Fax: 0124-4248063 Website: www.airtel.in

Annexure 5.3: List of existing cities with operational FM Radio Channels in India as on 31.12.2019

S.No.	Name of City	Category	Number of operational channels
1	Agartala	D	2
2	Agra	В	4
3	Ahmedabad	A	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	A	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+	8
25	Cochin	В	4
26	Coimbatore	В	4
27	Dehradun	С	1
28	Delhi	A+	9
29	Dhule	С	3
30	Durg-Bhillaina	D	1
31	Dhubri	Others	1
32	Erode	С	2
33	Gangtok	D	2
34	Gorakhpur	С	4
35	Gulbarga	С	1

			Annexure 5.3 (Contd.)
S.No.	Name of City	Category	Number of
26	Guwahati	С	operational channels 4
36 37	Gwalior	C	4
	Haflong	D	1
38 39	Hissar	D	4
40	Hubli - Dharwad	C	2
41	Hyderabad	A	8
42	Indore	В	4
43	Itanagar	D	1
44	Jabalpur	В	4
	Jaipur	A	6
45	Jalandhar	C	4
46		C	4
47	Jalgaon Jammu	C	3
48		C	1
49	Jamnagar		+
50	Jamshedpur Jhansi	В	4
51		C	4
52	Jodhpur	C	4
53	Junagarh	D	1
54	Kannur	C	3
55	Kanpur	A	6
56	Karnal	D	3
57	Kolhapur	C	4
58	Kolkata	A+	8
59	Kota	С	4
60	Kozhikode	C	4
61	Lucknow	A	6
62	Madurai	В	4
63	Mangalore	C	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

Annexure 5.3 (Contd.)

S.No.	Name of City	Category	Number of operational channels
73	Panaji	D	2
74	Patiala	С	4
75	Patna	В	4
76	Puducherry	С	4
77	Pune	A	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
93	Thrissur	С	3
94	Tiruchy	С	3
95	Tirunelveli	С	3
96	Tirupati	С	2
97	Tuticorin	С	2
98	Udaipur	С	4
99	Ujjain	С	1
100	Vadodra	В	4
101	Varanasi	В	5
102	Vellore	С	2
103	Vijayawada	В	2
104	Vishakapatnam	В	3
105	Warrangal	С	2
	368		

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.