



# **Telecom Regulatory Authority of India**

## **The Indian Telecom Services Performance Indicators** April – June, 2018

New Delhi, India 3<sup>rd</sup> October, 2018

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## Snapshot

(Data As on Q.E. 30 <sup>th</sup> June, 2018)					
Telecom Subscribers (Wireless +Wireline)					
Total Subscribers	1,168.89 Million				
% change over the previous quarter	-3.09%				
Urban Subscribers	652.76 Million				
Rural Subscribers	516.13 Million				
Market share of Private Operators	88.72%				
Market share of PSU Operators	11.28%				
Teledensity	89.72				
Urban Teledensity	158.16				
Rural Teledensity	57.99				
Wireless Subscribers					
Total Wireless Subscribers	1,146.49 Million				
% change over the previous quarter	-3.12%				
Urban Subscribers	633.60 Million				
Rural Subscribers	512.89 Million				
GSM Subscribers	1,143.48 Million				
CDMA Subscribers	3.02 Million				
Market share of Private Operators	89.83%				
Market share of PSU Operators	10.17%				
Teledensity	88.00				
Urban Teledensity	153.52				
Rural Teledensity	57.63				
Total Wireless Data Usage during the quarter	10,418,076 TB				
Wireline Subscribers					
Total Wireline Subscribers	22.40 Million				
% change over the previous quarter	-1.82%				
Urban Subscribers	19.16 Million				
Rural Subscribers	3.24 Million				
Market share of Private Operators	32.12%				
Market share of PSU Operators	67.88%				
Teledensity	1.72				
Urban Teledensity	4.64				
Rural Teledensity	0.36				
No. of Village Public Telephones (VPT)	1,86,951				
No. of Public Call Office (PCO)	3,30,504				

Telecom Financial Data	
Gross Revenue (GR) during the quarter	₹ 58,401 Crore
% change in GR over the previous quarter	-6.10%
Adjusted Gross Revenue (AGR) during the quarter	₹ 36,552 Crore
% change in AGR over the previous quarter	2.40%
Share of Public sector undertakings in Access AGR	10.61%
Monthly Average Revenue Per User (ARPU) for Access Services	₹ 73.34
Internet/Broadband Subscribers	
Total Internet Subscribers	512.26 Million
% change over previous quarter	3.71%
Narrowband subscribers	65.14 Million
Broadband subscribers	447.12 Million
Wired Internet Subscribers	21.16 Million
Wireless Internet Subscribers	491.10 Million
Urban Internet Subscribers	338.84 Million
Rural Internet Subscribers	173.42 Million
Total Internet Subscribers per 100 population	39.32
Urban Internet Subscribers per 100 population	82.10
Rural Internet Subscribers per 100 population	19.48
Broadcasting & Cable Services	
Number of private satellite TV channels permitted by the Ministry of I&B for uplinking only/downlinking /uplinking	867
Number of Pay TV Channels as reported by broadcasters	309
Number of private FM Radio Stations (excluding All India Radio)	328
Number of Pay Subscribers net Active with Private DTH Operators	69.37 Million
Number of Operational Community Radio Stations	237
Number of pay DTH Operators	5
Revenue & Usage Parameters	
Monthly ARPU GSM Full Mobility Service including LTE	₹ 69
Monthly ARPU CDMA Full Mobility Service	₹28
Minutes of Usage (MOU) per subscriber per month - GSM Full Mobility Service including LTE	608 Minutes
Minutes of Usage (MOU) per subscriber per month - CDMA Full Mobility Service	19 Minutes
Total Outgoing Minutes of Usage for Internet Telephony	188.78 Million
Wireless Data Usage	
Average Data Usage per subscriber per month – GSM including LTE (2G+3G+4G)	3,216 MB
Average Data Usage per subscriber per month - CDMA	53 MB
Average Data Usage per subscriber per month – Total(GSM+CDMA)	3,206 MB
Average outgo per GB data for GSM including LTE (2G+3G+4G)	₹12.06
Average outgo per GB data for CDMA	₹88

#### **Executive Summary**

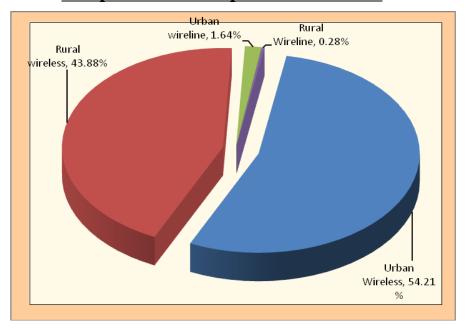
1. The number of telephone subscribers in India declined from 1,206.22 million at the end of Mar-18 to 1,168.89 million at the end of Jun-18, registering a decline rate of 3.09% over the previous quarter. This reflects year-on-year (Y-O-Y) decline rate of 3.46% over the same quarter of last year. The overall Teledensity in India declined from 92.84 as on QE Mar-18 to 89.72 as on QE Jun-18.



Trends in Telephone subscribers and Teledensity in India

- Subscription in Urban Areas declined from 681.61 million at the end of Mar-18 to 652.76 million at the end of Jun-18 and Urban Teledensity also declined from 165.90 to 158.16 during the same period.
- Rural subscription declined from 524.61 million at the end of Mar-18 to 516.13 million at the end of Jun-18 and Rural Teledensity also declined from 59.05 at the end of Mar-18 to 57.99 at the end of Jun-18.

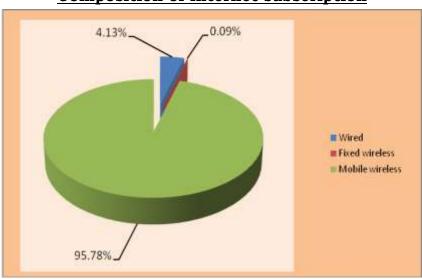
4. Out of the total subscription, the share of Rural subscription increased from 43.49% at the end of Mar-18 to 44.16% at the end of Jun-18.



**Composition of Telephone Subscribers** 

- 5. With a net decline of 36.92 million subscribers during the quarter, total wireless (GSM incl. LTE + CDMA) subscriber base declined from 1,183.41 million at the end of Mar-18 to 1,146.49 million at the end of Jun-18, registering a decline rate of 3.12% over the previous quarter. The year-on-year (Y-O-Y) decline rate of wireless subscribers for Jun-18 is 3.40%.
- Wireless Tele-density declined from 91.09 at the end of Mar-18 to 88.00 at the end of Jun-18.
- Wireline subscriber declined from 22.81 million at the end of Mar-18 to 22.40 million at the end of Jun-18 with quarterly decline rate of 1.82%. The year-on-year (Y-O-Y) decline rate in wireline subscribers for Jun-18 is 6.68%.
- Wireline Teledensity declined from 1.76 at the end of Mar-18 to 1.72 at the end of Jun-18.

9. Total number of Internet subscribers increased from 493.96 million at the end of Mar-18 to 512.26 million at the end of Jun-18, registering a quarterly growth rate of 3.71%. Out of 512.26 million internet subscribers, Wired Internet subscribers are 21.16 million and Wireless Internet subscribers are 491.10 million.

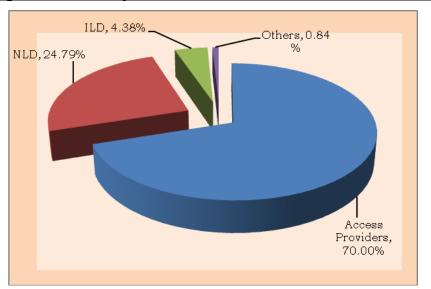


#### **Composition of internet subscription**

- 10. The Internet subscriber base is comprised of <u>Broadband</u> Internet subscriber base of 447.12 million and <u>Narrowband</u> Internet subscriber base of 65.14 million.
- 11. The broadband Internet subscriber base increased by 8.37% from 412.60 million at the end of Mar-18 to 447.12 million at the end of Jun-18. On the other hand, the narrowband Internet subscriber base declined by 19.93% from 81.35 million at the end of Mar-18 to 65.14 million at the end of Jun-18.
- 12. Monthly Average Revenue per User (ARPU) for GSM service (including LTE) declined by 8.92%, from ₹76 in QE Mar-18 to ₹69 in QE Jun-18. Monthly ARPU for GSM service (including LTE) declined by 12.97% on Y-O-Y in this quarter.

- Prepaid ARPU for GSM service per month declined from ₹62 in QE Mar-18 to ₹59 in QE Jun-18, however Postpaid ARPU per month declined from ₹360 in QE Mar-18 to ₹307 in QE Jun-18.
- On an all India average, the overall MOU per subscriber per month for GSM service increased by 4.10% from 584 for QE Mar-18 to 608 in QE Jun-18.
- Prepaid MOU per subscriber for GSM service increased from 575 in QE Mar-18 to 601 in QE Jun-18, however postpaid MOU declined from 776 in QE Mar-18 to 765 in QE Jun-18.
- 16. Monthly ARPU for CDMA full mobility service sharply declined by 65.08%, from ₹79 in QE Mar-18 to ₹28 in QE Jul-18 and Y-O-Y basis Monthly ARPU for CDMA full mobility service declined by 76.52% in this quarter.
- 17. The total MOU per subscriber per month for CDMA full mobility service declined by 68.56%, from 61 in QE Mar-18 to 19 in QE Jun-18. The outgoing MOUs declined from 39 in QE Mar-18 to 2 in QE Jun-18, and incoming MOUs also declined from 22 in QE Mar-18 to 17 in QE Jun-18.
- 18. Gross Revenue (GR) and Adjusted Gross Revenue (AGR) of Telecom Service Sector for the QE Jun-18 has been ₹58,401 Crore and ₹36,552 Crore respectively. GR declined by 6.10%, however AGR increased by 2.40% in QE Jun-18 as compared to previous quarter.
- 19. The year-on-year (Y-O-Y) growth in GR and AGR over the same quarter in last year has been -10.00% and -8.11% respectively.

- 20. Pass-through charges declined from ₹26,501 Crore in QE Mar-18 to ₹21,849 Crore in QE Jun-18. The quarterly and the year-on-year (Y-O-Y) growth rates of pass-through charges for QE Jun-18 are -17.56% and -12.99% respectively.
- 21. The License Fee declined from ₹2,932 Crore for the QE Mar-18 to ₹2,929 Crore for the QE Jun-18. The quarterly and the year-on-year (Y-O-Y) growth rates of license fee are -0.11% and -10.17% respectively in this quarter.
- 22. Access services contributed 70.00% of the total Adjusted Gross Revenue of telecom services. In Access services, Gross Revenue (GR), License Fee, Spectrum Usage Charges(SUC) and Pass Through Charges declined by 9.07%, 2.88%, 2.21% and 21.86% respectively in QE Jun-18. However, Adjusted Gross Revenue (AGR) increased by 0.54% during the quarter.



**Composition of Adjusted Gross Revenue in access services** 

23. Monthly Average Revenue per User (ARPU) for Access Services based on AGR, increased from ₹71.62 in QE Mar-18 to ₹73.34 in QE Jun-18. 24. The performance of Cellular Mobile service providers in terms of QoS during the quarter vis-à-vis that in the previous quarter is given as below:

	Parameters showing improvement in QoS					Parameters showing deterioration in QoS				
•	Network	QoS	DCR	Spatial	•	Call Set-up Success Rate and Session				
	Distributi	on	I	Measure		Establishment Success Rate for Ciruit				
	[Network_	QSD(	90,90)]	(%age)		Switched Voice or VoLTE as applicable				
•	Network	QoS I	DCR T	emporal		(within licensee's own network)				
	Distributi	on	I	Measure	•	SDCCH/Paging Channel Congestion/RRC				
	[Network_	QTD(	97,90)]	(%age)		Congestion (%age)				
•	Point o	of I	ntercor	nnection	•	TCH, RAB and E-RAB Congestion (%age)				
	(POI) Con	gestic	on (No.	of POIs	•	Resolution of billing/charging/validity				
	not meeti	ng the	e bench	nmark)		complaints (100% within 6 weeks)				
•	Metering	a	nd	billing	•	Accessibility of call centre/ customer care				
	credibility	- post	paid		•	%age requests for Termination/Closure of				
•	• %age of calls answered by the					service complied within 7 days				
	operators	(voi	ce to	voice)	•	Time taken for refund of deposits after				
	within 90	sec				closures				

25. The performance of wireline service providers in terms of QoS during the quarter vis-à-vis that in the previous quarter is given below:

Parameters showing improvement in QoS	Parameters showing deterioration in QoS
• Response time to the	• % Fault repaired by next working day
customer for Assistance -	(for urban areas)
Accessibility of call centre/	• Mean time to Repair (MTTR)
customer care	• Resolution of billing/charging/credit &
	validity complaints
	• % of request for Termination/Closure
	of service compiled within 7 days

- 26. A total number of 867 private satellite TV channels have been permitted by the Ministry of Information and Broadcasting (MIB) for uplinking only/downlinking only/uplinking and downlinking both, as on 30<sup>th</sup> June, 2018.
- 27. During the quarter ending 30<sup>th</sup> June, 2018, there were 309 pay channels as reported by 49 broadcasters as compared to 308 pay channels reported in the previous quarter. 309 pay channels include 212 SD pay TV channels and 97 HD Pay TV channels. During the quarter ending 30<sup>th</sup> June, 2018, as per the report submitted by the broadcasters, two new pay channels were commenced and one pay channel namely "Toonami" was reported to be discontinued.
- 28. Since its introduction in the year 2003, DTH service has displayed a phenomenal growth. During the QE 30<sup>th</sup> June, 2018, there were 5 pay DTH service providers in the country.
- 29. DTH has attained net pay active subscriber base of around 69.37 million in QE 30<sup>th</sup> June, 2018. This is in addition the subscribers of free DTH services of Doordarshan.
- 30. Apart from the radio stations operated by All India Radio, the public broadcaster, as on 30<sup>th</sup> June, 2018, there are 328 operational private FM Radio stations and 86 existing cities operated by 34 FM Radio broadcasters as compared to 324 private FM Radio Stations 86 cities operated by 34 FM Radio broadcasters in the previous quarter.
- As per data received from MIB, as on 30<sup>th</sup> June, 2018, 237
   Community Radio Stations are operational.

## <u>Trends at a Glance</u>

## A. Access Service (Wireline + Wireless)

	QE Jun 2017	QE Sep 2017	QE Dec 2017	QE Mar 2018	QE Jun 2018	%age change over Jun- 2017	%age change over Sep- 2017	%age change over Dec- 2017	%age change over Mar- 2018
						(12 months)	(9 months)	(6 months)	(3 months)
1) Subscribe	er Base (in 1	million)			1				
Wireline	24.00	23.67	23.23	22.81	22.40	-6.68%	-5.39%	-3.61%	-1.82%
Wireless	1186.84	1183.04	1167.44	1183.41	1146.49	-3.40%	-3.09%	-1.79%	-3.12%
Total	1210.84	1206.71	1190.67	1206.22	1168.89	-3.46%	-3.13%	-1.83%	-3.09%
Rural	509.88	501.82	502.42	524.61	516.13	1.23%	2.85%	2.73%	-1.62%
Urban	700.96	704.89	688.25	681.61	652.76	-6.88%	-7.40%	-5.16%	-4.23%
2) Teledensi	ity				I				
Wireline	1.86	1.83	1.79	1.76	1.72	-7.71%	-6.17%	-4.14%	-2.09%
Wireless	92.12	91.56	90.11	91.09	88.00	-4.46%	-3.89%	-2.33%	-3.38%
Total	93.98	93.40	91.90	92.84	89.72	-4.53%	-3.93%	-2.37%	-3.36%
Rural	57.73	56.71	56.66	59.05	57.99	0.45%	2.26%	2.34%	-1.80%
Urban	172.98	173.15	168.29	165.90	158.16	-8.57%	-8.66%	-6.02%	-4.67%
3) Service P	rovider wi	se Subscr	ibers Base	(in Million)	(wireless+w	vireline)			
Bharti	284.53	285.95	294.03	308.12	348.52	22.49%	21.88%	18.53%	13.11%
Vodafone	212.09	207.63	212.73	222.92	222.97	5.13%	7.39%	4.82%	0.02%
Idea	196.28	190.16	196.50	211.21	220.60	12.39%	16.01%	12.26%	4.45%
Reliance Jio	123.36	138.62	160.09	186.56	215.26	74.49%	55.29%	34.46%	15.38%
BSNL	117.37	118.61	120.35	123.95	125.00	6.51%	5.39%	3.87%	0.85%
Aircel	90.32	88.82	85.00	74.15	-	-	-	-	-
Reliance	82.50	73.31	34.30	1.11	0.96	-98.84%	-98.70%	-97.21%	-13.81%
Tata	45.54	46.76	38.55	33.07	28.50	-37.41%	-39.05%	-26.07%	-13.80%
Telenor	47.34	46.01	41.91	37.98	-	-	-	-	-
MTNL	7.06	7.01	6.96	6.90	6.84	-3.07%	-2.43%	-1.73%	-0.91%
Sistema	4.19	3.57	-	-	-	-	-	-	-
Quadrant	0.27	0.26	0.25	0.24	0.24	-10.26%	-9.15%	-4.46%	-1.89%
Total	1210.84	1206.71	1190.67	1206.22	1168.89	-3.46%	-3.13%	-1.83%	-3.09%

#### **B.** Internet Services

	QE Jun 2017	QE Sep 2017	QE Dec 2017	QE Mar 2018	QE Jun 2018	%age change over Jun- 2017 (12 months)	%age change over Sep- 2017 (9 months)	%age change over Dec- 2017 (6 months)	%age change over Mar- 2018 (3 months)			
1) Subscriber's Base	1) Subscriber's Base (in million)											
A. Wired Internet Subscribers	21.67	21.35	21.28	21.24	21.16	-2.33%	-0.90%	-0.58%	-0.37%			
B. Wireless Internet Subscribers	409.55	407.88	424.67	472.72	491.10	19.91%	20.40%	15.64%	3.89%			
i. Mobile Wireless (Mobile & Dongle)	409.01	407.41	424.22	472.25	490.66	19.96%	20.44%	15.66%	3.90%			
ii. Fixed Wireless (Wi-Fi, Wi-Max, Point-to-Point Radio & VSAT)	0.54	0.47	0.45	0.47	0.44	-18.82%	-7.39%	-3.94%	-7.16%			
Total Internet Subscribers	431.21	429.23	445.96	493.96	512.26	18.80%	1 <b>9.34</b> %	14.87%	3.71%			
2) No. of Internet Subs per 100 Population	33.47	33.22	34.42	38.02	39.32	17.49%	18.36%	14.24%	3.42%			

## C. Usage and Revenue for Full Mobility Services

1. Traffic (MOU) (minutes of use/subscriber/month)											
i) GSM	428	437	495	584	608	42.04%	39.35%	22.88%	4.13%		
ii) CDMA	246	206	112	60	19	-92.26%	-90.74%	-83.05%	-68.37%		
2) ARPU (₹/sub/ mo	2) ARPU (₹/sub/ month)										
i) GSM	79.58	83.89	79.39	76.04	69.25	-12.97%	-17.45%	-12.76%	-8.92%		

### D. Telecom Financial Data

	QE Jun 2017	QE Sep 2017	QE Dec 2017	QE Mar 2018	QE Jun 2018	%age change over Jun- 2017 (12 months)	%age change over Sep- 2017 (9 months)	%age change over Dec- 2017 (6 months)	%age change over Mar- 2018 (3 months)
1. Telecom Sector									
i) Gross Revenue (₹ in Crores)	64889.47	66361.70	61088.65	62198.26	58401.12	-10.00%	-12.00%	-4.40%	-6.10%
ii) Adjusted Gross Revenue (₹ in Crores)	39777.55	41668.84	38536.22	35697.24	36552.48	-8.11%	-12.28%	-5.15%	2.40%
2. Access Services									
Adjusted Gross Revenue (₹ in Crores)	30082.33	31968.03	28967.93	25448.09	25585.07	-14.95%	-19.97%	-11.68%	0.54%
ARPU per month (AGR/ Average subscribers/3)	83.41	88.09	80.77	71.62	73.34	-12.08%	-16.75%	-9.21%	2.40%

#### Introduction

This Report presents the Key Parameters and growth trends for the Telecom Services in India for the quarter ending June, 2018. It provides a broad perspective on the Telecom Services to serve as a reference document for various stakeholders, research agencies and analysts. Chapter-1 depicts the growth pattern, in terms of Subscriber base and Tele-density of Wireline, Wireless, Internet and Value Added Services (VAS) as well as Wireless Data Usage. Chapter-2 covers the key revenue and usage parameters. Chapter-3 gives the financial and accounting data. Chapter-4 covers performance of various telecom service providers in terms of QoS. The information relating to Cable TV, DTH & Radio Broadcast services is provided in Chapter-5.

2. The Report has been prepared based on the information furnished by the Service Providers. It is also available on TRAI's website (www.trai.gov.in under the link <u>http://www.trai.gov.in/releasepublication/reports/performance-indicators-reports</u>). Any suggestion or any clarification pertaining to this report, Pr. Advisor (F&EA), TRAI may be contacted on Tel. +91-11-23221856, Fax. +91-11-23235249 and e-mail: <u>skmishra.trai@nic.in</u>.

# Chapter 1 : Subscription Data

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<sup>•</sup> 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.

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

1.1 The number of telephone subscribers in India declined from 1,206.22 million at the end of Mar-18 to 1,168.89 million at the end of Jun-18, registering a decline rate of 3.09% over the previous quarter. This reflects year-on-year (Y-O-Y) decline rate of 3.46% over the same quarter of last year. The overall Teledensity in India declined from 92.84 as on QE Mar-18 to 89.72 as on QE Jun-18.

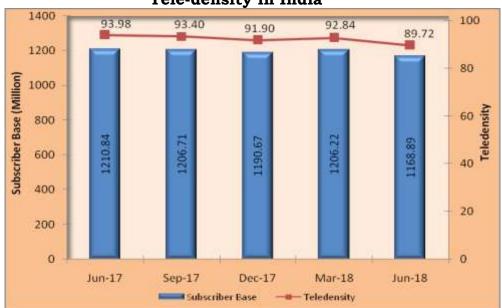


Chart 1.1: Trends in Telephone Subscribers and Tele-density in India

Table1.1: Subscriber Base & Teledensity - Rural & Urban

Quarter	Subscriber Ba	Teledensity		
ending	Rural	Urban	Rural	Urban
Jun-17	509.88	700.96	57.73	172.98
Sep-17	501.82	704.89	56.71	173.15
Dec-17	502.42	688.25	56.66	168.29
Mar-18	524.61	681.61	59.05	165.90
Jun-18	516.13	652.76	57.99	158.16

- 1.2 Subscription in Urban Areas declined from 681.61 million at the end of Mar-18 to 652.76 million at the end of Jun-18, and Urban Tele-density also declined from 165.90 to 158.16 during the quarter.
- 1.3 Rural subscription declined from 524.61 million at the end of Mar-18 to 516.13 million at the end of Jun-18 and Rural Teledensity also declined from 59.05 to 57.99 at the end of Jun-18.
- 1.4 The year-on-year (Y-O-Y) growth rate of Urban and Rural telephone subscription from Jun-17 to Jun-18 is -6.88% and 1.23% respectively. Year-on-year (Y-o-Y) growth rate of Urban and Rural Tele-density from Jun-17 to Jun-18 is -8.57% and 0.45% respectively.

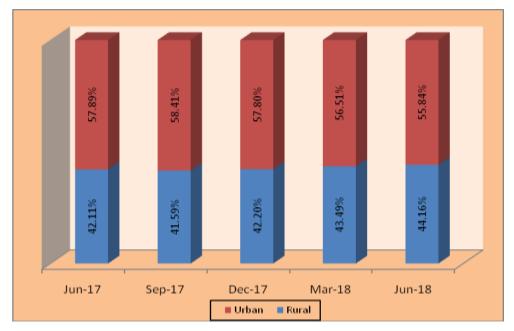


Chart 1.2: Market Share - Rural & Urban Subscribers

1.5 Share of subscription of rural areas in total telephone subscription increased from 43.49% at the end of Mar-18 to 44.16% at the end of Jun-18.

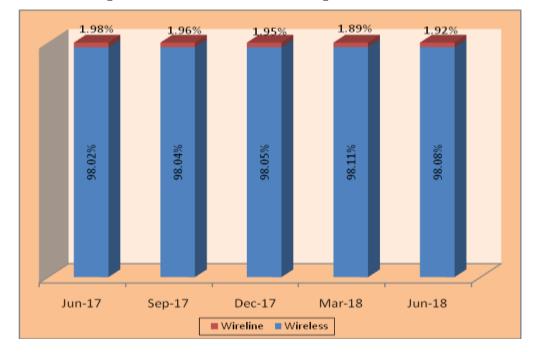
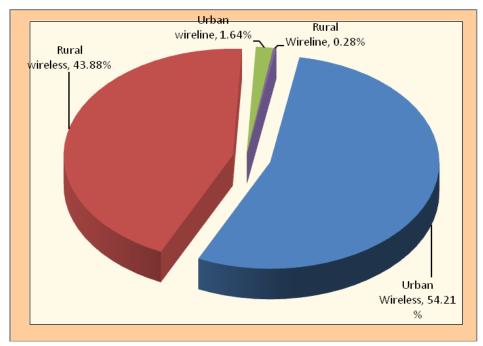


Chart 1.3: Composition of Access subscription - Wireline & Wireless

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



Service Area	Subscribers (million)							
	Mar-18	Jun-18	Net Additions	Rate of Growth(%)				
Andhra Pradesh	87.11	87.13	0.02	0.02				
Assam	24.77	21.14	-3.63	-14.66				
Bihar	88.87	84.86	-4.01	-4.52				
Delhi	57.10	52.81	-4.30	-7.52				
Gujarat	73.19	72.04	-1.15	-1.57				
Haryana	26.69	27.42	0.73	2.72				
Himachal Pradesh	9.77	10.21	0.44	4.50				
Jammu & Kashmir	13.77	11.12	-2.65	-19.21				
Karnataka	69.20	68.91	-0.29	-0.42				
Kerala	43.97	44.95	0.97	2.22				
Madhya Pradesh	71.44	74.57	3.13	4.38				
Maharashtra	96.33	95.87	-0.46	-0.47				
Mumbai	39.37	38.38	-0.98	-2.50				
North East	13.88	11.63	-2.25	-16.21				
Orissa	34.62	32.22	-2.41	-6.95				
Punjab	38.96	39.32	0.37	0.94				
Rajasthan	64.97	62.56	-2.41	-3.71				
T.N. (incl. Chennai)	96.39	83.51	-12.88	-13.36				
U.P.(E)	104.31	101.74	-2.57	-2.46				
U.P.(W)	63.75	63.89	0.14	0.23				
Kolkata	28.97	26.89	-2.08	-7.18				
West Bengal	58.78	57.72	-1.06	-1.81				
All India	1,206.22	1,168.89	-37.33	-3.09				

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

1.6 Himachal Pradesh service areas showed highest growth rate of 4.50% followed by Madhya Pradesh with 4.38% in their subscriber base during the quarter ending Jun-18. On the other hand, J&K service area recorded maximum decline rate of 19.21% in telephone subscription during the same period.

	Numbr of Subscribers (in million)								
Service Area	Total	Rural	Urban	% of Rural Subscribers					
Andhra Pradesh	87.13	41.67	45.46	47.82					
Assam	21.14	12.00	9.15	56.74					
Bihar	84.86	53.03	31.82	62.50					
Delhi	52.81	2.25	50.55	4.27					
Gujarat	72.04	28.41	43.63	39.44					
Haryana	27.42	11.80	15.62	43.04					
Himachal Pradesh	10.21	7.48	2.73	73.27					
Jammu & Kashmir	11.12	5.10	6.03	45.81					
Karnataka	68.91	24.43	44.48	35.45					
Kerala	44.95	20.76	24.19	46.19					
Madhya Pradesh	74.57	34.44	40.13	46.18					
Maharashtra	95.87	45.29	50.59	47.24					
Mumbai	38.38	1.97	36.42	5.12					
North East	11.63	5.25	6.38	45.12					
Orissa	32.22	20.81	11.41	64.59					
Punjab	39.32	14.02	25.30	35.65					
Rajasthan	62.56	33.63	28.93	53.76					
T.N. (incl. Chennai)	83.51	23.96	59.54	28.70					
U.P.(E)	101.74	58.95	42.78	57.95					
U.P.(W)	63.89	29.18	34.71	45.67					
Kolkata	26.89	2.95	23.94	10.96					
West Bengal	57.72	38.75	18.97	67.14					
All India	1,168.89	516.13	652.76	44.16					

Table 1.3: Service Area wise Rural-Urban Subscribers at QE Jun-18



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

1.7 The net decline in telephone subscribers is 37.33 million in QE Jun-18 as against the net addition of 15.55 million in QE Mar-18.

Service Area/	As on 31 <sup>st</sup> March, 2018			As on 30 <sup>th</sup> June, 2018			
States	Rural Teledensity	Urban Teledensity	Total Teledensity	Rural Teledensity	Urban Teledensity	Total Teledensity	
Andhra Pradesh	61.37	188.79	97.07	64.39	180.44	96.91	
Assam	56.84	164.20	74.63	43.23	165.26	63.52	
Bihar	43.91	182.36	63.12	43.62	162.42	60.11	
Delhi	-	-	252.93	-	-	232.26	
Gujarat	75.94	161.74	112.44	75.86	156.85	110.38	
Haryana	65.19	143.66	94.38	66.34	147.48	96.62	
Himachal Pradesh	113.19	299.21	135.52	117.74	313.91	141.36	
J&K	77.44	187.62	108.63	55.99	167.30	87.56	
Karnataka	61.57	181.58	109.01	63.61	176.54	108.35	

Table 1.4 : Service Area wise Teledensity

Service Area/	As on	As on 31 <sup>st</sup> March, 2018			As on 30 <sup>th</sup> June, 2018			
States	Rural Teledensity	Urban Teledensity	Total Teledensity	Rural Teledensity	Urban Teledensity	Total Teledensity		
Kerala	75.10	259.39	121.61	76.70	264.79	124.15		
Madhya Pradesh	43.83	127.21	66.99	44.60	134.83	69.70		
Maharashtra (incl. Mumbai)*	74.65	143.31	108.46	74.34	140.54	107.00		
North East	67.51	184.15	97.40	49.42	173.99	81.40		
Orissa	61.78	163.55	80.22	58.82	145.17	74.51		
Punjab	81.26	174.72	123.30	80.65	177.02	124.14		
Rajasthan	59.61	171.08	86.67	59.08	158.35	83.19		
Tamil Nadu (incl. Chennai)	104.34	152.48	134.11	87.81	133.28	116.04		
Uttar Pradesh (incl. UPE & UPW)	46.68	152.65	71.21	48.44	141.14	69.93		
West Bengal (incl. Kolkata)*	63.34	159.31	91.02	60.67	153.91	87.58		
All India	59.05	165.90	92.84	57.99	158.16	89.72		

\* 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.
- 1.8 Himachal Pradesh service area has the highest Rural Tele-density of 117.74 followed by Tamil Nadu service area (87.81). Assam service area has the lowest Rural Tele-density of 43.23 followed by Bihar service area (43.62).

S1.No.	States/UT	Total Telephone Subscription (million)				
51.110.		Total	Rural	Urban		
1	Andhra Pradesh	46.00	24.95	21.05		
2	Arunachal Pradesh	1.35	0.70	0.65		
3	Assam	21.14	12.00	9.15		
4	Bihar	62.59	41.22	21.37		
5	Chhattisgarh	18.14	8.61	9.53		
6	Goa	2.67	1.15	1.52		
7	Gujarat	71.05	28.15	42.90		
8	Haryana	32.57	12.27	20.30		
9	Himachal Pradesh	10.21	7.48	2.73		
10	Jammu & Kashmir	11.12	5.10	6.03		
11	Jharkhand	22.26	11.81	10.45		
12	Karnataka	68.91	24.43	44.48		
13	Kerala	44.86	20.68	24.18		
14	Madhya Pradesh	56.42	25.83	30.60		
15	Maharashtra Incl. Mumbai	131.58	46.10	85.48		
16	Manipur	2.16	0.66	1.50		
17	Meghalaya	2.08	1.01	1.07		
18	Mizoram	1.20	0.41	0.78		
19	Nagaland	1.59	0.79	0.80		
20	Odisha	32.22	20.81	11.41		
21	Punjab	37.07	13.92	23.16		
22	Rajasthan	62.56	33.63	28.93		
23	Sikkim	0.75	0.39	0.36		
24	Tamil Nadu (incl. Chennai)	82.16	23.61	58.55		
25	Telangana	41.13	16.71	24.41		
26	Tripura	3.25	1.67	1.58		
27	Uttar Pradesh (UPE +UPW)	159.04	82.91	76.12		
28	Uttarakhand	12.50	5.76	6.74		
29	West Bengal Incl. Kolkata	83.37	41.07	42.30		
	Union Territories					
1	Andaman & Nicobar Islands	0.49	0.24	0.25		
2	Chandigarh	2.14	0.08	2.06		
3	Dadar & Nagar Haweli	0.65	0.19	0.46		
4	Daman & Diu	0.34	0.06	0.27		
5	Delhi	41.86	1.27	40.59		
6	Lakshdweep	0.08	0.08	0.003		
7	Puduchery	1.35	0.35	0.99		
	Total	1168.89	516.13	652.76		

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

SI No	State /IIT	Total Teledensity				
Sl.No.	State/UT	Total	Rural	Urban		
1	Andhra Pradesh	51.17	64.39	180.44		
2	Arunachal Pradesh	100.43	89.49	115.62		
3	Assam	63.52	43.23	165.26		
4	Bihar	58.74	43.26	189.83		
5	Chhattisgarh	68.25	43.47	140.76		
6	Goa	128.31	156.78	112.79		
7	Gujarat	110.26	76.06	156.42		
8	Haryana	114.76	68.98	191.63		
9	Himachal Pradesh	141.36	117.74	313.91		
10	Jammu & Kashmir	87.56	55.99	167.30		
11	Jharkhand	64.31	44.94	125.39		
12	Karnataka	108.35	63.61	176.54		
13	Kerala	124.20	76.57	265.39		
14	Madhya Pradesh	70.18	44.99	133.08		
15	Maharashtra Incl. Mumbai	106.64	73.37	141.15		
16	Manipur	81.35	33.21	225.80		
17	Meghalaya	73.12	45.32	175.00		
18	Mizoram	109.89	85.47	129.26		
19	Nagaland	65.38	39.16	190.53		
20	Odisha	74.51	58.82	145.17		
21	Punjab	124.81	81.00	184.91		
22	Rajasthan	83.19	59.08	158.35		
23	Sikkim	112.80	69.82	348.88		
24	Tamil Nadu (incl. Chennai)	117.13	88.24	134.95		
25	Tripura	82.98	53.73	196.41		
26	Uttar Pradesh (UPE +UPW)	70.39	47.55	147.58		
27	Uttarakhand	114.39	75.75	202.69		
28	West Bengal Incl. Kolkata	87.42	60.53	153.70		
	Union Territories					
1	Andaman & Nicobar Islands	85.41	74.57	99.08		
2	Chandigarh	108.76	41.62	116.35		
3	Dadar & Nagar Haweli	142.09	135.75	144.96		
4	Daman & Diu	92.08	20.98	366.09		
5	Delhi	184.10	164.76	184.78		
6	Lakshdweep	100.89	131.59	13.49		
7	Puduchery	73.87	66.38	76.97		
	Total	89.72	57.99	158.16		

Table 1.6 : State/UT wise total Teledensity

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

Service	Subscriber base (millions)			Rate of	Market Share in	Market Share in
Provider	Mar-18	Jun-18	Net Additions	Growth (%)	QE Mar-18 (%)	QE Jun-18 (%)
Bharti	308.12	249 50	2.41	0.70	25.54	29.82
Telenor	37.98	348.52	2.41	0.70	3.15	29.82
Vodafone	222.92	222.97	0.05	0.02	18.48	19.08
IDEA	211.21	220.60	9.39	4.45	17.51	18.87
Reliance Jio	186.56	215.26	28.69	15.38	15.47	18.42
BSNL	123.95	125.00	1.06	0.85	10.28	10.69
Tata	33.07	28.50	-4.56	-13.80	2.74	2.44
MTNL	6.90	6.84	-0.06	-0.91	0.57	0.59
Reliance Com.	1.11	0.96	-0.15	-13.81	0.09	0.08
Quadrant	0.244	0.239	-0.005	-1.89	0.02	0.02
Aircel	74.15	-	-74.15	-	6.15	0.00
Total	1,206.22	1,168.89	-37.33	-3.09	100	100

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

**Note:** M/s Telenor has been merged with M/s Bharti Airtel and M/s Aircel Ltd has not provided subscriber data for QE Jun-18.

- 1.9 Bharti Airtel is the leading service provider in access segment in terms of number of subscribers with 348.52 million subscribers followed by Vodafone (222.97 million) at the end of Jun-18.
- 1.10 Reliance Jio Infocom Ltd. recorded the highest net addition of 28.69 million subscribers during the QE Jun-18. It has been reported that M/s Aircel Ltd has closed its telephone service in India during the quarter.

Subscriber base								
Service Provider	No. of Total Subscribers (in millions)	No. of Rural Subscribers (in millions)	Percentage of Rural subscribers	Market share of Rural subscribers (%)				
Bharti	348.52	171.53	49.22	33.23				
Vodafone	222.97	119.49	53.59	23.15				
IDEA	220.60	119.23	54.05	23.10				
Reliance Jio	215.26	62.68	29.12	12.14				
BSNL	125.00	39.24	31.39	7.60				
Tata	28.50	3.85	13.50	0.75				
Quadrant	0.239	0.05	21.05	0.01				
MTNL	6.84	0.05	0.69	0.01				
Reliance Com.	0.96	0.002	0.16	0.0003				
Total	1,168.89	516.13	44.16	100				

Table 1.8 : Market Share of the service providers in total ruralsubscriber base

**Note:** M/s Reliance Com. has not reported number of its rural wireless subscribers and hence its rural wireless subscription has been taken as NIL.

1.11 M/s Idea Cellular is the telecom service provider with highest proportion of rural telephone subscribers (54.05%), followed by Vodafone (53.59%) to their total telephone subscribers at the end of Jun-18.

#### Section B: Wireless Service

S1.No.	Service Provider	Licenssed Service Areas
1	Bharti Airtel Ltd	All India
2	Aircel Group	All India*
3	Reliance Communications Ltd	All India (except Assam & NE)
4	Reliance Telecom Ltd	Kolkata, MP, WB, HP, Bihar, Odisha, Assam & NE
5	Vodafone (India) Ltd	All India
6	Tata Teleservices	All India except Assam, NE & J&K
7	IDEA Cellular Ltd	All India#
8	BSNL	All India (except Delhi & Mumbai)
9	MTNL	Delhi & Mumbai
10	^Telenor Communications (India) Pvt. Ltd.	Maharashtra, Gujarat, AP, UP(W), UP(E) & Bihar
11	Reliance Jio Infocom Ltd	All India

# Table 1.9: List of Cellular Mobile (GSM, LTE & CDMA) Service Providerscurrently providing service [As on 30th June, 2018]

\*TN & AP – CMTS

#Delhi, HP & UP(E) - CMTS.

In remaining LSAs the TSPs have either UASL, UL or UL(AS).

^M/s Telenor (I) Communication Pvt Ltd has been merged with M/s Bharti Airtel w.e.f. 14th May, 2018.

*Source : DoT website* 

- 1.12 Total Wireless (GSM including LTE+CDMA) subscriber base declined from 1,183.41 million at the end of Mar-18 to 1,146.49 million at the end of Jun-18, thereby showing a quarterly decline rate of 3.12%. During the quarter, net decline of 36.92 million wireless subscribers was recorded. Total wireless subscribers showed yearon-year (Y-O-Y) decline rate of 3.40% in QE Jun-18.
- 1.13 Wireless Teledensity declined from 91.09 at the end of Mar-18 to 88.00 at the end of Jun-18.

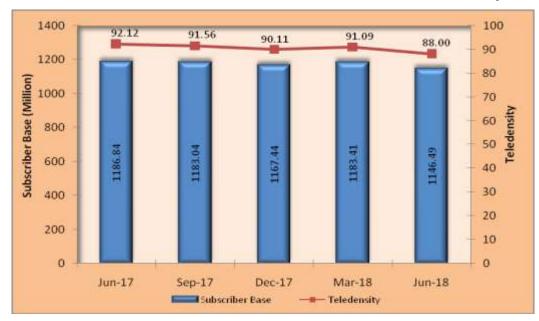


Chart 1.6: Wireless Subscriber Base and Teledensity

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

Quarter ending	Subscriber E	Tele-density		
	Rural	Urban	Rural	Urban
Jun-17	506.18	680.66	57.31	167.97
Sep-17	498.28	684.77	56.31	168.20
Dec-17	499.00	668.44	56.28	163.44
Mar-18	521.23	662.18	58.67	161.17
Jun-18	512.89	633.60	57.63	153.52

- 1.14 The Rural Wireless subscribers declined from 521.23 million at the end of Mar-18 to 512.89 million at the end of Jun-18, and the urban wireless subscribers also declined from 662.18 million to 633.60 million during the quarter.
- 1.15 Quarterly Growth rates of Rural and Urban wireless subscriptions are -1.60% and -4.32% respectively in QE Jun-18.
- 1.16 The share of rural wireless subscription increased from 44.04% to44.74% in total wireless subscription in this quarter.

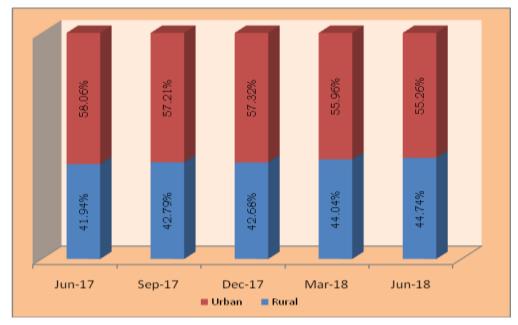


Chart 1.7: Wireless Market Share - Rural & Urban

Table 1.11: Growth in Wireless Subscriber base

Service	Subscr	Subscriber Base (millions)			Market	Market
Provider	Mar-18	Jun-18	Net Additions	Growth (%)	Share • Mar-18 (%)	Share • Jun-18 (%)
Bharti	304.19	344.56	2.39	0.70	25.70	30.05
Telenor	37.98	344.30	2.39	0.70	3.21	30.05
Vodafone	222.70	222.73	0.04	0.02	18.82	19.43
IDEA	211.21	220.60	9.39	4.45	17.85	19.24
Reliance Jio	186.56	215.26	28.69	15.38	15.76	18.78
BSNL	111.68	113.12	1.44	1.29	9.44	9.87
Tata	31.19	26.62	-4.57	-14.64	2.64	2.32
MTNL	3.56	3.53	-0.03	-0.89	0.30	0.31
Reliance Com.	0.19	0.08	-0.11	-58.40	0.02	0.01
Aircel	74.15	-	-74.15	-	6.27	0
Total	1,183.41	1,146.49	-36.92	-3.12	100	100

**Note:** M/s Telenor has been merged with M/s Bharti Airtel and M/s Aircel Ltd has not provided subscriber data for QE Jun-18.

1.17 Bharti remains the leading service provider with 344.56 million wireless subscribers at the end of Jun-18, followed by Vodafone (222.73 million). 1.18 In terms of net additions during the quarter ending Jun18, Reliance Jio (28.69 million) has added the highest number of wireless subscribers, followed by Idea Cellular with 9.39 million net addition of its wireless subscriber. It has been reported that M/s Aircel Ltd has closed its telephone service in India during the quarter.

Service Area	Subscriber base (in million)						
	Mar-18	Jun-18	Net Additions	Rate of change (%)			
Andhra Pradesh	85.63	85.68	0.05	0.06			
Assam	24.64	21.01	-3.63	-14.72			
Bihar	88.59	84.60	-3.99	-4.50			
Delhi	53.91	49.61	-4.30	-7.97			
Gujarat	71.92	70.81	-1.11	-1.54			
Haryana	26.39	27.13	0.74	2.79			
Himachal Pradesh	9.64	10.09	0.44	4.60			
Jammu & Kashmir	13.65	11.01	-2.64	-19.34			
Karnataka	66.98	66.72	-0.26	-0.39			
Kerala	42.00	43.01	1.01	2.41			
Madhya Pradesh	70.49	73.64	3.15	4.47			
Maharashtra	94.60	94.21	-0.40	-0.42			
Mumbai	36.38	35.40	-0.97	-2.67			
North East	13.77	11.52	-2.25	-16.32			
Orissa	34.34	31.95	-2.39	-6.97			
Punjab	38.09	38.49	0.39	1.03			
Rajasthan	64.37	61.97	-2.40	-3.73			
T.N. (incl. Chennai)	94.07	81.24	-12.84	-13.65			
U.P.(E)	103.84	101.28	-2.57	-2.47			
U.P.(W)	63.40	63.56	0.15	0.24			
Kolkata	28.18	26.12	-2.06	-7.31			
West Bengal	58.51	57.45	-1.05	-1.80			
All India	1,183.41	1,146.49	-36.92	-3.12			

Table 1.12: Service Area wise Wireless Subscriber base

Service Area	Subscriber base (in million)					
	Total	Rural	Urban	% of Rural Subscribers		
Andhra Pradesh	85.68	41.43	44.25	48.35		
Assam	21.01	11.97	9.04	56.98		
Bihar	84.60	53.00	31.60	62.65		
Delhi	49.61	2.25	47.36	4.54		
Gujarat	70.81	28.23	42.58	39.86		
Haryana	27.13	11.75	15.38	43.30		
Himachal Pradesh	10.09	7.41	2.67	73.49		
Jammu & Kashmir	11.01	5.08	5.93	46.16		
Karnataka	66.72	24.27	42.44	36.38		
Kerala	43.01	19.59	23.42	45.55		
Madhya Pradesh	73.64	34.33	39.31	46.62		
Maharashtra	94.21	45.00	49.21	47.77		
Mumbai	35.40	1.97	33.44	5.55		
North East	11.52	5.23	6.30	45.35		
Orissa	31.95	20.75	11.20	64.95		
Punjab	38.49	13.83	24.66	35.94		
Rajasthan	61.97	33.55	28.43	54.13		
T.N. (incl. Chennai)	81.24	23.64	57.59	29.10		
U.P.(E)	101.28	58.88	42.39	58.14		
U.P.(W)	63.56	29.15	34.41	45.86		
Kolkata	26.12	2.95	23.17	11.28		
West Bengal	57.45	38.64	18.82	67.25		
All India	1,146.49	512.89	633.60	44.74		

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

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

	As on 31 <sup>st</sup> March, 2018			As on 30 <sup>th</sup> June, 2018			
Service Area	Rural Teledensity	Urban Teledensity	Total Teledensity	Rural Teledensity	Urban Teledensity	Total Teledensity	
A.P.	60.98	183.91	95.42	64.02	175.65	95.30	
Assam	56.76	162.14	74.22	43.15	163.31	63.13	
Bihar	43.85	181.33	62.92	43.59	161.29	59.92	
Delhi	-	_	238.80	-	-	218.21	
Gujarat	75.45	157.83	110.50	75.38	153.08	108.50	
Haryana	64.87	141.32	93.30	66.03	145.22	95.58	
H.P.	111.98	293.45	133.76	116.68	307.53	139.65	
J&K	77.30	184.76	107.72	55.86	164.55	86.69	
Karnataka	61.15	173.38	105.52	63.20	168.45	104.90	
Kerala	70.68	250.87	116.16	72.38	256.42	118.81	
M.P.	43.69	124.37	66.10	44.46	132.07	68.84	
Maharashtra (incl. Mumbai)*	74.17	136.15	104.69	73.88	133.50	103.29	
North East	67.30	181.72	96.61	49.21	171.65	80.64	
Orissa	61.60	160.80	79.58	58.65	142.52	73.89	
Punjab	80.12	170.04	120.57	79.57	172.48	121.50	
Rajasthan	59.45	168.27	85.87	58.92	155.62	82.41	
Tamil Nadu (incl. Chennai)	103.15	148.00	130.89	86.64	128.91	112.88	
Uttar Pradesh (incl. UPE&UPW)*	46.62	151.36	70.86	48.38	139.88	69.59	
West Bengal (incl. Kolkata)*	63.17	155.90	89.91	60.50	150.61	86.51	
All India	58.67	161.17	91.09	57.63	153.52	88.00	

Table 1.14 : Service Area wise Wireless Tele-density

\* 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.

Sl.No.	States/UT	Wireless Subscribers (in million)			
		Total	Rural	Urban	
1	Andhra Pradesh	45.20	24.77	20.44	
2	Arunachal Pradesh	1.33	0.69	0.63	
3	Assam	21.01	11.97	9.04	
4	Bihar	62.46	41.20	21.26	
5	Chhattisgarh	17.96	8.59	9.37	
6	Goa	2.56	1.12	1.44	
7	Gujarat	69.84	27.98	41.86	
8	Haryana	32.21	12.22	20.00	
9	Himachal Pradesh	10.09	7.41	2.67	
10	Jammu & Kashmir	11.01	5.08	5.93	
11	Jharkhand	22.14	11.80	10.34	
12	Karnataka	66.72	24.27	42.44	
13	Kerala	42.94	19.52	23.42	
14	Madhya Pradesh	55.68	25.74	29.94	
15	Maharashtra	127.04	45.84	81.20	
16	Manipur	2.14	0.66	1.48	
17	Meghalaya	2.06	1.01	1.05	
18	Mizoram	1.18	0.41	0.77	
19	Nagaland	1.58	0.79	0.79	
20	Odisha	31.95	20.75	11.20	
21	Punjab	36.42	13.73	22.69	
22	Rajasthan	61.97	33.55	28.43	
23	Sikkim	0.74	0.39	0.35	
24	Tamil Nadu	79.95	23.30	56.65	
25	Telangana	40.48	16.66	23.81	
26	Tripura	3.23	1.67	1.56	
27	Uttar Pradesh	158.30	82.82	75.48	
28	Uttarakhand	12.40	5.75	6.65	
29	West Bengal	82.35	40.96	41.40	
	Union Territories				
1	Andaman & Nicobar	0.48	0.23	0.24	
	Islands			0.44	
2	Chandigarh	1.96	0.08	1.88	
3	Dadar & Nagar Haweli	0.65	0.19	0.45	
4	Daman & Diu	0.33	0.06	0.27	
5	Delhi	38.77	1.27	37.50	
6	Lakshdweep	0.08	0.08	0.00	
7	Puduchery	1.29	0.34	0.94	
	Total	1146.49	512.89	633.60	

 Table 1.15 : State/UT wise Wireless Subscriber Base

S1.No.	State/UT	Wireless Teledensity				
		Total	Rural	Urban		
1	Andhra Pradesh*	95.30	64.02	175.65		
2	Arunachal Pradesh	98.65	88.64	112.57		
3	Assam	63.13	43.15	163.31		
4	Bihar	58.62	43.23	188.88		
5	Chhattisgarh	67.56	43.37	138.35		
6	Goa	122.97	152.12	107.09		
7	Gujarat	108.37	75.58	152.62		
8	Haryana	113.51	68.67	188.82		
9	Himachal Pradesh	139.65	116.68	307.53		
10	Jammu & Kashmir	86.69	55.86	164.55		
11	Jharkhand	63.95	44.89	124.03		
12	Karnataka	104.90	63.20	168.45		
13	Kerala	118.86	72.25	257.03		
14	Madhya Pradesh	69.26	44.84	130.21		
15	Maharashtra	102.96	72.96	134.08		
16	Manipur	80.59	32.95	223.53		
17	Meghalaya	72.48	45.22	172.41		
18	Mizoram	108.57	85.29	127.05		
19	Nagaland	64.91	39.11	188.08		
20	Odisha	73.89	58.65	142.52		
21	Punjab	122.59	79.91	181.14		
22	Rajasthan	82.41	58.92	155.62		
23	Sikkim	111.81	69.72	343.01		
24	Tamil Nadu	113.97	87.07	130.56		
25	Tripura	82.45	53.52	194.66		
26	Uttar Pradesh	70.06	47.50	146.33		
27	Uttarakhand	113.43	75.60	199.90		
28	West Bengal	86.36	60.37	150.42		
	Union Territories					
1	Andaman & Nicobar Islands	82.59	72.62	95.16		
2	Chandigarh	99.67	40.64	106.34		
3	Dadar & Nagar Haweli	141.21	134.69	144.17		
4	Daman & Diu	90.46	20.14	361.45		
5	Delhi	170.51	164.76	170.71		
6	Lakshdweep	93.41	126.23	0.00		
7	Puduchery	70.80	64.79	73.28		
	All India Teledensity	88.00	57.63	153.52		

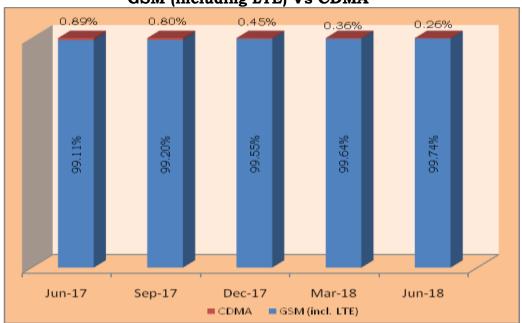
Table 1.16 : State/UT wise Wireless Tele-density

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

Service Provider	Total number of wireless Subscribers (in millions)	Rural Subscribers (in millions)	% of Rural subscribers in total	Market Share of Rural Subscribers (%)
Bharti	344.56	171.53	49.78	33.44
Vodafone	222.73	119.49	53.65	23.30
IDEA	220.60	119.23	54.05	23.25
Reliance Jio	215.26	62.68	29.12	12.22
BSNL	113.12	36.11	31.93	7.04
Tata	26.62	3.80	14.26	0.74
MTNL	3.53	0.05	1.34	0.01
Reliance Com.	0.08	0.00	0.00	0.00
Total	1,146.49	512.89	44.74	100

Table 1.17 : Rural Wireless Subscriber base and Market Share

**Note:** M/s Reliance Com. has not reported number of its rural wireless subscribers and hence its rural wireless subscription has been taken as NIL.



#### Chart 1.8: Share of Wireless Subscription: GSM (including LTE) Vs CDMA

1.20 At the end of Jun-18, GSM (including LTE) subscribers constituted 99.74% share of the wireless market as compare to 99.64% in previous quarter.

#### Wireless Data Usage

1.21 Total wireless data usage increased from 8,067,633 terabytes during Q.E. Mar-18 to 10,418,076 terabytes during Q.E. Jun-18. Out of total data usage, 2G data usage was 108,944 terabytes, 3G data usage was 1,440,180 terabyte, 4G data usage was 8,868,397 terabytes and CDMA data usage was 555 terabytes.

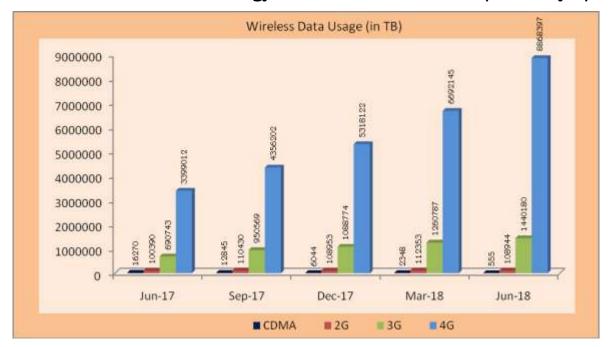


Chart 1.9: Trend of technology wise wireless data usase (in Terabyte)

1.22 The contribution of 3G and 4G data usage in total data usage are about 14% and 85% respectively during the Q.E. Jun-18.

# **Section C : Wireline Service**

# Table 1.18 : Service Providers providing Wireline Service

[As	on	30 <sup>th</sup>	June.	2018]
L	•	••	••,	

	[As on 30 <sup>th</sup> June, 2018]				
S1. No.	Name of the Service Provider	Area of Operation			
1	Bharti Airtel Ltd	Telangana, Delhi, Gujarat, Haryana, Karnataka, Kerala, Kolkata, Madhya Pradesh (excluding Chhattisgarh), Chhattisgarh, Maharashtra (excluding Mumbai), Mumbai, Punjab, Rajasthan, Tamilnadu (excluding Chennai), Chennai, UP-East and UP-West(excluding Uttarakhand).			
2	BSNL	All India except Delhi & Mumbai			
3	MTNL	Delhi & Mumbai			
4	Quadrant Televentures Ltd.	Punjab			
5	Reliance Communications Ltd.	Andhra Pradesh (excluding Telangana), Telangana, Bihar (Excluding Jharkhand), Jharkhand, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh (excluding Chattisgarh), Chhattisgarh, Maharashtra (Excluding Mumbai & Goa) Goa, Mumbai, Orissa, Punjab, Rajasthan, Tamilnadu (excluding Chennai), Chennai, UP-East, UP-West (Excluding Uttarakhand) and West Bengal (Excluding Andaman & Nicobar)			
	Tata Teleservices (Maharashtra) Ltd.	Maharashtra & Goa, Mumbai			
6	Tata Teleservices Ltd.	Andhra Pradesh (Excluding Telangana), Telangana, Assam, Bihar (Excluding Jharkhand), Jharkhand, Delhi, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Kolkata, Madhya Pradesh (Excluding Chattisgarh), Chhattisgarh, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, Orissa, Punjab, Rajasthan, Tamilnadu (Excluding Chennai), UP-East, UP- West (Excluding Uttarakhand), West Bengal (Excluding Andaman & Nicobar) and Sikkim			
7	Vodafone	Andhra Pradesh (Excluding Telangana), Telangana, Assam, Bihar (Excluding Jharkhand), Jharkhand, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh (Excluding Chattisgarh), Maharashtra (Excluding Mumbai & Goa), Goa, Mumbai Meghalaya, Orissa, Punjab, Rajasthan, Tamilnadu (Excluding Chennai), UP-East, UP-West (Excluding Uttarakhand), Uttarakhand and West Bengal (Excluding Andaman & Nicobar)			

- 1.23 Total Wireline subscriber base declined from 22.81 million at the quarter ending Mar-18 to 22.40 at the end of Jun-18 with quarterly decline rate of 1.82%. Overall Wireline Teledensity also declined from 1.76 at the end of Mar-18 to 1.72 at the end of Jun-18.
- 1.24 Rural subscriber base has shown decline of 4.23%, from 3.38Million at the end of Mar-18 to 3.24 Million at the end of Jun-18.Urban wireline subscription also recorded decline rate of 1.40%, from 19.43 million to 19.16 million during the same period.



Chart 1.10: Wireline Subscriber Base and Teledensity

Table 1.19 : Wireline Subscriber Base & Teledensity - Rural & Urban

Quarter ending	Subscriber Base (million)		Teled	ensity
	Rural	Urban	Rural	Urban
Jun-17	3.69	20.31	0.42	5.01
Sep-17	3.55	20.12	0.40	4.94
Dec-17	3.42	19.81	0.39	4.84
Mar-18	3.38	19.43	0.38	4.73
Jun-18	3.24	19.16	0.36	4.64

Service	Subso	criber Base	Share of Rural	
Provider	Rural	Urban	Total	subscription (%)
BSNL	3.13	8.76	11.89	26.33%
Bharti		3.96	3.96	
MTNL		3.32	3.32	
Tata	0.05	1.83	1.88	2.84%
Reliance	0.002	0.88	0.88	0.18%
Quadrant	0.05	0.19	0.24	21.05%
Vodafone		0.24	0.24	
Total	3.24	19.16	22.40	14.45%

Table 1.20 : Service Provider wise Subscriber base (Rural - Urban)

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



Chart 1.10: Composition of Wireline Subscriber base - Rural & Urban

Service	Subscr	iber Base	(million)	Rate of	Market	Market
Provider	Mar-18	Jun-18	Net Addition	change (%)	share- Mar-18(%)	share- Jun-18(%)
BSNL	12.27	11.89	-0.38	-3.10	53.78	53.08
Bharti	3.93	3.96	0.02	0.57	17.24	17.66
MTNL	3.35	3.32	-0.03	-0.94	14.67	14.80
Tata	1.88	1.88	0.00	0.17	8.22	8.39
Reliance	0.92	0.88	-0.04	-4.82	4.05	3.92
Quadrant	0.24	0.24	0.00	-1.89	1.07	1.07
Vodafone	0.22	0.24	0.02	8.71	0.97	1.07
Total	22.81	22.40	-0.42	-1.82	100	100

 Table 1.21 : Service Provider wise growth in Wireline Subscriber base

 Table 1.22: Service Area wise Wireline Subscriber base & Net

 Additions (in million)

Service Area	Mar-18	Jun-18	Net Additions	Rate of Change (%)
Andhra Pradesh	1.48	1.45	-0.033	-2.20
Assam	0.14	0.13	-0.006	-4.51
Bihar	0.28	0.26	-0.022	-7.91
Delhi	3.19	3.19	0.001	0.02
Gujarat	1.27	1.23	-0.040	-3.19
Haryana	0.30	0.29	-0.010	-3.23
Himachal Pradesh	0.13	0.12	-0.004	-2.80
Jammu & Kashmir	0.12	0.11	-0.004	-3.71
Karnataka	2.22	2.19	-0.024	-1.09
Kerala	1.97	1.93	-0.036	-1.83
Madhya Pradesh	0.95	0.93	-0.022	-2.32
Maharashtra	1.73	1.67	-0.060	-3.45
Mumbai	2.99	2.98	-0.011	-0.35
North East	0.11	0.11	-0.004	-3.22
Orissa	0.28	0.27	-0.011	-4.07
Punjab	0.86	0.84	-0.026	-2.97
Rajasthan	0.60	0.59	-0.015	-2.56
T.N. (incl. Chennai)	2.32	2.27	-0.044	-1.89

Service Area	Mar-18	Jun-18	Net Additions	Rate of Change (%)
U.P.(E)	0.46	0.46	-0.002	-0.45
U.P.(W)	0.35	0.34	-0.011	-3.06
Kolkata	0.79	0.77	-0.022	-2.74
West Bengal	0.28	0.27	-0.011	-3.83
All India	22.81	22.40	-0.415	-1.82

1.26 All service areas showed decline in wireline subscriber base during the QE Jun-18.

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

Service Area	Total	Rural	Urban	% of Rural
	Subscribers	Subscribers	Subscribers	Subscribers
Andhra Pradesh	1.45	0.24	1.21	16.54
Assam	0.13	0.02	0.11	17.34
Bihar	0.26	0.04	0.22	13.78
Delhi	3.19	-	3.19	-
Gujarat	1.23	0.18	1.05	14.66
Haryana	0.29	0.05	0.24	18.71
Himachal Pradesh	0.12	0.07	0.06	54.88
Jammu & Kashmir	0.11	0.01	0.10	11.04
Karnataka	2.19	0.16	2.04	7.18
Kerala	1.93	1.17	0.76	60.46
Madhya Pradesh	0.93	0.11	0.82	11.39
Maharashtra	1.67	0.29	1.38	17.41
Mumbai	2.98	-	2.98	-
North East	0.11	0.02	0.09	20.95
Orissa	0.27	0.06	0.21	22.03
Punjab	0.84	0.19	0.65	22.46
Rajasthan	0.59	0.09	0.50	14.84
T.N. (incl. Chennai)	2.27	0.32	1.95	14.14
U.P.(E)	0.46	0.07	0.39	15.41
U.P.(W)	0.34	0.03	0.30	10.12
Kolkata	0.77	-	0.77	-
West Bengal	0.27	0.12	0.15	43.71
All India	22.40	3.24	19.16	14.45

	As on	31 <sup>st</sup> March	, 2018	As on 30 <sup>th</sup> June, 2018		
Service Area	Rural	Urban	Total	Rural	Urban	Total
Andhra Pradesh	<b>Teledensity</b>	<b>Teledensity</b>			<b>Teledensity</b>	, , , , , , , , , , , , , , , , , , ,
	0.39	4.88	1.65	0.37	4.79	1.61
Assam	0.09	2.06	0.41	0.08	1.96	0.39
Bihar	0.06	1.04	0.20	0.03	1.13	0.18
Delhi	-	-	14.14	-	-	14.04
Gujarat	0.50	3.91	1.95	0.48	3.77	1.88
Haryana	0.32	2.34	1.07	0.31	2.25	1.03
Himachal Pradesh	1.21	5.76	1.75	1.06	6.38	1.70
Jammu & Kashmir	0.14	2.86	0.91	0.14	2.75	0.88
Karnataka	0.42	8.20	3.49	0.41	8.08	3.45
Kerala	4.41	8.52	5.45	4.32	8.37	5.34
Madhya Pradesh	0.14	2.84	0.89	0.14	2.76	0.87
Maharashtra (incl. Mumbai)*	0.48	7.16	3.77	0.46	7.04	3.71
North East	0.22	2.44	0.79	0.21	2.34	0.76
Orissa	0.18	2.75	0.64	0.17	2.65	0.62
Punjab	1.14	4.68	2.73	1.08	4.54	2.64
Rajasthan	0.16	2.81	0.80	0.15	2.73	0.78
Tamil Nadu (incl. Chennai)	1.19	4.47	3.22	1.18	4.37	3.16
Uttar Pradesh (incl. UPE & UPW)	0.06	1.29	0.34	0.06	1.26	0.34
West Bengal (incl. Kolkata)*	0.17	3.42	1.11	0.17	3.30	1.07
All India	0.38	4.73	1.76	0.36	4.64	1.72

 Table 1.24: Service Area wise Wireline Teledensity

\* 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.

S1.No.	States/UT	Wireline Subscribers (in million)				
	States/01	Total	Rural	Urban		
1	Andhra Pradesh	0.80	0.19	0.61		
2	Arunachal Pradesh	0.02	0.01	0.02		
3	Assam	0.13	0.02	0.11		
4	Bihar	0.13	0.02	0.11		
5	Chhattisgarh	0.18	0.02	0.16		
6	Goa	0.11	0.03	0.08		
7	Gujarat	1.22	0.18	1.04		
8	Haryana	0.35	0.05	0.30		
9	Himachal Pradesh	0.12	0.07	0.06		
10	Jammu & Kashmir	0.11	0.01	0.10		
11	Jharkhand	0.13	0.01	0.11		
12	Karnataka	2.19	0.16	2.04		
13	Kerala	1.93	1.17	0.76		
14	Madhya Pradesh	0.75	0.09	0.66		
15	Maharashtra Incl. Mumbai	4.54	0.26	4.28		
16	Manipur	0.02	0.01	0.02		
17	Meghalaya	0.02	0.00	0.02		
18	Mizoram	0.01	0.00	0.01		
19	Nagaland	0.01	0.00	0.01		
20	Odisha	0.27	0.06	0.21		
21	Punjab	0.66	0.19	0.47		
22	Rajasthan	0.59	0.09	0.50		
23	Sikkim	0.01	0.00	0.01		
24	Tamil Nadu (incl. Chennai)	2.22	0.31	1.90		
25	Telangana	0.65	0.05	0.60		
26	Tripura	0.02	0.01	0.01		
27	Uttar Pradesh (UPE +UPW)	0.74	0.09	0.64		
28	Uttarakhand	0.10	0.01	0.09		
29	West Bengal Incl. Kolkata	1.01	0.11	0.90		
	Union Territories		·			
	Andaman & Nicobar	0.00	0.01	0.01		
1	Islands	0.02	0.01	0.01		
2	Chandigarh	0.18	0.002	0.18		
3	Dadar & Nagar Haweli	0.004	0.002	0.002		
4	Daman & Diu	0.005	0.002	0.003		
5	Delhi	3.09	_	3.09		
6	Lakshdweep	0.006	0.003	0.003		
7	Puduchery	0.06	0.01	0.05		
	Total	22.40	3.24	19.16		

 Table 1.25: State/UT wise Wireline Subscriber base

Sl.No.	State/UT	Wireline Teledensity			
51.NO.	State/01	Total	Rural	Urban	
1	Andhra Pradesh	1.61	0.37	4.79	
2	Arunachal Pradesh	1.77	0.85	3.05	
3	Assam	0.39	0.08	1.96	
4	Bihar	0.12	0.02	0.95	
5	Chhattisgarh	0.69	0.10	2.40	
6	Goa	5.33	4.66	5.70	
7	Gujarat	1.89	0.48	3.80	
8	Haryana	1.24	0.31	2.81	
9	Himachal Pradesh	1.70	1.06	6.38	
10	Jammu & Kashmir	0.88	0.14	2.75	
11	Jharkhand	0.36	0.05	1.36	
12	Karnataka	3.45	0.41	8.08	
13	Kerala	5.34	4.32	8.36	
14	Madhya Pradesh	0.93	0.15	2.87	
15	Maharashtra Incl. Mumbai	3.68	0.41	7.07	
16	Manipur	0.76	0.26	2.27	
17	Meghalaya	0.64	0.11	2.59	
18	Mizoram	1.31	0.19	2.21	
19	Nagaland	0.47	0.05	2.45	
20	Odisha	0.62	0.17	2.65	
21	Punjab	2.22	1.08	3.77	
22	Rajasthan	0.78	0.15	2.73	
23	Sikkim	0.99	0.10	5.87	
24	Tamil Nadu (incl. Chennai)	3.16	1.17	4.39	
25	Tripura	0.53	0.21	1.75	
26	Uttar Pradesh (UPE + UPW)	0.33	0.05	1.25	
27	Uttarakhand	0.96	0.15	2.79	
28	West Bengal incl. Kolkata	1.06	0.16	3.28	
	Union Territories			·	
1	Andaman & Nicobar Islands	2.82	1.95	3.91	
2	Chandigarh	9.09	0.98	10.01	
3	Dadar & Nagar Haweli	0.88	1.06	0.79	
4	Daman & Diu	1.62	0.84	4.64	
5	Delhi	13.60	0.00	14.07	
6	Lakshdweep	7.47	5.36	13.49	
7	Puduchery	3.07	1.59	3.68	
	Total	1.72	0.36	4.64	

#### Table 1.26: State/UT wise Wireline Teledensity

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

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

1.27 Total number of PCOs in the country declined from 3,60,053 at the end of Mar-18 to 3,30,504 at the end of Jun-18. Detailed table of service provider wise PCOs is available at Annexure -1.3.



Chart 1.11: Trend of Number of PCOs

Table 1.2	27 : Rate	of change	& Market shar	e of PCOs
-----------	-----------	-----------	---------------	-----------

Service Provider	Mar-18	Jun-18	Rate of change (%)	Market share (%) (Jun-18)
BSNL	222721	209635	-5.88	63.43
MTNL	97802	94308	-3.57	28.53
Bharti	11943	11585	-3.00	3.51
Quadrant	1420	1420	0.00	0.43
Tata	26167	13556	-48.19	4.10
Total	360053	330504	-8.21	100

1.28 Number of PCOs continued shows declining trend. At the Q.E. Jun-18, it has recorded a overall decline of 8.21%. The year-on-year (Y-O-Y) decline rate over the same quarter of the last year is 22.98%.

#### Village Public Telephones (VPTs)

- 1.29 There are 5,93,731 inhabited villages in India as per census 2001.At the end of the quarter, 31.49% of the total inhabited villages in India have been connected by VPTs.
- 1.30 Number of VPTs declined from 1,99,057 at the end of Mar-18 to 1,86,951 at the end of Jun-18.
- 1.31 As per the information received in TRAI, at the end of Jun-18, only M/s BSNL was providing VPT in the country. Service area wise detailed table of VPT is available at Annexure -1.4.

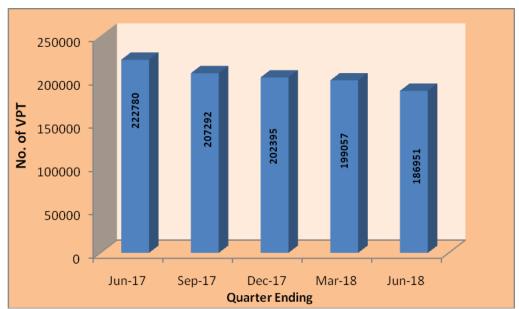


Chart 1.12: Trend of number of VPTs

#### **Section D: Internet Service**

1.32 This section summarizes information submitted by 302 internet service providers for the quarter ending Jun-18. Part-I consists of information of Internet service (both narrowband and broadband), Part-II consists of broadband service and Part-III covers narrowband service.

#### Part-I : Internet Service (broadband + narrowband)

- 1.33 As per reports received from operators, total number of internet subscribers increased from 493.96 million at the end of Mar-18 to 512.26 million at the end of Jun-18 with quarterly growth rate of 3.71%.
- 1.34 Wired Internet subscribers declined from 21.24 million at the end of Mar-18 to 21.16 million at the end of Jun-18 with quarterly decline rate of 0.37%. However, Wireless Internet subscribers increased from 472.72 million at the end of Mar-18 to 491.10 million at the end of Jun-18 with quarterly growth rate of 3.89%.
- 1.35 Number of Broadband subscribers increased from 412.60 million at the end of Mar-18 to 447.12 million at the end of Jun-18 with quarterly growth rate of 8.37%. However, the number of Narrowband subscribers declined from 81.35 million at the end of Mar-18 to 65.14 million at the end of Jun-18 with quarterly decline rate of 19.93%.

				Mode							
Sogmont				Wireless Subscribers (in million)					To		
Segment	Wir Subsci (in mi	ribers	(Wi-Fi,	Vireless Wi-Max, & VSAT)	Wire	bile eless Dongle)		Total Wireless		Subscribers (in million)	
	Mar-18	Jun-18	Mar-18	Jun-18	Mar-18	Jun-18	Mar-18	Jun-18	Mar-18	Jun-18	
Broadband	17.95	17.91	0.457	0.428	394.19	428.79	394.65	429.22	412.60	447.12	
Narrowband	3.28	3.26	0.014	0.008	78.06	61.87	78.07 61.88		81.35	65.14	
Total	21.24	21.16	0.471	0.437	472.25	490.66	472.72	491.10	493.96	512.26	

#### Table 1.28: Trend of Internet subscriber base

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

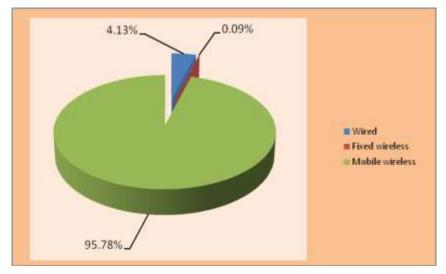


Chart 1.13: Composition of Internet subscription

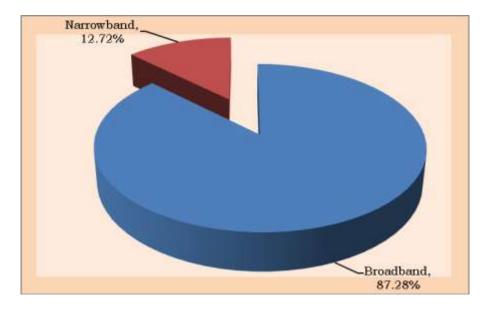
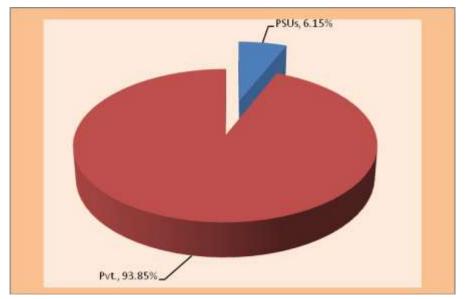


Chart 1.14 : Composition of Broadband & Narrowband subscription

1.37 Private internet service providers hold 93.85% market share of total internet subscribers at the Q.E. Jun-18. The following charts present the composition of market share of PSUs and Private Internet service providers.

Chart 1.15 : Market share of PSUs and Private Internet Service Providers



1.38 The urban/rural break up of internet subscribers are as per the following table.

Telecom Service	Narroy	wband	Broa	dband	Total Internet		
Area	Rural	Urban	Rural	Urban	Rural	Urban	
Andhra Pradesh	2.37	2.65	13.62	21.09	15.99	23.74	
Assam	0.97	0.76	3.63	4.19	4.60	4.95	
Bihar	4.86	1.74	11.71	11.01	16.56	12.75	
Delhi	0.12	2.13	0.56	28.67	0.68	30.80	
Gujarat	1.17	1.67	8.17	22.32	9.33	23.99	
Haryana	0.54	0.47	3.85	7.66	4.38	8.13	
Himachal Pradesh	0.34	0.22	2.21	1.55	2.54	1.78	
Jammu & Kashmir	0.50	0.33	1.79	3.07	2.29	3.40	
Karnataka	1.78	1.85	8.06	21.65	9.84	23.50	
Kerala	0.86	1.06	7.53	11.53	8.40	12.59	
Kolkata	0.06	1.40	0.87	10.87	0.92	12.27	
Madhya Pradesh	2.57	2.35	6.29	17.82	8.86	20.16	
Maharashtra	2.14	2.03	13.11	24.53	15.25	26.56	
Mumbai	0.07	2.51	0.83	20.08	0.90	22.60	
North East	0.39	0.59	1.81	2.99	2.19	3.58	
Orissa	1.78	0.78	5.23	4.66	7.01	5.44	
Punjab	0.95	1.13	5.16	12.41	6.11	13.54	
Rajasthan	2.42	1.65	9.38	14.05	11.80	15.71	
Tamil Nadu	1.27	2.49	8.64	25.35	9.91	27.84	
Uttar Pradesh(East)	4.36	1.90	12.89	16.60	17.24	18.50	
Uttar Pradesh(West)	1.59	1.30	6.52	15.45	8.11	16.74	
West Bengal	2.05	0.98	8.44	9.30	10.49	10.28	
Total	33.14	32.00	140.28	306.85	173.42	338.84	

Table 1.29: Break up of Rural-Urban internet subscriber base (million)

S.No	ISP	No. of Subscribers	Share (%)
1	Reliance Jio Infocomm Ltd	215255701	42.02
2	Bharti Airtel Ltd.	126430500	24.68
3	Vodafone India Limited	76995349	15.03
4	Idea Cellular Limited	51285900	10.01
5	Bharat Sanchar Nigam Ltd.	29688381	5.80
6	Tata Teleservices Limited	Tata Teleservices Limited4785347	
7	Atria Convergence Technologies Pvt. Ltd.	1335385	0.26
8	Mahanagar Telephone Nigam Ltd.	1705278	0.33
9	Hathway Cable & Datacom Pvt. Ltd.	765352	0.15
10	You Broadband India Pvt. Ltd.	680147	0.13
	Total of Top 10 ISPs	508927340	99.35
	Others	3335856	0.65
	Grand Total	512263196	100

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

- 1.39 Reliance Jio holds the top position with 42.02% of market share of internet subscribers followed by Bharti Airtel with 24.68%. Top 10 Service Providers together hold 99.35% of total internet subscriber base at the QE Jun-18. Detailed table of number of internet subscriber base (broadband and narrowband) of all the service providers is available at Annexure-1.5.
- 1.40 The following chart depicts the internet subscriber base of top ten Internet Service Providers (ISPs) in the QE Jun-18.

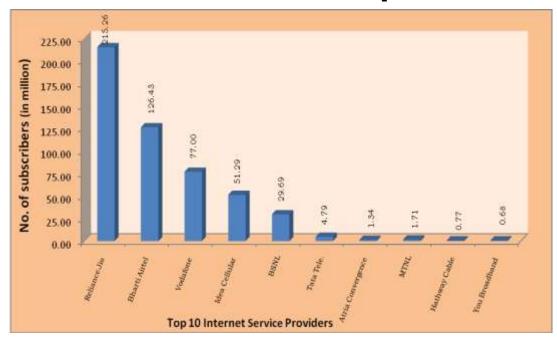
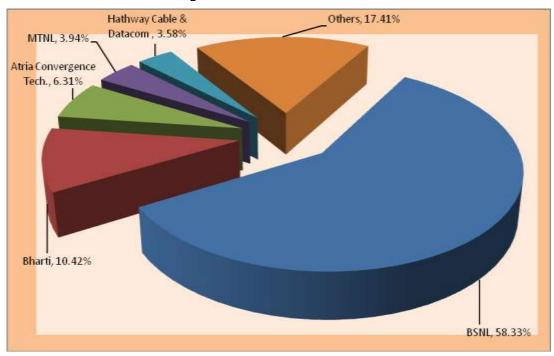


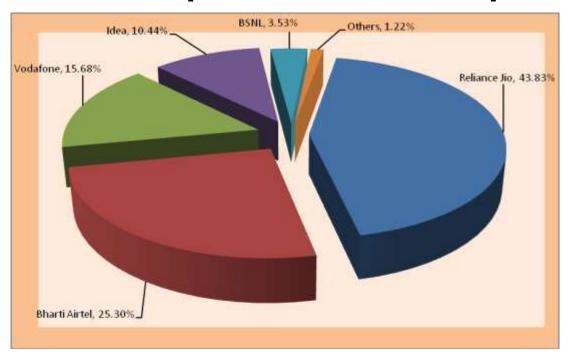
Chart 1.17 : Subscriber base of top ten ISPs

1.41 In wired internet segment, BSNL holds 58.33% market share with 12.34 million subscribers, followed by Bharti with 2.21 million subscribers. Total number of wired internet subscriber is 21.16 million at the end of Jun-18.



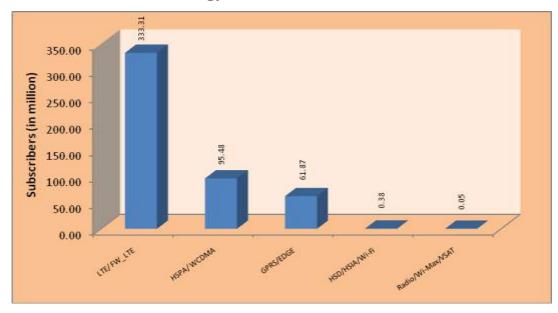
**Chart 1.18 : Composition of Wired Internet subscribers** 

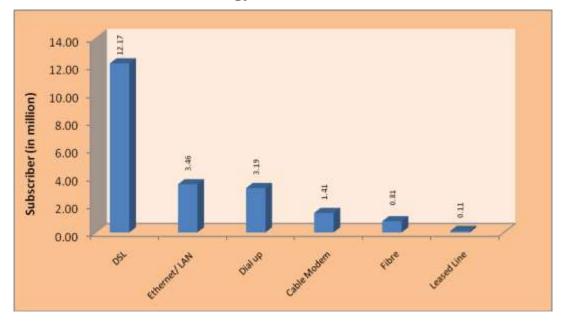
1.42 In wireless internet segment, Reliance Jio holds 43.83% market share with 215.26 million subscribers followed by Bharti Airtel with 124.22 million wireless internet subscribers at the QE Jun-18.



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

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





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

1.43 Top five service areas in terms of internet subscriptions (wired+ wireless) are Maharashtra (41.81 million), Andhra Pradesh (39.73 million), Tamil Nadu including Chennai (37.76 million), U.P.(East) (35.74 million) and Karnataka (33.33 million).

100 population at the end of Jun-18									
Service Area		net Subscr (in million)	ibers	No. of Internet subscribers per 100 population					
	Rural	Urban	Total	Rural	Urban	Total			
Andhra Pradesh	15.99	23.74	39.73	24.71	94.23	44.19			
Assam	4.60	4.95	9.55	16.58	89.37	28.69			
Bihar	16.56	12.75	29.31	13.62	65.07	20.76			
Delhi	0.68	30.80	31.47	87.97	140.20	138.43			
Gujarat	9.33	23.99	33.32	24.92	86.25	51.06			
Haryana	4.38	8.13	12.51	24.63	76.74	44.08			
Himachal Pradesh	2.54	1.78	4.32	40.05	204.53	59.85			
Jammu & Kashmir	2.29	3.40	5.69	25.16	94.39	44.79			
Karnataka	9.84	23.50	33.33	25.61	93.26	52.41			

Table 1.31 : Service Area wise number of Internet Subscribers per100 population at the end of Jun-18

Service Area		net Subscr (in million)	ibers	No. of Internet subscribers per 100 population			
	Rural	Urban	Total	Rural	Urban	Total	
Kerala	8.40	12.59	20.99	31.02	137.81	57.96	
Madhya Pradesh	8.86	20.16	29.02	11.47	67.75	27.13	
Maharashtra	15.25	26.56	41.81	05 40	70.20	50.04	
Mumbai	0.90	22.60	23.49	25.40	79.39	52.04	
North East	2.19	3.58	5.77	20.65	97.49	40.38	
Orissa	7.01	5.44	12.45	19.81	69.23	28.79	
Punjab	6.11	13.54	19.65	35.14	94.75	62.04	
Rajasthan	11.80	15.71	27.51	20.73	85.98	36.58	
Tamil Nadu	9.91	27.84	37.76	36.33	62.32	52.46	
UP (East)	17.24	18.50	35.74	12.04	64 10		
UP (West)	8.11	16.74	24.86	13.94	64.19	25.59	
Kolkata	0.92	12.27	13.19	16.61	80.00	25.16	
West Bengal	10.49	10.28	20.77	16.61	80.90	35.16	
Total	173.42	338.84	512.26	19.48	82.10	39.32	

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

Notes:

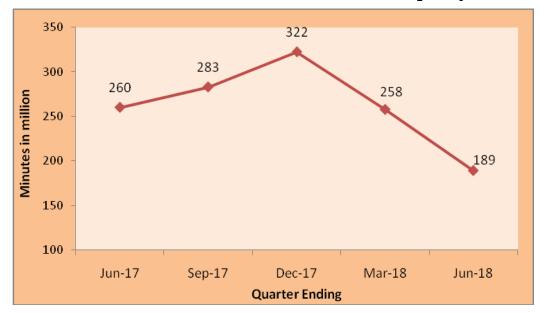
- 1. No. of total internet subscribers per 100 population is derived from the subscriber data provided by the operators and the population projections of the country, published by the Office of the Registrar General & Census Commissioner, India.
- 2. Data/information for Andhra Pradesh includes Telengana, 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.

#### **ISP Connectivity**

1.44 The International Internet bandwidth owned by various service providers is reported to be 6,039 Gbps during the quarter ending Jun-18 as compared to 3,160 Gbps during the previous quarter.

#### **Internet Telephony**

1.45 As per the reports received from 16 service providers, providing Internet Telephony services, the total outgoing minutes of usage for internet telephony is 189 million during the Q.E. Jun-18 as compare to 258 million in previous quarter. List of Internet Telephony Service providers is available at Annexure-1.6.



**Chart 1.22 : Trends in MOU for Internet Telephony** 

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

- 1.46 The total number of broadband subscribers increased from 412.60 million at the end of Mar-16 to 447.12 million at the end of Jun-18. Out of which wired broadband subscribers are 17.91 million and wireless broadband subscribers are 429.22 million.
- 1.47 Top five broadband (wired+wireless) service providers in term of subscribers are Reliance Jio (215.26 million), Bharti Airtel (95.31 million), Vodafone (62.86 million), Idea Cellular (42.95 million) and BSNL (20.34 million).

- 1.48 In wired broadband segment, BSNL holds 51.09% market share with9.15 million subscribers followed by Bharti with 2.21 million subscribers.
- 1.49 In wireless broadband segment, Reliance Jio holds 43.83% market share with 215.26 million subscribers followed by Bharti (18.96%) with 93.11 million subscribers.
- 1.50 Top five service areas in respect of broadband subscriptions are Maharashtra (37.64 million), Andhra Pradesh including Telengana (34.71 million), Tamil Nadu including Chennai (33.99 million), Gujarat (30.48 million) and Karnataka (29.71 million).

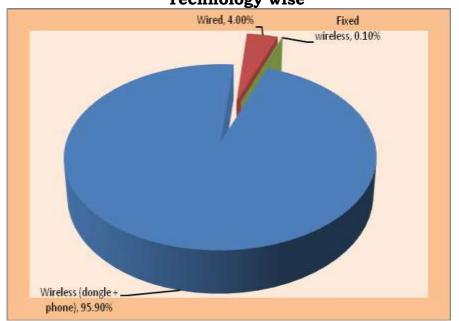


Chart 1.23 : Composition of Broadband subscription – Technology wise

1.51 Mobile Device Users (dongle+phone) constitute 95.90% of total broadband subscribers at the end of Jun-18.

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

- 1.52 Total number of narrowband subscribers declined from 81.35 million at the end of Mar-18 to 65.14 million at the end of Jun-18 with the quarterly decline rate of 19.93%. Out of 65.14 million narrowband subscribers, Wired Narrowband subscribers are 3.26 million and Wireless Narrowband subscribers are 61.88 million.
- 1.53 The top five narrowband (wired + wireless) service providers in term of subscriber base are Bharti (31.12 million), Vodafone (14.14 million), BSNL (9.35 million), Idea Cellular (8.34 million) and Tata Teleservices (1.68 million).
- 1.54 In wired narrowband segment, BSNL holds 98.11% market share with 3.195 million subscribers followed by You Broadband India Pvt Ltd with 0.015 million.
- 1.55 In wireless narrowband segment, Bharti holds 50.29% market share with 31.12 million subscribers followed by Vodafone with 14.14 million subscribers.

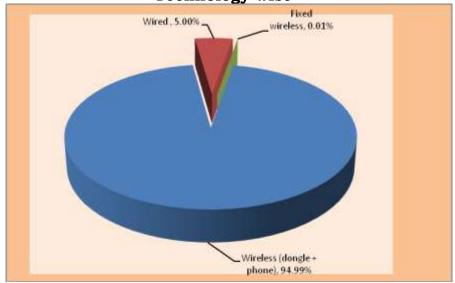


Chart 1.24 : Composition of Narrowband subscription – Technology wise

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

#### Public Mobile Radio Trunk Services (PMRTS)

1.56 The subscriber base of PMRTS declined from 56,660 at the end of Mar-18 to 56,083 at the end of Jun-18 with quarterly decline rate of 1.02%.

S1. No	Name of the Service Provider	Subscriber Base as on 31.03.2018	Subscriber Base as on 30.06.2018	Growth in Subscribers	% Growth in subscribers in QE Jun-18
1	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	47272	46504	-768	-1.62
4	Procall Ltd.	3188	3192	4	0.13
2	Inative Networks Pvt Ltd	1820	1820	0	0.00
3	Quick Call	1956	2064	108	5.52
5	Smartlink Pvt Ltd	931	973	42	4.51
6	Bhilwara Telenet Services Pvt Ltd	818	830	12	1.47
7	Wiwanet Solutions Pvt Ltd	361	361	0	0.00
8	Airtalk Solutions & Services Pvt Ltd	314	339	25	7.96
	Total	56660	56083	-577	-1.02

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

1.57 Detailed table on Service Area wise subscriber base of PMRTS is available at Annexure-1.7.



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

#### Very Small Aperture Terminal (VSAT)

1.58 The total number of VSAT subscribers increased from 2,73,161 at the end of Mar-18 to 2,75,463 at the end of Jun-18. Net addition during the quarter has been 2,302 at the growth rate of 0.84%.



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

Sr.	Name of Service	Subscriber Quarter	base at the ending	Net Addition	%age Growth	Market Share (%)	
No	Providers	Mar-18	Jun-18	Addition		Jun-18	
1	Hughes Communications Ltd.	99702	100178	476	0.48	36.37	
2	Bharti Airtel Limited	74123	75055	932	1.26	27.25	
3	Tatanet Services	58136	60731	2595	4.46	22.05	
4	HCL Comnet	20666	19664	-1002	-4.85	7.14	
5	BSNL	17852	17164	-688	-3.85	6.23	
6	Infotel Satcom	2608	2597	-11	-0.42	0.94	
7	Cloudcast Digital Ltd (eartwhile Planetcast Media Services Ltd)	74	74	0	0.00	0.03	
	Total	2,73,161	2,75,463	2,302	0.84	100	

Table 1.33 : VSAT Service Providers currently providing service& their subscriber base

- 1.59 Hughes Communication Limited continues to be the market leader in VSAT with subscriber base of 1,00,178 followed by Bharti Airtel Ltd (75,055) at the end of Jun-18.
- 1.60 M/s Tatanet Services added maximum number of VSAT i.e. 2,595 subscribers in QE Jun-18, with maximum growth rate of 4.46% in its VSAT subscribers. M/s HCL Comnet showed maximum decline of 1,002 VSAT subscribers with decline rate of 4.85% during the quarter.

# Chapter 2 : Revenue and Usage

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- For all the parameters, Metros indicate data for Delhi, Mumbai & Kolkata. Data for Chennai service area has been included in Circle A, as part of TN.
- ARPU arrived after adjusting interconnect usage charges and roaming settlement charges.
- The data contained in the section A & B covers the licensees, who have been providing service during the entire period from 1<sup>st</sup> April, 2018 to 30<sup>th</sup> June, 2018 in the various service areas.

## Section A: GSM and LTE Services

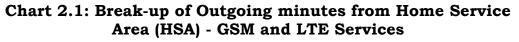
Parameter	Jun-18	Mar-18	Jun-17	QoQ %age change	YoY %age change
Subscriber Base* (million)	1143.45#	1066.86	1176.37	7.18	-2.80
Share of Prepaid (%)	95.86%	95.50%	95.52%	0.38	0.36
Incoming MOU* per subscriber per month	302.28	288.87	215.51	4.64	40.27
Outgoing MOU* per subscriber per month	306.13	295.41	212.84	3.63	43.83
No. of Outgoing SMS per subscriber per month	18.92	20.08	16.01	-5.81	18.16
Average Revenue Per User (ARPU) per month (₹)	69.25	76.04	79.58	-8.92	-12.97

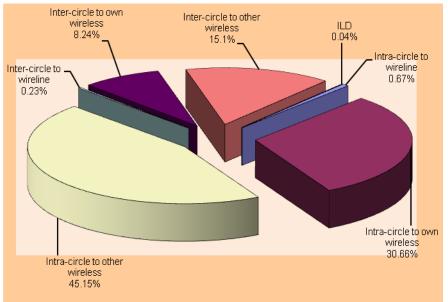
Table 2.1: Key Indicators - GSM and LTE Services

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

*# Subscriber figures for 4G LTE is also included.* 

2.1 The following chart presents % break-up of outgoing minutes from Home Service Area (HSA) in the QE Jun-18.





2.2 The following chart depicts prepaid subscribers as a % of total subscribers as on the last day of the respective quarters for various categories of circles.

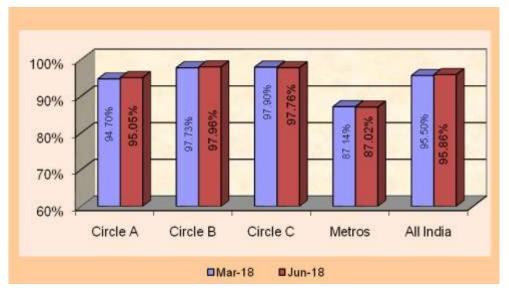


Chart 2.2: Proportion of prepaid subscribers

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

- 2.3 Market share of prepaid segment increased from 95.50% at the end of Mar-18 to 95.86% at the end of Jun-18.
- 2.4 The ARPU per month (all India, blended) declined from ₹76 in Q.E. Mar-18 to ₹69 in Q.E. Jun-18. The following table presents the ARPU per month for various categories of circles and various platforms for payment viz. post-paid and pre-paid.

Table 2.2: Monthly ARPU - GSM and LTE Services in QE Jun-18

Circle Category	ARPU per month (in ₹)						
Circle Category	Post-paid	Pre-paid	Blended				
Circle A	322	67	80				
Circle B	275	57	62				
Circle C	230	60	64				
Metros	327	28	68				
All India	307	59	69				
All private SPs	304	61	72				
BSNL/MTNL	351	36	44				

- 2.5 The ARPU per month for pre-paid segment declined from ₹62 in QE Mar-18 to ₹59 in QE Jun-18, however ARPU per month for postpaid segment declined from ₹360 in QE Mar-18 to ₹307 in QE Jun-18.
- 2.6 The following table presents the composition of ARPU per month in the QE Jun-18.

S. No.	Item	Revenue (excl. service tax) per subscriber per month (in ₹)	Share of total revenue from subscribers
1	Usage from Home Service Area		
1.1.	Rental Revenue	23.20	27.2%
1.2.	Revenue from calls	14.30	16.8%
1.3.	Revenue from SMS	1.57	1.8%
1.4.	Revenue from data usage	38.79	45.5%
1.5.	Revenue from other VAS	3.38	4.0%
1.6.	Other revenue	2.17	2.5%
2	Usage outside Home Service Area		
2.1.	Revenue from outroamers	1.91	2.2%
3	Total revenue from subscribers (1+2)	85.33	100%
4	Net inter-operator settlement charges receivable *	-16.07	
5	Net Revenue (ARPU) per month(3+4)	69.25	

Table 2.3: Composition of ARPU per month - GSM and LTE Services

*\** includes Interconnect Usages Charges and roaming settlement charges

- 2.7 From the above table, it may be seen that the net inter-operator settlement charges payable (₹16.07) accounts for 18.84% of the total revenue from subscribers.
- 2.8 On an all India average, the overall minutes of usage (MOU) per subscriber per month increased from 584 in QE Mar-18 to 608 in QE Jun-18.

2.9 The following table presents the total MOU (usage from, and outside, the home service area) per subscriber per month for various categories of circles.

			2D Oun						
	MOU per subscriber per month								
	Pos	tpaid		P	repaid		Blended		
Circle category	Outgoing MOU	Incoming MOU	Total MOU	Outgoing MOU	Incoming MOU	Total MOU	Outgoing MOU	Incoming MOU	Total MOU
Circle A	390	352	742	272	249	522	278	255	533
Circle B	403	378	782	290	310	600	292	312	604
Circle C	539	386	925	341	398	739	346	397	743
Metro	395	350	745	404	282	686	403	292	694
All India	406	359	765	302	300	601	306	302	608

Table 2.4: MOU per subscriber per month - GSM and LTE Services in<br/>QE Jun-18

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

- 2.10 The overall ratio of incoming MOU and outgoing MOUs for the QE Jun-18 is 50.3:49.7.
- 2.11 Number of outgoing SMS per subscriber per month declined from 20 in Q.E. Mar-18 to 19 in Q.E. Jun-18. The following table presents the outgoing SMS usage (usage from, and outside, the home service area) per subscriber per month for various categories of circles and various platforms for payment viz. post-paid and pre-paid.

	<u> </u>					
Circle	Outgoing SMS per subscriber month					
category	Postpaid	Prepaid	Blended			
Circle A	126	19	24			
Circle B	38	16	16			
Circle C	29	16	16			
Metro	22	15	16			
All India	69	17	19			

Table 2.5: No. of Outgoing SMS per subscriber per month -GSM and LTE Services in QE Jun-18

Note: No. of Outgoing SMS indicate total usage i.e. usage from and outside HSA

Chart 2.3 : Minutes of Usage by Out-roamers as a % of Total Minutes of Usage

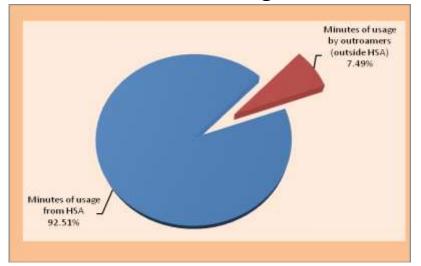
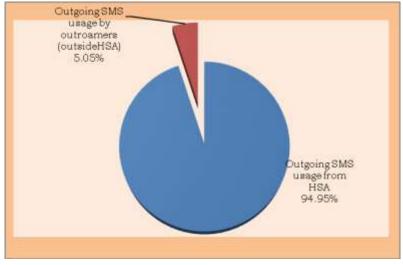


Chart 2.4: Outgoing SMS Usage by Out-roamers as a % of Total No. of Outgoing SMS Usage



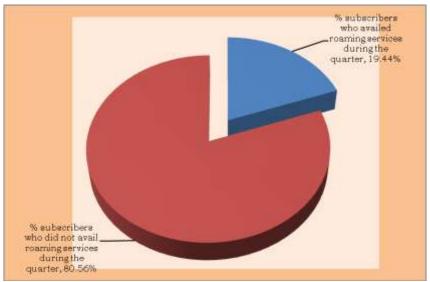
2.12 The following table presents the percentage break-up of outgoing minutes of usage from home service area between various categories of termination networks.

Circle Category	% Intra- circle to wireline	% Intra- circle to own wireless	% Intra- circle to other wireless	% Inter- circle to wireline	% Inter- circle to own wireless	% Inter- circle to other wireless	% ILD
Circle A	0.82	31.42	47.42	0.23	6.21	13.85	0.05
Circle B	0.51	31.48	47.26	0.18	7.26	13.28	0.03
Circle C	0.27	35.48	43.22	0.24	7.38	13.39	0.02
Metros	1.31	17.91	36.48	0.39	17.37	26.43	0.11
All India	0.67	30.46	45.33	0.23	8.17	15.09	0.04

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

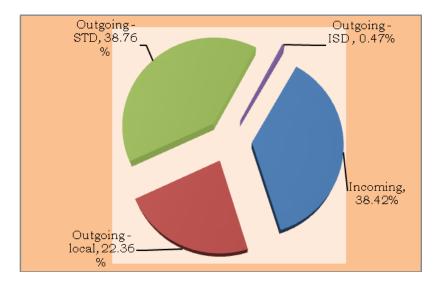
2.13 The chart given below presents the percentage of subscribers who availed roaming services (out-roamers) during the quarter ending Jun-18.

Chart 2.5: % subscribers availed roaming services during the QE Jun-18



2.14 The usage pattern of out-roamers i.e. usage from outside the home service area shows that incoming minutes accounts for 36.83% of the total minutes of usage by out-roamers in QE Jun-18 as against 36.92% in the previous quarter. The chart given below presents the break-up of minutes of usage of out-roamers during the QE Jun-18.

# Chart 2.6: % Break-up of minutes of usage of outroamers (usage from outside the Home Service Area)



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

\*Average Outgo per Outgoing Minute for usage from HSA = <u>Rental revenue + revenue from outgoing calls from HSA</u> No. of outgoing minutes from HSA

	1	1	(₹ per min	nute)
<b>Circle Category</b>	Postpaid	Prepaid	Blended	
Circle A	0.36	0.14	0.16	
Circle B	0.37	0.13	0.13	
Circle C	0.21	0.10	0.11	
Metros	0.37	0.09	0.13	
All India	0.35	0.12	0.14	

Table 2.7: Average outgo per outgoing minute from HSA for GSM andLTE Services

2.16 All India average outgo per outgoing minute declined from ₹0.16 in the QE Mar-18 to ₹0.14 in the QE Jun-18.

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

Parameter	Jun-17	Sep-17	Dec-17	Mar-18	Jun-18		
1. ARPU (₹ Per month)	80	84	79	76	69		
<ul> <li>3. Average Revenue from data usage per subscriber per month ( in ₹)</li> </ul>	21	33	36	40	39		
3. MOU per subscriber per month	428	437	495	584	608		
4. Outgoing MOU per subscriber per month							
4.1 Local (Intra-circle)	160	157	180	212	223		
4.2 NLD (inter-circle)	53	59	67	83	83		
4.3 ILD	0.2	0.2	0.5	0.2	0.3		
5. No. of Outgoing SMS per subscriber per month	16	15	17	20	19		
<ul> <li>6. Average Outgo per outgoing minute from HSA (in ₹)</li> </ul>	0.27	0.23	0.19	0.16	0.14		

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

### Section B: CDMA - Full Mobility Service

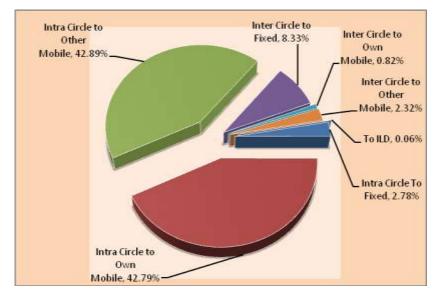
Parameters	QE Jun-18	QE Mar-18	QE Jun-17	QoQ change (%)	YoY change (%)
Subscriber Base (in Millions*)	2.19	3.18	8.88	-31.18	-75.38
Share of Prepaid (%)	96.41%	87%	86.84%	10.88	11.03
Incoming MOUs per subscriber per month	17.12	21.63	141.67	-20.86	-87.61
Outgoing MOUs per subscriber per month	1.83	38.64	104.74	-94.96	-98.09
Outgoing SMS per subs per month	0.03	0.51	2.18	-93.72	-98.53
ARPU (₹ per month)	27.70	79.32	124.49	-65.08	-76.52

Table 2.9: Key Indicators - CDMA Full Mobility Service

\* *The subscriber figures are as on last day of the quarter.* 

2.18 The following chart depicts % break-up of outgoing minutes from home service area (HSA).

#### Chart 2.7: % Break-up of Outgoing Minutes from Home Service Area (HSA) - CDMA Full Mobility Service in QE Jun-18



2.19 The following chart depicts prepaid subscribers as a % of total subscribers as on the last day of the respective quarters for various categories of circles.

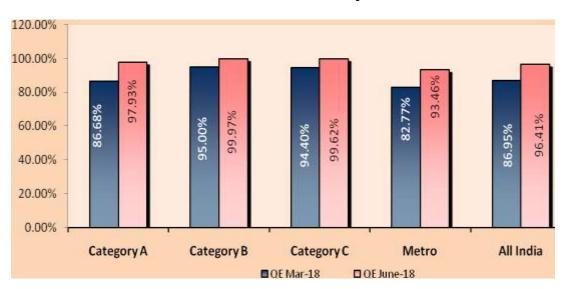


Chart 2.8: Proportion of prepaid subscribers – CDMA Full Mobility Service

- 2.20 Market share of Prepaid segment increased from 86.95% in QE Mar-18 to 96.41% in QE Jun-18.
- 2.21 The following table presents the ARPU per month for various categories of circles and various platforms for payment viz. postpaid and prepaid.

Table 2.10: Monthly ARPU - CDMA Full Mobility Service in<br/>QE Jun-18

(₹per month)

Circle category	Postpaid	Prepaid	Blended ARPU
Circle A	207	30	44
Circle B	94	5	6
Circle C	14	5	5
Metro	133	13	29
All India	149	16	28

- 2.22 The All India blended Average Revenue Per User (ARPU) per month has shown a decline of 65.08% from ₹79 in QE Mar-18 to ₹28 in QE Jun-18.
- 2.23 ARPU for Prepaid service declined from ₹24 in QE Mar-18 to ₹16 in QE Jun-18, and ARPU for Postpaid service declined from ₹393 in QE Mar-18 to ₹149 in QE Jun-18.

S. No.	Item	Revenue (excl. service tax) per subscriber per month (in ₹)	% Share of total revenue from subscribers
1	Usage from Home Service Area		
1.1	Rental Revenue	27.98	29.51
1.2	Revenue from Calls	1.73	1.83
1.3	Revenue from SMS#	0.02	0.02
1.4	Revenue from data usage	6.25	6.59
1.5	Revenue from other VAS	0.38	0.41
1.6	Other Revenue#	58.39	61.60
2	Usage Outside Home Service Ar	ea	
2.1	Revenue from Out-roamers	0.05	0.05
3	Total Revenue from Subscribers (1+2)	94.80	100
4	Net inter-operator settlement charges receivable*	-67.11	
5	Net Revenue (ARPU) (3+4)	27.70	

Table 2.11: Composition of ARPU per month- CDMA Full Mobility Service

\* Includes Interconnect Usage Charges and roaming settlement charges

- 2.24 Revenue from data usage per subscriber per month (for usage from HSA) declined from ₹44.66 in QE Mar-18 to ₹6.25 in QE Jun-18.
- 2.25 The total MOUs per subscriber per month declined by 68.56%, from 61 in QE Mar-18 to 19 in QE Jun-18. Outgoing MOUs declined from 39 in QE Mar-18 to 2 in QE Jun-18, and incoming MOUs also declined from 22 to 17 during the same period.

2.26 Prepaid MOUs per subscriber per month declined from 90 in QE Mar-18 to 16 in QE Jun-18, and postpaid MOUs per subscriber per month also declined from 181 in QE Mar-18 to 47 in QE Jun-18.

	MOU per subscriber per month								
Circle	Р	ostpaio	1	]	Prepaid	l		Blende	1
category	Outgoing MOU	Incoming MOU	Total MOU	Outgoing MOU	Incoming MOU	Total MOU	Outgoing MOU	Incoming MOU	Total MOU
Circle A	8	39	47	0.56	5	6	1	8	9
Circle B	0	19	20	0.09	3	3	0	3	3
Circle C	8	7	16	0.34	8	8	0	0	0
Metro	16	33	49	1.46	29	30	3	30	33
All India	13	34	47	0.85	15	16	2	17	19

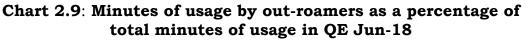
Table 2.12 : MOU per subscriber per month – CDMA Full Mobility Service

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

Table 2.13 : Outgoing SMS per s	subscriber per month in QE Jun-18 –
CDMA Full Mobility	y Service

Catagory	Outgoing SMS per subscriber month					
Category	Postpaid	Prepaid	Blended			
Category A	0	0	0			
Category B	0	0	0			
Category C	1	0	0			
Metro	0	0	0			
All India	0	0	0			

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



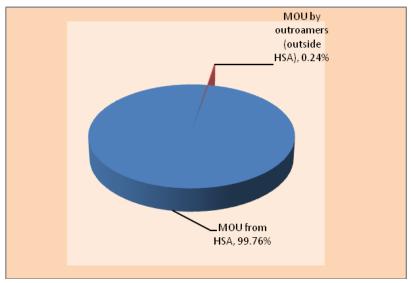


Table 2.14: %Break-up of Outgoing minutes from Home Service Area(HSA) - CDMA Full Mobility Service in QE Jun-18

Circle	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	6.89	43.45	43.99	4.63	0.19	0.88	0.12
Circle B	0.51	10.22	80.82	8.16	0.19	4.95	0.05
Circle C	0.80	11.20	77.60	9.10	0.20	2.30	0.20
Metro	2.07	44.99	41.63	9.01	0.96	2.57	0.05
All India	2.78	43.92	42.89	8.33	0.82	2.32	0.06

2.27 The chart given below presents the percentage of subscribers who availed roaming services (out-roamers) during the quarter.

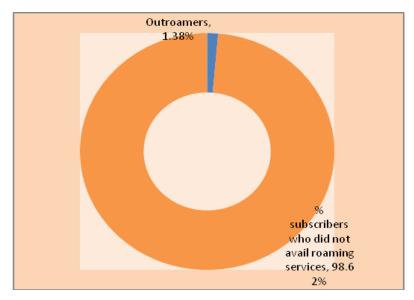
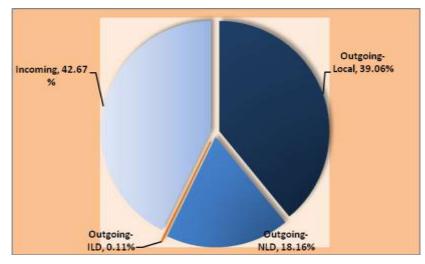


Chart 2.10: Percentage of subscribers who availed roaming service during the quarter in QE Jun-18

Chart 2.11: Percentage breakup of minutes of usage of Out-roamers (usage from outside the Home Service Area) in QE Jun-18



			[ <b>7 Per min</b> ]
Circle Category	Postpaid	Prepaid	Blended
Circle A	81	0.97	47.35
Circle B	477	1.40	17.18
Circle C	3	0.88	6.65
Metros	13	3.72	9.56
All India	23	3.13	15.55

Table 2.15: Average subscriber outgo per outgoing minute from HSA\*for CDMA Full Mobility Service in QE Jun-18

\*Average Subscriber Outgo per Outgoing Minute for usage from HSA =

<u>Rental revenue + revenue from outgoing calls from HSA</u> No. of outgoing minutes from HSA

## Table 2.16: Trends of Key Parameters - CDMA Full MobilityService

Parameter	Jun-17	Sep-17	Dec-17	Mar-18	Jun-18
1. ARPU (₹ Per month)	124	125	111	79	28
<ol> <li>Average revenue from data usage per subscriber per month (in ₹)</li> </ol>	69	59	60	45	9
3. MOU per subscriber per month	247	206	112	61	19
4. Outgoing MOU per subscriber per month	105	83	73	39	2
5. No. of Outgoing SMS per subscriber per month	2.23	2.17	1.14	0.51	0.0
<ol> <li>Average subscriber Outgo per outgoing minute from HSA (₹)</li> </ol>	0.44	0.47	0.64	1.04	15.55

2.28 Service Area wise statistics are available at Annexure-2.2.

# Chapter 3 : Financial Data of Telecom Service Sector

Particulars	QE Jun-17 (₹ in Crore)	QE Mar-18 (₹ in Crore)	QE Jun-18 (₹ in Crore)	Q-O-Q % Change	Y-O-Y % Change
Gross Revenue (GR)	64,889	62,198	58,401	-6.10	-10.00
Adjusted Gross Revenue (AGR)	39,778	35,697	36,552	2.40	-8.11
Pass Through Charges (GR-AGR)	25,112	26,501	21,849	-17.56	-12.99
License Fee	3,261	2,932	2,929	-0.11	-10.17
Spectrum Usage Charges	1,309	1,051	1,028	-2.18	-21.41

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

- 3.1 Gross Revenue (GR) quarterly declined by 6.10% in QE Jun-18, and on annual basis, it declined by 10.00%. Adjusted Gross Revenue (AGR) quarterly increased by 2.40%, however it declined yearly by 8.11% in QE Jun-18.
- 3.2 Pass through charges quarterly and on annual basis declined by 17.56% and 12.99% respectively in the QE Jun-18.
- 3.3 Pass-through charges as a percentage of Gross Revenue are 37.41% in QE Jun-18 as against 42.61% in the previous quarter.

## Table 3.2: Service-wise Gross Revenue, Adjusted Gross Revenue,License Fee and Spectrum Charges

(in ₹ Crore)

Service	GR	AGR	LF	Spectrum Usage Charges
Access Providers	40,530	25,585	2,052	1,023
NLD	10,789	9,061	725	-
ILD	3,162	1,601	128	-
Others	3,920	305	24	5
Total	58,401	36,552	2,929	1,028

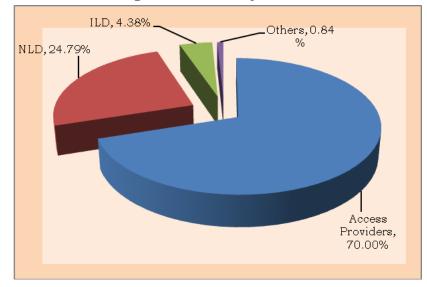


Chart 3.1: Composition of Adjusted Gross Revenue

- 3.4 Access services contributed 70.00% of the total Adjusted Gross Revenue of telecom services. In Access services, Gross Revenue (GR), License Fee, Spectrum Usage Charges(SUC) and Pass Through Charges declined by 9.07%, 2.88%, 2.21% and 21.86% respectively in QE Jun-18. However, Adjusted Gross Revenue (AGR) increased by 0.54% during the quarter.
- 3.5 Monthly Average Revenue per User (ARPU) for Access Services based on AGR increased from ₹71.62 in QE Mar-18 to ₹73.34 in QE Jun-18.



Chart 3.2: Trend in ARPU per month for Access Services

			(in ₹ Crore)
Service	QE Jun-18	QE Mar-18	% Change
Reliance Jio	7125.69	6217.64	14.60
Bharti	6723.56	7086.49	-5.12
Vodafone	4483.68	4937.26	-9.19
Idea	3743.12	4033.39	-7.20
BSNL	2273.58	2128.67	6.81
Tata	553.98	271.00	104.42
MTNL	440.24	478.61	-8.02
Reliance Com.	149.12	81.08	83.91
Uninor	86.22	208.03	-58.55
Quadrant	5.89	5.92	-0.59
Grand Total (Access)	25585.07	25448.09	0.54

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

Public Sector Undertakings' share in the Access AGR of telecom 3.6 services is 10.61% in the QE Jun-18.

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

Category	AGR of Access Services for QE Jun-18 (in ₹ crore)	%age share of AGR				
Metro	3058.19	11.95				
А	10255.53	40.08				
В	9088.55	35.52				
С	3182.80	12.44				
Total	25585.07	100				

<u>Notes :</u>

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

# Chapter 4 : Quality of Service (QoS)

### Section A: Quality of Service Performance of Wireless Service Providers

	Parameters		No. of CMTS Licensees not Meeting the Benchmarks				
S1. No.		Bench mark		Q. E. , 2018	For Q. E. June, 2018		
			*Out Of 136 (Nos.)	*Out Of 136 (%)	*Out Of 130 (Nos.)	*Out Of 130 (%)	
<i>I</i> .	Network Related Parameters						
1	Network Availability						
(i)	BS Accumulated down-time (not available for service) (%age)	≤ 2%	0	0	0	0	
(ii)	Worst affected BSs due to down-time (%age)	≤ 2%	0	0	0	0	
2	<b>Connection Establishment (Accessibility</b>	y)					
(i)	Call Set-up Success Rate and Session Establishment Success Rate for Circuit Switched Voice or VoLTE as applicable (within licensee's own network)	≥ 95%	0	0	1	0.77%	
(ii)	SDCCH/ Paging Channel Congestion/ RRC Congestion (%age)	≤ 1%	1	0.74%	2	1.54%	
(iii)	TCH, RAB and E-RAB Congestion(%age)	≤ 2%	0	0	2	1.54%	
3	Connection Maintenance (Retain ability	r)					
(i)	Network QoS DCR Spatial Distribution Measure [Network_ QSD(90,90)]	≤ 2%	13	9.56%	7	5.38%	
(ii)	Network QoS DCR Temporal Distribution Measure [Network_ QTD(97,90)]	≤ 3%	12	8.82%	6	4.62%	
4	Connections with good voice quality, Circuit Switched Voice Quality and VoLTE quality	≥ 95%	0	0	0	0	
5	Point of Interconnection (POI) Congestion (No. of POIs not meeting the benchmark) (Averaged over a period of quarter)	≤ 0.5%	3	2.21%	2	1.54%	
П.	<b>Customer Service Quality Parameters</b>						
6	Metering and Billing						
(i)	Metering and billing credibility – post paid	≤ 0.1%	4	2.94%	0	0	
(ii)	Metering and billing credibility - pre paid	≤ 0.1%	1	0.74%	1	0.77%	

### Table 4.1: QoS Summary - Wireless Service

			No. of CMTS Licensees not Meeting the Benchmarks				
S1. No.	Parameters	Bench mark		Q. E. 1, 2018	For Q. E. June, 2018		
			*Out Of 136 (Nos.)	*Out Of 136 (%)	*Out Of 130 (Nos.)	*Out Of 130 (%)	
(;;;)	Resolution of billing/charging/validity complaints	98% within 4 weeks	0	0	0	0	
(iii)	Resolution of billing/charging/validity complaints		0	0	1	0.77%	
(iv)	Period of applying credit/ waiver/ adjustment to customer's account from the date of resolution of complaints	within 1 week of resolution of complaint	0	0	0	0	
7	Response time to the customer for assi	stance					
(i)	Accessibility of call centre/ customer care	≥ 95%	3	2.21%	8	6.15%	
(ii)	%age of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	45	33.09%	22	16.92 %	
8	Termination / closure of service						
(i)	%age requests for Termination/Closure of service complied within 7 days	100% within 7 days	2	1.47%	6	4.62%	
(ii)	Time taken for refund of deposits after closures	100% within 60 days	0	0	1	0.77%	

\*Total number of License Service area has been reduced from 136 nos. to 130 nos. due to merging of services of M/s Telenor Communications Services Private Limited with M/s Bharti Airtel Ltd.

- 4.1 The performance has improved in this quarter as compared to the previous quarter in respect of the following parameters:-
  - a. Network QoS DCR Spatial Distribution Measure [Network\_QSD (90,90)] (%age)
  - b. Network QoS DCR Temporal Distribution Measure [Network\_ QTD(97,90)]

- c. Point of Interconnection (POI) Congestion (No. of POIs not meeting the benchmark)
- d. Metering and billing credibility post paid
- %age of calls answered by the operators (voice to voice) within 90 sec
- 4.2 The performance has deteriorated in this quarter as compared to the previous quarter in respect of the following parameters:-
  - Call Set-up Success Rate and Session Establishment Success Rate for Circuit Switched Voice or VoLTE as applicable (with licensee's own network)
  - b. SDCCH/Paging Channel Congestion/RRC Congestion (%age)
  - c. TCH, RAB and E-RAB Congestion (%age)
  - d. Resolution of billing/charging/validity complaints (100% within 6 weeks)
  - e. Accessibility of call centre/customer care
  - f. %age requests for Termination/Closure of service complied within 7 days
  - g. Time taken for refund of deposits after closures

Parameter	Benchmark	Service Area	Service Provider	Performance
Call Set-up Success Rate and Session Establishment Success Rate for Circuit Switched Voice or VoLTE as applicable (within licensee's own network)	≥ 95%	Vodafone	UP-West	93.78
SDCCH/ Paging Channel	. 10/	Idea	Bihar	1.86
Congestion/ RRC Congestion (%age)	≤ 1%	Vodafone	UP-East	1.37
TCH, RAB and E-RAB	TCH, RAB and E-RAB $\leq 2\%$		UP-East	3.06
Congestion (%age)	≤ ∠ /0	Vodafone	UP-West	6.16

Table 4.2: Parameter wise Analysis of Non-compliance of QoSBenchmarks for Wireless Service Providers

Parameter	Parameter Benchmark Service Area		Service Provider	Performance	
		BSNL	West Bengal	2.88	
			Assam	2.53	
Network QoS DCR Spatial		20/	Idea	Himachal Pradesh	2.35
Distribution Measure [Network_ QSD(90,90)]	≤ 2%		Jammu&Kashmir	2.33	
				North East	2.78
		ТАТА	Maharashtra	2.71	
		IAIA	UP-East	2.71	
		BSNL	West Bengal	3.83	
		Idea	Assam	3.44	
Network QoS DCR Temporal	4 20/	Idea	North East	3.74	
Distribution Measure [Network_ QTD(97,90)]	≤ 3%		Maharashtra	5.37	
		TATA	UP-East	6.16	
			UP-West	7.13	
Point of Interconnection			Assam	1	
(POI) Congestion (No. of POIs not meeting the benchmark) (Averaged over a period of quarter )	≤ 0.5%	BSNL	Rajasthan	1	
Metering and billing credibility - pre paid	≤ 0.1%	Vodafone	Delhi	0.11	
Resolution of billing/ charging complaints	100% within 6 weeks	Vodafone	Gujarat	99.99	
			Andhra Pradesh	94.48	
			Assam	93.80	
Accessibility of coll contro (		A	Delhi	92.13	
Accessibility of call centre/ customer care	≥ 95%	Airtel	Jammu&Kashmir	88.29	
			Karnataka	89.29	
			Kolkata	81.01	
		Airtel	Mumbai	92.67	
	≥ 95%		Punjab	90.66	
			Delhi	94.84	
			Gujarat	93.86	
Percentage of calls answered		Airtel	Madhya Pradesh	94.05	
by the operators (voice to	≥ 95%		Tamil Nadu	93.05	
voice) within 90 seconds			West Bengal	92.13	
			Andhra Pradesh	85.98	
			Assam	75.99	

Parameter	Benchmark	Service Area	Service Provider	Performance		
			Bihar	84.59		
Percentage of calls answered by the operators (voice to	≥ 95%	RJIL	Jammu & Kashmir	92.33		
voice) within 90 seconds			Karnataka	89.17		
			Maharashtra	90.16		
			Orissa	85.91		
			Punjab	82.04		
			Tamil Nadu	91.95		
			UP-East	87.17		
			UP-West	85.30		
			West Bengal	72.73		
			Andhra Pradesh	93.23		
			Delhi	87.46		
				TATA	Himachal Pradesh	89.65
				Maharashtra	92.69	
			Tamil Nadu	94.58		
			Assam	99.43		
%age requests for			Delhi	99.98		
Termination / Closure of	100% within	Idea	Haryana	99.97		
service complied within 7	7 days		Orissa	99.27		
days			Punjab	99.94		
		Vodafone	Mumbai	99.82		
Time taken for refund of deposits after closures	100% within 60 days	Idea	Madhya Pradesh	64.10		

4.3 The detailed table on Service Provider wise performance of QoS parameters for Wireless Services is available at Annexure-4.1.

### Section B: Quality of Service Performance of Wireline Service Providers

				No of license areas where operators not meeting the benchmarks			
S. No.		Parameters	Bench mark	Q.E. March, 2018		Q.E. June, 2018	
				Out of 82 In Nos.	Out of 82 In %age	Out of 82 In Nos.	Out of 82 In %age
(i)		Fault incidences No. of faults per 100 subs/month)	≤ 7	0	0%	0	0%
(ii)		% Fault repaired by next working day (for urban areas)	≥ 85%	0	0%	1	1%
	Ec. 14	% Fault repaired within 5 days <i>(for urban areas)</i>	≥100%	2	2%	2	2%
(;;;)	Fault Repair	% Fault repaired by next working day (for rural and hilly areas)	≥ 75%	0	0%	0	0%
(iii)		% Fault repaired within 7 days (for rural and hilly areas)	≥100%	0	0%	0	0%
(iv)	Mean tim	e to Repair(MTTR)	≤10Hs	0	0%	1	1%
(v)	POI	Point of Interconnection (POI) Congestion (No. of		0	0%	0	0%
		Metering and Billing credibility - post-paid	≤ 0.1%	0	0%	0	0%
(vi)		Metering and Billing credibility -pre-paid	≤ 0.1%	0	0%	0	0%
(vii)	Metering	Resolution of billing/ charging /Credit & validity complaints	98% within 4 weeks	0	0%	1	1%
(VII)	and Billing	Resolution of billing/charging / Credit & validity complaints	100% within 6 weeks	0	0%	0	0%
(viii)		Period of applying credit / waiver/adjustment to customer's account from the date of resolution of complaints	1 week of resolution of complaint	0	0%	0	0%

### Table 4.3: QoS Summary - Wireline Service

S. No.	Parameters		Bench mark	opera Q.E. M	ators no	-	
				Out of 82 In Nos.	Out of 82 In %age	Out of 82 In Nos.	Out of 82 In %age
	Response to the	Accessibility of call centre/ customer care	≥ 95%	2	2%	0	0%
(ix)	customer for%age of calls answeredby the operators (voice to voice) within 90 seconds	≥ 95%	0	0%	0	0%	
(x)	Termination /closure of	%age of request for Termination / closure of service complied within 7 days	100% within 7 days	2	2%	4	4%
(xi)	service	Time taken for refund of deposits after closures	100% within 60 days	0	0%	0	0%

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

- 4.4 The performance has improved in this quarter as compared to the previous quarter in respect of the following parameters:-
  - Response time to the customer for Assistance Accessibility of call centre/customer care
- 4.5 It is observed that the performance has deteriorated in this quarter as compared to the previous quarter.
  - a. % Fault repaired by next working day (for urban areas)
  - b. Mean time to Repair (MTTR)
  - c. Resolution of billing/charging/credit & validity complaints
  - d. % of request for termination/closure of service compiled within 7 days.

# Table 4.4: Parameter wise Analysis of Non-compliance of QoSBenchmarks for Wireline Service Providers

Parameters	Bench-	Service	Service	Parameters
	marks	Provider	areas	not met
<b>"Fault Repair"</b> % Fault repaired within 5 days <i>(for</i>	≥100%	MTNL	DEL	99.88%
urban areas)	2100%	MIINL	MUM	99.75%
"Fault Repair"				
%age of fault repaired by next working	≥ 85%	TATA	KTK	81.85%
day (for urban areas)				
Mean time to Repair (MTTR)	≤10 Hrs	TATA	HR	11.57
"Metering and Billing"	98%			
Resolution of billing/charging / credit & validity complaints	within 4 weeks	ТАТА	MH	90.91%
"Termination / closure of service"	100%	MTNL	MUM	99.99%
%age of request for Termination / closure of service complied within 7	within 7 days	ТАТА	BH	91.46%
days	-		KTK	99.89%
			Mum	99.96%

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

### Section C : Quality of Service Performance of Broadband (wireline) Service

4.7 There are 273 Internet Service Providers (ISPs) providing broadband (wireline) service at the end of June, 2018. Out of these 273 ISPs, 45 Service Providers are having broadband subscriber base >10,000 and market share of these 45 SPs is 98.10% of total broadband subscriber base. This report covers performance of 42 broadband Service Providers vis-à-vis the QoS benchmarks prescribed by TRAI, for the QE June, 2018.

	Parameter		No. of Licensees not meeting the Benchmarks					
S. No.		Benchmark	Quarter March	, 2018	June,	Quarter Ending June, 2018		
			Out of 68 (Nos.)	Out of 68 (%)	Out of 61 (Nos.)	Out of 61 (%)		
1	Service Provisioning	100% in =<15 working days						
1.2	%age of connections provided within 15 days of registration of demand	100%	1	1.47%	2	3.28%		
2	Faults Repair							
2.2	% of faults repaired by next working day (>90%)	>90%	1	1.47%	2	3.28%		
2.3	% of faults repaired within 3 working day	=>99%	2	2.94%	4	6.56%		
3	Billing Performance							
3.3	%age of bills disputed	<2%	0	0.00%	0	0.00%		
3.4	%age of billing complaints resolved within 4 weeks	100% within 4 weeks	0	0.00%	0	0.00%		
3.5	%age of cases to whom refund of deposits is made within 60 days of closures	100% within 60 days	0	0.00%	0	0.00%		
4	Response Time to the Custom	er for assistar	ıce					
4.2	%age of calls answered by operator (Voice to voice) within 60 sec	>60%	0	0.00%	1	1.64%		

 Table 4.5 : Summary of Performance of Broadband Service Providers

 against identified parameters

	Parameter		No. of Licensees not meeting the Benchmarks					
S. No.		Benchmark	Quarter March	•	Quarter Ending June, 2018			
			Out of 68 (Nos.)	Out of 68 (%)	Out of 61 (Nos.)	Out of 61 (%)		
4.3	%age of calls answered by operator (Voice to voice) within 90 sec	>80%	0	0.00%	1	1.64%		
5	Bandwidth utilisation/ throug	hput						
5.2	No. of Intra network links having Bandwidth utilisation >90% during peak hours (TCBH)	0	0	0.00%	1	1.64%		
5.4	No. of Upstream links for International connectivity having bandwidth utilisation >90% during peak hours (TCBH)	0	1	1.47%	1	1.64%		
5.7	% International bandwidth utilization during peak hours (TCBH) (Enclose MRTG) <90%	<90%	0	0.00%	0	0.00%		
5.8	Broadband Connection Speed available (download) from ISP node to user	>80%	0	0.00%	0	0.00%		
6	Service availability /uptime (fo	or all users) ir	n %age					
6.3	Service availability /uptime (for all users) in %age	>98%	0	0.00%	0	0.00%		
7	Packet loss (for wired broadband access) in %age	<1%	0	0.00%	0	0.00%		
8	Network latency (for wired bro	adband acces	s)					
8.1	User reference point at POP/ISP Gateway node to IGSP/NIXI	<120 ms	0	0.00%	0	0.00%		
8.2	User reference point at ISP Gateway node to International nearest NAP port abroad (terrestrial)	<350 ms	0	0.00%	0	0.00%		
8.3	User reference point at ISP Gateway node to International nearest NAP port abroad (satellite)	<800 ms	0	0.00%	0	0.00%		

# Table 4.6: Parameter-wise Analysis of non-compliance of QoSbenchmarks for Broadband Service Providers

S1. No.	Parameters	Bench- mark	Name of the Service Proivder not meeting the Benchmark
1	Service Provisioning		
1.2 1.2	%age of connections provided within 15 days of registration of demand	100%	Ishan Netsol - Gujarat (99.95%) You Broadband - All India (99.07%)
2	Faults Repair		
2.2	% of faults repaired by next working day (>90%)	>90%	<b>TATA(TTSL) -</b> All India (80.00%), <b>TATA(TTML)</b> - Maharashtra & Goa (76.00%)
2.3	% of faults repaired within 3 working day	=>99%	Atria Convergence - All India (98.67%) Ishan Netsol - Gujarat (98.32%) TATA(TTSL) - All India (95.00%), TATA(TTML) - Maharashtra & Goa (93.00%)
4	Response Time to the Customer for assistance		
4.2	%age of calls answered by operator (Voice to voice) within 60 sec	>60%	Atria Convergence - All India (37.00%)
4.3	%age of calls answered by operator (Voice to voice) within 90 sec	>80%	Atria Convergence - All India (50.00%)
	Bandwidth utilisation/		
5.2	throughput No. of Intra network links having Bandwidth utilisation >90% during peak hours (TCBH)	0	Ishan Netsol - Gujarat (62)
5.4	No. of Upstream links for International connectivity having bandwidth utilisation >90% during peak hours (TCBH)	0	Ishan Netsol - Gujarat (18)

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

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

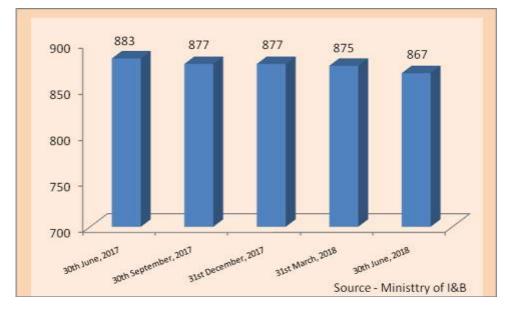
S.No	Parameter	QE Mar-18	QE Jun-18
1	Number of Private satellite TV channels permitted by the Ministry of Information and Broadcasting (MIB) for uplinking only/ downlinking / uplinking	875	867
2	Number of Pay TV Channels as reported by broadcasaters	308	309
3	Number of FM Radio Stations (excluding All India Radio)	324	328
4	Number of pay DTH Operators	5	5
5	Number of pay subscribers net active with private DTH service providers	67.53 Million	69.37 Million
6	Number of Operational Community Radio Stations	216	237

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

#### A. Satellite TV Channels

5.1 A total of 867 private satellite TV channels have been permitted by the Ministry of Information and Broadcasting (MIB) for uplinking only/downlinking only/uplinking and downloading both, as on 30<sup>th</sup> June, 2018. The quarter-wise figures in the total number of TV channels depicted in below chart.

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



#### B. Pay TV Channels

- 5.2 During the quarter ending 30<sup>th</sup> June, 2018, there are 309 pay channels reported by 49 broadcasters as compared to 308 pay channels reported in the previous quarter. These 309 pay channels include 212 SD pay TV channels and 97 HD Pay TV channels. List of broadcasters and their Pay TV Channels as reported to TRAI as on 30<sup>th</sup> June, 2018 is placed at **Annexure-5.1**.
- 5.3 During the quarter ending 30th June, 2018, as per the report submitted by broadcasters, two new pay channels were reported and one pay channel namely "Toonami" was reported to be discontinued. The details of pay channels reported during the quarter ending 30<sup>th</sup> June, 2018 are as under:

S.No	Name of the Broadcaster	Channel's name
1	Turner International India Private Limited	Cartoon Network HD +
2	Viacom 18 Media Pvt Limited	MTV HD+

## Chart 5.2 : Quarterly growth in number of satellite Pay TV channels in India

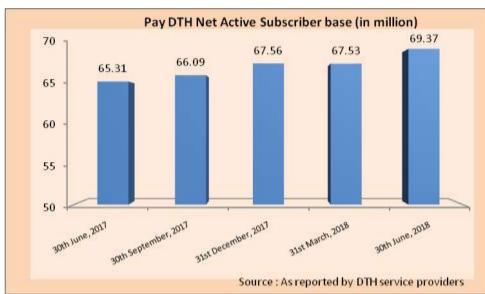


#### C. Cable TV Sector

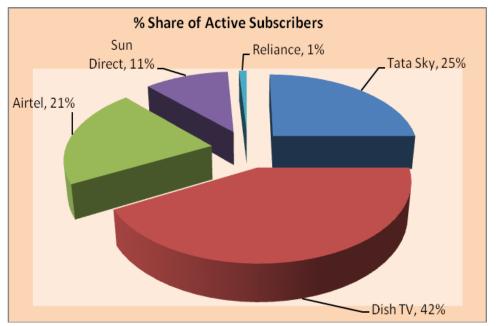
5.4 Digitization, with addressability, of cable TV sector has been completed. The country achieved 100% digitization of Cable TV network. This is a stupendous achievement making India as the only large country where 100% digital cable has been achieved through mandatory regulations.

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

- 5.5 Since its introduction in the year 2003, Indian DTH service has displayed a phenomenal growth. During the quarter ending 30<sup>th</sup> June, 2018, there were 5 pay DTH service providers in India.
- 5.6 DTH has attained net pay active subscriber base of around 69.37 million with 5 pay DTH service providers. This is in addition to the subscribers of the free DTH services of Doordarshan. Quarterly growth in the DTH sector in terms of the net active subscriber base and Market Share of DTH operators in terms of the percentage of net active subscribers during the quarter is depicted in the following charts.



# Chart 5.3 : Quarterly growth in Net Active subscribers (in million) of pay DTH



#### Chart 5.4 : Market share of DTH Operators

Source : As reported by DTH service providers

#### E. FM Radio Services

- 5.7 Apart from the radio stations operated by All India Radio- the public broadcaster, as on 30<sup>th</sup> June, 2018, there are 328 operational private FM Radio stations in 86 existing cities operated by 34 private FM Radio broadcasters as compared to 324 private FM Radio Stations in 86 cities operated by 34 private FM Radio broadcasters in the previous quarter. A list of 86 existing cities with operational private FM radio channels in India as on 30<sup>th</sup> June, 2018 is placed at **Annexure 5.3**.
- 5.8 During the quarter ending 30<sup>th</sup> June, 2018, four new private FM Radio Stations have become operational. The details are as under:-

S1. No.	Name of FM Radio Operator	No. of station	Name of City
1	M/s Digital Radio Broadcasting Ltd	01	Srinagar
2	The Entertainment Network (I) Ltd	01	Srinagar
3	M/s Rajasthan Patrika Pvt Ltd	01	Srinagar
4	M/s Abhijit Realtors & Infraventures Private Limited	01	Sangli
	Total	04	

**New Private FM Radio Stations** 

5.9 The following chart depicts the quarterly growth in number of operational private FM Radio Stations reported by the FM Radio broadcasters during last four quarters.

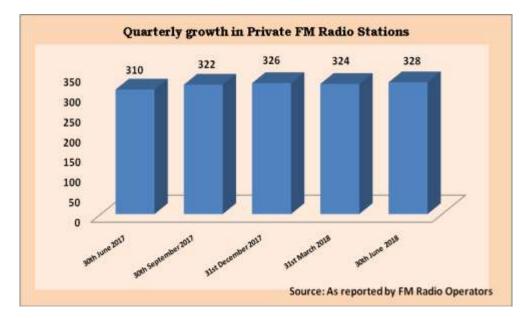


Chart 5.5 : Quarterly growth in private FM Radio stations

5.10 The reported advertisement revenue during the quarter ending 30<sup>th</sup> June, 2018 in respect of 324 private FM Radio stations is Rs 509.33 crore as against Rs 583.41 crore in respect of 324 private FM Radio stations for the previous quarter. One FM Radio Broadcaster, M/s Gwalior Firm Private Limited, operating in the city of Guwahati, has not submitted the advertisement revenue.

5.11 The following chart is based on the details of quarterly Advertisement Revenue submitted by the FM Radio broadcasters to TRAI during last one year.

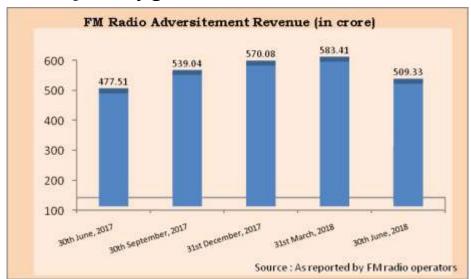
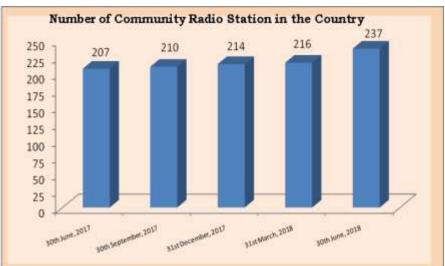


Chart 5.6 : Quarterly growth in FM Radio Advertisement Revenue

#### F. Community Radio

5.11 As on 30<sup>th</sup> June, 2018, there are 237 Community Radio stations in operation. The quarterly growth in the number of operational community radio stations is depicted in the chart below.

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



Source : Ministry of I&B

# Annexures

Damias Ana	Vodafor	ne (GSM)	Bharti	(GSM)	Idea	(GSM)	Aircel (GSM)		Reliance	e (GSM)	Tata (GSM)		Tata (CDMA)	
Service Area	Mar-18	Jun-18	Mar-18	Jun-18	Mar-18	Jun-18	Mar-18	Jun-18	Mar-18	Jun-18	Mar-18	Jun-18	Mar-18	Jun-18
Andhra Pradesh	6,397,411	6,158,618	27,318,827	30,772,427	17,745,682	18,489,040	2,152,478		8,609	7,512	2,374,102	2,151,463	322,009	271,545
Assam	4,220,244	4,378,717	7,803,873	8,466,018	1,396,473	1,544,518	5,723,781		38	1	-		-	
Bihar	10,302,695	10,309,247	32,317,362	39,327,547	14,188,931	14,769,833	7,240,203		1,293	93	524,898	445,307	148,959	116,171
Delhi	12,281,591	12,300,497	13,916,959	14,594,774	7,378,006	7,560,308	6,112,896		48,804	14,922	-	-	1,058,125	690,474
Gujarat	20,787,332	20,376,688	9,700,460	13,567,103	14,569,508	15,051,326	-		2,690	2,288	1,469,029	1,232,594	123,500	57,686
Haryana	6,455,744	6,288,917	4,002,935	4,111,712	5,363,143	5,559,462	-		313	70	1,249,794	1,105,921	71,747	54,934
Himachal Pradesh	589,785	526,865	3,522,199	3,643,647	981,637	1,055,896	-		323	70	7,901	6,240	9,957	6,317
Jammu & Kashmir	894,705	851,022	4,814,170	5,395,378	702,137	749,744	3,378,318		4	-	-		-	
Karnataka	7,759,965	7,898,945	24,823,003	26,059,540	9,539,659	9,899,489	2,690,193		13,220	11,908	4,459,950	3,903,618	101,693	50,165
Kerala	7,930,931	8,003,882	4,916,310	5,116,047	12,229,356	12,719,595	233,179		2,705	2,229	620,371	481,657	46,288	2,685
Madhya Pradesh	6,541,449	6,039,325	15,326,157	15,714,386	27,982,096	29,102,862	-		59,809	2,286	2,866,779	2,485,422	78,055	44,693
Maharashtra	20,605,324	19,953,885	14,616,112	17,768,594	30,650,020	31,125,189	-		6,084	4,960	2,717,652	2,343,264	590,231	369,864
Mumbai	9,861,178	10,024,536	7,940,801	8,279,834	4,697,339	4,887,193	2,182,118		15,944	14,646	1,450,206	1,234,461	426,023	312,678
North East	1,751,795	1,820,579	4,904,098	5,362,395	549,196	609,305	3,292,069		-	-	-		-	
Orissa	4,537,996	4,461,769	12,382,689	12,814,537	1,988,323	2,269,471	3,911,300		151	103	941,995	798,009	48,032	33,950
Punjab	4,915,088	4,880,951	9,870,037	10,031,756	7,673,236	7,916,754	754,818		692	566	1,190,759	1,099,809	75,440	52,986
Rajasthan	12,203,525	12,458,500	22,538,857	23,363,145	8,271,627	8,503,358	5,288,258		3,604	1,433	196,168	175,977	174,775	109,621
Tamil Nadu (incl. Chennai)	20,191,218	21,051,180	24,078,948	25,777,781	6,090,040	6,644,475	17,828,645		13,772	11,834	2,190,282	1,887,389	60,503	21,521
UP(E)	23,762,086	24,074,363	26,099,036	34,987,402	12,611,655	13,866,909	5,836,979		2,425	1,298	2,004,907	1,892,247	59,151	39,746
UP(W)	12,495,605	12,241,906	9,466,403	14,649,194	17,516,176	18,279,598	-		1,052	162	1,705,296	1,602,298	123,102	73,403
Kolkata	6,625,667	6,776,764	6,193,156	6,551,316	2,846,495	3,139,528	3,479,087		3,725	805	1,479,684	1,307,301	120,614	84,448
West Bengal	21,586,423	21,855,824	17,639,414	18,209,588	6,238,868	6,854,810	4,047,977		711	169	85,731	65,608	15,517	12,155
Total	222,697,757	222,732,980	304,191,806	344,564,121	211,209,603	220,598,663	74,152,299	-	185,968	77,355	27,535,504	24,218,585	3,653,721	2,405,042

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

#### Annexure 1.1 (contd.)

0	BSNL (GSM)		BSNL (CDMA)		MTNL	(GSM)	Reliance	Jio (LTE)	Telenor (	GSM)	Total		
Service Area	Mar-18	Jun-18	Mar-18	Jun-18	Mar-18	Jun-18	Mar-18	Jun-18	Mar-18	Jun-18	Mar-18	Jun-18	Net Additions
Andhra Pradesh	10,115,949	10,117,750	10,860	7,255	-	-	15,438,785	17,705,512	3,745,847		85,630,559	85,681,122	50,563
Assam	1,902,223	2,236,675	62,178	61,402	-	-	3,528,197	4,323,989			24,637,007	21,011,320	(3,625,687)
Bihar	4,430,024	4,735,039	-	-	-	-	12,365,309	14,896,598	7,071,067		88,590,741	84,599,835	(3,990,906)
Delhi	-	-	-	-	2,279,634	2,257,250	10,835,450	12,196,458			53,911,465	49,614,683	(4,296,782)
Gujarat	5,782,647	5,665,364	27,599	25,896	-	-	13,199,987	14,832,731	6,259,935		71,922,687	70,811,676	(1,111,011)
Haryana	4,476,401	4,623,506	-	-	-	-	4,770,299	5,380,953			26,390,376	27,125,475	735,099
Himachal Pradesh	2,571,438	2,643,178	-	-	-	-	1,961,525	2,205,994			9,644,765	10,088,207	443,442
Jammu & Kashmir	1,573,943	1,397,029	19,893	20,345	-	-	2,269,867	2,598,401			13,653,037	11,011,919	(2,641,118)
Karnataka	7,180,972	7,100,749	37,999	36,891	-	-	10,372,149	11,754,210			66,978,803	66,715,515	(263,288)
Kerala	10,457,803	10,670,503	64,112	58,689	-	-	5,502,172	5,958,439			42,003,227	43,013,726	1,010,499
Madhya Pradesh	5,955,208	6,108,907	64,386	63,683	-	-	11,614,091	14,079,350			70,488,030	73,640,914	3,152,884
Maharashtra	7,081,685	6,817,014	28,636	26,492	-	-	13,483,734	15,796,135	4,823,593		94,603,071	94,205,397	(397,674)
Mumbai	-	-	-	-	1,277,426	1,268,005	8,524,091	9,381,057			36,375,126	35,402,410	(972,716)
North East	1,433,939	1,552,285	158,347	156,688	-	-	1,679,684	2,020,993			13,769,128	11,522,245	(2,246,883)
Orissa	5,409,656	5,498,504	10,058	9,136	-	-	5,114,718	6,065,010			34,344,918	31,950,489	(2,394,429)
Punjab	5,346,523	5,340,035	-	-	-	-	8265630	9162538			38,092,223	38,485,395	393,172
Rajasthan	5,495,366	5,585,185	43,609	42,303	-	-	10,155,612	11,733,748			64,371,401	61,973,270	(2,398,131)
Tamil Nadu (incl. Chennai)	11,085,399	11,577,942	26,403	25,555	-	-	12,509,414	14,239,424			94,074,624	81,237,101	(12,837,523)
UP(E)	11,845,483	11,749,363	5,490	4,894	-	-	12,302,576	14,659,312	9,312,386		103,842,174	101,275,534	(2,566,640)
UP(W)	5,777,895	5,810,769	-	-	-	-	9,543,111	10,897,871	6,771,754		63,400,394	63,555,201	154,807
Kolkata	1,461,353	1,606,533	703	689	-	-	5,967,064	6,651,592			28,177,548	26,118,976	(2,058,572)
West Bengal	1,662,538	1,666,515	72,765	73,023	-	-	7,157,362	8,715,386			58,507,306	57,453,078	(1,054,228)
Total	111,046,445	112,502,845	633,038	612,941	3,557,060	3,525,255	186,560,827	215,255,701	37,984,582	-	1,183,408,610	1,146,493,488	(36,915,122)

Note: M/s Telenor has been merged with M/s Bharti Airtel and M/s Aircel Ltd has closed its telephone service in India during the quarter.

Service Area	Bha	rti	Relia	ance	Quad	drant	Та	ta	МТ	NL	BS	NL	Vod	afone	То	tal	
	Mar-18	Jun-18	Mar-18	Jun-18	Mar-18	Jun-18	Mar-18	Jun-18	Mar-18	Jun-18	Mar-18	Jun-18	Mar-18	Jun-18	Mar-18	Jun-18	Net Additions
Andhra Pradesh	168,154	169,691	53,373	51,579			174,396	175,726			1,054,324	1,019,418	29,490	30,720	1,479,737	1,447,134	-32,603
Assam											134,580	128,326	2,670	2,730	137,250	131,056	-6,194
Bihar			5,792	4,582			11,426	10,983			258,955	238,514	2,100	2,190	278,273	256,269	-22,004
Delhi	1,320,229	1,336,479	156,272	150,310			144,715	147,112	1,538,377	1,519,100			32,240	39,480	3,191,833	3,192,481	648
Gujarat	80,744	81,245	29,886	26,340			94,004	94,596			1,050,516	1,012,307	13,427	13,638	1,268,577	1,228,126	-40,451
Haryana	22,169	22,178	3,239	3,194			38,082	37,293			239,944	230,890	60	150	303,494	293,705	-9,789
Himachal Pradesh			3,650	3,380			2,374	2,010			120,440	117,566	60	30	126,524	122,986	-3,538
Jammu & Kashmir											115,678	111,388			115,678	111,388	-4,290
Karnataka	647,602	654,011	157,210	151,405			272,695	275,845			1,104,785	1,074,243	35,925	38,625	2,218,217	2,194,129	-24,088
Kerala	58,335	58,523	22,061	21,004			18,761	18,776			1,868,937	1,833,642	2,550	2,730	1,970,644	1,934,675	-35,969
Madhya Pradesh	254,043	242,248	13,688	12,540			15,673	15,510			665,705	656,620	660	780	949,769	927,698	-22,071
Maharashtra	82,822	85,434	62,322	59,079			309,046	300,860			1,258,265	1,206,056	16,417	17,854	1,728,872	1,669,283	-59,589
Mumbai	360,902	361,994	221,476	210,738			562,828	571,134	1,808,191	1,796,131			37,112	39,947	2,990,509	2,979,944	-10,565
North East											111,924	108,258	210	270	112,134	108,528	-3,606
Orissa			3,112	2,907			8,282	7,849			265,031	254,203	1,650	1,800	278,075	266,759	-11,316
Punjab	121,841	123,770	12,874	12,422	243,820	239,215	15,524	14,430			467,488	446,168	1,560	1,440	863,107	837,445	-25,662
Rajasthan	50,155	50,709	26,265	26,048			13,391	12,323			504,786	489,358	6,450	7,200	601,047	585,638	-15,409
Tamil Nadu (incl. Chennai)	555,991	557,697	86,417	81,038			117,849	118,790			1,539,528	1,496,764	15,720	17,400	2,315,505	2,271,689	-43,816
U.P.(E)	63,815	64,175	11,735	11,142			12,806	12,130			363,772	362,574	11,400	11,430	463,528	461,451	-2,077
U.P.(W)	22,196	22,276	5,244	4,852			8,905	8,296			308,642	298,803	4,170	4,230	349,157	338,457	-10,700
Kolkata	123,535	124,674	46,902	44,538			52,091	52,669			561,941	540,418	7,050	7,500	791,519	769,799	-21,720
West Bengal			1,896	1,769			3,161	2,853			272,150	261,949	60	90	277,267	266,661	-10,606
Total	3,932,533	3,955,104	923,414	878,867	243,820	239,215	1,876,009	1,879,185	3,346,568	3,315,231	12,267,391	11,887,465	220,981	240,234	22,810,716	22,395,301	-415,415

### Annexure 1.2: Wireline Subscriber Base

Name of the Circle/Service Area	Service Provider	Number of PCOs as on 31.3.2018	Number of PCOs as on 30.6.2018	Net PCO increase/ decrease as on 30.6.2018
Andhra Pradesh	Bharat Sanchar Nigam Ltd.	14,889	8,526	-6,363
(Excluding	Bharti Group	81	181	100
Telangana)	Tata Group	11,661	4,616	-7,045
Telangana	Bharat Sanchar Nigam Ltd.	0	5,391	5,391
Andhra Pradesh	Bharat Sanchar Nigam Ltd.	14,889	13,917	-972
(Including	Bharti Group	81	181	100
Telangana)	Tata Group	11,661	4,616	-7,045
Assam	Bharat Sanchar Nigam Ltd.	5,379	4,879	-500
Bihar (excluding	Bharat Sanchar Nigam Ltd.	1,247	1,209	-38
Jharkhand)	Tata Group	23	27	4
Jharkhand	Bharat Sanchar Nigam Ltd.	2,687	428	-2,259
Bihar (including	Bharat Sanchar Nigam Ltd.	3,934	1,637	-2,297
Jharkhand)	Tata Group	23	27	4
Delhi	Bharti Group	330	330	0
	Mahanagar Telephone Nigam Ltd./MTNL	47,073	46,778	-295
	Tata Group	946	585	-361
Gujarat	Bharat Sanchar Nigam Ltd.	19,504	19,071	-433
	Bharti Group	14	14	0
	Tata Group	1,887	470	-1,417
Haryana	Bharat Sanchar Nigam Ltd.	1,637	1,539	-98
-	Bharti Group	147	143	-4
	Tata Group	46	39	-7
Himachal Pradesh	Bharat Sanchar Nigam Ltd.	1,194	1,074	-120
Jammu & Kashmir	Bharat Sanchar Nigam Ltd.	1,784	1,682	-102
Karnataka	Bharat Sanchar Nigam Ltd.	20,537	19,772	-765
	Bharti Group	3,598	3,493	-105
	Tata Group	360	16	-344
Kerala	Bharat Sanchar Nigam Ltd.	16,995	15,893	-1,102
	Bharti Group	450	446	-4
	Tata Group	38	21	-17
Kolkata	Bharat Sanchar Nigam Ltd.	4,330	4,189	-141
	Bharti Group	26	26	0
	Tata Group	67	22	-45

Annexure 1.3: Service Area and Operator wise details of PCOs

Annexure 1.3 (contd.)

		Number of	Number of	Net PCO
Name of the		PCOs as	PCOs as	increase/
<b>Circle/Service</b>	Service Provider	on	on	decrease as
Area		31.3.2018	30.6.2018	on 30.6.2018
Madhya Pradesh	Bharat Sanchar Nigam Ltd.	17,477	16,976	-501
(excluding	Bharti Group	1,752	1,677	-75
Chhattisgarh)	Tata Group	787	360	-427
Chhatisgarh	Bharat Sanchar Nigam Ltd.	1,238	1,219	-19
Madhya Pradesh	Bharat Sanchar Nigam Ltd.	18,715	18,195	-520
(including	Bharti Group	1,752	1,677	-75
Chhattisgarh)	Tata Group	787	360	-427
Maharashtra &	Bharat Sanchar Nigam Ltd.	37,556	35,257	-2,299
Goa	Tata Group	7,793	6,104	-1,689
Mumbai	Bharti Group	40	40	0
	Mahanagar Telephone	50,729	47,530	-3,199
	Nigam Ltd./MTNL			
	Tata Group	1,674	749	-925
Maharashtra	Bharat Sanchar Nigam Ltd.	37,556	35,257	-2,299
(including	Bharti Group	40	40	0
Mumbai & Goa)	Mahanagar Telephone	50,729	47,530	-3,199
	Nigam Ltd./MTNL			
	Tata Group	9,467	6,853	-2,614
Arunachal	Bharat Sanchar Nigam Ltd.	1,106	1,095	-11
Pradesh				
Mizoram	Bharat Sanchar Nigam Ltd.	2,363	2,336	-27
Orissa	Bharat Sanchar Nigam Ltd.	1,903	1,852	-51
	Tata Group	21	5	-16
Punjab	Bharat Sanchar Nigam Ltd.	2,041	1,741	-300
	Bharti Group	29	24	-5
	Quadrant Televentures Ltd.	1,420	1,420	0
	Tata Group	278	212	-66
Rajasthan	Bharat Sanchar Nigam Ltd.	5,740	5,016	-724
	Bharti Group	209	209	0
	Tata Group	255	142	-113
Tamilnadu	Bharat Sanchar Nigam Ltd.	36,536	35,625	-911
(excluding	Bharti Group	5,143	4,887	-256
chennai)	Tata Group	119	64	-55
Chennai	Bharat Sanchar Nigam Ltd.	9,022	8,656	-366
Tamil Nadu	Bharat Sanchar Nigam Ltd.	45,558	44,281	-1,277
(including	Bharti Group	5,143	4,887	-256
Chennai)	Tata Group	119	64	-55

Annexure 1.3 (contd.)

Name of the Circle/Service Area	Service Provider	Number of PCOs as on 31.3.2018	Number of PCOs as on 30.6.2018	Net PCO increase/ decrease as on 30.6.2018
Uttar Pradesh-	Bharat Sanchar Nigam Ltd.	9,655	9,155	-500
East	Bharti Group	82	79	-3
	Tata Group	12	7	-5
Uttarakhand	Bharat Sanchar Nigam Ltd.	1,108	1,084	-24
Uttar Pradesh -	Bharat Sanchar Nigam Ltd.	1,927	1,975	48
West (excluding	Bharti Group	42	36	-6
Uttarakhand)	Tata Group	167	114	-53
Uttar Pradesh -	Bharat Sanchar Nigam Ltd.	3,035	3,059	24
West (including	Bharti Group	42	36	-6
Uttarakhand)	Tata Group	167	114	-53
West Bengal	Bharat Sanchar Nigam Ltd.	4,724	3,853	-871
(excl. Andaman & Nicobar)	Tata Group	33	3	-30
Andaman and Nicobar	Bharat Sanchar Nigam Ltd.	142	142	0
West Bengal (incl.	Bharat Sanchar Nigam Ltd.	4,866	3,995	-871
Andaman & ` Nicobar)	Tata Group	33	3	-30
	Total	360,053	330,504	-29,549

Name of Circle/Service Area	Service Provider	Number of VPTs as on 31.3.2018	Number of VPTs as on 30.6.2018	Net VPTs increase/ decline as on 30.6.2018
Andhra Pradesh (Excluding Telangana)	Bharat Sanchar Nigam Ltd.	9,977	6,639	-3,338
Andhra Pradesh (Including Telangana)	Bharat Sanchar Nigam Ltd.	9,977	6,639	-3,338
Assam	Bharat Sanchar Nigam Ltd.	2,810	2,600	-210
Bihar (excluding Jharkhand)	Bharat Sanchar Nigam Ltd.	6,768	6,368	-400
Jharkhand	Bharat Sanchar Nigam Ltd.	490	489	-1
Bihar (including Jharkhand)	Bharat Sanchar Nigam Ltd.	7,258	6,857	-401
Gujarat	Bharat Sanchar Nigam Ltd.	8,693	8,682	-11
Haryana	Bharat Sanchar Nigam Ltd.	1,272	692	-580
Himachal Pradesh	Bharat Sanchar Nigam Ltd.	5,028	2,479	-2,549
Jammu & Kashmir	Bharat Sanchar Nigam Ltd.	2,236	2,191	-45
Karnataka	Bharat Sanchar Nigam Ltd.	7,250	6,902	-348
Kerala	Bharat Sanchar Nigam Ltd.	399	381	-18
Kolkata	Bharat Sanchar Nigam Ltd.	130	130	0
Madhya Pradesh (excluding Chhattisgarh)	Bharat Sanchar Nigam Ltd.	39,692	39,692	0
Chhatisgarh	Bharat Sanchar Nigam Ltd.	8,391	8,362	-29
Madhya Pradesh (including Chhattisgarh)	Bharat Sanchar Nigam Ltd.	48,083	48,054	-29
Maharashtra & Goa	Bharat Sanchar Nigam Ltd.	22,109	22,012	-97
Maharashtra (including Mumbai & Goa)	Bharat Sanchar Nigam Ltd.	22,109	22,012	-97
Orissa	Bharat Sanchar Nigam Ltd.	6,205	6,205	0

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

Annexure 1.5 (contd.)

		-		
Name of Circle/Service Area	Service Provider	Number of VPTs as on 31.3.2018	Number of VPTs as on 30.6.2018	Net VPTs increase/ decline as on 30.6.2018
Punjab	Bharat Sanchar	5,938	5,860	-78
	Nigam Ltd.			
Rajasthan	Bharat Sanchar	7,857	5,430	-2,427
	Nigam Ltd.			
Tamilnadu (excluding	Bharat Sanchar	11,456	9,776	-1,680
chennai)	Nigam Ltd.			
Chennai	Bharat Sanchar	144	144	0
	Nigam Ltd.			
Tamil Nadu (including	Bharat Sanchar	11,600	9,920	-1,680
Chennai)	Nigam Ltd.			
Uttar Pradesh- East	Bharat Sanchar	1,061	981	-80
	Nigam Ltd.			
Uttarakhand	Bharat Sanchar	3,473	3,473	0
	Nigam Ltd.			
Uttar Pradesh - West	Bharat Sanchar	3,394	3,357	-37
(excluding	Nigam Ltd.			
Uttarakhand)				
Uttar Pradesh - West	Bharat Sanchar			
(including Uttarakhand)	Nigam Ltd.	6867	6830	-37
West Bengal (excluding	Bharat Sanchar			
Andaman & Nicobar)	Nigam Ltd.	36958	36781	-177
Andaman and Nicobar	Bharat Sanchar	340	340	0
	Nigam Ltd.			
West Bengal (including	Bharat Sanchar	37,298	37,121	-177
Andaman & Nicobar)	Nigam Ltd.			
Total Number	of VPTs	199057	186951	-12106

S.No.	Name of the Service Provider	Narrowband Subscribers	Broadband Subscribers	Total Subscribers
1	Reliance Jio Infocomm Ltd	0	215255701	215255701
2	Bharti Airtel Ltd.	31119138	95311362	126430500
3	Vodafone India Limited	14140230	62855119	76995349
4	Idea Cellular Limited	8335423	42950477	51285900
5	Bharat Sanchar Nigam Ltd.	9348403	20339978	29688381
6	Tata Teleservices Limited	1678464	3106883	4785347
7	Atria Convergence Technologies Pvt. Ltd.	0	1335385	1335385
8	Mahanagar Telephone Nigam Ltd.	448524	1256754	1705278
9	Hathway Cable & Datacom Pvt. Ltd.	10818	754534	765352
10	You Broadband India Pvt. Ltd.	15063	665084	680147
11	GTPL Broadband Pvt. Ltd.	1	250578	250579
12	Tikona Infinet Ltd.	552	241667	242219
13	D-Vois Broadband Private Limited	0	226156	226156
14	Excitel Broadband Private Limited	0	208106	208106
15	Quadrant Televentures Ltd.	189	198425	198614
16	Asianet Satellite Communications Ltd.	0	198295	198295
17	Alliance Broadband Services Pvt. Ltd.	0	187797	187797
18	Syscon Infoway Pvt Ltd	6164	169588	175752
19	Indinet Service Pvt Ltd	0	137453	137453
20	DEN Networks Ltd	3	106054	106057
21	RailTel Corporation of India Ltd.	0	101354	101354
22	Planet E-Shop Holdings India Ltd.	0	86804	86804
23	Airlink Communications Pvt. Ltd	0	70670	70670
24	Honesty Net Solutions (I) Pvt Ltd	138	56698	56836
25	Five Network Solution (India) Ltd.	0	54310	54310
26	Nextra Teleservices Pvt. Ltd.	0	50879	50879
27	Ortel Communication Ltd.	0	47712	47712
28	Limras Eronet Broadband Service Pvt Ltd	7437	34714	42151
29	INTECH ONLINE PVT LTD	0	40444	40444
30	Wish Net Pvt. Ltd.	0	39662	39662
31	Citycom Networks Pvt. Ltd.	0	32527	32527
32	Wan and Lan Internet Pvt. Ltd.	0	30539	30539
33	SITI Broadband Services Pvt. Ltd.	0	29870	29870
34	Reliance Communications Ltd.	406	37852	38258
35	Ishan Netsol Pvt Ltd	0	28100	28100
36	Vasai Cable Pvt. Ltd.	0	25998	25998

## Annexure 1.5 : Internet Service Provider(ISP) wise Internet Subscriber base as on 30.06.2018

## Annexure 1.5 (contd.)

	Annexure 1.5 (contu.)			
S.No.	Name of the Service Provider	Narrowband Subscribers	Broadband Subscribers	Total Subscribers
37	DNA Infotel Pvt Ltd	0	21286	21286
38	K NET SOLUTIONS PVT LTD	0	20367	20367
39	Fusionnet Web Services Pvt. Ltd.	0	18970	18970
40	Geocity Network Solutions Pvt. Ltd.	0	17710	17710
41	Digital Cloud Technologies Pvt. Ltd.	0	17620	17620
42	RAJESH DIGITAL DATACOM PVT LTD	45	16746	16791
43	City Online Services Ltd	0	14348	14348
44	Broadband Pacenet (I) Pvt. Ltd.	0	14292	14292
45	IKF Technologies Ltd	0	14160	14160
46	Sampark Infotainment Pvt Ltd	0	13547	13547
47	Quest Consultancy Pvt. Ltd.	0	13487	13487
48	Meghbela Cable & Broadband Servies(P) Ltd	0	12285	12285
49	CSC e-Governance Services India Ltd.	0	11884	11884
50	Multicraft Digital Technologies Pvt Ltd	0	11596	11596
51	Digital Network associates Pvt. Ltd	0	11478	11478
52	Chandra Net Pvt. Limited	0	10874	10874
53	Sikka Broadband(P) Ltd.(Gomti Cable Network Pvt. Ltd.)	0	10086	10086
54	AIRNET CABLE AND DATACOM PVT LTD	0	9883	9883
55	Yashash Cable Network Pvt Ltd	0	9879	9879
56	SIFI ONLINE PVT LTD	0	9740	9740
57	SmartLink Broadband Services	0	9623	9623
58	World Phone Internet Services Pvt Ltd	0	9606	9606
59	Sifi OnlinePvt. Ltd.	0	9340	9340
60	Pioneerelabs	323	8553	8876
61	CANDOR INFOSOLUTION PVT LTD	8496	0	8496
62	Apna Telelink Ltd.	0	8344	8344
63	RI Networks Pvt Ltd	0	8085	8085
64	Kappa Internet Services Pvt Ltd.	0	7507	7507
65	North East Dataa Network Pvt Ltd.	0	7356	7356
66	FOXTEL TELECOMMUNICATIONS PVT LTD	7325	0	7325
67	Net 9 Online Hathway Private Limited	0	7237	7237
68	Airlink Broadband Pvt Ltd	0	7043	7043
69	United Telecoms Ltd.	184	6836	7020
70	Readylink Internet Services Pvt Ltd	167	6281	6448
71	MICROSCAN COMPUTERS PVT LTD	0	6093	6093
72	Ethernet Xpress India Pvt. Ltd	0	6000	6000

## Annexure 1.5 (contd.)

Annexure 1.5 (con			1.0 (00mcu.)	
S.No.	Name of the Service Provider	Narrowband Subscribers	Broadband Subscribers	Total Subscribers
73	Swiftmail Communications Ltd.	1475	4358	5833
74	Swiftnet Broadband Pvt Ltd	0	5809	5809
75	WOW SOLUTIONS & SYSTEM PVT LTD	0	5508	5508
76	GBPS Networks Pvt. Ltd.	0	5450	5450
77	DL GTPL BROADBAND PVT LTD	0	5419	5419
78	Cityzone Infonet Pvt. Ltd	0	5245	5245
79	Narmada Cyberzone Pvt Ltd	1858	3097	4955
80	Intermedia Cable Communication Pvt Ltd	0	4939	4939
81	Southern Online Bio Technologies Ltd.	10	4850	4860
82	Shri Omkar Infocom Pvt. Ltd.	0	4804	4804
83	IAXN Telecom Pvt. Ltd.	0	4766	4766
84	Netplus Broadband Services Pvt. Ltd	0	4509	4509
85	Siliguri Internet & Cable TV Pvt. Ltd.	0	4366	4366
86	Powernet Communication Pvt Ltd	2086	2086	4172
87	Multinet (Udaipur) Pvt. Ltd.	0	4086	4086
88	Blazenet Ltd.	0	3977	3977
89	Spacenet Internet Services Pvt Ltd	0	3882	3882
90	Wnet Telecom Private Limited	0	3690	3690
91	Zoram Business Enterprise Pvt Ltd	0	3624	3624
92	Bittel Telecom Pvt.Ltd	0	3571	3571
93	TRANSMEDIA TECHNOLOGIES (AP) PVT LTD	0	3500	3500
94	Airgenie Communications Pvt. Ltd.	0	3459	3459
95	CJM Consultancy Services Pvt. Ltd.	0	3380	3380
96	GIGATEL NETWORKS PVT LTD	0	3210	3210
97	Tata Sky Broadband Private Limited	0	3175	3175
98	Aerocast Networks Pvt Ltd.	0	3052	3052
99	NISS INTERNET SERVICES PVT. LTD.	0	3009	3009
100	Star Broadband Services (I) Pvt Ltd	0	2993	2993
101	F/X Wireless Technology Services Pvt. Ltd.	0	2769	2769
102	SONALI INTERNET SERVICES PVT LTD	0	2728	2728
103	Kaizen Infonet Pvt Ltd	7	2526	2533
104	TGN NETWOKS PVT LTD	0	2532	2532
105	Speed Online.net Pvt. Ltd.	0	2340	2340
106	Spiderlink Networks Pvt. Ltd.	0	2101	2101
107	S.S.Netcom Pvt Ltd	0	2098	2098
108	Rainbow Internet teleservices Pvt Ltd	35	2004	2039

Annexure 1.5 (contd.)

	Annexule 1.5 (contu.)			
S.No.	Name of the Service Provider	Narrowband Subscribers	Broadband Subscribers	Total Subscribers
109	SMARTLINK SOLUTIONS PVT. LTD.	0	1965	1965
110	SCUD COMMUNICATION PVT LTD	0	1895	1895
111	Rajesh Patel Net Services Pvt. Ltd.	45	1773	1818
112	Capture Network Systems Pvt. Ltd.	288	1517	1805
113	LM ENERGY & SOFTWARE PVT LTD	0	1732	1732
114	Assistive networks & technologie Pvt Ltd	0	1701	1701
115	Nettlinx Ltd.	15	1616	1631
116	Sphier Infotech Pvt. Ltd.	0	1608	1608
117	ULTRANET INFOTECH SOLUTION PRIVATE LIMITED	0	1600	1600
118	Touch Net India Pvt. Ltd.	0	1581	1581
119	CJ Online Pvt. Ltd.	0	1568	1568
120	GURU NETCOMM PVT LTD	0	1560	1560
121	Sanchit Infocomm Pvt Ltd	0	1527	1527
122	Jetspot Networks Pvt. Ltd.	0	1505	1505
123	Hughes Communications India Ltd.	485	944	1429
124	Harisree CableNet Pvt. Ltd.	0	1424	1424
125	Barani Data Solutions Private Limited	1018	343	1361
126	FIBERZONE COMMUNICATION (P) LTD	0	1270	1270
127	MAKS COMMUNICATIONS PVT. LTD.	0	1248	1248
128	FIVE NET SERVICE PROVIDER PVT LTD	0	1232	1232
129	Symbois Creations Pvt. Ltd.	0	1213	1213
130	Aeroway Networks Pvt Ltd.	0	1203	1203
131	delDSL Internet Pvt Ltd	0	1128	1128
132	HARDWORK CABLE & INTERNET SERVICES PVT LTD	0	1015	1015
133	Elyzium Technologies Pvt. Ltd.	0	1013	1013
134	Correl IT Services Pvt. Ltd.	0	1005	1005
135	Netfirre Communications Pvt Ltd	0	963	963
136	Sify Technologies Ltd.	502	443	945
137	GIGACAST NETWORK PVT LTD	0	924	924
138	SS FIBER NET OPTICAL COMMUNICATION PVT. LTD	0	918	918
139	INFINITY WIRELESS SERVICES PVT. LTD.	0	852	852
140	DREAMLINK TECHNOLOGIES PVT LTD	0	848	848
141	WSNS PVT LTD	0	841	841
142	ESTO BORADNAD PVT LTD./ESTO INTERNET PVT LTD	0	824	824

Annexure 1.5 (contd.)

	Annexule 1.5 (contu.)			
S.No.	Name of the Service Provider	Narrowband Subscribers	Broadband Subscribers	Total Subscribers
143	Micronova Network Solutions Ltd	79	739	818
144	NetMagic Solutions(P) Ltd.	0	812	812
145	VIVA Communications Pvt Ltd	0	805	805
146	STN Communication & Advertising Pvt Ltd.	3	800	803
147	ANTARIKSH BROADBAND & WIRELESS SOLUTIONS PVT LTD	800	0	800
148	Japra Tele Link Pvt. Ltd.	0	778	778
149	Datawave IT solutions Pvt. Ltd.	0	761	761
150	Touchnet Broadband Services Pvt. Ltd.	0	761	761
151	Daksh Broadband Services Pvt Ltd	0	732	732
152	GALAXYNET CONNECTIONS PVT LTD	0	715	715
153	CLOUDNET COMMUNICATIONS PVT LTD	0	704	704
154	HPS DIGITAL BROADBAND PVT LTD	0	672	672
155	SVD DIGITAL NETWORKS PVT LTD	0	651	651
156	Suncity Broadband Pvt Ltd.	0	650	650
157	HOSTAXIS NETWORKS PVT LTD	0	615	615
158	Click4Net Internet Services Pvt Ltd	0	606	606
159	Panav Network and Communications Private Limited	0	604	604
160	Primenet Global Ltd.	0	600	600
161	Data Infosys Ltd.	0	598	598
162	WEBRIDERS INTERNET PVT LTD	0	594	594
163	Wi-Link Network Pvt. Ltd	0	584	584
164	Gorakhpur Net Services Pvt. Ltd.	0	579	579
165	Alphanet Broadband Pvt Ltd	0	571	571
166	DATAMAX TECHNOLOGY PVT LTD	0	560	560
167	Cyber Crazy Infocom Pvt. Ltd.	0	560	560
168	Digital2Virtual ISP Pvt. Ltd.	0	549	549
169	Rida Communication Pvt. Ltd.	0	497	497
170	FASTNET COMMUNICATION PVT LTD	105	390	495
171	VARESHA AIR WORLD NETWORKS PVT LTD	483	0	483
172	SHREE MANORANJAN BROADBAND PVT LTD	0	480	480
173	HELM CONSULTANTS PVT LTD	196	275	471
174	ELECON INFOTMATION TECHNOLOGY LTD	0	470	470
175	DEVELOPMENT LOGICS SOLUTIONS PVT LTD	0	466	466

Annexure 1.5 (contd.)

	Annexure 1.5 (contu.)			
S.No.	Name of the Service Provider	Narrowband Subscribers	Broadband Subscribers	Total Subscribers
176	INET FIBER INDIA PVT LTD	0	459	459
177	Oasis Cable Pvt Ltd.	0	445	445
178	Power Grid Corporation of India Ltd.	0	437	437
179	Tamana Winet Pvt. Ltd.	0	432	432
180	AIRMAX INTERNET PVT LTD	0	432	432
181	LAIRONET COMMUNICATION PVT LTD	0	421	421
182	Gleam Worldwide Services Pvt. Ltd.	0	411	411
183	Alegra Communication Pvt Ltd	0	401	401
184	SHREE BALAJI INFOWAY PVT LTD	0	592	592
185	CNS INFOTEL SERVICES PVT LTD	0	392	392
186	CLASSIC INTERNET AND CABLE SERVICES PVT LTD	387	0	387
187	Oistel Telecom Pvt. Ltd.	179	198	377
188	PACKNET SOLUTIONS PVT Ltd	0	368	368
189	Pimoony Broadband Serives Pvt Ltd	0	358	358
190	WINDSOR INTERNET PVT LTD	0	345	345
191	Sai Akshay Internet Services Pvt Ltd.	0	332	332
192	CATLA IT&ENGG. CO. PVT LTD.	0	327	327
193	Reticule Infotech Pvt. Ltd.	0	310	310
194	Pulse Telesystems Pvt. Ltd.	0	308	308
195	REVOLUTION BROADBAND PVT LTD	0	307	307
196	ADRI INFOCOM PVT. LTD.	0	302	302
197	Singh Internet Services Pvt. Ltd.	0	300	300
198	MORADABAD INTERNET DERVICES PVT LTD	0	281	281
199	SG IT Infotech Pvt. Ltd.	0	276	276
200	Wi5 Internet Services P Limited	0	275	275
201	SRINAGAR TECHNOLOGY CONSULTANTS LTD	274	0	274
202	WE INTERNET LIMITED	0	272	272
203	AUSPICE INFRATAL PVT LTD	136	125	261
204	SUPER SONIC BROADBAND PVT LTD	0	255	255
205	Cityline Networks Pvt Ltd	0	251	251
206	ALWAR ONLINE PVT LTD	250	0	250
207	NEXTGEN COMPUSOFT PVT LTD	0	247	247
208	Faiconet Internet Pvt Ltd	0	245	245
209	SEFARO NETWORKS PRIVATE LTD	0	233	233
210	BASS JOKERNET PRIVATE LIMITED	0	228	228
211	NETTECH INFOVISION PVT LTD	0	225	225

Annexure 1.5 (contd.)

	Annexule 1.5 (contu.)			
S.No.	Name of the Service Provider	Narrowband Subscribers	Broadband Subscribers	Total Subscribers
212	WAVETREE NETWORKS PVT LTD	0	223	223
213	Khetan Cable Network (P) Ltd	0	218	218
214	CIT SOLUTIONS PVT. LTD.	0	217	217
215	Bhiwani Communications Pvt. Ltd.	73	142	215
216	PANCHSHEEL BROADBAND SERVICES'S PVT LTD.	0	210	210
217	Rajdhani Telecom Pvt. Ltd.	4	198	202
218	VMO BROADBAND PVT LTD	200	0	200
219	SPIRENET DIGITAL COMMUNICATION PVT LTD	0	197	197
220	CERALINK COMMUNICATION PVT LTD	0	196	196
221	ANUSHREE DIGITAL NETWORK PVT LTD	0	194	194
222	AirFiber IT Solutions Pvt. Ltd	4	184	188
223	STN Infotech Pvt. Ltd	0	175	175
224	Microsense Pvt. Ltd.	0	174	174
225	Conjoinix Technologies Pvt Ltd	0	169	169
226	NETVISION AWADH NETWORKS PVT LTD	0	153	153
227	Twincity Communication Private Limited	0	153	153
228	NETWIRE INTERNET SOLUTIONS Pvt Ltd	0	150	150
229	ERNET India	91	54	145
230	SKY ONLINE TECHNOSYSTEM PVT LTD	0	145	145
231	Unitel Media Pvt Ltd	0	142	142
232	Cheetah Networks Pvt Ltd	0	140	140
233	Shineplus Networks Pvt Ltd	0	131	131
234	MLC INTERNET PVT LTD	0	126	126
235	SOUTHNET BROADBAND PVT LTD	0	125	125
236	Global India Tele Infra Pvt. Ltd.	11	110	121
237	ROYAL WIRELESS SERVICES PVT LTD	21	95	116
238	SKYNETZONE WIFI SERVICES PVT LTD	5	110	115
239	QBC Infotech Pvt. Ltd.	0	113	113
240	SHRI RAM BRAOADBAND SERVICES PVT LTD	0	112	112
241	Optisky Fiber Pvt Ltd	0	107	107
242	PROLINE DATATECH SERCIVCES PVT LTD	0	105	105
243	ACEBROWSE PVT LTD	0	97	97
244	Shri Vinayagaa Internet Pvt Ltd	26	70	96
245	PMG NETWORKD PVT LTD	0	96	96
246	Angel Air Network Solutions Private Limited	0	90	90

Annexure 1.5 (contd.)

	Annexure 1.5 (cont			1.0 (001100.)
S.No.	Name of the Service Provider	Narrowband Subscribers	Broadband Subscribers	Total Subscribers
247	Verizon Communications India Pvt. Ltd. (Worldcom Communications)	0	90	90
248	Smart Net India Pvt Ltd	0	88	88
249	SATH TECHNOLOGIES PVT LTD	0	87	87
250	Achiever Communication and Services Pvt. Ltd.	0	86	86
251	Airmesh Communications Limited	0	85	85
252	Dream Plus Multi Services Pyt. Ltd.	0	82	82
253	TRIPLE LINK PVT LTD	0	81	81
254	DigiStar Info Solutions Pvt Ltd	40	40	80
255	GETWAY BROADBAND PVT LTD	0	77	77
256	Invensys Networks pvt ltd	0	76	76
257	Vidarbha Wi-Fi & Network Services Pvt Ltd	0	74	74
258	Airtechzone Services India Pvt Ltd	21	52	73
259	Sanyog Networks Pvt Ltd	0	70	70
260	Malang Solutions Pvt. Ltd.	0	70	70
261	Telestra Telecommunications Pvt. Ltd.	0	67	67
262	AT&T Global Network Services India Private Limited	0	66	66
263	S A INTERNET SOLUTION PVT LTD	0	61	61
264	Edge Telecommunications Pvt. Ltd.	0	59	59
265	Trans Virtual Pvt. Ltd.	6	52	58
266	DRONAGIRI INFOTECH PVT LTD	0	58	58
267	Satpar Infotech Pvt Ltd	0	53	53
268	City Broadband Pvt. Ltd.	0	52	52
269	Pacific Internet India Pvt. Ltd.	0	51	51
270	TOUCHOUS COMMUNICATION PVT LTD	0	51	51
271	ARP INFONET PVT. LTD.	0	48	48
272	V NET NETWORKS PVT. LTD	0	48	48
273	NR DATA SERVICE PVT LTD	0	41	41
274	IWAVE TELECOMMUNICATIONS PVT LTD	0	38	38
275	Navariya Satellite Services Pvt.Ltd.	33	0	33
276	Dreamnet Pvt.Ltd.	0	30	30
277	West Bengal Electronics Industry Development Corp. Ltd.	0	29	29
278	Orange Business Services India Network Pvt. Ltd.	0	26	26
279	Infiber Broadnet Pvt. Ltd.	0	26	26

Annexure 1.5 (contd.)

	Amexure 1.6 (contu.)			
S.No.	Name of the Service Provider	Narrowband Subscribers	Broadband Subscribers	Total Subscribers
280	HCL Comnet Systems & Services Ltd.	11	14	25
281	SUN BOARDBAND AND DATA SERVICES PVT LTD	0	25	25
282	Spider Broadband and Cable Pvt Ltd	0	25	25
283	Adya Tech One Services Pvt Ltd	0	23	23
284	Mastek Infosystems OPC Pvt. Ltd.	0	22	22
285	FASTHOOK NETWORKS PVT LTD	0	18	18
286	UBERCORE DATA LABS PVT LTD	0	17	17
287	Novanet India Ltd.	0	14	14
288	Texes Connect Private Limited	0	14	14
289	Kartik Network Pvt. Ltd.	0	12	12
290	A TO Z INFOLINK PVT.LTD.	0	11	11
291	Essel Shyam Communications Limited	3	7	10
292	Financial Technologies Communications Ltd.	10	0	10
293	JAI MATA DI TELECTRONIX PVT LTD	0	10	10
294	Sab Infotech	0	9	9
295	ABT Ltd.	3	2	5
296	Nelco Ltd.	0	5	5
297	Tatanet Services Ltd	0	4	4
298	Aristo Telenet Pvt Ltd	0	3	3
299	Sabse Internet Services Provider Pvt Ltd	0	2	2
300	KIIRUS INFONET PVT. LTD.	0	1	1
301	NATRAJ INTERNET SERVICE PVT LTD	0	1	1
302	Divine Broadband Services Pvt Ltd	0	1	1
	Total	65,138,771	447,124,425	512,263,196

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

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	Data Infosys Ltd.
7	delDSL Internet Pvt Ltd
8	Novanet Ltd.
9	Pipetel Communications Pvt. Ltd.
10	Pulse Telesystems Pvt. Ltd.
11	Sify Technologies Ltd.
12	Tata Communications Limited
13	Trikon Electronics Pvt. Ltd.
14	VIVA Communications Pvt. Ltd.
15	World Phone Internet Services Pvt. Ltd.
16	You Broadband & Cable India Pvt. Ltd.

## Annexure 1.6: List of Service Providers which reported IP Telephony Minutes for Q.E. Jun-18

SNo.	<b>Operative Area</b>	Service Provider	Subscri	ber Base
			30.03.2018	30.06.2018
1	Delhi(Faridabad/	Arya Omnitalk Radio	5000	<b>FF11</b>
	Gurgaon)	Trunking Services Pvt.Ltd.	5986	5511
		Procall(Delhi)	2902	2911
		Procall (Faridabad)		
		Procall (Gurgaon)		
		Total	8888	8422
2	Mumbai (Navi Mumbai)	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	8220	8076
		Smartalk (Mumbai)	526	545
		Bhilwara Telenet(Mumbai)	818	830
		Airtalk Solutions & Services Pvt. Ltd	314	339
		Total	9878	9790
3	Kolkata	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	2406	2469
		Total	2406	2469
4	TN(Chennai)	Arya Omnitalk Radio		
		Trunking Services Pvt.Ltd.	7246	7183
		Quick Calls	554	579
		Total	7800	7762
5	Karnataka (Bangalore)	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	6960	7020
		Quick Calls	546	602
		Total	7506	7622
6	Andhra Pradesh (Vishakhapatnam &	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	5445	5255
	Hyderabad)	Quick Calls (Hyderabad Urban)	856	883
		Total	6301	6138
7	Madhya Pradesh ( Indore)	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1371	1387
		Total	1371	1387
8	Rajasthan (Jaipur)	Procall	286	281
	,	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	607	626
		Total	893	907

Annexure 1.7: Service Area wise PMRTS subscriber Base

# Annexure- 1.7 (Contd.)

S	<b>Operative Area</b>	Service Provider	Subscri	ber Base
No.			31.03.2018	30.06.2018
9	Gujarat (Ahmedaba/Surat/Va dodara/ Rharuah (Dahai (	Arya Omnitalk Radio Trunking Services Pvt.Ltd. (Ahmedaba/Surat/	6481	6490
	Bharuch/Dahej/ Kutch/Amrela / Jamnagar)	Vadodara/ Bharuch/Dahej) Inative Network Pvt. Ltd. (Ahmedaba/Surat/ Vadodara/ Bharuch/ Kutch/Amrela / Jamnagar)	1820	1820
		Total	8301	8310
10	Maharashtra (Pune)	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1772	1693
		Smartalk	405	428
		Total	2177	2121
11	Kerala	Wiwanet Solutions Pvt. Ltd.	361	361
	(Cochin City & Quilon)	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	778	794
		Total	1139	1155
	Gra	56660	56083	

#### Annexure 2.1: GSM Service - Service Area wise Statistics for QE Jun-18

	<b>J I</b>					
Service Area	% of pre-paid	ARPU		0 (	outside HSA	A) per
	in total	(₹ per	S	subscriber p	er month	
	subscribers	month)	Outgoing	Outgoing	Incoming	Total
			SMS	MOU	MOU	MOU
AP	95.48	87	24	293	283	576
Gujarat	95.17	68	12	270	220	490
Karnataka	93.85	85	26	297	268	566
MH	95.59	72	39	258	232	490
TN (incl. Chennai)	94.87	89	17	278	269	548

#### Key parameters for service areas of category-A

### Key parameters for service areas of category-B

Service Area	% of pre-paid in total	ARPU (₹ per		age ( from & subscriber p	outside HSA er month	A) per
	subscribers	month)	Outgoing SMS	Outgoing MOU	Incoming MOU	Total MOU
Haryana	97.70	45	51	318	288	606
Kerala	97.06	97	15	233	238	471
MP	97.90	63	18	286	285	571
Punjab	95.26	70	10	323	276	599
Rajasthan	97.48	61	12	334	333	666
UP(E)	98.79	55	8	299	383	682
UP(W)	98.27	54	11	278	296	574
WB	99.32	59	26	272	309	581

### Key parameters for service areas of category-C

Service Area	% of pre-paid in total	ARPU (₹ per	Total usage ( from & outside HSA) per subscriber per month							
	subscribers	month)	Outgoing SMS	Outgoing MOU	Incoming MOU	Total MOU				
Assam	97.49	81	32	344	389	733				
Bihar	99.30	55	9	348	440	787				
HP	98.33	63	10	287	255	543				
J&K	82.21	79	19	464	407	871				
NE	98.19	80	40	304	300	604				
Orissa	98.88	64	15	336	373	709				

#### Key parameters for service areas of category-Metro

Service Area	% of pre-paid in total	ARPU (₹ per	Total usage ( from & outside HSA) per subscriber per month						
	subscribers	month)	Outgoing SMS	Outgoing MOU	Incoming MOU	Total MOU			
Kolkata	93.51	63	17	287	250	538			
Delhi	86.65	58	15	460	328	788			
Mumbai	82.72	85	17	408	271	680			

# Annexure 2.2: CDMA Full Mobility Service - Service Area wise Statistics for QE Jun-18

	% of Prepaid in total	ARPU	Total usage ( from & outside HSA) per subscriber per month								
Service Area	subscribers	(₹ per month)	Outgoing SMS	Outgoing MOU	Incoming MOU	Total MOU					
MH	98.42	122	0	1	6	7					
Gujarat	99.89	178	0	0	2	2					
TN (incl. Chennai)	97.52	172	0	0	28	29					
Karnataka	89.59	134	0	5	27	34					
AP	135.87	41	0	1	6	7					

#### Key parameters for service areas of Category A

## Key parameters for service areas of Category B

Service Area	% of Prepaid in total	ARPU	Total usage ( from & outside HSA) per subscriber per month								
Service Area	subscribers	(₹ per month)	Outgoing SMS	Outgoing MOU	Incoming MOU	Total MOU					
WB	99.97	56	0	0	9	9					
Rajasthan	99.98	68	0	0	0	0					
UP(E)	99.97	180	0	0	2	2					
MP	99.96	98	0	0	3	3					
Kerala	98.78	141	0	0	8	8					
UP(W)	99.96	113	0	0	4	4					
Haryana	99.97	55	0	0	7	7					
Punjab	99.98	44	0	0	0	0					

## Key parameters for service areas of Category C

Oomice Arres	% of Prepaid	ARPU	subscriber per month								
Service Area	in total subscribers	(₹ per month)	Outgoing SMS	Outgoing MOU	Incoming MOU	Total MOU					
Orissa	99.98	130	0	0	1	1					
Bihar	99.49	101	0	1	10	10					
HP	99.95	236	0	0	3 3						
North East	NA										
Assam		NA									
J&K		NA									

#### Key parameters for service areas of Category Metro

Service Area	% of Prepaid in	ARPU	Total usage ( from & outside HSA) per subscriber per month								
Service Area	total subscribers	(₹ per month)	Outgoing SMS	Outgoing MOU	Incoming MOU	Total MOU					
Kolkata	89.26	130	0	2	52	53					
Delhi	94.68	141	0	4	35	38					
Mumbai	91.53	255	0	3	12	14					

			Per	formance Monito	ring Rep	ort on (	Quality o	of Service o	of Cellular I	Mobile Serivce I	Provid	ers for	quarter (	ending, J	June, 2018							
					Networl	Related	l Paramet	ers						Custon	er Serveice Qu	ality Para	meters					
100 H	Provider	Netv Availa	aork ability	Connection E: (Accessi		ent	Conr	ection Maint (Retainabilit		POI	Metering and billing				t.	Response time to the customer for assistance		Termination / closure of service				
Rame of Service A	Mune of Service Pro	BS Accumula ted down- time (not available for service) (%age)	Worst affected BEs due to down-time (% age)	Call Bet up Buccess Rate and Bession Establishment Success Rate for Circuit Ewitched Voice or VoLTE as applicable (within licensee's own network)	EDCCH/ Paging Channel Congestion/ RRC Congestion (%age)	TCH, RAB and B-RAB Congestion (%age)	Retwork GOS DCR Spatial Distribution Measure [Retwork_QED(90,90)]	Retwork QoB DCR Tem pom l Distribution Measure [Retwork_ QTD(97,90)]	Connections with good voice quality, Circuit Switched Voice quality and VoLTE quality	Point of Interconnection (POI) Congestion (No. of POIs not meeting the benchmath (Averuged over a pariod of quarter)	Metering and billing credibility - post paid	Metering and billing credibility - pre paid	Resolution of	complaints	Feriod of applying credit/ waiver/ adjustment to oustomer's account from the date of resolution of complaints	Accessibility of all centre/oustomer care	Perentuge of exit antword by the operator (veise to veise) within 90 treenda	%age requests for Termination / Closure of service complied within 7 days	Time taken for refund of deposits after closures			
Benchmarl	cs→										within 1 week of resolution of complaint	≥ 95%	> 95%	100% within 7 days	100% väthin 60 days							
	The other	coreat of	ben da na	rk against each par	aaster is	to be are	anged over	ra period of	-	ior 2G, 3G and 4G lan to regulations		Service	x (com bin	ed) as pe	as per the measurement methodology explained in Explanatory							
_	Aintel	0.26	0.29	96.92	0.81	1_17	1.97	2.55	97.57	0	0.02	0.01	100.00	100.00	100.00	94.48	95.71	100.00	100.00			
	BSNL	1.28	1.72	98.61	0.73	1.54	1.82	1_92	99.46	0	0.00	0.00	100.00	100.00	100.00	97.00	97.00	100.00	100.00			
Andhra Pradesh	dea.	0.02	0.00	98.31	0.25	0.99	1.82	1_98	97.58	0	0.01	0.00	99.94	100.00	100.00	98.79	98.29	100.00	100.00			
	Rijo	0.09	0.11	99.62	0.00	0.00	0.36	0.54	99.91	0	0.00	0.00	100.00	100.00	100.00	96.61	85.98	100.00	100.00			
	TATA	0.67	0.00	<b>98.</b> 55	0.27	0.53	0.00	2.15	98.76	0	0.00	0.00	100.00	100.00	100.00	95.51	93.23	100.00	100.00			
	Volafone	0.13	0.48	99.88	0.09	0.12	1_42	1.75	99.21	0	0.06	0.03	100.00	100.00	100.00	100.00	99.00	100.00	100.00			
	Airtel	0.50	1.34	97.72	0.23	1.84	1_97	2.35	98.91	0	0.01	0.00	100.00	100.00	100.00	93.80	96.87	100.00	100.00			
	BSNL	1.26	1.96	98.37	0.84	1.63	1.81	2.75	97.10	1	0.01	0.00	100.00	100.00	100.00	97.00	98.10	100.00	100.00			
Assam	dea.	0.79	0.38	96.79	0.55	1.45	2.53	3.44	95.21	0	0.03	0.01	100.00	100.00	100.00	96.95	96.85	99.43	100.00			
	Rijo	0.44	1.39	99.53	0.00	0.01	0.50	0.62	99.22	0	0.02	0.00	100.00	100.00	100.00	97.30	75.99	100.00	100.00			
	Volafone	0.75	L11	98.87	0.27	1.06	1.96	2.61	97_95	0	0.03	0.03	100.00	100.00	100.00	100.00	100.00	100.00	100.00			
	Airtel	0.14	0.79	98.32	0.65	1.52	1.84	1_97	97.31	0	0.03	0.00	100.00	100.00	100.00	98.15	97.82	100.00	100.00			
	BSNL.	1.92	1.79	95.76	0.44	0.56	1.50	2.62	97.15	0	0.00	0.00	100.00	100.00	100.00	98.50	98.58	100.00	100.00			
Bihar	dea.	1.15	1.58	97.23	1.86	1.50	1.99	2.75	99.02	0	0.01	0.00	100.00	100.00	100.00	97.20	96.80	100.00	100.00			
	Rjio	0.36	1.50	99.46	0.00	0.01	0.58	0.69	99.87	0	0.00	0.00	100.00	100.00	100.00	97.58	84.59	100.00	100.00			
	TATA	0.79	0.70	98.04	0.34	0.12	0.00	0.00	98.52	0	0.00	0.00	100.00	100.00	100.00	96.34	99.58	100.00	100.00			
	Volafone	0.47	1_90	99.11	0.25	0.29	1.89	2.37	98.23	0	0.04	0.03	100.00	100.00	100.00	100.00	95.29	100.00	100.00			

## Annexure 4.1: Performance of QoS Parameters for Cellular Mobile Service

r					1			1		[	1							1	1
Chennai	BSNL	0.33	1.04	98.51	0.34	1.50	1.85	2.50	97.18	0	0.01	0.00	99.00	100.00	100.00	100.00	98.85	100.00	100.00
	Airtel	0.13	0.00	98.94	0.11	0.17	1.99	2.95	98.89	0	0.04	0.02	100.00	100.00	100.00	92.13	94.84	100.00	100.00
	Idea	0.14	0.56	98.85	0.19	0.60	1.89	2.31	98.18	0	0.07	0.01	100.00	100.00	100.00	99.35	99.30	99.98	100.00
Delhi	MTNL	0.06	0.44	97.30	0.08	0.85	1.65	1.81	98.31	0	0.06	0.01	100.00	100.00	100.00	99.80	96.94	100.00	100.00
Denn	Rjio	0.16	0.48	99.57	0.00	0.00	0.23	0.33	99.90	0	0.00	0.00	100.00	100.00	100.00	97.49	98.93	100.00	100.00
	TATA	0.04	0.00	99.19	0.00	0.06	1.57	2.97	99.11	0	0.00	0.00	100.00	100.00	100.00	99.00	87.46	100.00	100.00
	Vodafone	0.16	0.76	99.48	0.16	0.41	1.60	2.07	99.26	0	0.04	0.11	99.99	100.00	100.00	100.00	97.07	100.00	100.00
	Airtel	0.13	0.18	99.23	0.05	0.37	1.85	2.29	98.20	0	0.04	0.02	99.97	100.00	100.00	99.92	93.86	100.00	100.00
	BSNL	1.47	1.20	97.73	0.11	0.27	1.82	2.60	100.00	0	0.01	0.00	100.00	100.00	100.00	97.00	98.62	100.00	100.00
Cuienet	Idea	0.08	0.16	98.27	0.33	1.23	1.76	2.33	97.96	0	0.02	0.01	100.00	100.00	100.00	98.07	99.57	100.00	100.00
Gujarat	Rjio	0.15	0.56	99.56	0.00	0.00	0.42	0.56	99.90	0	0.00	0.00	100.00	100.00	100.00	97.73	99.21	100.00	100.00
	TATA	0.01	0.00	99.41	0.02	0.11	0.00	0.51	99.56	0	0.01	0.00	100.00	100.00	100.00	98.29	97.49	100.00	100.00
-	Vodafone	0.04	0.16	99.27	0.16	0.59	1.26	1.77	99.05	0	0.08	0.02	99.98	99.99	100.00	100.00	96.02	100.00	100.00
	Airtel	0.16	0.11	99.43	0.11	0.14	1.30	1.69	99.27	0	0.04	0.01	100.00	100.00	100.00	100.00	98.60	100.00	100.00
-	BSNL	0.75	0.35	98.85	0.26	0.13	1.74	1.82	97.73	0	0.03	0.00	100.00	100.00	100.00	100.00	99.99	100.00	100.00
Homeno	Idea	0.10	0.66	99.12	0.49	0.43	1.85	2.43	98.35	0	0.03	0.01	100.00	100.00	100.00	98.06	97.47	99.97	100.00
Haryana	Rjio	0.25	0.86	99.60	0.00	0.00	0.45	0.61	99.93	0	0.00	0.00	100.00	100.00	100.00	95.90	98.91	100.00	100.00
-	TATA	0.75	0.00	99.71	0.06	0.04	0.00	1.24	98.25	0	0.00	0.00	100.00	100.00	100.00	97.33	97.93	100.00	100.00
-	Vodafone	0.38	1.84	99.55	0.31	0.38	1.31	1.86	99.12	0	0.04	0.01	100.00	100.00	100.00	100.00	99.53	100.00	100.00
	Airtel	0.14	0.33	98.43	0.20	0.09	1.12	1.48	98.74	0	0.02	0.01	100.00	100.00	100.00	95.66	99.05	100.00	100.00
-	BSNL	1.74	1.98	98.69	0.64	0.89	1.90	2.20	95.70	0	0.01	0.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Himachal	Idea	0.16	0.29	99.32	0.11	0.30	2.35	2.82	96.42	0	0.01	0.02	100.00	100.00	100.00	98.92	99.52	100.00	100.00
Pradesh	Rjio	0.09	0.22	99.52	0.00	0.00	0.40	0.52	99.92	0	0.00	0.00	100.00	100.00	100.00	95.76	98.96	100.00	100.00
-	TATA	0.01	0.00	97.68	0.00	0.00	0.00	0.00	95.72	0	0.00	0.00	100.00	100.00	100.00	100.00	89.65	100.00	100.00
	Vodafone	0.07	0.12	99.94	0.11	0.06	1.94	2.34	97.97	0	0.01	0.06	100.00	100.00	100.00	100.00	99.12	100.00	100.00
	Airtel	0.17	0.30	96.88	0.95	1.02	1.18	1.61	98.84	0	0.03	0.01	100.00	100.00	100.00	88.29	96.80	100.00	100.00
Ī	BSNL	1.36	1.64	98.09	0.55	1.17	1.92	2.58	97.69	0	0.01	0.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Jammu & Kashmir	Idea	0.50	1.64	98.96	0.20	0.75	2.33	2.86	96.99	0	0.05	0.02	100.00	100.00	100.00	96.86	98.68	128.98	100.00
	Rjio	0.13	0.27	99.56	0.00	0.01	0.60	0.77	99.91	0	0.00	0.00	100.00	100.00	100.00	96.84	92.33	100.00	100.00
ľ	Vodafone	0.13	0.53	99.96	0.01	0.04	1.96	2.45	98.64	0	0.01	0.03	100.00	100.00	100.00	100.00	97.05	100.00	100.00

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	Airtel	0.28	1.12	99.16	0.78	0.60	1.82	2.38	98.22	0	0.03	0.02	100.00	100.00	100.00	89.29	95.24	100.00	100.00
	BSNL	1.52	1.83	97.22	0.37	1.12	1.98	2.95	96.41	0	0.00	0.00	99.74	100.00	100.00	99.00	97.26	100.00	100.00
Karnataka	Idea	0.11	1.02	99.72	0.26	0.14	1.78	2.50	97.80	0	0.05	0.01	100.00	100.00	100.00	99.93	99.21	100.00	100.00
Karnataka	Rjio	0.27	1.01	99.61	0.00	0.00	0.47	0.63	99.90	0	0.00	0.00	100.00	100.00	100.00	96.86	89.17	100.00	100.00
	TATA	0.64	0.61	98.43	0.10	0.31	0.00	1.98	99.19	0	0.00	0.00	100.00	100.00	100.00	97.63	95.96	100.00	100.00
	Vodafone	0.31	1.59	99.82	0.13	0.06	1.08	1.40	99.54	0	0.04	0.04	99.95	100.00	100.00	100.00	98.27	100.00	100.00
	Airtel	0.08	0.04	98.91	0.05	0.14	1.92	2.46	98.06	0	0.03	0.01	100.00	100.00	100.00	98.07	95.40	100.00	100.00
	BSNL	0.45	1.35	99.22	0.27	0.47	1.86	2.17	99.93	0	0.01	0.00	100.00	100.00	100.00	98.00	97.89	100.00	100.00
Kerala	Idea	0.17	0.62	99.49	0.17	0.32	1.79	2.38	97.88	0	0.06	0.01	99.99	100.00	100.00	98.25	97.37	100.00	100.00
Kelala	Rjio	0.12	0.13	99.65	0.00	0.00	0.47	0.76	99.89	0	0.01	0.00	100.00	100.00	100.00	97.70	96.46	100.00	100.00
	TATA	0.38	0.00	99.73	0.00	0.00	0.00	0.00	99.63	0	0.00	0.00	100.00	100.00	100.00	97.31	97.50	100.00	100.00
	Vodafone	0.07	0.18	99.85	0.06	0.06	1.08	1.35	99.52	0	0.08	0.03	100.00	100.00	100.00	100.00	97.00	100.00	100.00
	Airtel	0.01	0.00	99.78	0.28	0.10	1.91	2.55	98.45	0	0.03	0.01	100.00	100.00	100.00	81.01	95.02	100.00	100.00
	BSNL	1.02	1.52	99.25	0.40	0.61	1.59	1.90	97.73	0	0.02	0.02	99.91	100.00	100.00	95.00	95.01	100.00	100.00
Kolkata	Idea	0.08	0.44	99.58	0.08	0.17	1.06	1.59	99.33	0	0.04	0.01	100.00	100.00	100.00	97.68	99.13	100.00	100.00
Koikata	Rjio	0.10	0.26	99.59	0.00	0.01	0.22	0.34	99.91	0	0.00	0.00	100.00	100.00	100.00	97.27	99.67	100.00	100.00
	TATA	1.11	1.85	99.34	0.04	0.26	0.00	0.46	99.36	0	0.00	0.00	100.00	100.00	100.00	98.47	98.56	100.00	100.00
	Vodafone	0.23	1.11	98.75	0.18	1.17	1.16	1.74	98.67	0	0.04	0.06	100.00	100.00	100.00	100.00	97.86	100.00	100.00
	Airtel	0.15	0.17	98.02	0.33	1.82	1.97	2.47	97.90	0	0.03	0.00	100.00	100.00	100.00	98.96	94.05	100.00	100.00
	BSNL	1.55	1.89	96.53	0.66	1.32	1.23	1.34	97.31	0	0.00	0.01	100.00	100.00	100.00	98.50	99.71	100.00	100.00
Madhya Pradesh	Idea	0.18	0.68	96.44	0.77	1.84	1.75	2.39	97.39	0	0.02	0.01	100.00	100.00	100.00	99.04	99.15	100.00	64.10
maunya i raucsii	Rjio	0.28	1.10	99.58	0.00	0.00	0.43	0.55	99.91	0	0.00	0.00	100.00	100.00	100.00	97.63	96.21	100.00	100.00
	TATA	0.47	0.00	96.52	0.46	0.11	0.00	2.79	99.69	0	0.00	0.00	100.00	100.00	100.00	98.05	96.82	100.00	100.00
	Vodafone	0.18	0.74	99.73	0.06	0.27	1.61	2.13	98.90	0	0.02	0.03	100.00	100.00	100.00	100.00	98.75	100.00	100.00
	Airtel	0.04	0.06	97.59	0.24	0.81	1.53	1.73	97.69	0	0.03	0.00	100.00	100.00	100.00	97.74	96.41	100.00	100.00
	BSNL	1.23	1.97	97.08	0.49	1.53	1.99	2.95	95.44	0	0.01	0.01	100.00	100.00	100.00	100.00	99.68	100.00	100.00
Maharashtra	Idea	0.30	1.30	98.17	0.71	0.97	1.60	2.16	97.90	0	0.04	0.00	100.00	100.00	100.00	99.86	99.79	100.00	100.00
manarasiitta	Rjio	0.36	1.29	99.56	0.00	0.00	0.47	0.60	99.89	0	0.00	0.00	100.00	100.00	100.00	97.82	90.16	100.00	100.00
	TATA	0.59	0.00	96.96	0.20	0.70	2.71	5.37	99.58	0	0.00	0.00	100.00	100.00	100.00	98.24	92.69	100.00	100.00
	Vodafone	0.22	0.88	98.90	0.35	1.03	1.44	2.07	98.96	0	0.04	0.02	100.00	100.00	100.00	99.99	97.47	100.00	100.00

Idea         0.14         0.06         99.12         0.45         0.50         1.93         2.73         96.66         0         0.01         100.00         100.00         98.75         97.85         1           Mumbai         0.90         1.20         97.40         0.60         0.40         1.66         2.43         98.00         0         0.01         90.13         100.00         100.00         98.75         96.71         1	100.00         100.00           100.00         100.00           100.00         100.00           100.00         100.00           100.00         100.00
Mumbai MTNL 0.90 1.20 97.40 0.60 0.40 1.66 2.43 98.00 0 0.05 0.01 99.13 100.00 100.00 96.71 1	100.00 100.00 100.00 100.00
Mumbai	100.00 100.00
	100.00 100.00
TATA       0.35       0.00       99.08       0.10       0.58       0.00       2.78       98.66       0       0.00       100.00       100.00       100.00       98.62       96.14       1	
Vodafone         0.23         1.27         98.31         0.35         1.58         2.66         98.62         0         0.05         0.04         100.00         100.00         99.98         95.99         95.99	<b>99.82</b> 100.00
Airtel         1.21         1.74         96.92         0.86         1.91         1.96         2.36         98.82         0         0.01         100.00         100.00         99.98         97.33         1	100.00 100.00
BSNL         1.80         1.92         97.32         0.78         1.78         1.73         2.53         96.73         0         0.03         99.50         100.00         100.00         98.50         96.66         1	100.00 100.00
North East         Idea         1.63         0.86         97.64         0.35         0.91 <b>2.78 3.74</b> 96.55         0         0.01         100.00         100.00         100.00         96.72         95.13         1	100.00 100.00
Rjio         0.86         1.63         99.51         0.01         0.07         1.47         99.88         0         0.00         100.00         100.00         97.56         98.57         1	100.00 100.00
Vodafone         1.03         1.71         98.49         0.68         1.32         1.80         2.68         98.16         0         0.02         0.07         100.00         100.	100.00 100.00
Airtel         0.04         0.23         99.09         0.50         1.19         1.83         1.92         98.53         0         0.04         0.05         100.00         100.00         98.55         97.17         1	100.00 100.00
BSNL         1.51         1.92         98.71         0.89         1.29         1.99         2.80         97.88         0         0.02         0.00         100.00         100.00         99.00         96.31         1	100.00 100.00
Orissa Idea 0.10 0.28 99.31 0.15 0.26 1.16 1.79 96.23 0 0.01 0.01 100.00 100.00 96.94 98.12	<b>99.27</b> 100.00
	100.00 100.00
TATA       0.00       0.00       99.68       0.54       0.00       2.74       98.50       0       0.01       0.00       100.00       100.00       97.30       98.23       1	100.00 100.00
Vodafone         0.21         0.30         98.40         0.70         1.59         1.92         2.65         98.35         0         0.06         0.09         100.00         100.00         99.99         96.76         1	100.00 100.00
Airtel         0.06         0.08         98.97         0.14         0.02         1.83         2.31         99.04         0         0.04         100.00         100.00         100.00         90.66         96.22         1	100.00 100.00
BSNL         0.41         1.71         97.62         0.67         0.46         1.54         1.90         98.37         0         0.01         0.00         100.00         100.00         100.00         99.92         1	100.00 100.00
Punjab Idea 0.15 0.61 99.44 0.09 0.07 1.24 1.59 99.35 0 0.01 0.00 100.00 100.00 99.85 98.73	<b>99.94</b> 100.00
	100.00 100.00
TATA       0.47       0.61       99.55       0.32       0.03       0.00       0.00       99.02       0       0.00       100.00       100.00       100.00       97.49       99.11       1	100.00 100.00
Vodafone         0.09         0.32         99.81         0.04         1.23         1.64         98.75         0         0.04         0.05         100.00         100.00         100.00         96.12         1	100.00 100.00
Airtel         0.23         0.68         98.40         0.55         1.25         1.75         98.68         0         0.06         100.00         100.00         97.88         95.47         1	100.00 100.00
BSNL       1.26       1.66       98.56       0.76       1.44       1.54       2.08       98.30       1       0.04       0.02       99.72       100.00       100.00       95.00       99.00       1	100.00 100.00
Idea         0.10         0.32         99.33         0.27         0.47         1.85         2.22         99.44         0         0.03         0.02         100.00         100.00         98.05         99.55         1	100.00 100.00
	100.00 100.00
TATA       0.37       1.57       99.44       0.05       0.37       0.00       0.00       99.76       0       0.00       100.00       100.00       100.00       96.32       98.35       1	100.00 100.00
Vodafone         0.21         0.28         99.13         0.32         0.84         1.50         2.13         97.59         0         0.03         100.00         100.00         100.00         97.60         1	100.00 100.00

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	Airtel	0.08	0.17	99.03	0.45	0.72	1.84	2.35	98.63	0	0.03	0.01	100.00	100.00	100.00	99.99	93.05	100.00	100.00
	BSNL	0.49	1.76	98.56	0.25	0.31	1.96	2.52	97.66	0	0.00	0.00	100.00	100.00	100.00	100.00	96.00	100.00	100.00
Tamil Nadu	Idea	0.02	0.03	99.88	0.08	0.04	0.97	1.41	99.16	0	0.02	0.01	100.00	100.00	100.00	98.03	99.88	100.00	100.00
Tallin Nauu	Rjio	0.04	0.04	99.62	0.00	0.00	0.25	0.38	99.93	0	0.00	0.00	100.00	100.00	100.00	96.92	91.95	100.00	100.00
	TATA	0.43	1.32	99.58	0.07	0.04	0.99	2.38	98.81	0	0.00	0.00	100.00	100.00	100.00	96.95	94.58	100.00	100.00
	Vodafone	0.07	0.16	98.47	0.55	1.46	1.30	1.71	98.88	0	0.08	0.03	100.00	100.00	100.00	100.00	96.42	100.00	100.00
	Airtel	0.54	1.10	96.15	0.48	1.14	1.67	2.60	97.95	0	0.04	0.01	100.00	100.00	100.00	97.65	97.90	100.00	100.00
	BSNL	1.71	1.66	96.75	0.90	1.65	1.68	2.11	96.50	0	0.09	0.08	98.40	100.00	100.00	97.00	97.26	100.00	100.00
UP-East	Idea	0.33	1.92	98.44	0.82	1.08	1.71	2.44	98.52	0	0.03	0.00	100.00	100.00	100.00	99.76	99.66	100.00	100.00
01-East	Rjio	0.40	1.61	99.40	0.00	0.00	0.48	0.58	99.89	0	0.00	0.00	100.00	100.00	100.00	97.61	87.17	100.00	100.00
	TATA	0.28	0.90	96.10	0.13	0.70	2.71	6.16	98.82	0	0.00	0.00	100.00	100.00	100.00	97.91	97.93	100.00	100.00
	Vodafone	0.16	1.92	96.80	1.37	3.06	1.80	2.64	98.39	0	0.04	0.01	100.00	100.00	100.00	100.00	99.38	100.00	100.00
	Airtel	1.03	1.19	98.95	0.90	0.25	1.99	2.70	98.89	0	0.08	0.00	100.00	100.00	100.00	98.17	97.79	100.00	100.00
	BSNL	1.67	1.94	98.34	0.79	1.10	1.80	2.33	96.42	0	0.01	0.00	100.00	100.00	100.00	100.00	97.59	100.00	100.00
UP-West	Idea	0.27	0.68	96.92	0.89	1.10	1.73	2.24	97.82	0	0.03	0.00	99.99	100.00	100.00	99.32	98.36	100.00	100.00
OF-West	Rjio	0.30	1.46	99.49	0.01	0.00	0.62	0.78	99.90	0	0.00	0.00	100.00	100.00	100.00	97.69	85.30	100.00	100.00
	TATA	0.59	0.18	99.18	0.29	0.16	1.07	7.13	99.18	0	0.00	0.00	100.00	100.00	100.00	98.13	97.73	100.00	100.00
	Vodafone	0.31	1.96	93.78	0.93	6.16	1.73	2.49	97.70	0	0.04	0.02	100.00	100.00	100.00	100.00	98.96	100.00	100.00
	Airtel	0.10	0.07	99.39	0.49	1.00	1.93	2.29	97.62	0	0.02	0.01	100.00	100.00	100.00	98.92	92.13	100.00	100.00
	BSNL	0.46	1.01	97.61	0.87	1.54	2.88	3.83	96.05	0	0.02	0.03	99.50	100.00	100.00	98.50	99.21	100.00	100.00
West Bengal	Idea	0.20	1.05	99.38	0.09	0.10	1.84	2.93	98.05	0	0.04	0.01	100.00	100.00	100.00	95.98	99.60	100.00	100.00
west bengai	Rjio	0.34	1.30	99.53	0.00	0.00	0.64	0.88	99.83	0	0.00	0.00	100.00	100.00	100.00	97.45	72.73	100.00	100.00
	TATA	0.39	0.56	98.94	0.09	0.02	0.00	0.00	97.88	0	0.00	0.00	100.00	100.00	100.00	96.89	99.38	100.00	100.00
	Vodafone	0.14	0.23	99.10	0.39	0.86	1.80	2.33	97.75	0	0.03	0.04	100.00	100.00	100.00	100.00	97.42	100.00	100.00

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

				Quarterly	Performa	nce Mon	itoring R	eport (I	PMR) on Qo	S of Basic Te	lephone	e Servic	e (Wirel	ine) for (	QE June, 201	8			
					Fault Re	epair				POI		N	letering a	nd Billing			e time to the for Assistance	Termination of ser	
Sl. No.	Name of Service Area	Name of Service Provider	Faults incidences (No. of faults/ 100 Subs./ month)	% of faults repaired by next working day	% of faults repaired within 5 days	% of faults repaired by next working day	% of faults repaired within 7 days	Rent Rebate	Mean Time to Repair (MTTR)	Point of Interconnection (POI) Congestion (No. of POIs not meeting the benchmark	Metering and Billingcredibility - post paid	Metering and billing credibility - pre paid	Resolution of	buing/ charging/ validity complaints	Period of applying credit/ waiver/ adjustment to customer's account from the date of resolution of complaints	Accessibility of call centre/ customer care	Percentage of calls answered by the operators (voice to voice) within 90 seconds	%age requests for Termination / Closure of service complied within 7 days	Time taken for refund of deposits after closures
										Be	nchmark								
			≤7	For urban areas by next working day: ≥85%	For urban areas: ≥ 100%	For rural and hilly areas: ≥ 75%	For rural and hilly areas: ≥ 100%		≤ 10 Hrs	≤ <b>0.5</b> %	≤ <b>0.1%</b>	≤ <b>0.1%</b>	98% within 4 weeks	100% within 6 weeks	1 week of resolution of complaint	≥ <b>95</b> %	≥ <b>95</b> %	100% within 7 days	100% within 60 days
1	A&N	BSNL	5.00	85.00%	100.00%	85.00%	100%	7	6.00	0.00	0.00%	0.00	98.00%	100.00%	100.00%	98.65%	98.67%	100.00%	100.00%
2		Bharti	2.04	94.90%	100.00%	NA	NA	584	3.50	0.00	0.02%	NA	100.00%	100.00%	100.00%	100.00%	96.00%	100.00%	100.00%
3	AP	BSNL	4.00	100.00%	100.00%	98.50%	100%	210	6.00	0.00	0.01%	0.00	100.00%	100.00%	100.00%	97.60%	97.30%	100.00%	100.00%
4	AI	TTSL	6.52	94.21%	100.00%	NA	NA	50	4.97	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	95.51%	96.30%	100.00%	100.00%
5		Vodafone	0.30	100.00%	100.00%	NA	NA	NA	2.25	0.00	0.00%	NA	NA	NA	NA	96.00%	100.00%	100.00%	NA
6	Assam	BSNL	4.00	95.00%	100.00%	94.00%	100%	275	5.00	0.00	0.08%	0.00	100.00%	100.00%	100.00%	97.56%	99.67%	100.00%	100.00%
7		Vodafone	1.67	100.00%	100.00%	NA	NA	NA	2.54	0.00	0.00%	NA	NA	NA	NA	96.00%	100.00%	100.00%	NA
8		BSNL	4.00	94.00%	100.00%	94.00%	100%	0	5.00	0.00	0.00%	0.00	100.00%	100.00%	100.00%	98.34%	99.67%	100.00%	100.00%
9	Bihar	TTSL	1.17	98.11%	100.00%	NA	NA	0	2.56	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	96.34%	97.67%	<b>91.46</b> %	100.00%
10		Vodafone	3.01	100.00%	100.00%	NA	NA	NA	3.04	0.00	0.00%	NA	NA	NA	NA	96.00%	100.00%	100.00%	NA
11	Chattisgarh	BSNL	4.00	98.00%	100.00%	97.00%	100%	605	6.00	0.00	0.01%	0.01	99.00%	100.00%	100.00%	97.16%	97.12%	100.00%	100.00%
12	Chennai	BSNL	5.00	93.00%	100.00%	93.00%	100%	368	7.00	0.00	0.00%	0.00	100.00%	100.00%	100.00%	98.71%	98.70%	100.00%	100.00%
13		Bharti	2.08	92.22%	100.00%	NA	NA	760	4.13	0.00	0.01%	NA	100.00%	100.00%	100.00%	100.00%	96.00%	100.00%	100.00%
14	Delhi	MTNL	4.57	92.62%	<b>99.88</b> %	NA	NA	4650	3.31	0.00	0.01%	0.00%	99.71%	100.00%	100.00%	99.54%	99.73%	100.00%	100.00%
15		TTSL	1.35	90.89%	100.00%	NA	NA	0	6.46	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	99.00%	96.75%	100.00%	100.00%
16		Vodafone	0.49	100.00%	100.00%	NA	NA	NA	5.23	0.00	0.00%	NA	NA	NA	NA	96.00%	100.00%	100.00%	NA
17		Bharti	2.00	95.84%	100.00%	NA	NA	315	9.96	0.00	0.02%	NA	100.00%	100.00%	100.00%	100.00%	99.00%	100.00%	100.00%
18	Gujarat	BSNL	5.00	96.00%	100.00%	94.00%	100%	218	5.00	0.00	0.02%	0.00	100.00%	100.00%	100.00%	97.30%	97.21%	100.00%	100.00%
19	· · ·	TTSL	1.55	93.08%	100.00%	NA	NA	3	5.30	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	98.29%	96.52%	100.00%	100.00%
20		Vodafone	0.36	100.00%	100.00%	NA	NA	NA	3.07	0.00	0.00%	NA	NA	NA	NA	96.00%	100.00%	100.00%	NA
21	HP	BSNL	5.00	89.00%	100.00%	93.00%	100%	262	6.00	0.00	0.03%	0.00	98.17%	100.00%	100.00%	96.18%	100.00%	100.00%	100.00%
22		Vodafone	0.00	100.00%	100.00%	NA	NA	NA	0.0	0.00	0.00%	NA	NA	NA	NA	96.00%	100.00%	NA	NA

23		Bharti	3.63	92.64%	100.00%	NA	NA	22	3.72	0.00	0.02%	NA	100.00%	100.00%	100.00%	100.00%	96.00%	100.00%	100.00%
24	HR	BSNL	6.00	90.00%	100.00%	90.00%	100%	207	7.00	0.00	0.06%	0.00	100.00%	100.00%	100.00%	95.80%	100.00%	100.00%	100.00%
25	нк	TTSL	0.48	86.21%	100.00%	NA	NA	1	11.57	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	97.33%	98.11%	100.00%	100.00%
26		Vodafone	6.44	100.00%	100.00%	NA	NA	NA	2.22	0.00	0.00%	NA	NA	NA	NA	96.00%	100.00%	NA	NA
27	J&K	BSNL	4.00	95.00%	100.00%	95.00%	100%	19	7.00	0.00	0.01%	0.00	98.00%	100.00%	100.00%	96.12%	100.00%	100.00%	100.00%
28	JHAR	BSNL	3.00	99.00%	100.00%	97.00%	100%	716	5.00	0.00	0.09%	0.00	98.00%	100.00%	100.00%	98.10%	99.00%	100.00%	100.00%
29		Bharti	3.41	90.20%	100.00%	NA	NA	559	8.54	0.00	0.02%	NA	100.00%	100.00%	100.00%	100.00%	97.00%	100.00%	100.00%
30	KERLA	BSNL	4.00	94.00%	100.00%	92.00%	100%	499	6.00	0.00	0.03%	0.00	99.82%	100.00%	100.00%	96.40%	96.16%	100.00%	100.00%
31	KEKLA	TTSL	1.29	93.87%	100.00%	NA	NA	1	5.10	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	97.31%	97.63%	100.00%	100.00%
32		Vodafone	0.49	100.00%	100.00%	NA	NA	NA	1.35	0.00	0.00%	NA	NA	NA	NA	96.00%	100.00%	100.00%	NA
33		Bharti	2.89	90.43%	100.00%	NA	NA	293	8.24	0.00	0.00%	NA	100.00%	100.00%	100.00%	100.00%	96.00%	100.00%	100.00%
34	KOL	BSNL	6.00	90.00%	100.00%	NA	NA	390	8.00	0.00	0.00%	0.00	98.17%	100.00%	100.00%	98.64%	98.67%	100.00%	100.00%
35		Vodafone	0.84	100.00%	100.00%	NA	NA	NA	4.31	0.00	0.00%	NA	NA	NA	NA	96.00%	100.00%	100.00%	NA
36		Bharti	3.48	85.47%	100.00%	NA	NA	4503	4.2	0.00	0.02%	NA	100.00%	100.00%	100.00%	100.00%	99.00%	100.00%	100.00%
37	ктк	BSNL	4.00	96.00%	100.00%	96.00%	100%	3319	7.00	0.00	0.09%	0.00	98.00%	100.00%	100.00%	97.16%	97.15%	100.00%	100.00%
38		TTSL	0.41	81.85%	100.00%	NA	NA	1	9.93	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	97.63%	96.10%	99.89%	100.00%
39		Vodafone	0.54	100.00%	100.00%	NA	NA	NA	2.12	0.00	0.00%	NA	NA	NA	NA	96.00%	100.00%	100.00%	NA
40		Bharti	1.38	96.41%	100.00%	NA	NA	114	9.82	0.00	0.00%	NA	100.00%	100.00%	100.00%	100.00%	97.00%	100.00%	100.00%
41	мн	BSNL	5.00	92.00%	100.00%	86.00%	100%	316	7.00	0.00	0.01%	0.00	100.00%	100.00%	100.00%	96.29%	96.22%	100.00%	100.00%
42		TTSL	1.25	85.52%	100.00%	NA	NA	72	8.77	0.00	0.00%	0.00%	90.91%	100.00%	100.00%	98.24%	96.07%	100.00%	100.00%
43		Vodafone	0.55	100.00%	100.00%	NA	NA	NA	1.40	0.00	0.00%	NA	NA	NA	NA	96.00%	100.00%	100.00%	NA
44		Bharti	3.72	85.68%	100.00%	NA	NA	1447	5.58	0.00	0.02%	NA	100.00%	100.00%	100.00%	100.00%	96.00%	100.00%	100.00%
45	МР	BSNL	5.00	91.00%	100.00%	89.00%	100%	271	4.00	0.00	0.03%	0.00	98.00%	100.00%	100.00%	97.26%	97.22%	100.00%	100.00%
46		TTSL	4.55	96.51%	100.00%	NA	NA	0	3.13	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	98.05%	95.43%	100.00%	100.00%
47		Vodafone	1.50	100.00%	100.00%	NA	NA	NA	0.27	0.00	0.00%	NA	NA	NA	NA	96.00%	100.00%	100.00%	NA
48		Bharti	1.22	96.00%	100.00%	NA	NA	567	9.97	0.00	0.00%	NA	100.00%	100.00%	100.00%	100.00%	97.00%	100.00%	100.00%
49	мим	MTNL	4.10	93.27%	99.75%	NA	NA	16146	6.83	0.00	0.04%	NA	99.44%	100.00%	100.00%	96.64%	96.24%	<b>99.99</b> %	100.00%
50	mom	TTSL	3.94	86.80%	100.00%	NA	NA	323	9.16	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	98.62%	95.54%	99.96%	100.00%
51		Vodafone	0.69	100.00%	100.00%	NA	NA	NA	2.50	0.00	0.00%	NA	NA	NA	NA	96.00%	100.00%	100.00%	NA
52	NE	Vodafone	0.00	100.00%	100.00%	NA	NA	NA	0.00	0.00	0.00%	NA	NA	NA	NA	96.00%	100.00%	NA	NA
53	NE-I	BSNL	4.00	93.00%	100.00%	94.00%	100%	31	7.00	0.00	0.03%	0.00	98.00%	100.00%	100.00%	98.48%	98.67%	100.00%	100.00%
54	NE-II	BSNL	2.00	90.00%	100.00%	97.00%	100%	936	5.00	0.00	0.01%	0.00	100.00%	100.00%	100.00%	97.58%	99.00%	100.00%	100.00%

55		BSNL	6.00	93.00%	100.00%	89.00%	100%	250	5.00	0.00	0.07%	0.00	99.00%	100.00%	100.00%	98.43%	99.67%	100.00%	100.00%
56	ORISA	TTSL	1.46	100.00%	100.00%	NA	NA	0	2.36	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	97.30%	98.23%	100.00%	100.00%
57		Vodafone	1.57	100.00%	100.00%	NA	NA	NA	1.37	0.00	0.00%	NA	NA	NA	NA	96.00%	100.00%	100.00%	NA
58		Bharti	2.71	89.55%	100.00%	NA	NA	148	4.47	0.00	0.01%	NA	100.00%	100.00%	100.00%	100.00%	96.00%	100.00%	100.00%
59		BSNL	5.00	93.00%	100.00%	91.00%	100%	103	6.00	0.00	0.01%	0.00	98.00%	100.00%	100.00%	95.17%	100.00%	100.00%	100.00%
60	PUNJAB	Quadrant	4.22	97.20%	100.00%	100.00%	100%	0	4.29	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	99.00%	95.00%	100.00%	100.00%
61		TTSL	0.33	96.30%	100.00%	NA	NA	0	3.54	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	97.49%	97.58%	100.00%	100.00%
62		Vodafone	1.13	100.00%	100.00%	NA	NA	NA	3.12	0.00	0.00%	NA	NA	NA	NA	96.00%	100.00%	100.00%	NA
63		Bharti	2.33	85.85%	100.00%	NA	NA	172	5.16	0.00	0.01%	NA	100.00%	100.00%	100.00%	100.00%	96.00%	100.00%	100.00%
64	RAJASTHAN	BSNL	5.00	97.00%	100.00%	98.00%	100%	346	7.00	0.00	0.00%	0.00	100.00%	100.00%	100.00%	95.21%	100.00%	100.00%	100.00%
65	KAJASIHAN	TTSL	2.38	98.81%	100.00%	NA	NA	0	2.41	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	96.32%	96.91%	100.00%	100.00%
66		Vodafone	0.57	100.00%	100.00%	NA	NA	NA	2.38	0.00	0.00%	NA	NA	NA	NA	96.00%	100.00%	100.00%	NA
67		Bharti	4.53	92.79%	100.00%	NA	NA	2350	7.75	0.00	0.02%	NA	100.00%	100.00%	100.00%	100.00%	99.00%	100.00%	100.00%
68	TAMILNADU	BSNL	3.00	92.00%	100.00%	91.00%	100%	1853	7.00	0.00	0.08%	0.00	100.00%	100.00%	100.00%	98.46%	98.45%	100.00%	100.00%
69	TAMILIADU	TTSL	1.12	96.25%	100.00%	NA	NA	0	3.74	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	96.95%	96.87%	100.00%	100.00%
70		Vodafone	0.66	100.00%	100.00%	NA	NA	NA	2.30	0.00	0.00%	NA	NA	NA	NA	96.00%	100.00%	100.00%	NA
71		Bharti	3.31	87.63%	100.00%	NA	NA	199	5.26	0.00	0.01%	NA	100.00%	100.00%	100.00%	100.00%	96.00%	100.00%	100.00%
72	UPE	BSNL	4.00	90.00%	100.00%	90.00%	100%	557	5.00	0.00	0.09%	0.00	100.00%	100.00%	100.00%	95.75%	100.00%	100.00%	100.00%
73	OFE	TTSL	3.47	100.00%	100.00%	NA	NA	0	1.96	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	97.91%	96.80%	100.00%	100.00%
74		Vodafone	0.38	100.00%	100.00%	NA	NA	NA	3.49	0.00	0.00%	NA	NA	NA	NA	96.00%	100.00%	100.00%	NA
75		Bharti	4.76	88.68%	100.00%	NA	NA	55	4.81	0.00	0.01%	NA	100.00%	100.00%	100.00%	100.00%	96.00%	100.00%	100.00%
76	UPW	BSNL	6.00	91.00%	100.00%	95.00%	100%	331	5.00	0.00	0.03%	0.00	100.00%	100.00%	100.00%	96.13%	100.00%	100.00%	100.00%
77	0rw	TTSL	2.86	100.00%	100.00%	NA	NA	0	1.06	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	98.13%	100.00%	100.00%	100.00%
78		Vodafone	0.57	100.00%	100.00%	NA	NA	NA	3.54	0.00	0.00%	NA	NA	NA	NA	96.00%	100.00%	100.00%	NA
79	Uttaranchal	BSNL	5.00	95.00%	100.00%	97.00%	100%	167	4.00	0.00	0.00%	0.00	98.00%	100.00%	100.00%	96.92%	100.00%	100.00%	100.00%
80		BSNL	4.00	91.00%	100.00%	92.00%	100%	1517	6.00	0.00	0.01%	0.00	100.00%	100.00%	100.00%	98.23%	98.67%	100.00%	100.00%
81	WB	TTSL	1.09	96.11%	100.00%	NA	NA	0	4.34	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	98.47%	96.46%	100.00%	100.00%
82		Vodafone	1.11	100.00%	100.00%	NA	NA	NA	6.41	0.00	0.00%	NA	NA	NA	NA	96.00%	100.00%	100.00%	NA

# Annexure 4.3: Quality of Service Performance of Broadband Service Providers

	Performance Monitoring Report on Quality of Service of Service Providers providing broadband (wireline) service for Quarter Ending June 2018          Service       Faults Repair       Billing Performance       Response Time to the Customer for assistance       Bandwidth utilisation/throughput       9       Packet Loss       Network latency (for wired broadband access)																			
			Service Provisioning	Faults	Repair		Billing I	erformance				В	andwidth utilisat	ion/throughp	put	/uptime %age	Packet Loss	Network la	tency (for wire access)	d broadband
Sl. No.	Service Provider	Service area	%age of connections provided within 15 days of registration of demand	% of faults repaired by next working day (>90%)	% of faults repaired within 3 working day	Rent Rebate	%age of bills disputed	%age of billing complaints resolved within 4 weeks	%age of cases to whom refund of deposits is made within 60 days of closures	%age of calls answered by operator (Voice to voice) within 60 sec	%age of calls answered by operator (Voice to voice) within 90 sec	No. of Intra network links having Bandwidth utilisation >90% during peak hours (TCBH)	No. of Upstream links for International connectivity having bandwidth utilisation >90% during peak hours (TCBH)	% International bandwidth utilization during peak hours (TCBH) (Enclose MRTG) <90%	Broadband Connection Speed available (download) from ISP node to user	Service availability /up (for all users) in %a	Packet loss (for wired broadband access) in %age	User reference point at POP/ISP Cateway node to International gateway (IGSP/NIXI	User reference point at ISP Gateway node to International nearest NAP port abroad (terrestrial)	User reference point at ISP Gateway node to International nearest NAP port abroad (satellite)
			100%	> <b>90</b> %	=> <b>99</b> %	in nos.	<2%	100% within 4 weeks	100% within 60 days	>60%	>80%	0	0	< <b>90</b> %	>80%	>98%	<1%	<120 ms	<350 ms	<800 ms
1	Bharat Sanchar Nigam Ltd.(BSNL)	All India (except Delhi & Mumbai)	100.00%	93.87%	99.63%	28397	0.07%	100.00%	100.00%	98.14%	98.82%	NA	0	62.30%	91.39%	99.67%	0.20%	16	180	NA
2	Mahanagar Telephone Nigam Ltd.	Delhi & Mumbai	100.00%	93.33%	99.01%	9784	0.55%	100.00%	100.00%	97.48%	98.06%	Nil	0	80.80%	89.84%	99.77%	0.52%	45	294	NA
3	Airlink Communications Pvt. Ltd.	All India	100.00%	91.50%	99.15%	0	NA	100.00%	NA	64.91%	100.00%	0	0	82.06%	88.16%	99.80%	0.64%	120	350	NA
4	Alliance Broadband Services Pvt. Ltd.	All India	100.00%	93.53%	99.33%	Nil	0.12%	100.00%	Nil	78.00%	96.97%	0	0	74.14%	98.76%	99.31%	0.24%	75	217	449
5	Asianet Satellite Communications Ltd.	All India	100.00%	90.10%	99.41%	Nil	1.94%	100.00%	100.00%	60.91%	80.27%	Nil	0	65.99%	90.00%	99.40%	1.00%	50	270	NA
6	Atria Convergence Technologies	All India	100.00%	90.08%	98.67%	30503	0.38%	100.00%	Nil	37.00%	50.00%	0	0	47.41%	90.00%	99.99%	1.00%	50	300	NA
-		Andhra Pradesh	100.00%	94.06%	100.00%	443	0.03%	100.00%	100.00%	93.00%	96.00%	0	0	58.00%	100.00%	99.93%	0	47	47	NA
		Delhi	100.00%	91.67%	99.68%	538	0.02%	100.00%	100.00%	94.00%	97.00%	0	0	83.00%	100.00%	99.98%	0	41	77	NA
		Gujarat	100.00%	93.64%	99.09%	338	0.02%	100.00%	100.00%	93.00%	97.00%	0	0	NA	100.00%	99.87%	0	23	NA	NA
		Haryana	100.00%	94.45%	99.59%	8	0.00%	100.00%	100.00%	91.00%	96.00%	0	NA	NA	100.00%	99.99%	0	31	NA	NA
		Karnataka	100.00%	90.22%	100.00%	2780	0.03%	100.00%	100.00%	96.00%	99.00%	0	0	75.00%	100.00%	99.94%	0	42	39	NA
		Kerala	100.00%	91.13%	99.95%	255	0.01%	100.00%	100.00%	95.00%	97.00%	0	NA	NA	100.00%	99.99%	0	13	NA	NA
		Kolkata	100.00%	90.75%	100.00%	155	0.01%	100.00%	100.00%	93.00%	97.00%	0	0	64.00%	100.00%	99.99%	0	79	71	NA
7	Bharti Airtel Ltd.	Madhya Pradesh	100.00%	90.10%	99.07%	582	0.01%	100.00%	100.00%	91.00%	96.00%	0	0	66.00%	100.00%	99.91%	0	68	64	NA
		Maharashtra	100.00%	94.81%	99.21%	84	0.01%	100.00%	100.00%	95.00%	97.00%	0	NA	NA	100.00%	99.93%	0	48	NA	NA
		Mumbai	100.00%	95.01%	99.17%	289	0.01%	100.00%	100.00%	93.00%	96.00%	0	0	80.00%	100.00%	99.96%	0	38	58	NA
		Punjab	100.00%	91.51%	99.35%	97	0.00%	100.00%	100.00%	94.00%	97.00%	0	0	76.00%	100.00%	99.98%	0	55	88	NA
		Rajasthan	100.00%	90.33%	99.68%	109	0.01%	100.00%	100.00%	92.00%	96.00%	0	NA	NA	100.00%	99.98%	0	39	NA	NA
		Tamilnadu	100.00%	91.30%	99.90%	1412	0.02%	100.00%	100.00%	97.00%	98.00%	0	0	61.00%	100.00%	99.96%	0	37	34	NA
		Uttar Pradesh - East	100.00%	91.04%	99.05%	62	0.00%	100.00%	100.00%	93.00%	96.00%	0	NA	80.00%	100.00%	99.97%	0	61	90	NA
		Uttar Pradesh - West	100.00%	90.17%	99.02%	29	0.01%	100.00%	100.00%	93.00%	96.00%	0	NA	NA	100.00%	99.99%	0	21	NA	NA
8	Broadband Pacenet India Pvt. Ltd.	All India	100.00%	90.40%	99.50%	4	1.00%	100.00%	0.00	87.00%	90.00%	0	0	62.00%	92.00%	99.40%	0.45%	75	260	0
9	DEN Networks Ltd.	All India	100.00%	95.80%	99.58%	Nil	NA	NA	NA	85.00%	88.00%	Nil	Nil	75.18%	100.00%	98.26%	0.00%	NA	264	NA
	Digital Cloud Technologies Pvt. Ltd.	All India	100.00%	90.38%	NA	NA	NA	NA	NA	60.65%	80.61%	0	0	79.00%	90.00%	98.53%	1.00%	2	4	NA
1.	Digital Network Associates Pvt.	Maharashtra & Goa	100.00%	91.08%	99.43%	None	0.03%	100.00%	Nil	61.42%	82.15%	Nil	0	80.00%	80.00%	99.68%	1.00%	4	255	600
11	Ltd	Mumbai	100.00%	95.90%	100.00%	None	0.00%	100.00%	Nil	73.20%	95.10%	Nil	0	80.00%	80.00%	99.82%	1.00%	4	255	600
12	DNA Infotel Pvt. Ltd.	Maharashtra	100.00%	90.12%	99.04%	None	0.00%	100.00%	Nil	60.86%	82.85%	Nil	0	80.00%	80.00%	99.68%	1.00%	4	255	600
13	D-Vois Communications Pvt.Ltd.	All India	100.00%	94.37%	99.00%	0	0.00%	Nil	Nil	83.75%	94.08%	0	Nil	Nil	90.00%	100.00%	0.10%	120	350	800
		Delhi	100.00%	91.00%	99.50%	Nil	NA	NA	NA	73.70%	96.80%	Nil	Nil	79.00%	98.60%	98.50%	0.00%	4	288	NIL
14	Excitel Broadband Pvt.Ltd.	Hyderabad	100.00%	90.40%	99.40%	Nil	NA	NA	NA	90.13%	94.18%	Nil	Nil	79.12%	98.70%	98.52%	0.00%	4	288	NIL

15	Five Networks Solution (India) Ltd.	All India	100.00%	99.50%	100.00%	NA	0.00%	100.00%	100.00%	NA	NA	NA	0	NA	90.00%	99.00%	1.00%	NA	NA	NA
16	Fusionnet Web Services Pvt. Ltd.	All India	100.00%	97.00%	99.80%	0	0.00%	100.00%	100.00%	96.00%	97.30%	0	0	50.00%	100.00%	100.00%	1.00%	120	350	NA
17	Geocity Network Solutions Pvt.Ltd.	Delhi	100.00%	92.00%	100.00%	0	0.00%	100.00%	100.00%	64.00%	84.00%	0	0	93.18%	87.67%	99.30%	0.50%	60	300	400
18	GTPL Broadband Pvt.Ltd.	All India	100.00%	92.00%	99.00%	386	0.22%	100.00%	NA	92.00%	99.00%	NA	0	81.85%	91.00%	99.59%	0.00%	11	300	NA
19	Hathway Cable & Datacom Ltd.	All India	100.00%	93.73%	99.19%	2002	1.12%	100.00%	100.00%	83.73%	90.39%	0	0	81.02%	90.00%	99.98%	0.02%	79	267	NA
20	Honesty Net Solutions (I) Pvt. Ltd.	Mumbai	100.00%	93.00%	100.00%	0	Nil	100.00%	0.00	67.00%	100.00%	0	NA	NA	95.00%	99.00%	1.00%	NA	66	NA
21	IKF Technologies Ltd	All India	100.00%	92.37%	99.30%	0	0.00%	100.00%	100.00%	71.30%	85.60%	0	0	88.00%	98.40%	98.40%	0.70%	110	320	NA
22	Indinet Service Pvt Ltd	All India	100.00%	91.00%	100.00%	0	0.00%	100.00%	100.00%	74.00%	90.00%	0	0	79.00%	99.00%	99.54%	0.50%	44	256	0
23	Ishan Netsol Pvt Ltd	Gujarat	99.95%	94.64%	98.32%	0	0.00%	0.00	0.00	66.53%	82.30%	62	18	0.00%	90.00%	99.70%	1.00%	100	250	NA
24	Joister Infoserve Pvt. Ltd.	Maharashtra	100.00%	93.00%	100.00%	Nil	0.00%	100.00%	NA	83.67%	90.00%	0	0	58.00%	99.00%	100.00%	1.00%	1	225	265
		Mumbai	100.00%	93.67%	100.00%	Nil	0.00%	100.00%	0.00	83.33%	87.67%	0	0	67.00%	99.00%	100.00%	0.00%	1	47	265
		Tamilnadu	100.00%	95.19%	99.70%	1	NA	100.00%	100.00%	94.81%	95.22%	0	0	NA	100.00%	99.95%	0.00%	13	237	NA
25	K NET Solutions Pvt. Ltd.	Chennai	100.00%	92.66%	99.52%	31	NA	100.00%	100.00%	94.81%	95.22%	0	0	NA	100.00%	99.99%	0.00%	6	232	NA
26	Limras Eronet Broadband Service Pvt. Ltd.		100.00%	99.00%	100.00%	0	1.00%	100.00%	0.00	88.00%	100.00%	0	0	0.00%	92.00%	99.50%	1.00%	35	249	0
27	Meghbela Cable & Broadband Services (P) Ltd	All India	100.00%	99.00%	100.00%	0	0.00%	100.00%	100.00%	95.00%	100.00%	0	0	0.00%	100.00%	99.90%	0.00%	60	150	0
28	Nextra Teleservices Pvt. Ltd.	Delhi	100.00%	93.81%	99.59%	3383	2.00%	100.00%	100.00%	92.00%	94.00%	0	0	84.00%	100.00%	100.00%	1.00%	120	350	NA
29	Ortel Communications Ltd.	All India	100.00%	94.63%	99.42%	NA	NA	NA	NA	100.00%	100.00%	0	0	57.40%	93.00%	98.59%	0.00%	82	227	NA
30	Planet E-shop Holdings India Ltd.	All India	100.00%	97.00%	99.00%	81	0.00%	100.00%	100.00%	100.00%	100.00%	0	0	68.67%	80.00%	98.00%	1.00%	45	260	NA
31	Ouadrant Televentures Ltd.	Punjab	100.00%	98.00%	100.00%	0	0.02%	100.00%	100.00%	91.00%	94.67%	0	0	77.00%	100.00%	99.95%	0.00%	80	280	NA
32	Quest Consultancy Pvt Ltd.	Gujarat	100.00%	95.00%	100.00%	Nil	Nil	100.00%	Nil	99.00%	99.00%	0	Nil	82.00%	99.00%	99.00%	0.30%	13	267	NA
33	RailTel Corporation of India Ltd.	All India (Pan India)	100.00%	97.60%	100.00%	Nil	0.00%	Nil	Nil	89.90%	96.80%	0	0	32.92%	100.00%	99.95%	1.00%	120	350	NA
34	Rajesh Digital Datacom Pvt. Ltd.	Mumbai	100.00%	97.00%	100.00%	0	0.00%	100.00%	100.00%	97.00%	98.00%	0	0	87.00%	83.00%	99.00%	0.00%	46	250	500
35	Shyam Spectra Pvt. Ltd. (formely Citycom Networks Pvt. Ltd.)	All India	100.00%	90.80%	99.20%	3131	1.74%	100.00%	100.00%	82.00%	86.00%	0	0	20.20%	91.10%	98.90%	0	42	126	NA
36	Siti Broadband Services Pvt.Ltd.	All India (Pan India)	100.00%	95.89%	99.92%	NA	NA	NA	NA	71.00%	84.00%	0	0	77.65%	91.00%	99.58%	0.00%	41	184	NA
37	Tata Tele.Ltd. (TTSL)	All India (Pan India)	100.00%	80.00%	95.00%	499	0.03%	100.00%	100.00%	84.45%	90.09%	0	0	74.00%	92.00%	100.00%	0.00%	55	64	Nil
38	Tata Tele.(Mah) Ltd. (TTML)	Maharashtra & Goa	100.00%	76.00%	93.00%	439	0.00%	100.00%	100.00%	83.39%	89.37%	0	0	86.00%	90.00%	99.68%	0.00%	56	185.65	Nil
39	Vasai Cable Pvt. Ltd.	Mumbai	100.00%	96.33%	100.00%	None	0.30%	100.00%	Nil	81.34%	88.04%	Nil	0	63.00%	90.00%	100.00%	1.00%	4	255	NA
40	Wan and Lan Internet Pvt. Ltd.	Mumbai	100.00%	100.00%	100.00%	0.00%	0.00%	100.00%	0.00	90.00%	90.00%	0	0	90.00%	90.00%	99.90%	0.00%	20	40	80
41	Wish Nat Dat 144	Kolkata	100.00%	98.67%	100.00%	0	0.01%	100.00%	NA	82.66%	98.66%	0	0	63.98%	100.00%	99.99%	1.00%	20	NA	NA
41	Wish Net Pvt. Ltd.	West Bengal	100.00%	98.70%	100.00%	0	0.01%	100.00%	NA	82.66%	98.66%	0	0	40.82%	100.00%	99.99%	1.00%	20	NA	NA
42	You Broadband India Pvt. Ltd.	All India	<b>99.07</b> %	94.70%	99.07%	448	0.00%	Nil	0.00	82.77%	89.25%	0	0	62.87%	87.16%	99.60%	0.00%	8	240	0
			DNF=	%         94.70%         99.07%         448         0.00%         Nil         0.00         82.77%         89.25%         0         0         62.87           IF = Data not as per Format         NR = Data not reported by the Service Provider											<b>NA</b> =	Not Applic	able		complied the part not in the requir	

S1. No.	Name of the broadcaster	S1. No.	Name of the channel	Declared as SD or HD
1	9X Media Private Limited	1	9XM	SD
2	ABP News Network Pvt Limited	2	ABP Ananda	SD
		3	ABP Majha	SD
3	AETN 18 Media Pvt Limited	4	The History Channel	SD
		5	FY1 TV18	HD
		6	Histroy TV 18 HD	HD
4	Asianet Communications	7	Asianet	SD
	Limited	8	Asianet Plus	SD
		9	Asianet Movies	SD
		10	Suvarna Plus	SD
		11	Star Suvarna HD	HD
		12	Asianet HD	HD
		13	Star Suvarna (Earlier name "Suvarna")	SD
5	AXN Networks India Private Limited	14	SONY ESPN (Earlier name "SONY KIX")	SD
		15	AXN HD	HD
6	Bangla Entertainment Private Limited	16	ААТН	SD
7	BBC Global News India Private Limited	17	BBC World News	SD
8	Bennett, Coleman & Company	18	Zoom	SD
	Limited	19	Romedy Now	SD
		20	MN+(Earlier name "Movies Now +")	HD
		21	Mirror Now (Earlier name "Magicbricks Now")	SD
		22	ET NOW	SD
		23	Times Now	SD
		24	Romedy Now HD	HD
		25	Movies Now HD	HD
		26	MNX HD (Earlier name "Movies Now 2 HD")	HD
		27	MNX (Earlier name "Movies Now 2")	SD
		28	Times Now HD	HD
9	Business Broadcast News Private Limited	29	BTVi (Earlier name "Bloomberg TV India")	SD
10	Celebrities Management Pvt Limited	30	Travel XP HD (Earlier name "Travel XP")	HD
		31	Travel XP Tamil	SD

# Annexure 5.1: List of Broadcasters and their Pay TV Channels as reported to TRAI

Annexure 5.1(Contd.)

S1. No.	Name of the broadcaster	S1. No.	Name of the channel	Declared as SD or HD
11	CSL Info Media Private Limited	32	JAN TV PLUS	SD
12	Discovery Communications	33	Animal Planet	SD
	India	34	Discovery Channel	SD
		35	Discovery Channel – Tamil	SD
		36	Discovery Kids Channel	SD
		37	Discovery Science	SD
		38	Discovery Turbo	SD
		39	Discovery Jeet (Earlier name "ID Investigation Discovery")	SD
		40	Discovery HD World (earlier name "Discovery HD")	HD
		41	Animal Planet HD World (earlier name "Discovery Home and Health")	HD
		42	TLC HD world (earlier name "Military Channel")	HD
		43	Discovery Jeet HD	HD
		44	TLC	SD
		45	Dsport	SD
13	Disney Broadcasting (India) Limited	46	Disney Junior (Earlier name "UTV Comedy")	SD
		47	UTV Movies	SD
		48	Disney XD (Earlier name "UTV World Movies")	SD
		49	Disney International HD (Earlier name "Bindass Play")	HD
		50	The Disney Channel	SD
14	E-24 Glamour Limited	51	E 24	SD
15	Eenadu Televisoin Private	52	ETV Telugu	SD
	Limited	53	ETV Andhra Pradesh (earlier name "ETV-2")	SD
		54	ETV - Telangana (earlier name "ETV-3")	SD
		55	ETV Cinema	SD
		56	ETV Life	SD
		57	ETV Plus	SD
		58	ETV Abhiruchi	SD
		59	ETV HD	HD
16	EPIC Television Networks Pvt Limited	60	EPIC TV (HD Distribution)	HD
17	Genx Entertainment Limited	61	UTV Bindass	SD
		62	UTV Action	SD
18	Greycells18 Media Limited	63	Topper TV (#)	SD
19	IBN Lokmat News Private Ltd	64	News 18 Lokmat (earlier name "IBN Lokmat")	SD

Annexure 5.1(Contd.)

				5.1(Conta.)
S1. No.	Name of the broadcaster	S1. No.	Name of the channel	Declared as SD or HD
20	Living Entertainment Enterprises Private Ltd	65	Living Foodz HD	HD
21	Mavis Satcom Limited	66	J Movies	SD
		67	Jaya Max	SD
		68	Jaya Plus	SD
		69	Jaya TV HD	HD
22	MSM World Wide Factual	70	SONY BBC EARTH	SD
	Media Private Limited	71	SONY BBC EARTH HD	HD
23	NDTV Life style Limited	72	NDTV Good Times	SD
24	Neo Sports Broadcast Pvt Limited	73	NEO Prime (Earlier name "Neo Cricket")	SD
		74	Neo Sports	SD
25	New Delhi Television Limited	75	NDTV 24*7	SD
		76	NDTV Profit	SD
26	NGC Network (India) Pvt	77	Fox Life	SD
	Limited	78	National Geographic Channel (NGC)	SD
		79	Fox Life HD	HD
		80	Nat Geo Wild	SD
		81	National Geographic HD	HD
		82	Nat Geo Music HD	HD
		83	Nat Geo Wild HD	HD
		84	Nat Geo People HD	HD
		85	Baby TV HD	HD
27	NOIDA Software Technology Park Limited	86	NHK World Premium (HD Distribution)	HD
28	Odisha Television Limited	87	Prarthana	SD
		88	Tarang	SD
		89	Tarang Music	SD
		90	Alankar	SD
29	Panorama Television Private	91	News 18 Bihar Jharkhand	SD
	Limited		(Earlier name "ETV Bihar	
			Jharkhand")	
		92	News 18 Madhya Pradesh /	SD
			Chattisgarh (Earlier name ETV	
			Madhya Pradesh / Chattisgarh")	
		93	News 18 Rajasthan (Earlier	SD
			name "ETV Rajasthan")	
		94	News 18 Uttar Pradesh/	SD
			Uttaranchal ( Earlier name "ETV	
			Uttar Pradesh/ Uttaranchal")	
		95	News 18 Urdu (Earlier name "ETV Urdu")	SD
		96	News 18 Kannada (earlier name "ETV News Kannada")	SD

Annexure 5.1(Contd.)

				5.1(Contd.)
S1. No.	Name of the broadcaster	S1. No.	Name of the channel	Declared as SD or HD
		97	News 18 Bangla (Earlier name "ETV News Bangla")	SD
		98	News 18 Punjab / Haryana / Himanchal Pradesh (Earlier	SD
			name "ETV Haryana / Himanchal Pradesh")	
		99	News 18 Gujarati (Earlier name "ETV News Gujarati")	SD
		100	News 18 Odia (Earlier name "ETV News Odia")	SD
30	Paul Entertainments Pvt Limited	101	9X Tashan (Earlier name "Purvaiya")	SD
31	Raj Television Network Limited	102	Raj Musix Kannada	SD
		103	Raj Digital Plus	SD
		104	Raj Musix	SD
		105	Raj News	SD
		106	Raj TV	SD
		107	Vissa TV	SD
32	Sahara India Commercial	108	Sahara Filmy	SD
	Corporation Ltd	109	Sahara One	SD
33	Sarthak Entertainment Pvt Limited	110	Sarthak TV	SD
34	Silverstar Communications	111	Mega 24	SD
	Limited	112	Mega Musiq	SD
		113	Mega TV	SD
35	Sony Pictures Networks India	114	Sony YAY! (Earlier "Animax")	SD
	Private Limited	115	AXN	SD
		116	SET MAX	SD
		117	MIX	SD
		118	SAB	SD
		119	SONY ENTERTAINMENT CHANNEL (SET)	SD
		120	PIX	SD
		121	SIX	SD
		122	MAX 2 (Earlier name "MAX HD")	SD
		123	PAL (Earlier Name "SAB HD")	SD
		124	SET HD	HD
		125	SIX HD	HD
		126	PIX HD	HD
		127	MAX HD	HD
		128	SONY ESPN HD	HD
		129	Le PLEX HD	HD
		130	Ten 2 HD	HD
		131	Ten 3 HD	HD
		132	SAB HD	HD
		133	SONY ROX HD	HD

Annexure 5.1(Contd.)

			Annexure 5.1(Contd.)			
S1. No.	Name of the broadcaster	S1. No.	Name of the channel	Declared as SD or HD		
36	Star India Private Limited	134	Channel (V)	SD		
		135	Star Sports 1 Tamil (Earlier name "Star Sports 4")	SD		
		136	Star Sports Select 2 (Earlier name "FX")	SD		
		137	Star Bharat (earlier name "Life Ok")	SD		
		138	Movies OK (earlier name "Gold Action")	SD		
		139	Star Sports 1 Hindi (Earlier name "Star Sports 3")	SD		
		140	Star Gold	SD		
		141	Star Jalsha	SD		
		142	Star Movies	SD		
		143	Star Gold Select (Earlier name "Star Movies Action")	SD		
		144	Star Plus	SD		
		145	Star Pravah	SD		
		146	Star Sports 1	SD		
		147	Star Sports 2	SD		
		148	Star World	SD		
		149	Jalsha Movies (Earlier name "Star Bengali")	SD		
		150	Star Sports HD 2	HD		
		151	Star Sports HD 1	HD		
		152	Star Bharat HD (earlier name "Life Ok HD")	HD		
		153	Star Gold HD	HD		
		154	Star Movies HD	HD		
		155	Star Plus HD	HD		
		156	Star World Prmiere HD	HD		
		157	Star Sports 1 HD Hindi (Earlier name "Star Sports HD 3")	HD		
		158	Star Sports Select 1 (Earlier name "Star Sports HD 4")	SD		
		159	Star Movies Select HD	HD		
		160	Star World HD	HD		
		161	Star Sports First (Earlier Name "FX HD")	SD		
		162	MAA Gold	SD		
		163	MAA Movies	SD		
		164	MAA Music	SD		
		165	MAA TV	SD		
		166	Star Pravah HD	HD		
		167	Star Jalsha HD	HD		
		168	Jalsha Movies HD	HD		

Annexure 5.1(Contd.)

~	Annexure 5.1(Contd.)				
S1. No.	Name of the broadcaster	S1. No.	Name of the channel	Declared as SD or HD	
		169	Star Sports Select HD 1	HD	
		170	Star Sports Select HD 2	HD	
		171	MAA HD	HD	
		172	Star Gold Select HD	HD	
		173	MAA Movies HD	HD	
37	SUN TV Network Limited	174	Adithya TV	SD	
		175	Chintu TV	SD	
		176	Chutti TV	SD	
		177	Gemini Comedy	SD	
		178	Gemini Life	SD	
		179	Gemini Movies	SD	
		180	Gemini Music	SD	
		181	Gemini News	SD	
		182	Gemini TV	SD	
		183	KTV	SD	
		184	Surya Movies (Earlier name	SD	
			"Kiran TV")		
		185	Kushi TV	SD	
		186	SUN Life	SD	
		187	Sun Music	SD	
		188	Sun News	SD	
		189	Surya Music (Earlier name "Sun	SD	
			News English")	_	
		190	SUN TV	SD	
		191	Surya Comedy (Earlier name "SUN TV RI")	SD	
		192	Surya TV	SD	
		193	Udaya Comedy	SD	
		194	Udaya Movies	SD	
		195	Udaya Music	SD	
		196	Udaya News	SD	
		197	Udaya TV	SD	
		198	Kochu TV	SD	
		199	Sun TV HD	HD	
		200	KTV HD	HD	
		201	Sun Music HD	HD	
		201	Gemini TV HD	HD	
		203	Gemini Music HD (Earlier name "Sun Action")	HD	
		204	Gemini Movies HD (Earlier name "Gemini Action")	HD	
		205	Surya HD (Earlier name "Surya Action")	HD	
		206	Udaya HD (Earlier name "Suriyan TV")	HD	

No.Name of the broadcasterN38Taj Television India Private Limited242124222423242424252439Turmeric Vision Private Ltd2440Turner International India Pvt Ltd24212424222424232424242424252424262424272424282424292424202424212424222424232424242424252424262424272424282424292424202424212424222424232424242424252424262424272424282424292424292424202424212424222424232424242424252424262424272424 <th><b>S1.</b> <b>No.</b> 207 208 209 210 211 212 213 214 215 216 217 218 219 220</th> <th>Name of the channelTen 2 (earlier name 'Ten Action')Ten 1 (earlier name 'Ten Sports')Ten 3Ten Golf HDTen 1 HD (earlier name 'Ten HD')Food Food TVCartoon NetworkCNN InternationalHBOPOGOCartoon Network HD+WBHBO HD (Earlier name "HBO Hits HD")CNN News 18 (earlier name</th> <th>Declared as SD or HD SD SD SD HD HD SD SD SD SD SD SD HD SD HD SD HD</th>	<b>S1.</b> <b>No.</b> 207 208 209 210 211 212 213 214 215 216 217 218 219 220	Name of the channelTen 2 (earlier name 'Ten Action')Ten 1 (earlier name 'Ten Sports')Ten 3Ten Golf HDTen 1 HD (earlier name 'Ten HD')Food Food TVCartoon NetworkCNN InternationalHBOPOGOCartoon Network HD+WBHBO HD (Earlier name "HBO Hits HD")CNN News 18 (earlier name	Declared as SD or HD SD SD SD HD HD SD SD SD SD SD SD HD SD HD SD HD
Limited 2 2 2 2 2 2 2 39 Turmeric Vision Private Ltd 2 40 Turner International India Pvt 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	208       209       210       211       212       213       214       215       216       217       218       219	Ten 1 (earlier name 'Ten Sports') Ten 3 Ten Golf HD Ten 1 HD (earlier name 'Ten HD') Food Food TV Cartoon Network CNN International HBO POGO Cartoon Network HD+ WB HBO HD (Earlier name "HBO Hits HD")	SD SD HD HD SD SD SD SD HD SD
39Turmeric Vision Private Ltd239Turner International India Pvt240Turner International India Pvt22022212222222322242225222622272228222922202221222222232224222522262227222822292220222122222223222422252226222722282229222022212222222322242225222622272228222922292220222122222223222422 <td>209       210       211       212       213       214       215       216       217       218       219</td> <td>Ten 3 Ten Golf HD Ten 1 HD (earlier name 'Ten HD') Food Food TV Cartoon Network CNN International HBO POGO Cartoon Network HD+ WB HBO HD (Earlier name "HBO Hits HD")</td> <td>SD HD HD SD SD SD SD HD SD</td>	209       210       211       212       213       214       215       216       217       218       219	Ten 3 Ten Golf HD Ten 1 HD (earlier name 'Ten HD') Food Food TV Cartoon Network CNN International HBO POGO Cartoon Network HD+ WB HBO HD (Earlier name "HBO Hits HD")	SD HD HD SD SD SD SD HD SD
39Turmeric Vision Private Ltd240Turner International India Pvt Ltd222222222222222222222222222222222	210 211 212 213 214 215 216 217 218 219	Ten Golf HD Ten 1 HD (earlier name 'Ten HD') Food Food TV Cartoon Network CNN International HBO POGO Cartoon Network HD+ WB HBO HD (Earlier name "HBO Hits HD")	HD HD SD SD SD SD HD SD
39Turmeric Vision Private Ltd240Turner International India Pvt Ltd22222222222222222222222222222222222	211 212 213 214 215 216 217 218 219	Ten 1 HD (earlier name 'Ten HD') Food Food TV Cartoon Network CNN International HBO POGO Cartoon Network HD+ WB HBO HD (Earlier name "HBO Hits HD")	HD SD SD SD SD HD SD
39Turmeric Vision Private Ltd240Turner International India Pvt Ltd222222222222222222222222222222222	212 213 214 215 216 217 218 219	HD') Food Food TV Cartoon Network CNN International HBO POGO Cartoon Network HD+ WB HBO HD (Earlier name "HBO Hits HD")	SD SD SD SD SD HD SD
40 Turner International India Pvt 2 Ltd 2 2 2 2 2 2 2 2 2 2 2 2 2 2	213 214 215 216 217 218 219	Cartoon Network CNN International HBO POGO Cartoon Network HD+ WB HBO HD (Earlier name "HBO Hits HD")	SD SD SD HD SD
Ltd 2 2 2 2 2 2 2 2 2 2	214 215 216 217 218 219	CNN International HBO POGO Cartoon Network HD+ WB HBO HD (Earlier name "HBO Hits HD")	SD SD SD HD SD
2 2 2 2 2 2 2	215 216 217 218 219	HBO POGO Cartoon Network HD+ WB HBO HD (Earlier name "HBO Hits HD")	SD SD HD SD
$\begin{array}{c} 2\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2\end{array}$	216 217 218 219	POGO Cartoon Network HD+ WB HBO HD (Earlier name "HBO Hits HD")	SD HD SD
$\frac{2}{2}$	217 218 219	Cartoon Network HD+ WB HBO HD (Earlier name "HBO Hits HD")	HD SD
2	218 219	WB HBO HD (Earlier name "HBO Hits HD")	SD
2	219	HBO HD (Earlier name "HBO Hits HD")	
		Hits HD")	HD
41TV 18 Broadcast Limited21	20	CNN News 18 (conting name	
		"CNN-IBN")	SD
2	21	CNBC Bajaar	SD
2	222	CNBC TV 18 Prime HD	HD
2	23	CNBC Awaaz	SD
2	224	CNBC TV 18	SD
42 TV Today Network Limited 22	25	Aaj Tak	SD
2	26	Delhi Aaj Tak	SD
2:	227	India Today (Earlier name "Headlines Today")	SD
2	28	Aaj Tak Tez	SD
43 United Home Entertainment 22 Pvt Limited	29	Hungama TV	SD
44 Viacom 18 Media Private 24	30	Colors	SD
Limited 2.	31	Comedy Central (HD Distribution)	HD
2	32	MTV	SD
2	33	NICK	SD
2.	34	NICK JR (Earlier name "Nick Jr / Teen Nick")	SD
2	35	SONIC	SD
	36	VH 1 (HD Distribution)	HD
	37	Colors Infinity HD	HD
2	38	Colors Infinity	SD
2	39	Colors HD	HD
2	240	NICKS HD+	HD
	241	MTV Indies (HD Distribution)	HD
	42	Rishtey Cineplex	SD
	43	MTV Beats (Earlier name "X Zone")	SD
2.	244	Colors Kannada HD	HD

Annexure 5.1(Contd.)

		~ 1		5.1(Contd.)
S1. No.	Name of the broadcaster	S1. No.	Name of the channel	Declared as SD or HD
		245	Colors Marathi HD	HD
		246	Colors Bangla HD	HD
		247	Colors Super	SD
		248	Colors Bangla (Earlier name "ETV Bangla")	SD
		249	Colors Gujarati (Earlier name "ETV Gujarati")	SD
		250	Colors Kannada (Earlier name "ETV Kannada")	SD
		251	Colors Marathi (Earlier name "ETV Marathi")	SD
		252	Colors Oriya (Earlier name "ETV Oriya")	SD
		253	MTV Beats HD	HD
		254	Colors Tamil (earlier name "NXT")	SD
		255	Cineplex HD	HD
		256	VH 1	SD
		257	Colors Tamil HD	HD
		258	MTV HD+	HD
		259	Comedy Central	SD
45	Vijay Television Pvt Limited	260	Vijay TV (except Tamil Nadu)	SD
		261	Vijay Super	SD
		262	Vijay HD	HD
46	Zee Akaash News Private Ltd	263	24 Ghanta	SD
47	Zee Entertainment Enterprises Limited	264	Zee ETC Bollywood (Earlier name "Zee Bollywood")	SD
		265	Action Cinema	SD
		266	Zee Bangla Cinema	SD
		267	Zee Café HD	HD
		268	Zee Café	SD
		269	Zee Cinema	SD
		270	Classic Cinema	SD
		271	Zee Studio	SD
		272	Zee Talkies	SD
		273	Zee TV	SD
		274	Zing	SD
		275	& Picture	SD
		276	Zee Bangla	SD
		277	Zee Marathi	SD
		278	Living Foodz (earlier name "Zee Khana Khazana")	SD
		279	Zee TV HD	HD
		280	Zee Cinema HD	HD
		281	Zee Studio HD	HD
		282	& TV	SD

Annexure 5.1(Contd.)

S1. No.	Name of the broadcaster	S1. No.	Name of the channel	Declared as SD or HD
		283	& TV HD	HD
		284	Zee Kannada	SD
		285	Zee Telugu	SD
		286	& Pictures HD	HD
		287	Zee Cinemalu	SD
		288	Zee Yuva	SD
		289	Zee Marathi HD	HD
		290	Living Zen	SD
		291	& Prive HD	HD
		292	Zee Bangla HD	HD
		293	Zee Tamil HD	HD
		294	Zee Cinemalu HD	HD
		295	Zee Telugu HD	HD
		296	Zee Tamil	SD
		297	Zee Kannada HD	HD
		298	Zee Talkies HD	HD
18	Zee Media Corporation Limited	299	Zee 24 Taas	SD
		300	Zee Kalinga (Earlier name "Zee 24 Ghantalu)	SD
		301	Zee Business	SD
		302	Zee Punjab Haryana Himachal (Earlier name "Zee Punjabi")	SD
		303	Zee Madhya Pradesh Chattisgarh	SD
		304	Zee Salaam	SD
		305	Zee 24 Kalak	SD
		306	WION	SD
		307	Zee Uttar Pradesh Uttrakhand	SD
		308	Zee Rajasthan News (Earliner name "Zee Marudhara" and "Zee Rajasthan Plus")	SD
19	Zoom Entertainment Network Limited	309	Movies Now	SD

broadcasaters in accordance with the Telecommunication (Broadcasting and Cable) Services (Fourth) (Addressable Systems) Tariff Order, 2010 dated 21.07.2010 as amended from time to time.

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

#### M/s. Tata Sky Ltd., Unit 301 to 305, 3<sup>rd</sup> Floor, Windsor, Off CST Road, Kalina, Santacruz (East), Mumbai – 400 098 Tel: 022-6613 3000 Fax-022-6613 3030 Website : www.tatasky.com

#### 2. M/s Dish TV India Ltd.

FC-19, Sector-16A, Film City, Noida-201301 Tel: 91-120-2467005 / 2467000 Fax: 91-120-4357082 Website : www.dishtv.in

#### 3. SUN Direct TV(P) Ltd.

Murasoli Maran Towers, 73, MRC Nagar, Main Road, MRC Nagar, Chennai – 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: 0124-4222222 Fax : 0124-4248063 Website : <u>www.airtel.in</u>

#### 5. Reliance Big TV Pvt. Ltd.

3rd Floor, A-Wing, Reliance Centre, Maharaja Ranjit Singh Marg, New Delhi – 110 002 Ph: 011-30331012 Fax : 011-30331781 Website: www.rcom.co.in

Sl.No.	Name of City	Category	Number of operational channels
1	Agra	В	4
2	Agartala	D	1
3	Ahmedabad	A	7
4	Ahmednagar	C	3
5	Aizwal	D	2
6	Ajmer	C	4
7	Akola	C	3
8	Aligarh	C	3
9	Allahabad	В	4
10	Amritsar	В	4
11	Asansol	В	2
12	Aurangabad	С	4
13	Bareily	С	4
14	Bengaluru	A	8
15	Bhopal	В	4
16	Bhubaneshwar	С	4
17	Bikaner	С	4
18	Bilaspur	С	3
19	Chandigarh	С	4
20	Chennai	A+	8
21	Cochin	В	4
22	Coimbatore	В	4
23	Delhi	A+	9
24	Dhule	С	2
25	Gangtok	D	2
26	Gorakhpur	С	4
27	Gulbarga	С	1
28	Guwahati	С	4
29	Gwalior	С	4
30	Hissar	D	4
31	Hyderabad	A	7
32	Itanagar	D	1
33	Indore	В	4
34	Jabalpur	В	4

## Annexure 5.3: List of 86 existing cities with operational FM Radio Channels in India as on 30<sup>th</sup> June, 2018

Annexure 5.3 (Contd.)

S1.No.	Name of City	Category	Number of operational channels
35	Jaipur	А	6
36	Jalandhar	С	4
37	Jalgaon	С	4
38	Jammu	С	3
39	Jamshedpur	В	4
40	Jhansi	С	2
41	Jodhpur	С	4
42	Kannur	С	3
43	Kanpur	A	6
44	Karnal	D	3
45	Kolhapur	С	4
46	Kolkata	A+	8
47	Kota	С	4
48	Kozhikode	С	4
49	Lucknow	A	6
50	Madurai	В	4
51	Mangalore	С	3
52	Mumbai	A+	9
53	Muzaffarpur	С	3
54	Mysore	С	2
55	Nagpur	А	6
56	Nanded	С	2
57	Nasik	С	4
58	Panaji	D	2
59	Patiala	С	4
60	Patna	В	4
61	Puducherry	С	3
62	Pune	А	6
63	Raipur	С	3
64	Rajahmundry	С	1
65	Rajkot	В	4
66	Ranchi	С	4
67	Rourkela	С	3
68	Sangli	С	5
69	Shillong	D	3
70	Shimla	D	3

Annexure 5.3 (Contd.)

Sl.No.	Name of City	Category	Number of operational channels
71	Sholapur	С	4
72	Siliguri	С	3
73	Srinagar	С	4
74	Surat	A	6
75	Thiruvananthapuram	С	4
76	Thrissur	С	3
77	Tiruchy	С	2
78	Tirunelveli	С	2
79	Tirupati	С	2
80	Tuticorin	С	2
81	Udaipur	С	4
82	Vadodra	В	4
83	Varanasi	В	5
84	Vijayawada	В	2
85	Vishakapatnam	В	3
86	Warrangal	С	1
	Total		328

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

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<ul> <li>Table 1.31: Service area wise number of internet subscribers per 100 population</li></ul>	$\begin{array}{c}37\\40\\45\\47\\50\\51\\52\\52\\56\\57\\58\\59\\60\\61\\63\\65\\67\end{array}$
<ul> <li>Table 1.31: Service area wise number of internet subscribers per 100 population</li></ul>	$\begin{array}{c}37\\40\\45\\47\\50\\51\\52\\52\\56\\57\\58\\59\\60\\61\\63\\65\\67\end{array}$
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