



Telecom Regulatory Authority of India

The Indian Telecom Services Performance Indicators July – September, 2018

New Delhi, India
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Snapshot

(Data As on Q.E. 30th September, 2018)

Telecom Subscribers (Wireless + Wireline)	
Total Subscribers	1,191.40 Million
% change over the previous quarter	1.93%
Urban Subscribers	666.64 Million
Rural Subscribers	524.76 Million
Market share of Private Operators	88.97%
Market share of PSU Operators	11.03%
Teledensity	91.20
Urban Teledensity	160.79
Rural Teledensity	58.85
Wireless Subscribers	
Total Wireless Subscribers	1,169.29 Million
% change over the previous quarter	1.99%
Urban Subscribers	647.70 Million
Rural Subscribers	521.59 Million
Market share of Private Operators	90.03%
Market share of PSU Operators	9.97%
Teledensity	89.51
Urban Teledensity	156.23
Rural Teledensity	58.49
Total Wireless Data Usage during the quarter	12,549,891 TB
No. of total Public Mobile Radio Trunk Services (PMRTS)	76,700
No. of Very Small Aperture Terminals (VSAT)	2,81,912
Wireline Subscribers	
Total Wireline Subscribers	22.11 Million
% change over the previous quarter	-1.26%
Urban Subscribers	18.95 Million
Rural Subscribers	3.17 Million
Market share of Private Operators	32.49%
Market share of PSU Operators	67.51%
Teledensity	1.69
Urban Teledensity	4.57
Rural Teledensity	0.36
No. of Village Public Telephones (VPT)	1,23,736
No. of Public Call Office (PCO)	3,05,395

Telecom Financial Data	
Gross Revenue (GR) during the quarter	₹ 57,827 Crore
% change in GR over the previous quarter	-0.98%
Adjusted Gross Revenue (AGR) during the quarter	₹ 36,142 Crore
% change in AGR over the previous quarter	-1.12%
Share of Public sector undertakings in Access AGR	9.48%
Monthly Average Revenue Per User (ARPU) for Access Services	₹ 72.50
Internet/Broadband Subscribers	
Total Internet Subscribers	560.01 Million
% change over previous quarter	9.32%
Narrowband subscribers	78.30 Million
Broadband subscribers	481.70 Million
Wired Internet Subscribers	21.25 Million
Wireless Internet Subscribers	538.76 Million
Urban Internet Subscribers	365.94 Million
Rural Internet Subscribers	194.07 Million
Total Internet Subscribers per 100 population	42.87
Urban Internet Subscribers per 100 population	88.26
Rural Internet Subscribers per 100 population	21.76
Broadcasting & Cable Services	
Number of private satellite TV channels permitted by the Ministry of I&B for uplinking only/downlinking /uplinking	851
Number of Pay TV Channels as reported by broadcasters	313
Number of private FM Radio Stations (excluding All India Radio)	350
Number of Pay Subscribers net Active with Private DTH Operators	69.45 Million
Number of Operational Community Radio Stations	238
Number of pay DTH Operators	5
Revenue & Usage Parameters	
Monthly ARPU of Wireless Service (GSM+CDMA+LTE)	₹ 67.39
Minutes of Usage (MOU) per subscriber per month - Wireless Service (GSM+CDMA+LTE)	627 Minutes
Total Outgoing Minutes of Usage for Internet Telephony	200 Million
Wireless Data Usage	
Average Data Usage per unique data subscriber per month-GSM (2G+3G+4G LTE+CDMA)	8.32 GB
Average outgo(tariff) per GB wireless data during the quarter	₹ 10.91

Executive Summary

1. The number of telephone subscribers in India increased from 1,168.89 million at the end of Jun-18 to 1,191.40 million at the end of Sep-18, registering an increase rate of 1.93% over the previous quarter. However, this reflects year-on-year (Y-O-Y) decline rate of 1.27% over the same quarter of last year. The overall Teledensity in India increased from 89.72 as on QE Jun-18 to 91.20 as on QE Sep-18.

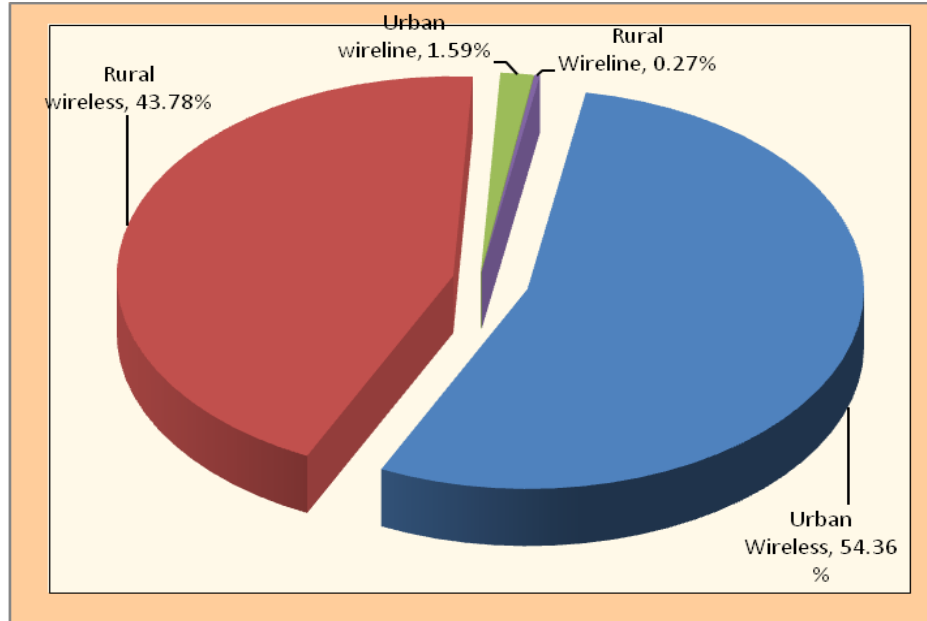
Trends in Telephone subscribers and Teledensity in India



2. Telephone subscription in Urban Areas increased from 652.76 million at the end of Jun-18 to 666.64 million at the end of Sep-18 and Urban Teledensity also increased from 158.16 to 160.79 during the same period.
3. Rural subscription increased from 516.13 million at the end of Jun-18 to 524.76 million at the end of Sep-18 and Rural Teledensity also increased from 57.99 at the end of Jun-18 to 58.85 at the end of Sep-18.

4. Out of the total subscription, the share of Rural subscription declined from 44.16% at the end of Jun-18 to 44.05% at the end of Sep-18.

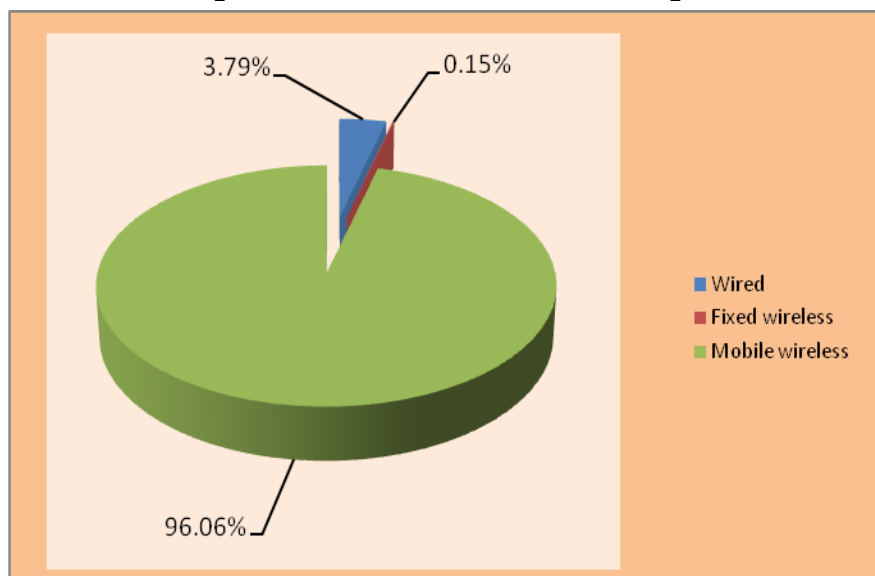
Composition of Telephone Subscribers



5. With a net addition of 22.80 million subscribers during the quarter, total wireless (GSM incl. LTE + CDMA) subscriber base increased from 1,146.49 million at the end of Jun-18 to 1,169.29 million at the end of Sep-18, registering an increase rate of 1.99% over the previous quarter. However, year-on-year (Y-O-Y) wireless subscriptions declined at the rate of 1.66% during the quarter.
6. Wireless Tele-density increased from 88.00 at the end of Jun-18 to 89.51 at the end of Sep-18.
7. Wireline subscriber declined from 22.40 million at the end of Jun-18 to 22.11 million at the end of Sep-18 with quarterly decline rate of 1.26%. The year-on-year (Y-O-Y) decline rate in wireline subscribers for Sep-18 is 6.58%.

8. Wireline Teledensity declined from 1.72 at the end of Jun-18 to 1.69 at the end of Sep-18.
9. Total number of Internet subscribers increased from 512.26 million at the end of Jun-18 to 560.01 million at the end of Sep-18, registering a quarterly growth rate of 9.32%. Out of 560.01 million internet subscribers, Wired Internet subscribers are 21.25 million and Wireless Internet subscribers are 537.92 million.

Composition of internet subscription

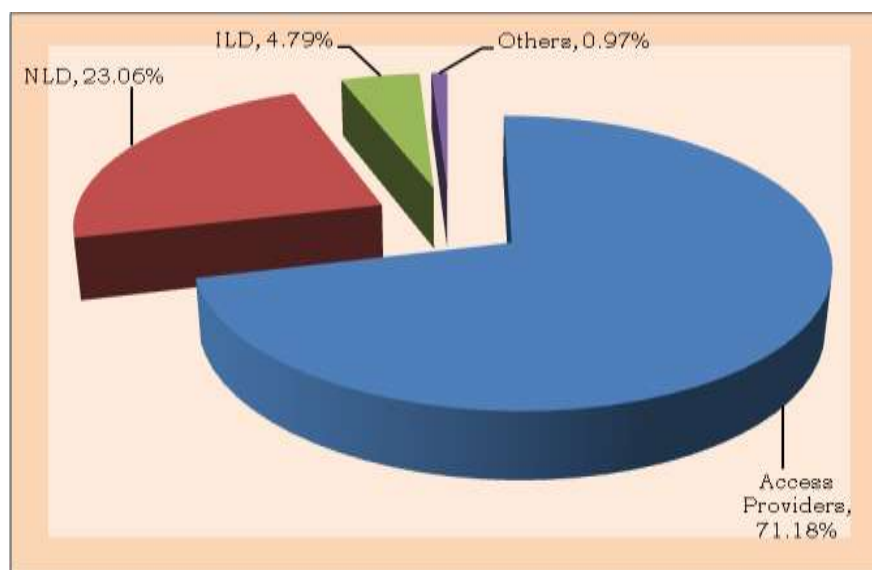


10. The Internet subscriber base is comprised of Broadband Internet subscriber base of 481.70 million and Narrowband Internet subscriber base of 78.30 million.
11. The broadband Internet subscriber base increased by 7.73% from 447.12 million at the end of Jun-18 to 481.70 million at the end of Sep-18. The narrowband Internet subscriber base also increased by 20.21% from 65.14 million at the end of Jun-18 to 78.30 million at the end of Sep-18.

12. Monthly Average Revenue per User (ARPU) for wireless service declined by 2.55%, from ₹69.15 in QE Jun-18 to ₹67.39 in QE Sep-18. Monthly ARPU for wireless service declined by 19.99% on yearly basis (Y-O-Y) in this quarter.
13. Prepaid ARPU per month is ₹57 and Postpaid ARPU per month is ₹299 in QE Sep-18.
14. On an all India average, the overall MOU per subscriber per month for wireless service increased by 3.29% from 607 for QE Jun-18 to 627 in QE Sep-18.
15. Prepaid MOU per subscriber per month is 601 and postpaid MOU per subscriber per month is 734 in QE Sep-18.
16. Gross Revenue (GR) and Adjusted Gross Revenue (AGR) of Telecom Service Sector for the QE Sep-18 has been ₹57,827 Crore and ₹36,142 Crore respectively. GR and AGR, both are declined by 0.98% and 1.12% respectively in QE Sep-18 as compared to previous quarter.
17. The year-on-year (Y-O-Y) growth in GR and AGR in QE Se-18 over the same quarter in last year has been -12.86% and -13.26% respectively.
18. Pass-through charges declined from ₹21,849 Crore in QE Jun-18 to ₹21,685 Crore in QE Sep-18. The quarterly and the year-on-year (Y-O-Y) growth rates of pass-through charges for QE Sep-18 are -0.75% and -12.18% respectively.

19. The License Fee declined from ₹2,929 Crore for the QE Jun-18 to ₹2,889 Crore for the QE Sep-18. The quarterly and the year-on-year (Y-O-Y) growth rates of license fee are -1.35% and -11.08% respectively in this quarter.
20. Access services contributed 71.18% of the total Adjusted Gross Revenue of telecom services. In Access services, Gross Revenue (GR), Adjusted Gross Revenue (AGR), License Fee and Spectrum Usage Charges(SUC) increased by 0.05%, 0.56%, 0.40% and 1.55% respectively in QE Sep-18. However, Pass Through Charges in access services declined by 0.81% during the quarter.

Composition of Adjusted Gross Revenue in access services



21. Monthly Average Revenue per User (ARPU) for Access Services based on AGR, declined from ₹73.34 in QE Jun-18 to ₹72.50 in QE Sep-18.

22. 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
<ul style="list-style-type: none"> • SDCCH/Paging Channel Congestion/RRC Congestion (%age) • Network QoS DCR Spatial Distribution Measure [Network_QSD(90,90)] (%age) • Network QoS DCR Temporal Distribution Measure [Network_QTD(97,90)] (%age) • Metering and billing credibility- prepaid • Resolution of billing/charging/validity complaints (100% within 6 weeks) • Accessibility of call centre/ customer care • %age of calls answered by the operators (voice to voice) within 90 sec • %age requests for Termination/Closure of service complied within 7 days 	<ul style="list-style-type: none"> • TCH, RAB and E-RAB Congestion (%age) • Metering and billing credibility- postpaid • Time taken for refund of deposits after closures

23. 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
<ul style="list-style-type: none"> • Resolution of billing/charging/credit & validity complaints 	<ul style="list-style-type: none"> • Response time to the customer for Assistance – %age of calls answered by the operators (Voice to voice) within 90 seconds • % of request for Termination/Closure of service complied within 7 days

24. A total number of 851 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 30th September, 2018.
25. During the quarter ending 30th September, 2018, there were 313 pay channels as reported by 49 broadcasters as compared to 309 pay channels reported in the previous quarter. 313 pay channels include 216 SD pay TV channels and 97 HD Pay TV channels. During the quarter ending 30th September, 2018, as per the report submitted by the broadcasters, three new pay channels were reported and one FTA channel namely “NDTV India” converted into Pay channel.
26. Since its introduction in the year 2003, DTH service has displayed a phenomenal growth. During the QE 30th September, 2018, there were 5 pay DTH service providers in the country.
27. DTH has attained net pay active subscriber base of around 69.45 million in QE 30th September, 2018. This is in addition the subscribers of free DTH services of Doordarshan.
28. Apart from the radio stations operated by All India Radio, the public broadcaster, as on 30th September, 2018, there are 350 operational private FM Radio stations in 95 cities operated by 33 FM Radio broadcasters as compared to 328 private FM Radio stations in 86 cities operated by 34 FM Radio broadcasters in the previous quarter. During the quarter ending September, 2018, intimation was received from one FM Radio operator namely M/s Syntech Informatics Private Limited, about shutting down the transmission/operation of its single FM Radio station at Siliguri.
29. As per data received from MIB, as on 30th September, 2018, 238 Community Radio Stations are operational.

Trends at a Glance

A. Access Service (Wireline + Wireless)

	QE Sep 2017	QE Dec 2017	QE Mar 2018	QE Jun 2018	QE Sep 2018	%age change over Sep-2017 (12 months)	%age change over Dec-2017 (9 months)	%age change over Mar-2018 (6 months)	%age change over Jun-2018 (3 months)
	1) Subscriber Base (in million)								
Wireline	23.67	23.23	22.81	22.40	22.11	-6.58%	-4.83%	-3.06%	-1.26%
Wireless	1183.04	1167.44	1183.41	1146.49	1169.29	-1.16%	0.16%	-1.19%	1.99%
Total	1206.71	1190.67	1206.22	1168.89	1191.40	-1.27%	0.06%	-1.23%	1.93%
Rural	501.82	502.42	524.61	516.13	524.76	4.57%	4.45%	0.03%	1.67%
Urban	704.89	688.25	681.61	652.76	666.64	-5.43%	-3.14%	-2.20%	2.13%
2) Teledensity									
Wireline	1.83	1.79	1.76	1.72	1.69	-7.60%	-5.61%	-3.59%	-1.53%
Wireless	91.56	90.11	91.09	88.00	89.51	-2.24%	-0.66%	-1.73%	1.71%
Total	93.40	91.90	92.84	89.72	91.20	-2.35%	-0.76%	-1.77%	1.65%
Rural	56.71	56.66	59.05	57.99	58.85	3.77%	3.85%	-0.35%	1.48%
Urban	173.15	168.29	165.90	158.16	160.79	-7.13%	-4.45%	-3.08%	1.67%
3) Service Provider wise Subscribers Base (in Million) (wireless+wireline)									
Bharti	285.95	294.03	308.12	348.52	347.52	21.53%	18.19%	12.79%	-0.29%
Vodafone	207.63	212.73	222.92	222.97	222.11	6.98%	4.41%	-0.36%	-0.39%
Idea	190.16	196.50	211.21	220.60	213.11	12.07%	8.45%	0.90%	-3.40%
Reliance Jio	138.62	160.09	186.56	215.26	252.25	81.98%	57.57%	35.21%	17.19%
BSNL	118.61	120.35	123.95	125.00	124.69	5.13%	3.61%	0.60%	-0.25%
Aircel	88.82	85.00	74.15	-	-	-	-	-	-
Reliance	73.31	34.30	1.11	0.96	0.86	-98.83%	-97.50%	-22.67%	-10.28%
Tata	46.76	38.55	33.07	28.50	23.85	-49.00%	-38.14%	-27.87%	-16.33%
Telenor	46.01	41.91	37.98	-	-	-	-	-	-
MTNL	7.01	6.96	6.90	6.84	6.78	-3.26%	-2.57%	-1.76%	-0.85%
Sistema	3.57	-	-	-	-	-	-	-	-
Quadrant	0.26	0.25	0.24	0.24	0.23	-11.25%	-6.66%	-4.15%	-2.31%
Total	1206.71	1190.67	1206.22	1168.89	1191.40	-1.27%	0.06%	-1.23%	1.93%

B. Internet Services

	QE Sep 2017	QE Dec 2017	QE Mar 2018	QE Jun 2018	QE Sep 2018	%age change over Sep-2017	%age change over Dec-2017	%age change over Mar-2018	%age change over Jun-2018
						(12 months)	(9 months)	(6 months)	(3 months)
1) Subscriber's Base (in million)									
A. Wired Internet Subscribers	21.35	21.28	21.24	21.16	21.25	-0.48%	-0.16%	0.05%	0.42%
B. Wireless Internet Subscribers	407.88	424.67	472.72	491.10	538.76	32.09%	26.86%	13.97%	9.70%
i. Mobile Wireless (Mobile & Dongle)	407.41	424.22	472.25	490.66	537.92	32.04%	26.80%	13.91%	9.63%
ii. Fixed Wireless (Wi-Fi, Wi-Max, Point-to-Point Radio & VSAT)	0.47	0.45	0.47	0.44	0.83	76.82%	83.41%	77.26%	90.93%
Total Internet Subscribers	429.23	445.96	493.96	512.26	560.01	30.47%	25.57%	13.37%	9.32%
2) No. of Internet Subs per 100 Population	33.22	34.42	38.02	39.32	42.87	29.04%	24.55%	12.76%	9.02%

C. Usage and Revenue for Wireless Services

Traffic(MOU) (minutes of uses/subscriber/month)	435	494	583	608	627	44.13%	26.92%	7.54%	3.05%
ARPU (Rs./sub/month)	84	80	76	69	67	-19.77%	-15.76%	-11.32%	-2.55%

D. Telecom Financial Data

	QE Sep 2017	QE Dec 2017	QE Mar 2018	QE Jun 2018	QE Sep 2018	%age change over Sep-2017	%age change over Dec-2017	%age change over Mar-2018	%age change over Jun-2018
						(12 months)	(9 months)	(6 months)	(3 months)
1. Telecom Sector									
i) Gross Revenue (₹ in Crores)	66361.70	61088.65	62198.26	58401.12	57827.24	-12.86%	-5.34%	-7.03%	-0.98%
ii) Adjusted Gross Revenue (₹ in Crores)	41668.84	38536.22	35697.24	36552.48	36142.44	-13.26%	-6.21%	1.25%	-1.12%
2. Access Services									
Adjusted Gross Revenue (₹ in Crores)	31968.03	28967.93	25448.09	25585.07	25727.79	-19.52%	-11.19%	1.10%	0.56%
ARPU per month (AGR/ Average subscribers/3)	88.09	80.77	71.62	73.34	72.50	-17.69%	-10.24%	1.23%	-1.14%

Introduction

This Report presents the Key Parameters and growth trends for the Telecom Services in India for the quarter ending 30th September, 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 <http://www.trai.gov.in/release-publication/reports/performance-indicators-reports>). 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: skmishra.trai@nic.in .

Chapter 1 :

Subscription Data

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- 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 increased from 1,168.89 million at the end of Jun-18 to 1,191.40 million at the end of Sep-18, registering an increase rate of 1.93% over the previous quarter. However, this reflects year-on-year (Y-O-Y) decline rate of 1.27% over the same quarter of last year. The overall Teledensity in India increased from 89.72 at the end of Jun-18 to 91.20 at the end of Sep-18.

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

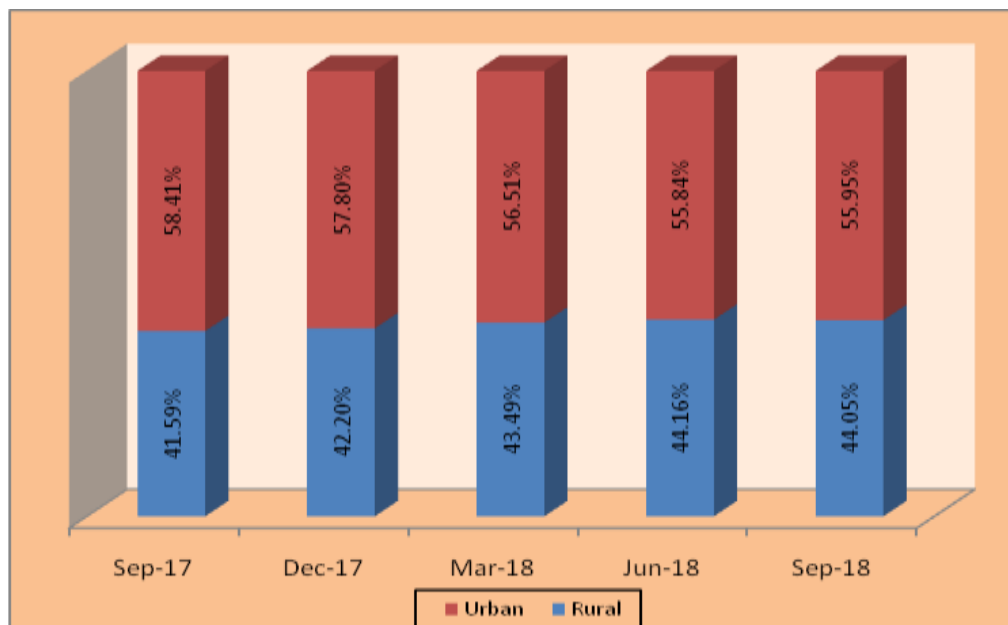


Table 1.1: Subscriber Base & Teledensity - Rural & Urban

Quarter ending	Subscriber Base (million)		Teledensity	
	Rural	Urban	Rural	Urban
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
Sep-18	524.76	666.64	58.85	160.79

- 1.2 Telephone subscription in Urban areas increased from 652.76 million at the end of Jun-18 to 666.64 million at the end of Sep-18, and Urban Tele-density also increased from 158.16 to 160.79 at the end of the quarter.
- 1.3 Rural telephone subscription increased from 516.13 million at the end of Jun-18 to 524.76 million at the end of Sep-18 and Rural Tele-density also increased from 57.99 at the end of Jun-18 to 58.85 at the end of Sep-18.
- 1.4 The year-on-year (Y-O-Y) growth rate of Urban and Rural telephone subscription from Sep-17 to Sep-18 is -5.43% and 4.57% respectively. Year-on-year (Y-o-Y) growth rate of Urban and Rural Tele-density from Sep-17 to Sep-18 is -7.13% and 3.77% respectively.

Chart 1.2: Market Share - Rural & Urban Subscribers



- 1.5 Share of subscription of rural areas in total telephone subscription declined from 44.16% at the end of Jun-18 to 44.05% at the end of Sep-18.

Chart 1.3: Composition of Access subscription - Wireline & Wireless

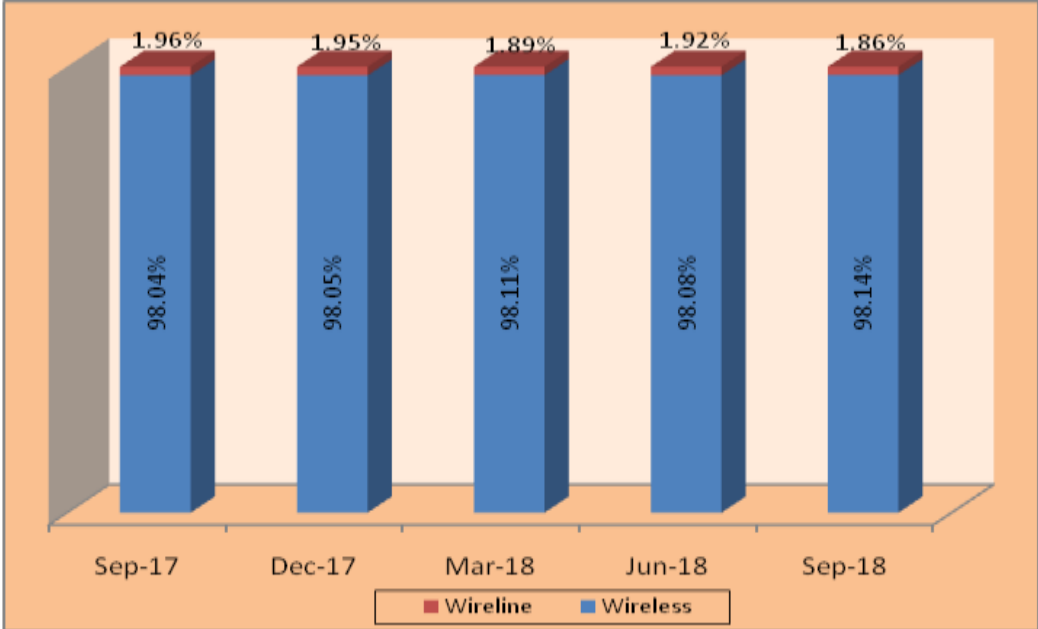


Chart 1.4: Composition of Rural-Urban Telephone Subscription at the end of the quarter

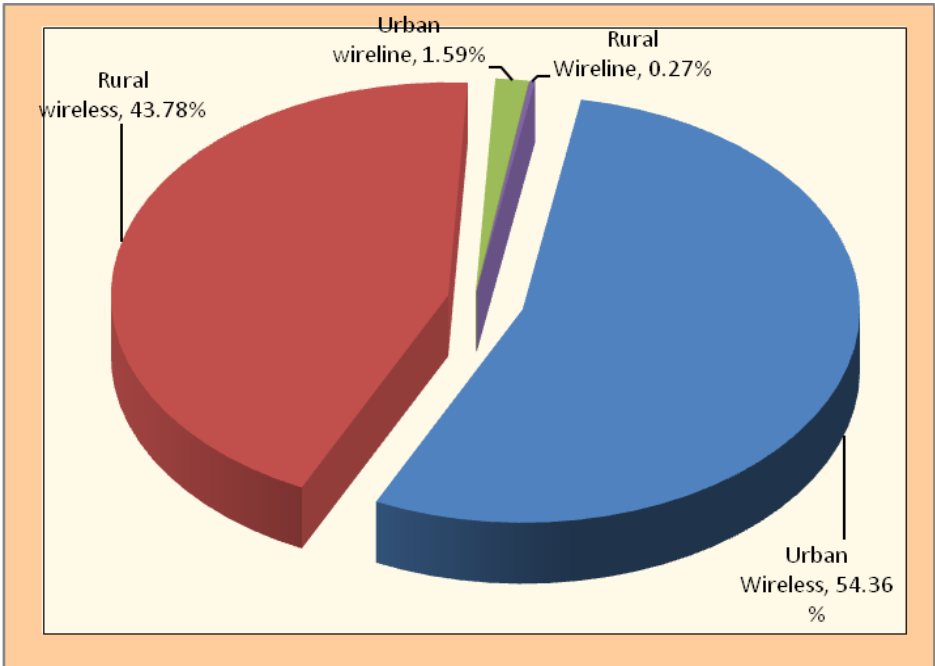


Table 1.2: Service Area wise Access (Wireless+Wireline) Subscriber base

Service Area	Subscribers (million)			
	Jun-18	Sep-18	Net Additions	Rate of Growth(%)
Andhra Pradesh	87.13	87.89	0.77	0.88
Assam	21.14	21.69	0.54	2.57
Bihar	84.86	87.77	2.91	3.43
Delhi	52.81	53.80	0.99	1.88
Gujarat	72.04	71.53	-0.51	-0.71
Haryana	27.42	27.83	0.41	1.48
Himachal Pradesh	10.21	10.50	0.29	2.84
Jammu & Kashmir	11.12	11.44	0.31	2.81
Karnataka	68.91	70.50	1.59	2.31
Kerala	44.95	45.23	0.28	0.63
Madhya Pradesh	74.57	77.52	2.95	3.95
Maharashtra	95.87	96.19	0.31	0.33
Mumbai	38.38	40.04	1.65	4.31
North East	11.63	11.80	0.17	1.46
Orissa	32.22	33.37	1.15	3.56
Punjab	39.32	39.91	0.59	1.49
Rajasthan	62.56	66.43	3.87	6.19
T.N. (incl. Chennai)	83.51	84.43	0.92	1.10
U.P.(E)	101.74	102.38	0.65	0.64
U.P.(W)	63.89	64.88	0.98	1.54
Kolkata	26.89	27.57	0.68	2.54
West Bengal	57.72	58.73	1.01	1.75
All India	1,168.89	1,191.40	22.52	1.93

1.6 All service areas except Gujarat, showed positive growth in their telephone subscriptions during the quarter ending Sep-18. Rajasthan service areas showed highest growth rate of 6.19% and Gujarat service area recorded decline rate of 0.71% in its telephone subscription during the quarter.

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

Service Area	Numbr of Subscribers (in million)			
	Total	Rural	Urban	% of Rural Subscribers
Andhra Pradesh	87.89	42.04	45.85	47.84
Assam	21.69	12.38	9.30	57.10
Bihar	87.77	54.68	33.09	62.30
Delhi	53.80	2.51	51.29	4.67
Gujarat	71.53	28.13	43.39	39.33
Haryana	27.83	11.90	15.92	42.78
Himachal Pradesh	10.50	7.56	2.95	71.95
Jammu & Kashmir	11.44	5.34	6.10	46.67
Karnataka	70.50	25.39	45.11	36.01
Kerala	45.23	20.96	24.27	46.34
Madhya Pradesh	77.52	34.90	42.62	45.02
Maharashtra	96.19	45.22	50.96	47.02
Mumbai	40.04	2.13	37.90	5.33
North East	11.80	5.31	6.49	45.03
Orissa	33.37	21.82	11.54	65.41
Punjab	39.91	14.20	25.71	35.59
Rajasthan	66.43	35.86	30.57	53.99
T.N. (incl. Chennai)	84.43	23.96	60.47	28.37
U.P.(E)	102.38	58.91	43.47	57.54
U.P.(W)	64.88	29.44	35.43	45.38
Kolkata	27.57	2.91	24.66	10.55
West Bengal	58.73	39.19	19.54	66.72
All India	1,191.40	524.76	666.64	44.05

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



1.7 The net addition in telephone subscribers is 22.52 million in QE Sep-18 as against the net decline of 37.335 million subscribers in QE Jun-18.

Table 1.4 : Service Area wise Teledensity

Service Area/ States	As on 30 th June, 2018			As on 30 th September, 2018		
	Rural Teledensity	Urban Teledensity	Total Teledensity	Rural Teledensity	Urban Teledensity	Total Teledensity
Andhra Pradesh	64.39	180.44	96.91	64.87	181.59	97.59
Assam	43.23	165.26	63.52	44.54	167.04	64.99
Bihar	43.62	162.42	60.11	44.86	168.34	62.00
Delhi	-	-	232.26	-	-	234.97
Gujarat	75.86	156.85	110.38	75.03	155.29	109.30
Haryana	66.34	147.48	96.62	66.83	149.33	97.73
Himachal Pradesh	117.74	313.91	141.36	118.73	337.08	145.10
J&K	55.99	167.30	87.56	58.56	168.59	89.82

Service Area/ States	As on 30 th June, 2018			As on 30 th September, 2018		
	Rural Teledensity	Urban Teledensity	Total Teledensity	Rural Teledensity	Urban Teledensity	Total Teledensity
Karnataka	63.61	176.54	108.35	66.06	178.32	110.63
Kerala	76.70	264.79	124.15	77.32	265.52	124.78
Madhya Pradesh	44.60	134.83	69.70	45.08	142.51	72.23
Maharashtra (incl. Mumbai)*	74.34	140.54	107.00	74.43	142.84	108.25
North East	49.42	173.99	81.40	49.95	176.05	82.39
Orissa	58.82	145.17	74.51	61.61	146.21	77.02
Punjab	80.65	177.02	124.14	81.71	178.81	125.66
Rajasthan	59.08	158.35	83.19	62.81	166.72	88.06
Tamil Nadu (incl. Chennai)	87.81	133.28	116.04	88.23	134.65	117.16
Uttar Pradesh (incl. UPE & UPW)	48.44	141.14	69.93	48.40	142.99	70.36
West Bengal (incl. Kolkata)*	60.67	153.91	87.58	61.14	158.17	89.15
All India	57.99	158.16	89.72	58.85	160.79	91.20

* 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 118.73 followed by Tamil Nadu service area (88.23). Assam service area has the lowest Rural Tele-density of 44.54 followed by Bihar service area (44.86).

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

Sl.No.	States/UT	Total Telephone Subscription (million)		
		Total	Rural	Urban
1	Andhra Pradesh	46.30	25.27	21.03
2	Arunachal Pradesh	1.28	0.63	0.65
3	Assam	21.69	12.38	9.30
4	Bihar	64.50	43.27	21.23
5	Chhattisgarh	21.25	9.75	11.50
6	Goa	2.74	1.20	1.55
7	Gujarat	70.56	27.88	42.68
8	Haryana	33.13	12.44	20.69
9	Himachal Pradesh	10.50	7.56	2.95
10	Jammu & Kashmir	11.44	5.34	6.10
11	Jharkhand	23.27	11.41	11.86
12	Karnataka	70.50	25.39	45.11
13	Kerala	45.15	20.88	24.27
14	Madhya Pradesh	56.27	25.15	31.12
15	Maharashtra Incl. Mumbai	133.48	46.16	87.32
16	Manipur	2.33	0.80	1.53
17	Meghalaya	2.16	1.11	1.05
18	Mizoram	1.23	0.33	0.90
19	Nagaland	1.64	1.05	0.58
20	Odisha	33.37	21.82	11.54
21	Punjab	37.68	14.10	23.58
22	Rajasthan	66.43	35.86	30.57
23	Sikkim	0.76	0.41	0.35
24	Tamil Nadu (incl. Chennai)	83.06	23.59	59.47
25	Telangana	41.60	16.77	24.82
26	Tripura	3.16	1.40	1.77
27	Uttar Pradesh (UPE + UPW)	152.26	77.24	75.03
28	Uttarakhand	21.06	11.70	9.36
29	West Bengal Incl. Kolkata	85.05	41.44	43.61
Union Territories				
1	Andaman & Nicobar Islands	0.49	0.24	0.25
2	Chandigarh	2.13	0.08	2.04
3	Dadar & Nagar Haweli	0.63	0.19	0.43
4	Daman & Diu	2.47	0.06	2.41
5	Delhi	40.41	1.41	38.99
6	Lakshdweep	0.09	0.08	0.003
7	Puduchery	1.37	0.36	1.00
	Total	1191.40	524.76	666.64

Table 1.6 : State/UT wise total Teledensity

Sl.No.	State/UT	Total Teledensity		
		Total	Rural	Urban
1	Andhra Pradesh	51.41	64.87	181.59
2	Arunachal Pradesh	95.12	80.66	114.94
3	Assam	64.99	44.54	167.04
4	Bihar	60.37	45.29	188.06
5	Chhattisgarh	79.71	49.12	168.82
6	Goa	130.91	162.66	113.75
7	Gujarat	109.20	75.21	154.93
8	Haryana	116.35	69.82	194.06
9	Himachal Pradesh	145.10	118.73	337.08
10	Jammu & Kashmir	89.82	58.56	168.59
11	Jharkhand	67.03	43.30	141.74
12	Karnataka	110.63	66.06	178.32
13	Kerala	124.83	77.19	266.11
14	Madhya Pradesh	69.76	43.69	134.74
15	Maharashtra Incl. Mumbai	107.87	73.40	143.50
16	Manipur	87.50	40.05	229.98
17	Meghalaya	75.81	49.61	171.70
18	Mizoram	112.76	67.85	148.30
19	Nagaland	66.91	52.07	137.76
20	Odisha	77.02	61.61	146.21
21	Punjab	126.59	82.10	187.31
22	Rajasthan	88.06	62.81	166.72
23	Sikkim	114.87	73.41	341.41
24	Tamil Nadu (incl. Chennai)	118.29	88.64	136.38
25	Tripura	80.52	44.71	219.01
26	Uttar Pradesh (UPE +UPW)	67.15	44.15	144.73
27	Uttarakhand	192.16	153.66	279.83
28	West Bengal Incl. Kolkata	89.01	60.97	158.08
Union Territories				
1	Andaman & Nicobar Islands	83.47	74.30	94.94
2	Chandigarh	106.79	41.33	114.19
3	Dadar & Nagar Haweli	135.92	138.30	134.88
4	Daman & Diu	672.35	21.16	3214.15
5	Delhi	176.47	184.44	176.20
6	Lakshdweep	104.14	135.32	13.65
7	Puduchery	74.27	67.94	76.88
	Total	91.20	58.85	160.79

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

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

Service Provider	Subscriber base (millions)			Rate of Growth (%)	Market Share in QE Jun-18 (%)	Market Share in QE Sep-18 (%)
	Jun-18	Sep-18	Net Additions			
Bharti	348.52	347.52	-1.00	-0.29	29.82	29.17
Vodafone	222.97	435.22	-8.35	-1.88	19.08	36.53
IDEA	220.60				18.87	
Reliance Jio	215.26	252.25	37.00	17.19	18.42	21.17
BSNL	125.00	124.69	-0.31	-0.25	10.69	10.47
Tata	28.50	23.85	-4.65	-16.33	2.44	2.00
MTNL	6.84	6.78	-0.06	-0.85	0.59	0.57
Reliance Com.	0.96	0.86	-0.10	-10.28	0.08	0.07
Quadrant	0.239	0.23	-0.01	-2.31	0.02	0.02
Total	1,168.89	1191.40	22.52	1.93	100	100

Note: M/s Vodafone and M/s Idea have been merged during the QE Sep-18.

1.9 After merger of M/s Vodafone Ltd and M/s Idea Cellular during the reported quarter, M/s Vodafone Idea Ltd became the market leader with 36.53% in access segment in terms of number of subscribers with 435.22 million subscribers. M/s Bharti Airtel held the second position with 347.52 million subscribers at the end of Sep-18.

1.10 In term of net addition, only Reliance Jio Infocom Ltd. became the gainer with net addition of 37.00 million telephone subscribers during the QE Sep-18. All other access service providers showed negative growth in their telephone subscriber base during the quarter.

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

Service Provider	No. of Total Subscribers (in millions)	No. of Rural Subscribers (in millions)	Percentage of Rural subscribers	Market share of Rural subscribers (%)
Vodafone Idea Ltd	435.22	230.56	52.97	43.94
Bharti Airtel	347.52	171.33	49.30	32.65
Reliance Jio	252.25	80.83	32.04	15.40
BSNL	124.69	38.79	31.11	7.39
Tata	23.85	3.16	13.25	0.60
Quadrant	0.23	0.05	20.88	0.01
MTNL	6.78	0.05	0.69	0.01
Reliance Com.	0.86	0.00	0.18	0.00
Total	1191.40	524.76	44.05	100

Note: M/s Vodafone and M/s Idea have been merged during the QE Sep-18 and now became M/s Vodafone Idea Ltd.

1.11 M/s Vodafone Idea Ltd is the telecom service provider with highest proportion of rural telephone subscribers (52.97%), followed by Bharti Airtel (49.30%) to their total telephone subscribers at the end of Sep-18.

Section B : Wireless Service

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

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

Source : DoT website

***Note:** M/s Vodafone and M/s Idea have been merged during the QE September, 2018 and the new name of the company is M/s Vodafone Idea Ltd.

1.12 Total Wireless (GSM including LTE+CDMA) subscriber base increased from 1,146.49 million at the end of Jun-18 to 1,169.29 million at the end of Sep-18, thereby showing a quarterly increase rate of 1.99%. During the quarter, net addition of 22.80 million wireless subscribers was recorded. However, year-on-year (Y-O-Y) total wireless subscriber base showed decline rate of 1.16% in QE Sep-18.

1.13 Wireless Teledensity increased from 88.00 at the end of Jun-18 to 89.51 at the end of Sep-18.

Chart 1.6: Wireless Subscriber Base and Teledensity



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

Quarter ending	Subscriber Base (million)		Tele-density	
	Rural	Urban	Rural	Urban
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
Sep-18	521.59	647.70	58.49	156.23

1.14 The Rural Wireless subscribers increased from 512.89 million at the end of Jun-18 to 521.59 million at the end of Sep-18, and the urban wireless subscribers also increased from 633.60 million to 647.70 million during the quarter.

1.15 Quarterly Growth rates of Rural and Urban wireless subscriptions are 1.70% and 2.23% respectively in QE Sep-18.

1.16 The share of rural wireless subscription declined from 44.74% to 44.61% in total wireless subscription in this quarter.

Chart 1.7: Wireless Market Share - Rural & Urban



Table 1.11: Growth in Wireless Subscriber base

Service Provider	Subscriber Base (millions)			Rate of Growth (%)	Market Share □ Jun-18 (%)	Market Share □ Sep-18 (%)
	Jun-18	Sep-18	Net Additions			
Vodafone	222.73	434.96	-8.37	-1.89	19.43	37.20
IDEA	220.60				19.24	
Bharti Airtel	344.56	343.52	-1.04	-0.30	30.05	29.38
Reliance Jio	215.26	252.25	37.00	17.19	18.78	21.57
BSNL	113.12	113.05	-0.07	-0.06	9.87	9.67
Tata	26.62	21.98	-4.64	-17.44	2.32	1.88
MTNL	3.53	3.49	-0.03	-0.87	0.31	0.30
Reliance Com.	0.08	0.03	-0.05	-63.79	0.007	0.002
Total	1146.49	1169.29	22.80	1.99	100	100

Note: M/s Vodafone and M/s Idea have been merged during the QE September, 2018 and the new name of the company is M/s Vodafone Idea Ltd.

1.17 After merger of M/s Vodafone Ltd and M/s Idea Cellular during the reported quarter, M/s Vodafone Idea Ltd became the market leader with 37.20% share in terms of number of wireless subscribers with 434.96 million subscribers and left the M/s Bharti Airtel at second position with market share of 29.38% at the end of Sep-18.

1.18 In terms of net additions during the quarter ending Sep-18, only Reliance Jio has added 28.69 million wireless subscribers. All other service providers showed net decline in their wireless subscriptions during the quarter.

Table 1.12: Service Area wise Wireless Subscriber base

Service Area	Subscriber base (in million)			
	Jun-18	Sep-18	Net Additions	Rate of change (%)
Andhra Pradesh	85.68	86.45	0.77	0.90
Assam	21.01	21.56	0.55	2.61
Bihar	84.60	87.52	2.92	3.45
Delhi	49.61	50.60	0.99	1.99
Gujarat	70.81	70.30	-0.51	-0.72
Haryana	27.13	27.54	0.41	1.52
Himachal Pradesh	10.09	10.38	0.29	2.90
Jammu & Kashmir	11.01	11.33	0.32	2.87
Karnataka	66.72	68.32	1.61	2.41
Kerala	43.01	43.32	0.30	0.71
Madhya Pradesh	73.64	76.59	2.95	4.00
Maharashtra	94.21	94.57	0.36	0.39
Mumbai	35.40	37.08	1.67	4.73
North East	11.52	11.69	0.17	1.49
Orissa	31.95	33.12	1.16	3.65
Punjab	38.49	39.09	0.61	1.58
Rajasthan	61.97	65.86	3.89	6.28
T.N. (incl. Chennai)	81.24	82.18	0.95	1.16
U.P.(E)	101.28	101.93	0.65	0.64
U.P.(W)	63.56	64.55	1.00	1.57
Kolkata	26.12	26.83	0.71	2.71
West Bengal	57.45	58.48	1.02	1.78
All India	1,146.49	1,169.29	22.80	1.99

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

Service Area	Subscriber base (in million)			
	Total	Rural	Urban	% of Rural Subscribers
Andhra Pradesh	86.45	41.81	44.65	48.36
Assam	21.56	12.36	9.20	57.34
Bihar	87.52	54.64	32.88	62.43
Delhi	50.60	2.51	48.09	4.96
Gujarat	70.30	27.95	42.35	39.76
Haryana	27.54	11.85	15.69	43.03
Himachal Pradesh	10.38	7.49	2.89	72.15
Jammu & Kashmir	11.33	5.33	6.00	47.01
Karnataka	68.32	25.23	43.09	36.93
Kerala	43.32	19.81	23.51	45.73
Madhya Pradesh	76.59	34.79	41.80	45.43
Maharashtra	94.57	44.95	49.62	47.53
Mumbai	37.08	2.13	34.94	5.76
North East	11.69	5.29	6.40	45.25
Orissa	33.12	21.77	11.35	65.73
Punjab	39.09	14.02	25.07	35.87
Rajasthan	65.86	35.78	30.08	54.33
T.N. (incl. Chennai)	82.18	23.64	58.55	28.76
U.P.(E)	101.93	58.84	43.08	57.73
U.P.(W)	64.55	29.41	35.14	45.56
Kolkata	26.83	2.91	23.92	10.84
West Bengal	58.48	39.08	19.40	66.82
All India	1,169.29	521.59	647.70	44.61

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

Table 1.14 : Service Area wise Wireless Tele-density

Service Area	As on 30 th June, 2018			As on 30 th September, 2018		
	Rural Teledensity	Urban Teledensity	Total Teledensity	Rural Teledensity	Urban Teledensity	Total Teledensity
A.P.	64.02	175.65	95.30	64.50	176.83	95.99
Assam	43.15	163.31	63.13	44.47	165.16	64.61
Bihar	43.59	161.29	59.92	44.83	167.26	61.83
Delhi	-	-	218.21	-	-	221.01
Gujarat	75.38	153.08	108.50	74.55	151.54	107.42
Haryana	66.03	145.22	95.58	66.53	147.14	96.72
H.P.	116.68	307.53	139.65	117.70	330.85	143.44
J&K	55.86	164.55	86.69	58.43	165.92	88.97
Karnataka	63.20	168.45	104.90	65.66	170.31	107.21
Kerala	72.38	256.42	118.81	73.07	257.19	119.50
M.P.	44.46	132.07	68.84	44.94	139.76	71.37
Maharashtra (incl. Mumbai)*	73.88	133.50	103.29	74.00	135.93	104.61
North East	49.21	171.65	80.64	49.74	173.74	81.64
Orissa	58.65	142.52	73.89	61.45	143.75	76.45
Punjab	79.57	172.48	121.50	80.68	174.39	123.10
Rajasthan	58.92	155.62	82.41	62.67	164.07	87.31
Tamil Nadu (incl. Chennai)	86.64	128.91	112.88	87.06	130.37	114.05
Uttar Pradesh (incl. UPE&UPW)*	48.38	139.88	69.59	48.35	141.75	70.03
West Bengal (incl. Kolkata)*	60.50	150.61	86.51	60.98	154.99	88.12
All India	57.63	153.52	88.00	58.49	156.23	89.51

* 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 Chhatisgarh, Bihar includes Jharkhand, Maharashtra includes Goa, Uttar Pradesh includes Uttarakhand, West Bengal includes Sikkim and North-East includes Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland & Tripura states.

Table 1.15 : State/UT wise Wireless Subscriber Base

Sl.No.	States/UT	Wireless Subscribers (in million)		
		Total	Rural	Urban
1	Andhra Pradesh	45.51	25.09	20.42
2	Arunachal Pradesh	1.26	0.62	0.64
3	Assam	21.56	12.36	9.20
4	Bihar	64.37	43.25	21.13
5	Chhattisgarh	21.07	9.73	11.34
6	Goa	2.64	1.16	1.47
7	Gujarat	69.34	27.70	41.64
8	Haryana	32.78	12.38	20.40
9	Himachal Pradesh	10.38	7.49	2.89
10	Jammu & Kashmir	11.33	5.33	6.00
11	Jharkhand	23.15	11.40	11.75
12	Karnataka	68.32	25.23	43.09
13	Kerala	43.24	19.73	23.51
14	Madhya Pradesh	55.52	25.06	30.46
15	Maharashtra	129.01	45.92	83.09
16	Manipur	2.31	0.79	1.51
17	Meghalaya	2.14	1.11	1.03
18	Mizoram	1.22	0.33	0.89
19	Nagaland	1.62	1.05	0.57
20	Odisha	33.12	21.77	11.35
21	Punjab	37.05	13.93	23.12
22	Rajasthan	65.86	35.78	30.08
23	Sikkim	0.76	0.41	0.34
24	Tamil Nadu	80.87	23.28	57.59
25	Telangana	40.95	16.72	24.23
26	Tripura	3.14	1.39	1.75
27	Uttar Pradesh	151.54	77.14	74.40
28	Uttarakhand	20.96	11.69	9.27
29	West Bengal	84.08	41.34	42.74
Union Territories				
1	Andaman & Nicobar Islands	0.47	0.23	0.24
2	Chandigarh	1.95	0.08	1.87
3	Dadar & Nagar Haweli	0.62	0.19	0.43
4	Daman & Diu	2.47	0.06	2.41
5	Delhi	37.31	1.41	35.89
6	Lakshdweep	0.08	0.08	-
7	Puduchery	1.31	0.36	0.95
Total		1169.29	521.59	647.70

Table 1.16 : State/UT wise Wireless Tele-density

Sl.No.	State/UT	Wireless Teledensity		
		Total	Rural	Urban
1	Andhra Pradesh*	95.99	64.50	176.83
2	Arunachal Pradesh	93.36	79.81	111.92
3	Assam	64.61	44.47	165.16
4	Bihar	60.25	45.26	187.15
5	Chhattisgarh	79.04	49.03	166.45
6	Goa	125.74	158.13	108.23
7	Gujarat	107.32	74.74	151.15
8	Haryana	115.13	69.52	191.32
9	Himachal Pradesh	143.44	117.70	330.85
10	Jammu & Kashmir	88.97	58.43	165.92
11	Jharkhand	66.68	43.25	140.43
12	Karnataka	107.21	65.66	170.31
13	Kerala	119.55	72.93	257.80
14	Madhya Pradesh	68.83	43.54	131.89
15	Maharashtra	104.26	73.01	136.55
16	Manipur	86.74	39.80	227.71
17	Meghalaya	75.17	49.50	169.12
18	Mizoram	111.47	67.66	146.14
19	Nagaland	66.46	52.02	135.33
20	Odisha	76.45	61.45	143.75
21	Punjab	124.45	81.07	183.67
22	Rajasthan	87.31	62.67	164.07
23	Sikkim	113.88	73.29	335.63
24	Tamil Nadu	115.17	87.48	132.07
25	Tripura	80.01	44.50	217.32
26	Uttar Pradesh	66.83	44.10	143.52
27	Uttarakhand	191.23	153.52	277.12
28	West Bengal	87.99	60.82	154.92
	Union Territories			
1	Andaman & Nicobar Islands	80.60	72.31	90.98
2	Chandigarh	97.83	40.41	104.32
3	Dadar & Nagar Haweli	135.05	137.20	134.10
4	Daman & Diu	670.75	20.33	3209.53
5	Delhi	162.93	184.44	162.19
6	Lakshdweep	96.69	130.00	-
7	Puduchery	71.26	66.39	73.26
	All India Teledensity	89.51	58.49	156.23

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

Table 1.17 : Rural Wireless Subscriber base and Market Share as on 30.09.2018

Service Provider	Total number of wireless Subscribers (in millions)	Rural Subscribers (in millions)	% of Rural subscribers in total	Market Share of Rural Subscribers (%)
Vodafone Idea	434.96	230.56	53.01	44.20
Bharti	343.52	171.33	49.87	32.85
Reliance Jio	252.25	80.83	32.04	15.50
BSNL	113.05	35.72	31.60	6.85
Tata	21.98	3.11	14.14	0.60
MTNL	3.49	0.05	1.34	0.01
Reliance Com.	0.03	-	-	-
Total	1169.29	521.59	44.61	100

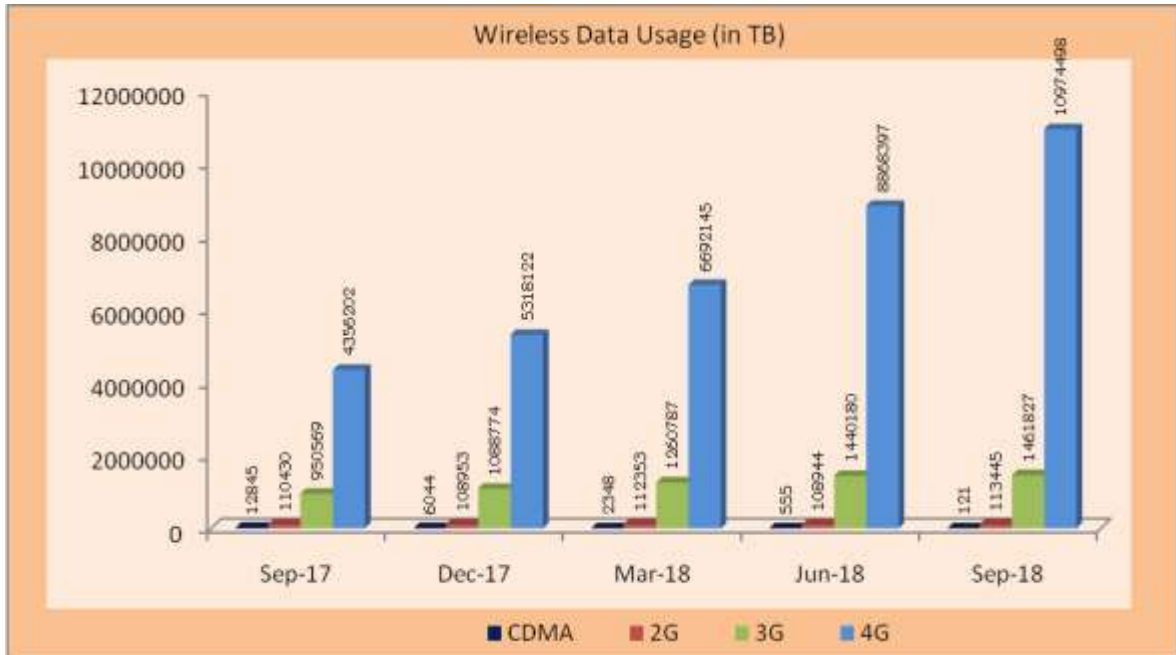
Note: M/s Reliance Com. has not reported number of its rural wireless subscribers and hence its rural wireless subscription has been taken as NIL.

Wireless Data Usage

1.20 Total wireless data usage increased from 10,418,076 terabytes during Q.E. Jun-18 to 15,549,891 terabytes during Q.E. Sep-18. Out of total data wireless usage, 2G data usage was 113,445 terabytes, 3G data usage was 1,461,827 terabyte, 4G data usage was 10,914,498 terabytes and CDMA data usage was 121 terabytes.

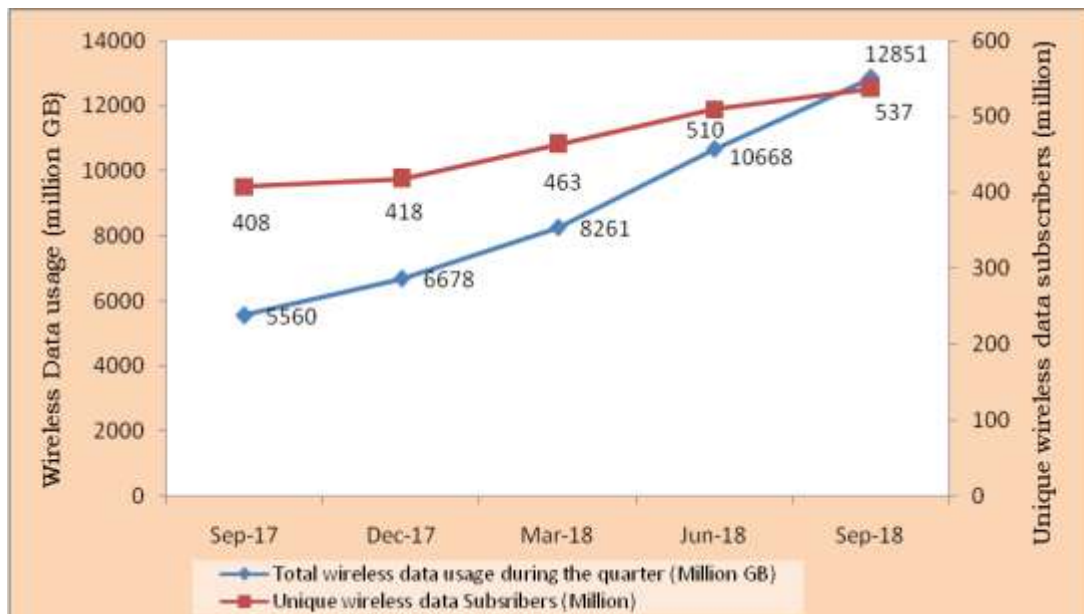
1.21 Total number of unique wireless data subscribers increased from 509.60 million at the end of Jun-18 to 536.72 million at the end of Sep-18. Trends of growth in unique wireless data subscribers and volume of wireless data usage are depicted in the following charts.

Chart 1.8: Trend of technology wise wireless data use (in Terabyte)



1.22 The contribution of 3G and 4G data usage in total data usage are about 12% and 87% respectively during the Q.E. Sep-18.

Chart 1.9: Trend of Unique wireless data subscribers(million) and volume of wireless data use(million GB)



Section C : Wireline Service

Table 1.18 : Service Providers providing Wireline Service

[As on 30th September, 2018]

Sl. No.	Name of the Service Provider	Area of Operation
1	Bharti Airtel Ltd	Telangana, Delhi, Gujarat, Haryana, Karnataka, Kerala, Kolkata, Madhya Pradesh (excluding Chhattisgarh), Chhattisgarh, Maharashtra (excluding Mumbai), Mumbai, Punjab, Rajasthan, 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)
6	Tata Teleservices (Maharashtra) Ltd.	Maharashtra & Goa, Mumbai
	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 22.40 million at the end of Jun-18 to 22.11 at the end of Sep-18 with quarterly decline rate of 1.26%. Overall Wireline Teledensity also declined from 1.72 at the end of Jun-18 to 1.69 at the end of Sep-18.

1.24 Rural subscriber base has shown decline of 2.13%, from 3.24 Million at the end of Jun-18 to 3.17 Million at the end of Sep-18. Urban wireline subscription also recorded decline rate of 1.11%, from 19.16 million to 18.95 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)		Teledensity	
	Rural	Urban	Rural	Urban
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
Sep-18	3.17	18.95	0.36	4.57

**Table 1.20 : Service Provider wise Subscriber base (Rural - Urban)
- As on 30.09.2018**

Service Provider	Subscriber Base (million)			Share of Rural subscription (%)
	Rural	Urban	Total	
BSNL	3.06	8.58	11.64	26.32
Bharti	--	4.00	4.00	--
MTNL	--	3.29	3.29	--
Tata	0.05	1.82	1.87	2.82
Reliance	0.002	0.83	0.83	0.19
Quadrant	0.05	0.18	0.23	20.88
Vodafone	--	0.26	0.26	--
Total	3.17	18.95	22.11	14.32

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

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

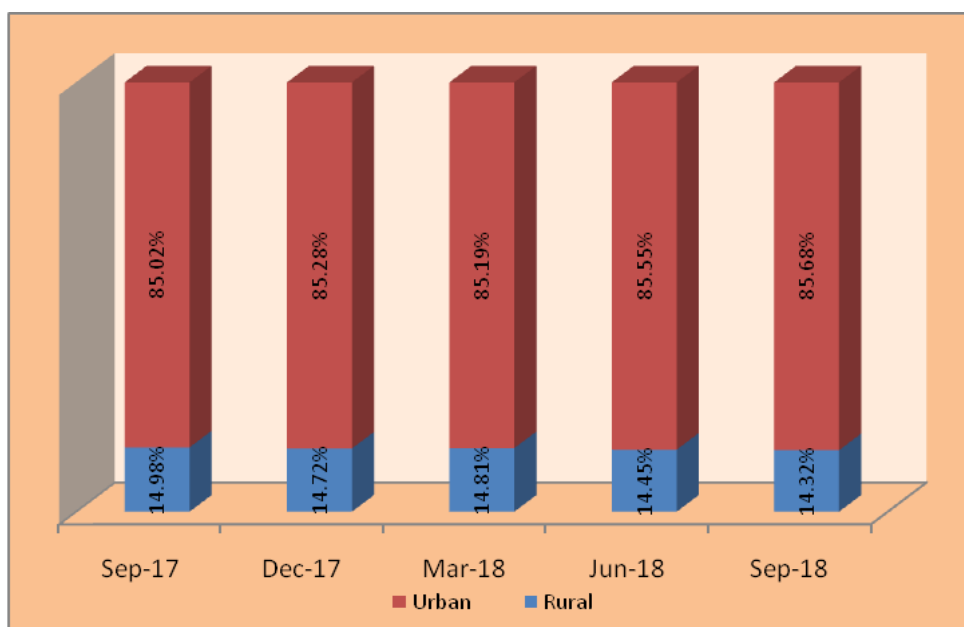


Table 1.21 : Service Provider wise growth in Wireline Subscriber base

Service Provider	Subscriber Base (million)			Rate of change (%)	Market share-Jun-18(%)	Market share-Sep-18(%)
	Jun-18	Sep-18	Net Addition			
BSNL	11.89	11.64	-0.25	-2.08	53.08	52.64
Bharti	3.96	4.00	0.04	1.03	17.66	18.07
MTNL	3.32	3.29	-0.03	-0.82	14.80	14.87
Tata	1.88	1.87	-0.01	-0.60	8.39	8.45
Reliance	0.88	0.83	-0.05	-5.57	3.92	3.75
Vodafone	0.24	0.26	0.02	7.02	1.07	1.16
Quadrant	0.24	0.23	-0.01	-2.31	1.07	1.06
Total	22.40	22.11	-0.28	-1.26	100	100

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

Service Area	Jun-18	Sep-18	Net Additions	Rate of Change (%)
Andhra Pradesh	1.45	1.44	-0.008	-0.58
Assam	0.13	0.13	-0.005	-3.68
Bihar	0.26	0.25	-0.011	-4.23
Delhi	3.19	3.20	0.004	0.13
Gujarat	1.23	1.23	-0.002	-0.18
Haryana	0.29	0.29	-0.006	-2.18
Himachal Pradesh	0.12	0.12	-0.003	-2.42
Jammu & Kashmir	0.11	0.11	-0.003	-3.08
Karnataka	2.19	2.18	-0.017	-0.75
Kerala	1.93	1.92	-0.019	-1.00
Madhya Pradesh	0.93	0.93	-0.001	-0.13
Maharashtra	1.67	1.62	-0.051	-3.05
Mumbai	2.98	2.96	-0.021	-0.69
North East	0.11	0.11	-0.001	-1.00
Orissa	0.27	0.25	-0.017	-6.28
Punjab	0.84	0.81	-0.023	-2.78
Rajasthan	0.59	0.57	-0.018	-3.14
T.N. (incl. Chennai)	2.27	2.24	-0.027	-1.18

Service Area	Jun-18	Sep-18	Net Additions	Rate of Change (%)
U.P.(E)	0.46	0.46	-0.003	-0.69
U.P.(W)	0.34	0.33	-0.012	-3.59
Kolkata	0.77	0.75	-0.024	-3.13
West Bengal	0.27	0.25	-0.013	-4.92
All India	22.40	22.11	-0.283	-1.26

1.26 All service areas except Delhi showed decline in their wireline subscriber base during the QE Sep-18.

Table 1.23: Service Area wise Wireline Rural-Urban Subscriber Base (in million) – as on 30th Sep, 2018

Service Area	Total Subscribers	Rural Subscribers	Urban Subscribers	% of Rural Subscribers
Andhra Pradesh	1.44	0.24	1.20	16.53
Assam	0.13	0.02	0.10	17.24
Bihar	0.25	0.03	0.21	13.55
Delhi	3.20	-	3.20	-
Gujarat	1.23	0.18	1.05	14.67
Haryana	0.29	0.05	0.23	18.70
Himachal Pradesh	0.12	0.07	0.05	54.61
Jammu & Kashmir	0.11	0.01	0.10	10.81
Karnataka	2.18	0.15	2.02	7.04
Kerala	1.92	1.15	0.76	60.26
Madhya Pradesh	0.93	0.11	0.82	11.43
Maharashtra	1.62	0.28	1.34	17.11
Mumbai	2.96	-	2.96	-
North East	0.11	0.02	0.09	20.78
Orissa	0.25	0.06	0.19	22.50
Punjab	0.81	0.18	0.64	21.96
Rajasthan	0.57	0.08	0.49	14.43
T.N. (incl. Chennai)	2.24	0.32	1.93	14.20
U.P.(E)	0.46	0.07	0.39	15.50
U.P.(W)	0.33	0.03	0.29	10.26
Kolkata	0.75	-	0.75	-
West Bengal	0.25	0.11	0.14	43.52
All India	22.11	3.17	18.95	14.32

Table 1.24: Service Area wise Wireline Teledensity

Service Area	As on 30 th June, 2018			As on 30 th September, 2018		
	Rural Teledensity	Urban Teledensity	Total Teledensity	Rural Teledensity	Urban Teledensity	Total Teledensity
Andhra Pradesh	0.37	4.79	1.61	0.37	4.76	1.60
Assam	0.08	1.96	0.39	0.08	1.88	0.38
Bihar	0.03	1.13	0.18	0.03	1.08	0.17
Delhi	-	-	14.04	-	-	13.96
Gujarat	0.48	3.77	1.88	0.48	3.74	1.87
Haryana	0.31	2.25	1.03	0.30	2.19	1.01
Himachal Pradesh	1.06	6.38	1.70	1.03	6.23	1.66
Jammu & Kashmir	0.14	2.75	0.88	0.13	2.66	0.85
Karnataka	0.41	8.08	3.45	0.40	8.00	3.42
Kerala	4.32	8.37	5.34	4.26	8.33	5.28
Madhya Pradesh	0.14	2.76	0.87	0.14	2.74	0.86
Maharashtra (incl. Mumbai)*	0.46	7.04	3.71	0.44	6.91	3.64
North East	0.21	2.34	0.76	0.21	2.31	0.75
Orissa	0.17	2.65	0.62	0.16	2.45	0.58
Punjab	1.08	4.54	2.64	1.03	4.42	2.56
Rajasthan	0.15	2.73	0.78	0.14	2.65	0.75
Tamil Nadu (incl. Chennai)	1.18	4.37	3.16	1.17	4.29	3.12
Uttar Pradesh (incl. UPE & UPW)	0.06	1.26	0.34	0.06	1.23	0.33
West Bengal (incl. Kolkata)*	0.17	3.30	1.07	0.16	3.18	1.03
All India	0.36	4.64	1.72	0.36	4.57	1.69

* 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 Chhatisgarh, Bihar includes Jharkhand, Maharashtra includes Goa, Uttar Pradesh includes Uttarakhand, West Bengal includes Sikkim and North-East includes Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland & Tripura states.

Table 1.25: State/UT wise Wireline Subscriber base

Sl.No.	States/UT	Wireline Subscribers (in million)		
		Total	Rural	Urban
1	Andhra Pradesh	0.79	0.18	0.61
2	Arunachal Pradesh	0.02	0.01	0.02
3	Assam	0.13	0.02	0.10
4	Bihar	0.12	0.02	0.10
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	0.29
9	Himachal Pradesh	0.12	0.07	0.05
10	Jammu & Kashmir	0.11	0.01	0.10
11	Jharkhand	0.12	0.01	0.11
12	Karnataka	2.18	0.15	2.02
13	Kerala	1.91	1.15	0.76
14	Madhya Pradesh	0.75	0.09	0.66
15	Maharashtra Incl. Mumbai	4.47	0.24	4.23
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	0.25	0.06	0.19
21	Punjab	0.64	0.18	0.46
22	Rajasthan	0.57	0.08	0.49
23	Sikkim	0.01	0.00	0.01
24	Tamil Nadu (incl. Chennai)	2.19	0.31	1.88
25	Telangana	0.65	0.05	0.59
26	Tripura	0.02	0.01	0.01
27	Uttar Pradesh (UPE +UPW)	0.72	0.09	0.63
28	Uttarakhand	0.10	0.01	0.09
29	West Bengal Incl. Kolkata	0.98	0.10	0.87
	Union Territories			
1	Andaman & Nicobar Islands	0.02	0.01	0.01
2	Chandigarh	0.18	0.002	0.18
3	Dadar & Nagar Haweli	0.004	0.002	0.003
4	Daman & Diu	0.01	0.002	0.003
5	Delhi	3.10	-	3.10
6	Lakshdweep	0.01	0.003	0.003
7	Puduchery	0.06	0.01	0.05
	Total	22.11	3.17	18.95

Table 1.26: State/UT wise Wireline Teledensity

Sl.No.	State/UT	Wireline Teledensity		
		Total	Rural	Urban
1	Andhra Pradesh	1.60	0.37	4.76
2	Arunachal Pradesh	1.77	0.85	3.02
3	Assam	0.38	0.08	1.88
4	Bihar	0.12	0.02	0.91
5	Chhattisgarh	0.68	0.10	2.37
6	Goa	5.17	4.53	5.51
7	Gujarat	1.88	0.47	3.78
8	Haryana	1.21	0.30	2.74
9	Himachal Pradesh	1.66	1.03	6.23
10	Jammu & Kashmir	0.85	0.13	2.66
11	Jharkhand	0.35	0.05	1.31
12	Karnataka	3.42	0.40	8.00
13	Kerala	5.28	4.26	8.31
14	Madhya Pradesh	0.92	0.15	2.86
15	Maharashtra Incl. Mumbai	3.61	0.39	6.94
16	Manipur	0.76	0.25	2.28
17	Meghalaya	0.63	0.10	2.58
18	Mizoram	1.29	0.18	2.16
19	Nagaland	0.46	0.04	2.42
20	Odisha	0.58	0.16	2.45
21	Punjab	2.14	1.03	3.65
22	Rajasthan	0.75	0.14	2.65
23	Sikkim	0.99	0.12	5.78
24	Tamil Nadu (incl. Chennai)	3.12	1.17	4.31
25	Tripura	0.51	0.21	1.69
26	Uttar Pradesh (UPE + UPW)	0.32	0.05	1.21
27	Uttarakhand	0.93	0.15	2.71
28	West Bengal incl. Kolkata	1.02	0.15	3.16
	Union Territories			
1	Andaman & Nicobar Islands	2.87	1.99	3.97
2	Chandigarh	8.96	0.92	9.87
3	Dadar & Nagar Haweli	0.88	1.09	0.78
4	Daman & Diu	1.60	0.83	4.62
5	Delhi	13.54	0.00	14.01
6	Lakshdweep	7.45	5.32	13.65
7	Puduchery	3.02	1.55	3.62
	Total	1.69	0.36	4.57

*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 3,30,504 at the end of Jun-18 to 3,05,395 at the end of Sep-18. Detailed table of service provider wise PCOs is available at Annexure -1.3.

Chart 1.12: Trend of Number of PCOs



Table 1.27 : Rate of change & Market share of PCOs

Service Provider	Jun-18	Sep-18	Rate of change (%)	Market share (%) (Sep-18)
BSNL	209635	201320	-3.97	65.92
MTNL	94308	79716	-15.47	26.10
Bharti	11585	11166	-3.62	3.66
Quadrant	1420	1420	0.00	0.46
Tata	13556	11773	-13.15	3.86
Total	330504	305395	-7.60	100

1.28 Number of PCOs continued shows declining trend. At the Q.E. Sep-18, it has recorded a overall decline of 7.60%. The year-on-year (Y-O-Y) decline rate is 26.81% at the QE Sep-18 over the same quarter of the last year.

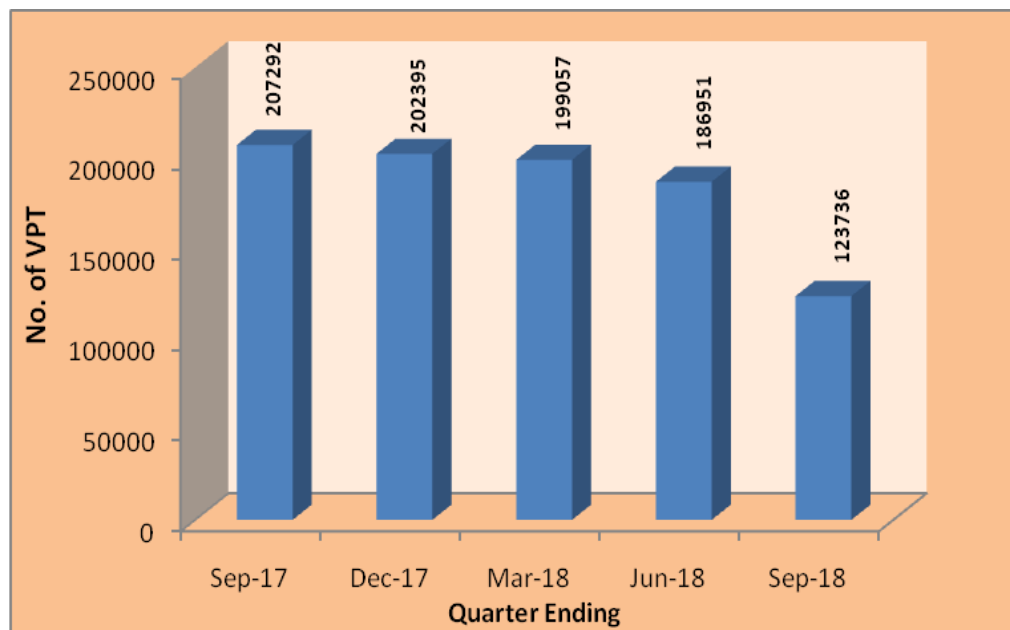
Village Public Telephones (VPTs)

1.29 There are 5,93,731 inhabited villages in India as per census 2001. At the end of the quarter, only 20.84% of the total inhabited villages in India have been connected by VPTs.

1.30 Number of VPTs declined from 1,86,951 at the end of Jun-18 to 1,23,736 at the end of Sep-18 with quarterly decline rate of 33.81%.

1.31 As per the information received in TRAI, at the end of Sep-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 1.8: Trend of number of VPTs



Section D: Internet Service

1.32 This section summarizes information submitted by 320 internet service providers for the quarter ending Sep-18. **Part-I** consists of information of Internet service (narrowband+broadband), **Part-II** consists of broadband service and **Part-III** covers narrowband service.

Part-I : Internet Service (broadband + narrowband)

1.33 As per reports received from 320 operators, total number of internet subscribers increased from 512.26 million at the end of Jun-18 to 560.01 million at the end of Sep-18 with quarterly growth rate of 9.32%. Out of total 560.01 million internet subscribers, 481.70 million are broadband subscribers and 78.30 million are narrowband subscribers.

1.34 Wired Internet subscribers increased from 21.16 million at the end of Jun-18 to 21.25 million at the end of Sep-18 with quarterly growth rate of 0.42%. Wireless Internet subscribers increased from 491.10 million at the end of Jun-18 to 538.76 million at the end of Sep-18 with quarterly growth rate of 9.70%.

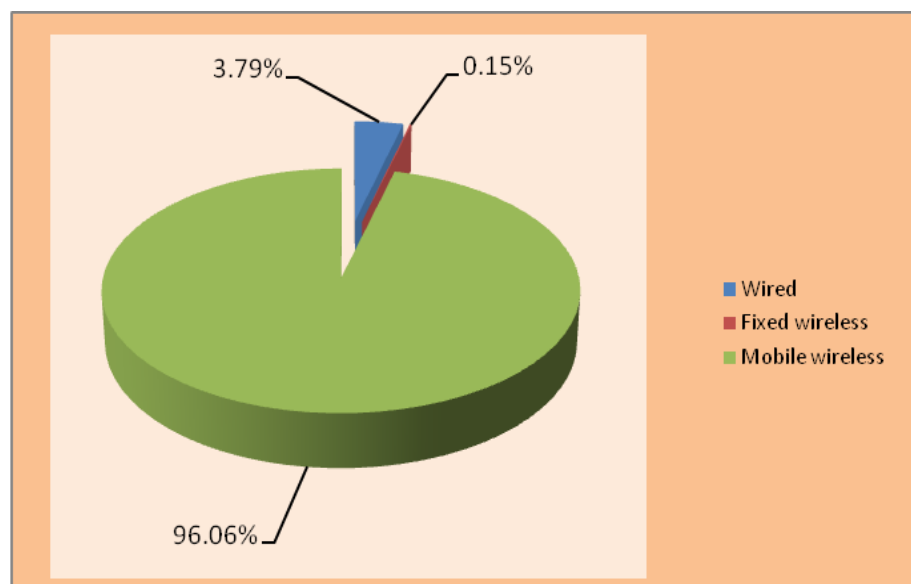
1.35 Number of Broadband subscribers increased from 447.12 million at the end of Jun-18 to 481.70 million at the end of Sep-18 with quarterly growth rate of 7.73%. The number of Narrowband subscribers increased from 65.14 million at the end of Jun-18 to 78.30 million at the end of Sep-18 with quarterly growth rate of 20.21%.

Table 1.28: Trend of Internet subscriber base

Segment	Mode of Access								Total Subscribers (in million)	
	Wired Subscribers (in million)		Wireless Subscribers (in million)							
			Fixed Wireless (Wi-Fi, Wi-Max, Radio & VSAT)		Mobile Wireless (Phone + Dongle)		Total Wireless			
	Jun-18	Sep-18	Jun-18	Sep-18	Jun-18	Sep-18	Jun-18	Sep-18	Jun-18	Sep-18
Broadband	17.91	17.99	0.43	0.82	428.79	462.89	429.22	463.71	447.12	481.70
Narrowband	3.26	3.26	0.01	0.01	61.87	75.03	61.88	75.04	65.14	78.30
Total	21.16	21.25	0.44	0.83	490.66	537.92	491.10	538.75	512.26	560.01

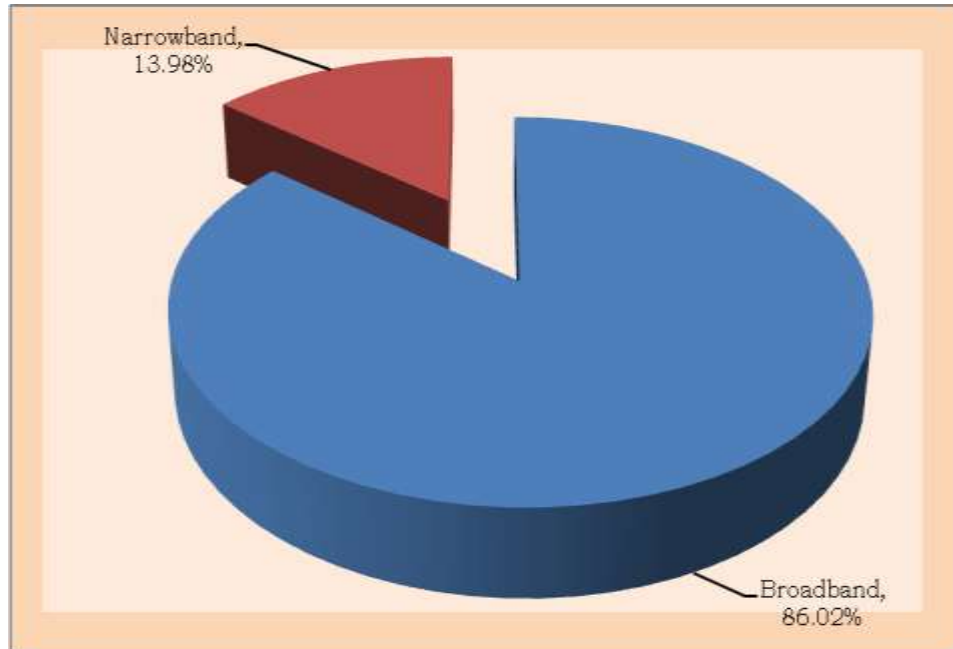
1.36 The following charts present the composition of Internet Subscribers by mode of access and composition of Broadband & Narrowband subscription as on 30th September, 2018.

Chart 1.9: Composition of Internet subscription



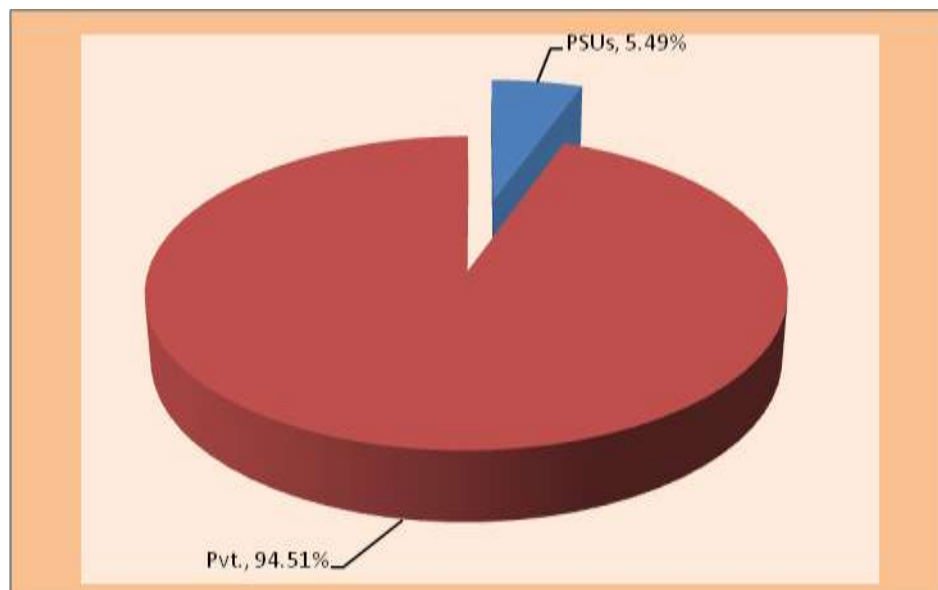
1.37 Out of total internet subscribers, 96.06% subscribers are using Mobile device for access of internet service.

Chart 1.10 : Composition of Broadband & Narrowband subscription



1.38 Share of private internet service providers in respect of subscriber base, increased from 93.85% at QE Jun-18 to 94.51% at QE Sep-18. The following charts present the composition of market share of PSUs and Private Internet service providers.

Chart 1.11 : Market share of PSUs and Private Internet Service Providers



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

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

Telecom Service Area	Narrowband		Broadband		Total Internet	
	Rural	Urban	Rural	Urban	Rural	Urban
Andhra Pradesh	2.75	2.75	14.75	23.53	17.50	26.28
Assam	1.17	0.70	4.06	4.32	5.23	5.02
Bihar	4.71	1.95	13.50	12.56	18.21	14.52
Delhi	0.22	2.74	0.54	29.43	0.76	32.17
Gujarat	1.79	1.96	8.67	23.49	10.46	25.45
Haryana	1.06	0.69	3.82	8.00	4.88	8.70
Himachal Pradesh	0.32	0.20	2.46	1.66	2.78	1.86
Jammu & Kashmir	0.44	0.30	1.95	3.32	2.39	3.63
Karnataka	1.94	2.03	8.69	23.04	10.63	25.08
Kerala	1.15	1.29	7.84	12.30	8.99	13.59
Kolkata	0.17	1.72	1.00	11.30	1.17	13.02
Madhya Pradesh	3.26	2.72	8.27	21.17	11.53	23.88
Maharashtra	3.17	2.73	13.63	26.58	16.80	29.31
Mumbai	0.12	2.71	0.96	20.54	1.08	23.25
North East	0.52	0.47	2.23	2.86	2.75	3.34
Orissa	1.68	0.70	5.98	4.88	7.66	5.59
Punjab	1.04	1.22	5.46	13.45	6.50	14.67
Rajasthan	2.90	1.82	11.05	16.29	13.95	18.12
Tamil Nadu	2.03	2.79	9.54	26.36	11.57	29.14
Uttar Pradesh(East)	5.02	2.22	13.45	17.49	18.47	19.71
Uttar Pradesh(West)	2.74	1.98	6.87	16.19	9.61	18.17
West Bengal	2.95	1.46	8.21	10.00	11.16	11.46
Total	41.15	37.16	152.92	328.78	194.07	365.94

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

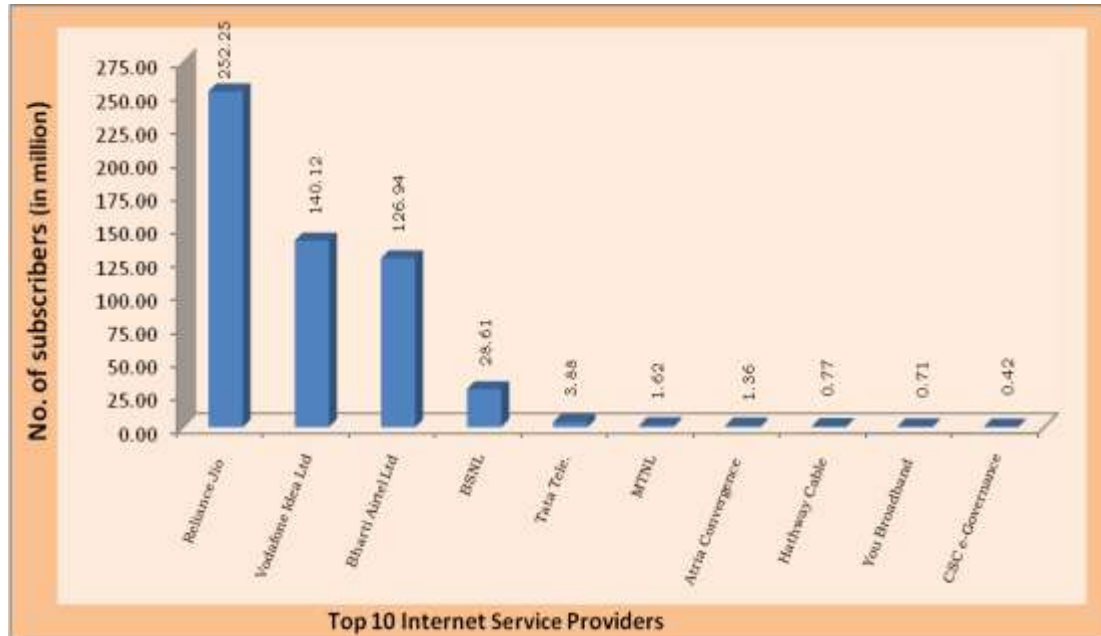
S.No	ISP	No. of Subscribers	Share (%)
1	Reliance Jio Infocomm Ltd	252,252,003	45.04
2	Vodafone Idea Limited	140,119,462	25.02
3	Bharti Airtel Ltd.	126,936,427	22.67
4	Bharat Sanchar Nigam Ltd.	28,608,314	5.11
5	Tata Teleservices Limited	3,882,292	0.69
6	Mahanagar Telephone Nigam Ltd.	1,624,065	0.29
7	Atria Convergence Technologies Pvt. Ltd.	1,363,593	0.24
8	Hathway Cable & Datacom Pvt. Ltd.	766,220	0.14
9	You Broadband India Pvt. Ltd.	706,543	0.13
10	CSC e-Governance	417,540	0.07
	Total of Top 10 ISPs	556,676,459	99.40
	Others	3,332,288	0.60
	Grand Total	560,008,747	100

1.40 Reliance Jio holds the top position with 45.04% of market share of internet subscribers followed by Vodafone Idea Ltd with 25.02% at the QE Sep-18. After merger of M/s Vodafone and M/s Idea during the quarter, M/s Bharti Airtel slipped down at third position in respect of internet subscribers.

1.41 Top 10 Service Providers together hold 99.40% of total internet subscriber base at the QE Sep-18. Detailed table of number of internet subscriber base (broadband and narrowband) of all the service providers is available at Annexure-1.5.

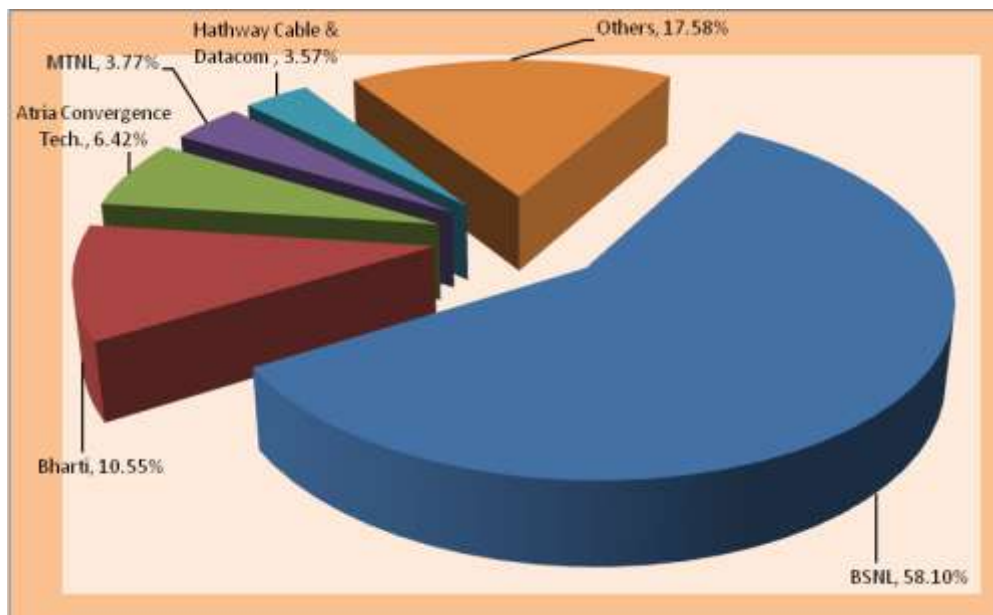
1.42 The following chart depicts the internet subscriber base of top ten Internet Service Providers (ISPs) in the QE Sep-18.

Chart 1.17 : Subscriber base of top ten ISPs



1.43 Out of total 21.25 million wired internet subscribers, BSNL holds 58.10% market share with 12.35 million subscribers, followed by Bharti with 2.24 million subscribers.

Chart 1.18 : Composition of Wired Internet subscribers



1.44 In wireless internet segment, Reliance Jio holds 46.82% market share with 252.25 million subscribers followed by Vodafone Idea Ltd with 140.11 million wireless internet subscribers at the QE Sep-18.

Chart 1.19 : Composition of Wireless Internet subscription

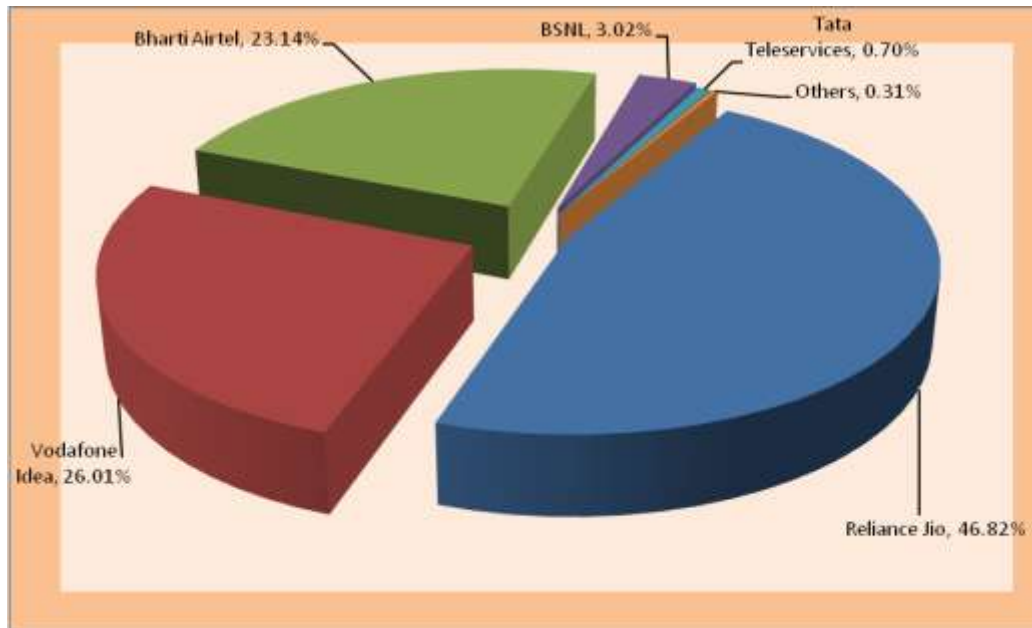


Chart 1.20 : Technology trend for Wireless Internet Access

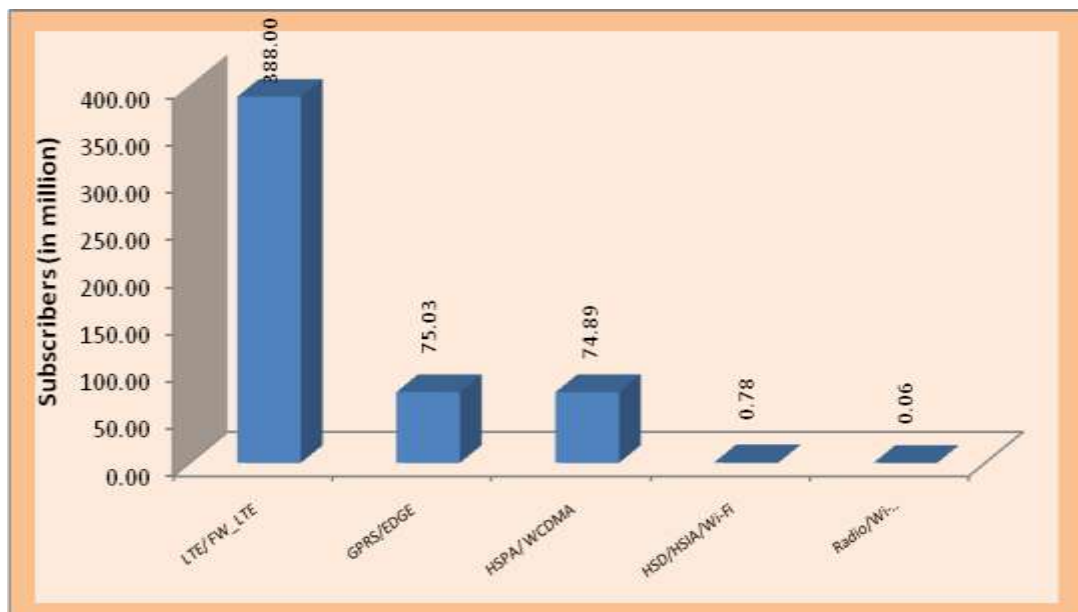
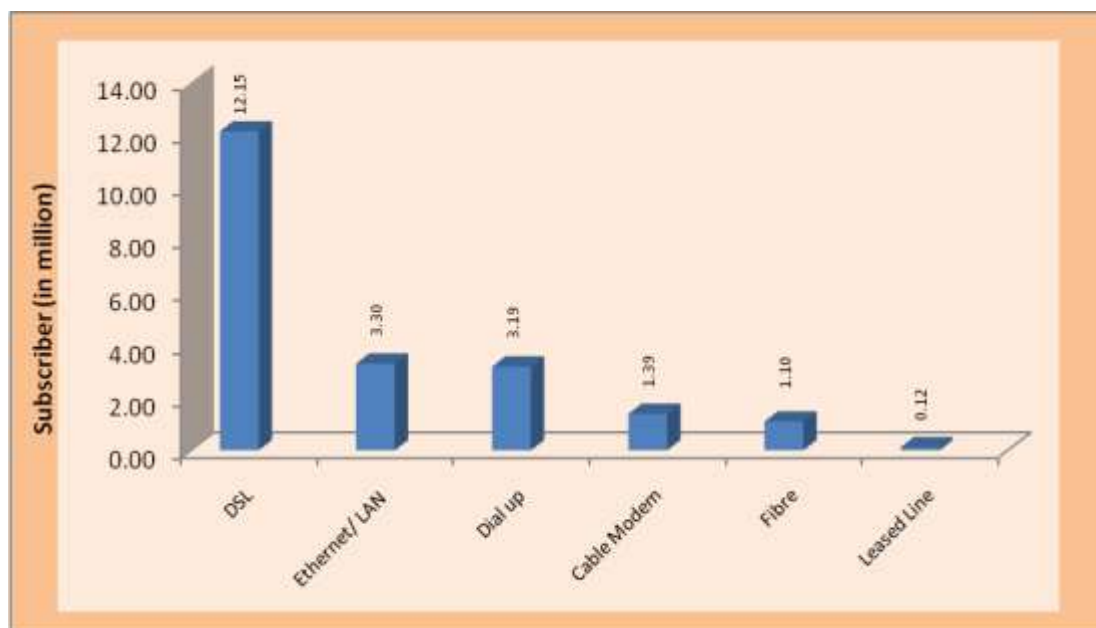


Chart 1.21 : Technology trend for Wired Internet Access



1.45 Top five service areas in terms of internet subscriptions (wired+ wireless) are Maharashtra (46.11 million), Andhra Pradesh (43.78 million), Tamil Nadu including Chennai (40.71 million), U.P.(East) (38.18 million) and Gujarat (35.91 million).

Table 1.31 : Service Area wise number of Internet Subscribers per 100 population at the end of Sep-18

Service Area	Internet Subscribers (in million)			No. of Internet subscribers per 100 population		
	Rural	Urban	Total	Rural	Urban	Total
Andhra Pradesh	17.50	26.28	43.78	27.00	104.09	48.61
Assam	5.23	5.02	10.25	18.81	90.15	30.72
Bihar	18.21	14.52	32.73	14.94	73.84	23.12
Delhi	0.76	32.17	32.93	98.79	145.37	143.81
Gujarat	10.46	25.45	35.91	27.90	91.08	54.88
Haryana	4.88	8.70	13.57	27.38	81.56	47.67
Himachal Pradesh	2.78	1.86	4.64	43.67	212.73	64.08
Jammu & Kashmir	2.39	3.63	6.02	26.23	100.20	47.25
Karnataka	10.63	25.08	35.71	27.67	99.12	56.03

Service Area	Internet Subscribers (in million)			No. of Internet subscribers per 100 population		
	Rural	Urban	Total	Rural	Urban	Total
Kerala	8.99	13.59	22.57	33.15	148.66	33.15
Madhya Pradesh	11.53	23.88	35.41	14.89	79.86	14.89
Maharashtra	16.80	29.31	46.11	28.10	84.47	28.10
Mumbai	1.08	23.25	24.32			
North East	2.75	3.34	6.09	25.84	90.53	2.75
Orissa	7.66	5.59	13.25	21.63	70.76	7.66
Punjab	6.50	14.67	21.17	37.39	102.05	6.50
Rajasthan	13.95	18.12	32.07	24.43	98.81	13.95
Tamil Nadu	11.57	29.14	40.71	42.61	64.90	11.57
UP (East)	18.47	19.71	38.18	15.38	68.65	27.75
UP (West)	9.61	18.17	27.78			
Kolkata	1.17	13.02	14.19	17.90	87.58	38.02
West Bengal	11.16	11.46	22.62			
Total	194.07	365.94	560.01	21.76	88.26	42.87

* 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 Chhatisgarh, Bihar includes Jharkhand, Maharashtra includes Goa, Uttar Pradesh includes Uttarakhand, West Bengal includes Sikkim and North-East includes Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland & Tripura states.

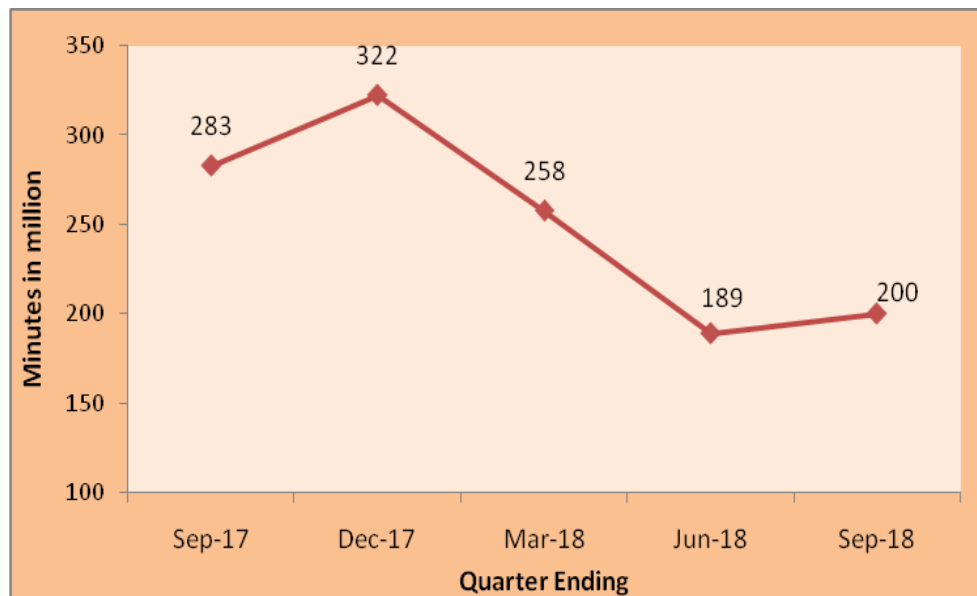
ISP Connectivity

1.46 The International Internet bandwidth owned by various service providers is reported to be 7,204 Gbps during the quarter ending Sep-18 as compared to 6,039 Gbps during the previous quarter.

Internet Telephony

1.47 As per the reports received from 17 service providers, providing Internet Telephony services, the total outgoing minutes of usage for internet telephony is 200 million during the Q.E. Sep-18 as compare to 189 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 \geq 512 Kbps)

1.48 The total number of broadband subscribers increased from 447.12 million at the end of Jun-18 to 481.70 million at the end of Sep-18. Out of which number of wired broadband subscribers are 17.99 million and wireless broadband subscribers are 463.71 million.

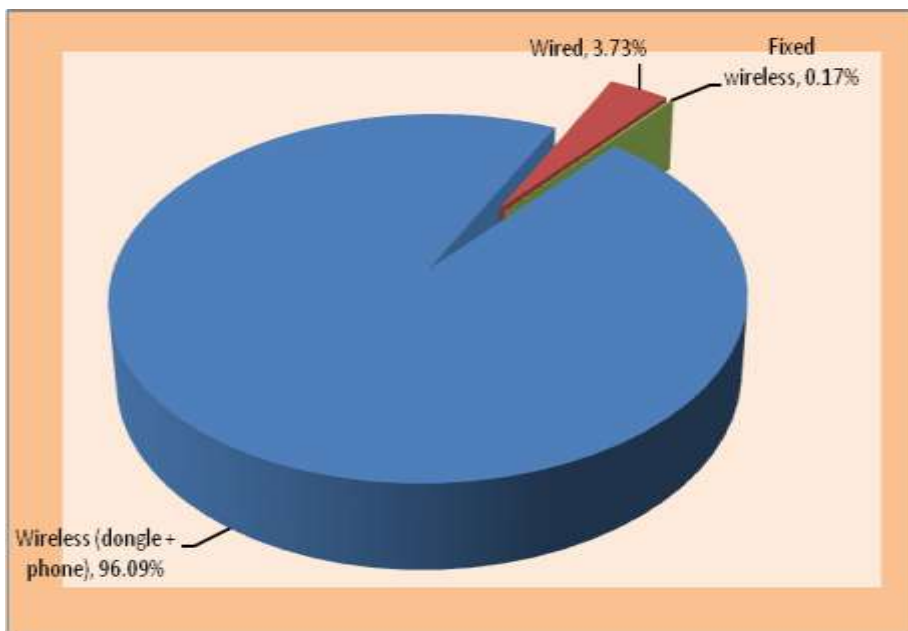
1.49 Top five broadband (wired+wireless) service providers in term of subscribers are Reliance Jio (252.25 million), Vodafone Idea Ltd (99.72 million), Bharti Airtel (99.29 million), BSNL (20.12 million) and Tata Teleservices (2.62 million).

1.50 In wired broadband segment, BSNL holds 50.88% market share with 9.15 million subscribers followed by Bharti with 2.24 million subscribers.

1.51 In wireless broadband segment, Reliance Jio holds 54.40% market share with 252.25 million subscribers followed by Vodafone Idea Ltd (21.50%) with 99.71 million subscribers.

1.52 Top five service areas in respect of broadband subscriptions at QE Sep-18 are Maharashtra (40.21 million), Andhra Pradesh including Telengana (38.28 million), Tamil Nadu including Chennai (35.90 million), Gujarat (32.16 million) and Karnataka (31.74 million).

Chart 1.23 : Composition of Broadband subscription – Technology wise

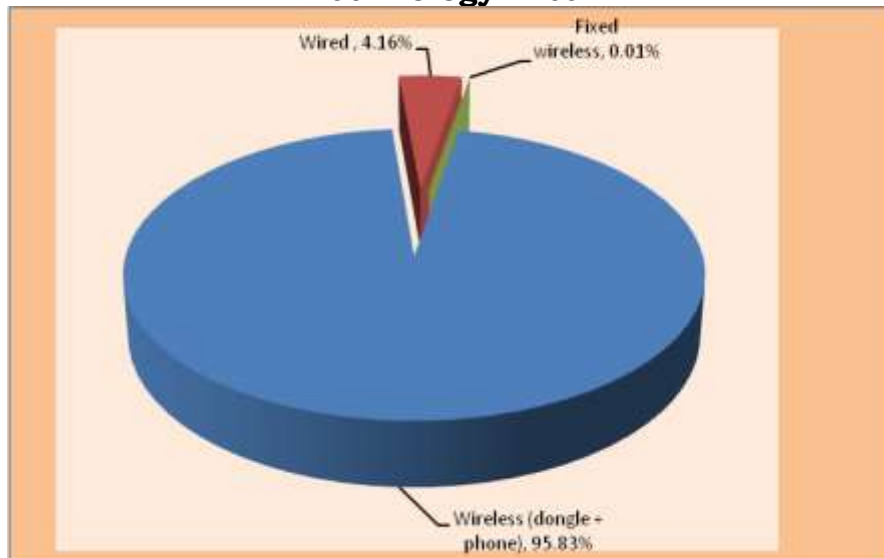


1.53 Mobile Device Users (dongle+phone) constitute 96.09% of total broadband subscribers at the end of Sep-18.

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

- 1.54 Total number of narrowband subscribers increased from 65.14 million at the end of Jun-18 to 78.30 million at the end of Sep-18 with the quarterly growth rate of 20.21%. Out of 78.30 million narrowband subscribers, Wired Narrowband subscribers are 3.26 million and Wireless Narrowband subscribers are 75.04 million.
- 1.55 The top five narrowband (wired + wireless) service providers in term of subscriber base are Vodafone Idea Ltd (40.40 million), Bharti Airtel (27.65 million), BSNL (8.49 million), Tata Teleservices (1.26 million) and MTNL (0.43 million).
- 1.56 In wired narrowband segment, BSNL holds 97.97% market share with 3.195 million subscribers followed by You Broadband India Pvt Ltd with 0.015 million.
- 1.57 In wireless narrowband segment, Vodafone Idea Ltd holds 53.85% market share with 40.40 million subscribers followed by Bharti Airtel with 27.65 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)

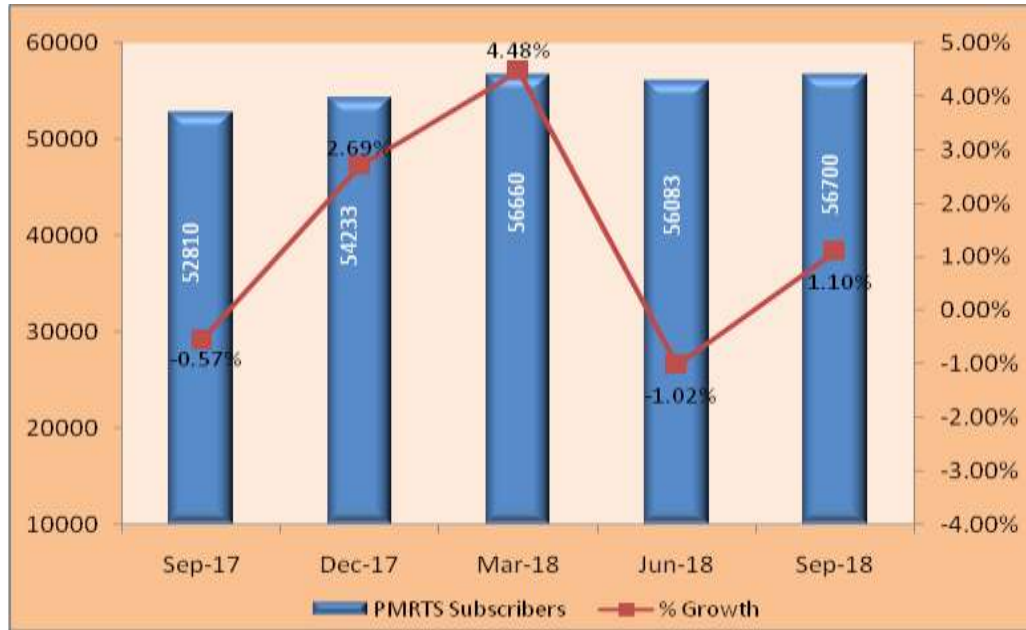
1.58 The subscriber base of PMRTS increased from 56,083 at the end of Jun-18 to 56,700 at the end of Sep-18 with quarterly growth rate of 1.10%.

Table 1.32 : PMRTS Subscriber base - Service Provider wise

Sl. No	Name of the Service Provider	Subscriber Base as on 30.06.2018	Subscriber Base as on 30.09.2018	Growth in Subscribers	% Growth in subscribers in QE Sep-18
1	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	46504	47086	582	1.25
4	Procall Ltd.	3192	3178	-14	-0.44
2	Inative Networks Pvt Ltd	1820	1820	0	0.00
3	Quick Call	2064	2057	-7	-0.34
5	Smartlink Pvt Ltd	973	1004	31	3.19
6	Bhilwara Telenet Services Pvt Ltd	830	855	25	3.01
7	Wiwonet Solutions Pvt Ltd	361	361	0	0.00
8	Airtalk Solutions & Services Pvt Ltd	339	339	0	0.00
	Total	56083	56700	617	1.10

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

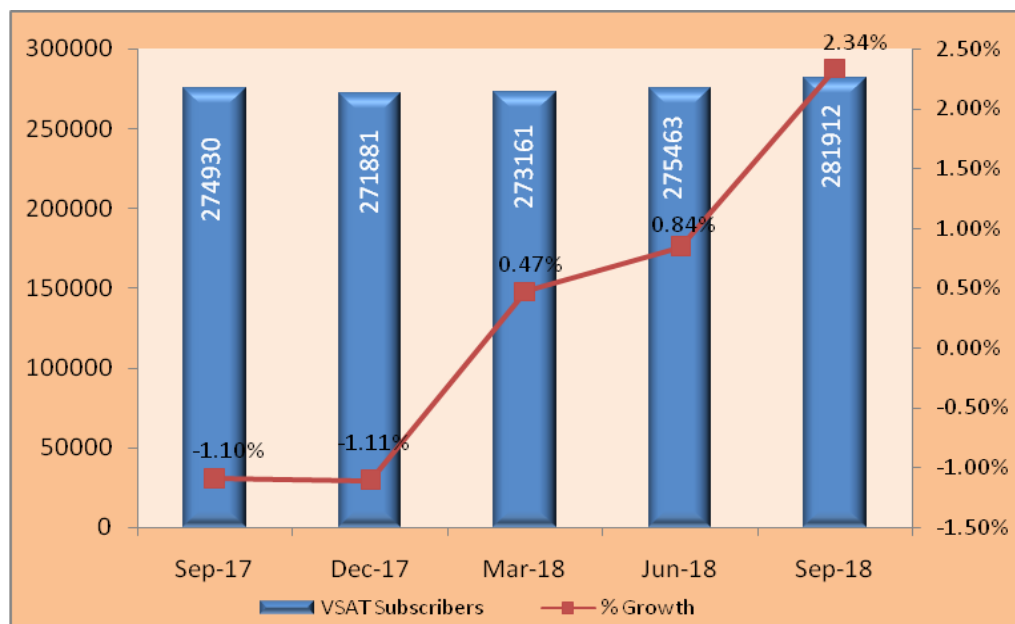
Chart 1.25 : Number of PMRTS subscribers & Rate of Growth (%)



Very Small Aperture Terminal (VSAT)

1.60 The total number of VSAT subscribers increased from 2,75,463 at the end of Jun-18 to 2,81,912 at the end of Sep-18. Net addition during the quarter has been 6,449 at the growth rate of 2.34%.

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



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

Sr. No	Name of Service Providers	Subscriber base at the Quarter ending		Net Addition	%age Growth	Market Share (%) Sep-18
		Jun-18	Sep-18			
1	Hughes Communications Ltd.	100,178	101,299	1,121	1.12	35.93
2	Bharti Airtel Limited	75,055	77,399	2,344	3.12	27.46
3	Tatanet Services	60,731	65,298	4,567	7.52	23.16
4	HCL Comnet	19,664	18,613	-1,051	-5.34	6.60
5	BSNL	17,164	16,732	-432	-2.52	5.94
6	Infotel Satcom	2,597	2,497	-100	-3.85	0.89
7	Cloudcast Digital Ltd (eartwhile Planetcast Media Services Ltd)	74	74	0	0.00	0.03
	Total	2,75,463	281,912	6,449	2.34	100

1.61 Hughes Communication Limited continues to be the market leader in VSAT with subscriber base of 1,01,299 followed by Bharti Airtel Ltd (77,399) at the end of Sep-18.

1.62 M/s Tatanet Services added maximum number of VSAT i.e. 4,567 subscribers in QE Sep-18, with maximum growth rate of 7.52% in its VSAT subscribers. M/s HCL Comnet showed maximum decline of 1,051 VSAT subscribers with decline rate of 5.34% during the quarter.

Chapter 2 :

Revenue and Usage

Wireless Services

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

Table 2.1: Key Indicators – Wireless Services (GSM, LTE & CDMA)

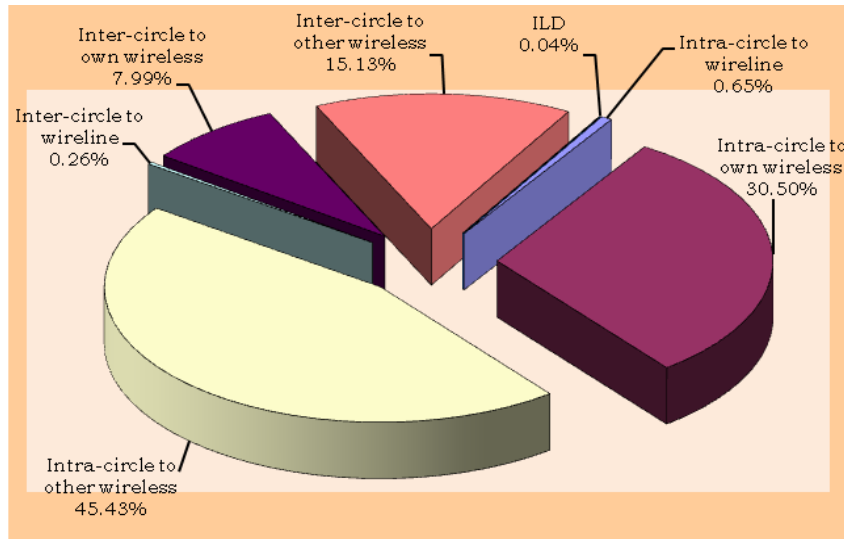
Parameter	Sep-18	Jun-18	Sep-17	QoQ %age change	YoY %age change
Subscriber Base* (million)	1169.40#	1145.64	1177.82	2.07	-0.71
Share of Prepaid (%)	95.76%	95.87%	95.54%	-0.11	0.23
Incoming MOU* per subscriber per month	318.19	301.60	220.48	5.50	44.32
Outgoing MOU* per subscriber per month	308.79	305.40	215.19	1.11	43.49
No. of Outgoing SMS per subscriber per month	17.30	18.87	15.24	-8.34	13.49
Average Revenue Per User (ARPU) per month (₹)	67.39	69.15	84.23	-2.55	-19.99

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

Subscriber figures for 4G LTE is also included.

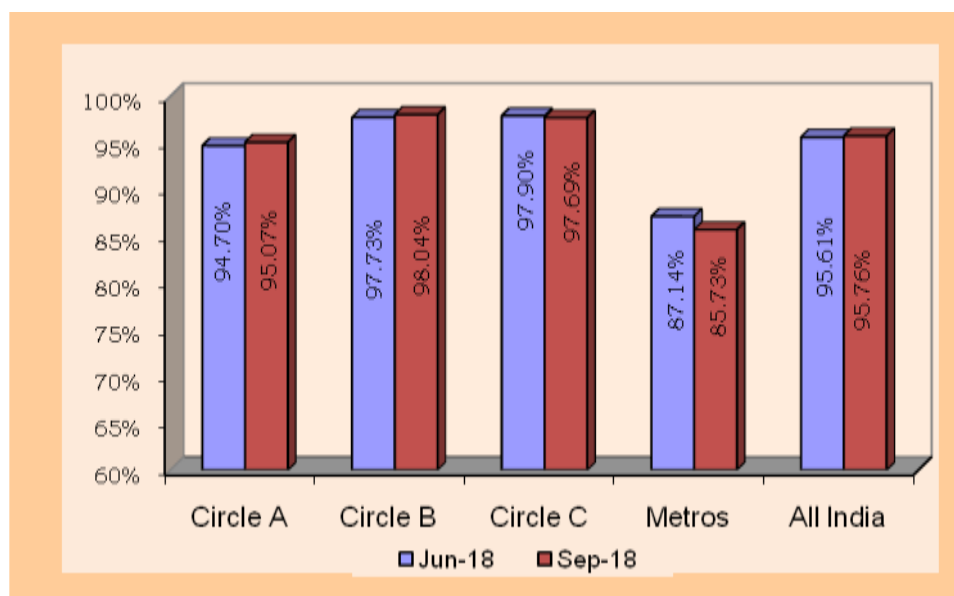
2.1 The following chart presents % break-up of outgoing minutes from Home Service Area (HSA) in the QE Sep-18.

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



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

Chart 2.2: Proportion of prepaid subscribers



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

2.3 Market share of prepaid segment increased from 95.61% at the end of Jun-18 to 95.76% at the end of Sep-18.

2.4 The ARPU per month (all India, blended) declined from ₹69 in Q.E. Jun-18 to ₹67 in Q.E. Sep-18 with quarterly declining rate of 2.55%. The following table presents the ARPU per month for various categories of circles and various platforms for payment viz. post-paid and pre-paid.

Table 2.2: Monthly ARPU – Wireless Services in QE Sep-18

Circle Category	ARPU per month (in ₹)		
	Post-paid	Pre-paid	Blended
Circle A	312	67	79
Circle B	270	55	59
Circle C	209	57	61
Metros	323	32	71
All India	299	57	67
All private SPs	299	60	70
BSNL/MTNL	305	33	40

2.5 The ARPU per month for pre-paid segment is ₹57 in QE Sep-18, and ARPU per month for postpaid segment is ₹299 in QE Sep-18.

2.6 The following table presents the composition of ARPU per month in the QE Sep-18.

Table 2.3: Composition of ARPU per month - Wireless Services

S. No.	Item	Revenue (excl. service tax) per subscriber per month (in ₹)	Share of total revenue from subscribers
1	Usage from Home Service Area		
1.1.	Rental Revenue	22.67	27.9%
1.2.	Revenue from calls	10.94	13.4%
1.3.	Revenue from SMS	1.40	1.7%
1.4.	Revenue from data usage	40.30	49.5%
1.5.	Revenue from other VAS	2.41	3.0%
1.6.	Other revenue	2.22	2.7%
2	Usage outside Home Service Area		
2.1.	Revenue from outroamers	1.44	1.8%
3	Total revenue from subscribers (1+2)	81.39	100%
4	Net inter-operator settlement charges receivable *	-14.00	
5	Net Revenue (ARPU) per month(3+4)	67.39	

* 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 (₹14.00) accounts for 17.20% 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 607 in QE Jun-18 to 627 in QE Sep-18 with quarterly growth rate of 3.29%.

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.

Table 2.4: MOU per subscriber per month - QE Sep-18

Circle category	MOU per subscriber per month								
	Postpaid			Prepaid			Blended		
	Outgoing MOU	Incoming MOU	Total MOU	Outgoing MOU	Incoming MOU	Total MOU	Outgoing MOU	Incoming MOU	Total MOU
Circle A	371	341	711	277	270	547	281	273	555
Circle B	387	370	757	295	321	616	297	322	619
Circle C	557	491	1047	348	418	767	353	420	773
Metro	355	315	669	392	305	696	387	306	693
All India	384	350	734	306	317	622	309	318	627

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 Sep-18 is 49.3 : 50.7.

2.11 Number of outgoing SMS per subscriber per month declined from 19 in Q.E. Jun-18 to 17 in Q.E. Sep-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.

Table 2.5: No. of Outgoing SMS per subscriber per month during QE Sep-18

Circle category	Outgoing SMS per subscriber month		
	Postpaid	Prepaid	Blended
Circle A	116	19	24
Circle B	39	12	13
Circle C	37	16	16
Metro	19	15	15
All India	64	15	17

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

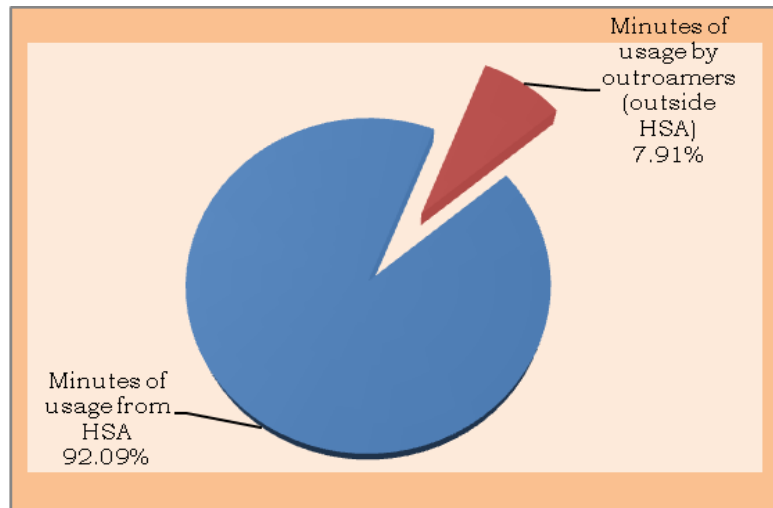
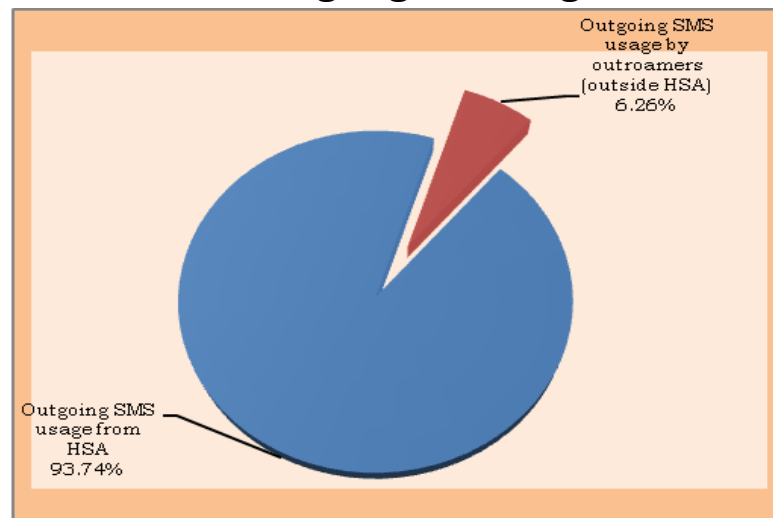


Chart 2.4: Outgoing SMS Usage by Out-roamers as a % of Total No. of Outgoing SMS Usage



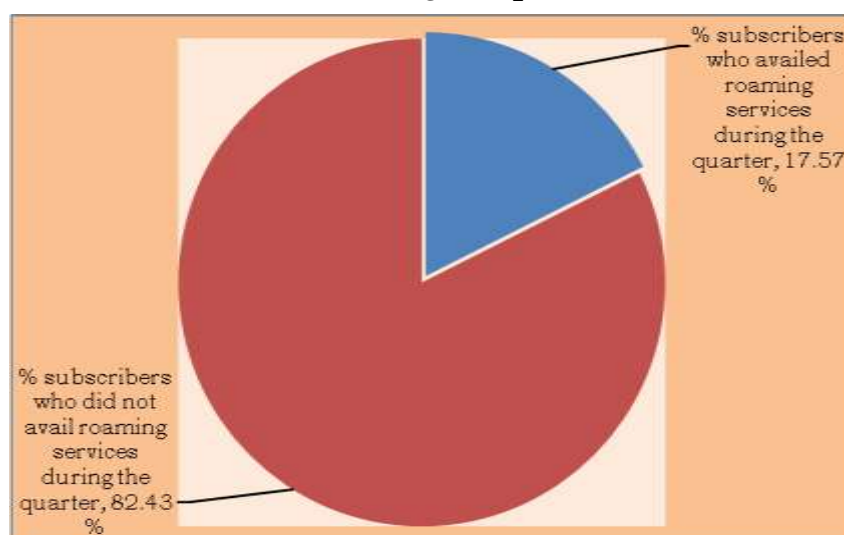
2.12 The following table presents the percentage break-up of outgoing minutes of usage from home service area between various categories of termination networks.

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

Circle Category	% Intra-circle to wireline	% Intra-circle to own wireless	% Intra-circle to other wireless	% Inter-circle to wireline	% Inter-circle to own wireless	% Inter-circle to other wireless	% ILD
Circle A	0.77	31.05	47.61	0.31	6.26	13.97	0.04
Circle B	0.51	31.42	47.43	0.20	6.90	13.49	0.04
Circle C	0.26	35.11	42.83	0.19	7.70	13.90	0.01
Metros	1.33	19.29	36.44	0.41	16.88	25.55	0.10
All India	0.65	30.50	45.43	0.26	7.99	15.13	0.04

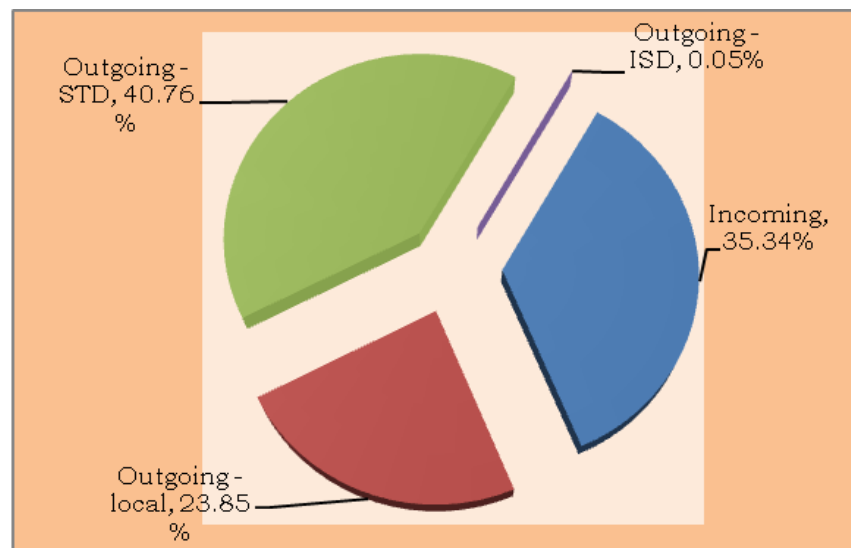
2.13 The chart given below presents the percentage of subscribers who availed roaming services (out-roamers) during the quarter ending Sep-18.

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



2.14 The usage pattern of out-roamers i.e. usage from outside the home service area shows that incoming minutes accounts for 35.34% of the total minutes of usage by out-roamers in QE Sep-18. The chart given below presents the break-up of minutes of usage of out-roamers during the QE Sep-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 =

$$\frac{\text{Rental revenue} + \text{revenue from outgoing calls from HSA}}{\text{No. of outgoing minutes from HSA}}$$

Table 2.7: Average outgo per outgoing minute from HSA

Circle Category	(₹ per minute)		
	Postpaid	Prepaid	Blended
Circle A	0.35	0.12	0.14
Circle B	0.34	0.11	0.12
Circle C	0.18	0.09	0.09
Metros	0.39	0.08	0.12
All India	0.34	0.11	0.12

2.16 All India average outgo per outgoing minute declined from ₹0.14 in the QE Jun-18 to ₹0.12 in the QE Sep-18.

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

Parameter	Sep-17	Dec-17	Mar-18	Jun-18	Sep-18
1. ARPU (₹ Per month)	84	80	76	69	67
3. Average outgo (tariff) per GB wireless data (in ₹)	21.44	18.55	14.99	12.07	10.91
3. MOU per subscriber per month	435	494	583	608	627
4. Outgoing MOU per subscriber per month					
4.1 Local (Intra-circle)	156	180	212	223	224
4.2 NLD (inter-circle)	58	67	83	83	85
4.3 ILD	0.2	0.5	0.2	0.3	0.1
5. No. of Outgoing SMS per subscriber per month	15	17	20	19	17
6. Average Outgo (voice) per outgoing minute from HSA (in ₹)	0.24	0.19	0.16	0.14	0.12

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

Chapter 3 :

Financial Data of

Telecom Service

Sector

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

Particulars	QE Sep-17 (₹ in Crore)	QE Jun-18 (₹ in Crore)	QE Sep-18 (₹ in Crore)	Q-O-Q % Change	Y-O-Y % Change
Gross Revenue (GR)	66,362	58,401	57,827	-0.98	-12.86
Adjusted Gross Revenue (AGR)	41,669	36,552	36,142	-1.12	-13.26
Pass Through Charges (GR-AGR)	24,693	21,849	21,685	-0.75	-12.18
License Fee	3,249	2,929	2,889	-1.35	-11.08
Spectrum Usage Charges	1,256	1,028	1,043	1.51	-16.95

3.1 Gross Revenue (GR) quarterly declined by 0.98% in QE Sep-18, and on annual basis, it declined by 12.86%. Adjusted Gross Revenue (AGR) quarterly and yearly declined by 1.12% and 13.26% respectively in QE Sep-18.

3.2 Pass through charges quarterly and on annual basis declined by 0.75% and 12.18% respectively in the QE Sep-18.

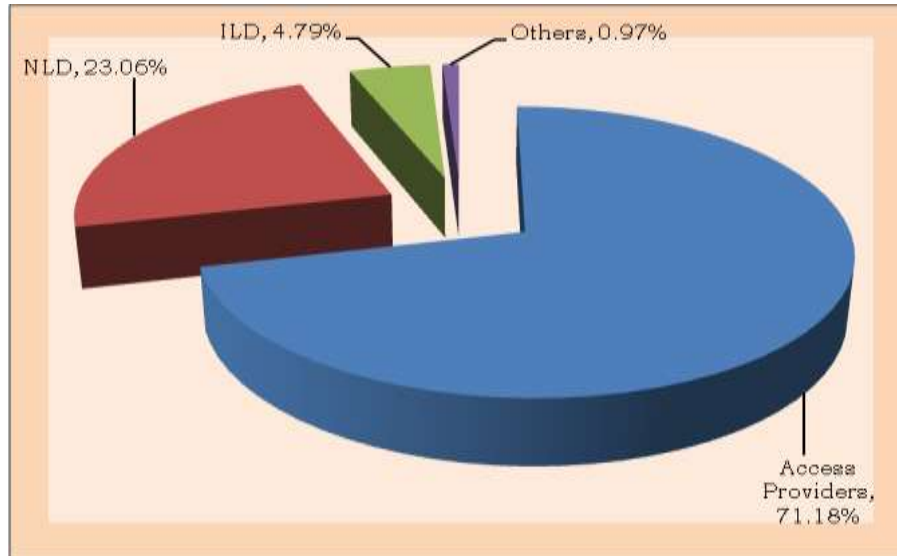
3.3 Pass-through charges as a percentage of Gross Revenue are 37.50% in QE Sep-18 as against 37.41% in the previous quarter.

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	40,551	25,728	2,060	1,039
NLD	10,142	8,333	667	-
ILD	3,331	1,730	138	-
Others	3,804	351	24	4
Total	57,827	36,142	2,889	1,043

Chart 3.1: Composition of Adjusted Gross Revenue



3.4 Access services contributed 71.18% of the total Adjusted Gross Revenue of telecom services. In Access services, Gross Revenue (GR), Adjusted Gross Revenue (AGR), License Fee and Spectrum Usage Charges(SUC) increased by 0.05%, 0.56%, 0.40% and 1.55% respectively in QE Sep-18. However, Pass Through Charges in access services declined by 0.81% during the quarter.

3.5 Monthly Average Revenue per User (ARPU) for Access Services based on AGR declined from ₹73.34 in QE Jun-18 to ₹72.50 in QE Sep-18.

Chart 3.2: Trend in ARPU per month for Access Services



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

(in ₹ Crore)

Service Provider	QE Sep-18	QE Jun-18	% Change
Vodafone	7528.37	4483.68	-8.49
Idea		3743.12	
Bharti Airtel	6720.88	6723.56	-1.31
Telenor		86.22	
BSNL	1925.33	2273.58	-15.32
Tata	617.51	553.98	11.47
Reliance Com.	95.32	149.12	-36.08
MTNL	513.93	440.24	16.74
Quadrant	54.59	5.89	827.34
Reliance Jio	8271.85	7125.69	16.08
Grand Total (Access)	25727.79	25585.07	0.56

Note: M/s Vodafone and M/s Idea has been merged together during the reported quarter and now it became M/s Vodafone Idea Ltd. M/s Telenor has also been merged with M/s Bharti Airtel.

3.6 Public Sector Undertakings' share in the Access AGR of telecom services is 9.48% in the QE Sep-18.

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

Category	AGR of Access Services for QE Sep-18 (in ₹ crore)	%age share of AGR
Metro	3249.34	12.63
A	10354.86	40.25
B	8962.98	34.84
C	3160.60	12.28
Total	25727.79	100

Notes :

1. Source: Figures are un-audited and as submitted by the Operators.
2. The figures have been regrouped wherever considered necessary for analysis purpose.
3. The 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

Table 4.1: QoS Summary - Wireless Service

Sl. No.	Parameters	Bench mark	No. of CMTS Licensees not Meeting the Benchmarks			
			For Q.E. June, 2018		For Q.E. Sept., 2018	
			Out Of 130 (Nos.)	Out Of 130 (%)	Out Of 130 (Nos.)	Out Of 130 (%)
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	Connection Establishment (Accessibility)					
(i)	Call Set-up Success Rate and Session Establishment Success Rate for Circuit Switched Voice or VoLTE as applicable(within licensee's own network)	≥ 95%	1	0.77%	1	0.77%
(ii)	SDCCH/ Paging Channel Congestion/ RRC Congestion (%age)	≤ 1%	2	1.54%	0	0%
(iii)	TCH, RAB and E-RAB Congestion (%age)	≤ 2%	2	1.54%	4	3.08%
3	Connection Maintenance (Retainability)					
(i)	Network QoS DCR Spatial Distribution Measure [Network_ QSD(90,90)]	≤ 2%	7	5.38%	5	3.85%
(ii)	Network QoS DCR Temporal Distribution Measure [Network_ QTD(97,90)]	≤ 3%	6	4.62%	3	2.31%
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%	2	1.54%	2	1.54%
II.	Customer Service Quality Parameters					
6	Metering and Billing					
(i)	Metering and billing credibility - post paid	≤ 0.1%	0	0	1	0.77%
(ii)	Metering and billing credibility - pre paid	≤ 0.1%	1	0.77%	0	0%

Sl. No.	Parameters	Bench mark	No. of CMTS Licensees not Meeting the Benchmarks			
			For Q.E. June, 2018		For Q.E. Sept., 2018	
			Out Of 130 (Nos.)	Out Of 130 (%)	Out Of 130 (Nos.)	Out Of 130 (%)
(iii)	Resolution of billing/charging/validity complaints	98% within 4 weeks	0	0	0	0%
	Resolution of billing/charging/validity complaints	100% within 6 weeks	1	0.77%	0	0%
(iv)	Period of applying credit/ waiver/ adjustment to customer's account from the date of resolution of complaints	within 1 week of resolution of complaint	0	0	0	0%
7	Response time to the customer for assistance					
(i)	Accessibility of call centre/customer care	≥ 95%	8	6.15%	1	0.77%
(ii)	%age of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	22	16.92 %	20	15.38 %
8	Termination / closure of service					
(i)	%age requests for Termination/ Closure of service complied within 7 days	100% within 7 days	6	4.62%	4	3.08%
(ii)	Time taken for refund of deposits after closures	100% within 60 days	1	0.77%	4	3.08%

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

- a. SDCCH/Paging Channel Congestion/RRC Congestion (%age)
- b. Network QoS DCR Spatial Distribution Measure [Network_QSD (90,90)] (%age)
- c. Network QoS DCR Temporal Distribution Measure [Network_QTD(97,90)]
- d. Metering and billing credibility – pre-paid
- e. Resolution of billing/charging/validity complaints (100% within 6 weeks)

- f. Accessibility of call centre/customer care
 - g. %age of calls answered by the operators (voice to voice) within 90 sec
 - h. %age requests for Termination/Closure of service complied within 7 days
- 4.2 The performance has deteriorated in this quarter as compared to the previous quarter in respect of the following parameters:-
- a. TCH, RAB and E-RAB Congestion (%age)
 - b. Metering and billing credibility – pre-paid
 - c. Time taken for refund of deposits after closures

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

Parameter	Benchmark	Service Provider	Service Area	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	94.97
TCH, RAB and E-RAB Congestion (%age)	≤ 2%	Idea	Madhya Pradesh	2.22
			UP-West	2.51
		Vodafone	UP-East	3.04
			UP-West	5.00
Network QoS DCR Spatial Distribution Measure [Network_QSD(90,90)]	≤ 2%	Idea	Assam	2.16
			Himachal Pradesh	2.24
			Jammu & Kashmir	2.16
			North East	2.22
		BSNL	West Bengal	3.09
Network QoS DCR Temporal Distribution Measure [Network_QTD(97,90)]	≤ 3%	Idea	Assam	3.51
			North East	3.39
		BSNL	West Bengal	3.67

Parameter	Benchmark	Service Provider	Service Area	Performance
Point of Interconnection (POI) Congestion (No. of POIs not meeting the benchmark) (Averaged over a period of quarter)	≤ 0.5%	BSNL	Rajasthan	1
		RJio	Rajasthan	1
Metering and billing credibility - post paid	≤ 0.1%	Vodafone	Andhra Pradesh	0.13
Accessibility of call centre/ customer care	≥ 95%	Airtel	Bihar	94.00
Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	Airtel	Karnataka	94.00
			Kolkata	94.00
		TATA	Andhra Pradesh	83.98
			Bihar	68.68
			Gujarat	78.19
			Haryana	65.81
			Himachal Pradesh	74.17
			Karnataka	62.41
			Kerala	81.75
			Kolkata	76.76
			Madhya Pradesh	63.53
			Maharashtra	74.46
			Mumbai	71.23
			Orissa	71.87
			Punjab	69.14
			Rajasthan	62.24
			Tamil Nadu	89.82
			UP-East	60.99
UP-West	62.96			
West Bengal	82.55			
%age requests for Termination / Closure of service complied within 7 days	100% within 7 days	Idea	Assam	99.02
			Delhi	99.98
			Mumbai	99.87
		Vodafone	Mumbai	99.77
Time taken for refund of deposits after closures	100% within 60 days	Idea	Assam	59.11
			Haryana	91.81
			North East	61.64
			Rajasthan	99.97

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

Section B: Quality of Service Performance of Wireline Service Providers

Table 4.3: QoS Summary - Wireline Service

Sl. No.	Parameters	Bench mark	No of license areas where operators not meeting the benchmarks			
			QE June, 2018		QE Sept., 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%	1	1%	1	1%
	% Fault repaired within 5 days (for urban areas)	≥100%	2	2%	2	2%
(iii)	% Fault repaired by next working day (for rural and hilly areas)	≥ 75%	0	0%	0	0%
	% Fault repaired within 7 days (for rural and hilly areas)	≥100%	0	0%	0	0%
(iv)	Mean time to Repair(MTTR)	≤10Hs	1	1%	1	1%
(v)	Point of Interconnection (POI) Congestion (No. of PoIs not meeting benchmark)	≤ 0.5%	0	0%	0	0%
(vi)	Metering and Billing credibility - post-paid	≤ 0.1%	0	0%	0	0%
	Metering and Billing credibility -pre-paid	≤ 0.1%	0	0%	0	0%
(vii)	Resolution of billing/charging /Credit & validity complaints	98% within 4 weeks	1	1%	0	0%
	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%
(ix)	Accessibility of call centre/ customer care	≥ 95%	0	0%	0	0%
	%age of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	0	0%	11	13%
(x)	%age of request for Termination / closure of service complied within 7 days	100% within 7 days	4	4%	7	9%
(xi)	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:-

a. Resolution of billing/charging/credit & validity complaints

4.5 It is observed that the performance has deteriorated in this quarter as compared to the previous quarter.

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

b. % of request for termination/closure of service complied within 7 days.

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

Parameters	Bench- marks	Service Provider	Service areas	Parameters not met
“Fault Repair” - % Fault repaired within 5 days <i>(for urban areas)</i>	≥100%	MTNL	DEL	99.49%
			MUM	99.63%
“Fault Repair” - %age of fault repaired by next working day (for urban areas)	≥ 85%	TATA	KTK	80.00%
Mean time to Repair (MTTR)	≤10 Hrs	TATA	KTK	11.63
Response time to the customer for assistance – Percentage of calls answered by the operators (voice to voice) within 90 seconds	≥ 95%	Bharti Airtel	AP	94%
			KR	92%
			DL	94%
			HR	93%
			KOL	93%
			PB	92%
			UPE	93%
			UPW	94%
			MP	92%
			MH	94%
RJ	93%			
“Termination / closure of service” %age of request for Termination / closure of service complied within 7 days	100% within 7 days	TATA	DL	99.88%
			GJ	99.81%
			KTK	99.81%
			KR	99.71%
			MUM	99.85%
			MH	99.92%
WB	99.80%			

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 263 Internet Service Providers (ISPs) providing broadband (wireline) service at the end of September, 2018. Out of these 263 ISPs, 48 Service Providers are having broadband subscriber base >10,000 and market share of these 48 SPs is 98.27% of total broadband subscriber base. This report covers performance of 45 broadband Service Providers vis-à-vis the QoS benchmarks prescribed by TRAI, for the QE September, 2018.

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

S. No.	Parameter	Bench mark	No. of Licensees not meeting the Benchmarks			
			Quarter Ending June, 2018		Quarter Ending September, 2018	
			Out of 61 (No.)	Out of 61 (%)	Out of 64 (No.)	Out of 64 (%)
1	Service Provisioning	100% in =<15 working days				
1.2	%age of connections provided within 15 days of registration of demand	100%	2	3.28%	2	3.13%
2	Faults Repair					
2.2	% of faults repaired by next working day (>90%)	>90%	2	3.28%	3	4.69%
2.3	% of faults repaired within 3 working day	=>99%	4	6.56%	6	9.38%
3	Billing Performance					
3.3	%age of bills disputed	<2%	0	0.00%	1	1.56%
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 Customer for assistance					
4.2	%age of calls answered by operator (Voice to voice) within 60 sec	>60%	1	1.64%	1	1.56%
4.3	%age of calls answered by operator (Voice to voice) within 90 sec	>80%	1	1.64%	1	1.56%

S. No.	Parameter	Bench mark	No. of Licensees not meeting the Benchmarks			
			Quarter Ending June, 2018		Quarter Ending September, 2018	
			Out of 61 (No.)	Out of 61 (%)	Out of 64 (No.)	Out of 64 (%)
5	Bandwidth utilisation/ throughput					
5.2	No. of Intra network links having Bandwidth utilisation >90% during peak hours (TCBH)	0	1	1.64%	1	1.56%
5.4	No. of Upstream links for International connectivity having bandwidth utilisation >90% during peak hours (TCBH)	0	1	1.64%	1	1.56%
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 (for all users) in %age					
6.3	Service availability /uptime (for all users) in %age	>98%	0	0.00%	0	0.00%
7	Packet loss (for wired broadband access) in %age	<1%	0	0.00%	0	0.00%
8	Network latency (for wired broadband access)					
8.1	User reference point at POP/ISP Gateway node to IGSP/NIXI	<120 ms	0	0.00%	0	0.00%
8.2	User reference point at ISP Gateway node to International nearest NAP port abroad (terrestrial)	<350 ms	0	0.00%	0	0.00%
8.3	User reference point at ISP Gateway node to International nearest NAP port abroad (satellite)	<800 ms	0	0.00%	0	0.00%

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

Sl. No.	Parameters	Benchmark	Name of the Service Provider not meeting the Benchmark
1	Service Provisioning		
1.2	%age of connections provided within 15 days of registration of demand	100%	Ishan Netsol - Gujarat (99.76%) You Broadband - All India (99.71%)
2	Faults Repair		
2.2	% of faults repaired by next working day (>90%)	>90%	Intech Online- Mum & Mah. (80.81%) TATA(TTSL) - All India (82.00%), TATA(TTML) - Mah. & Goa (77.00%)
2.3	% of faults repaired within 3 working day	=>99%	MTNL- Delhi & Mumbai (98.32%) Atria Convergence - All India (98.74%) Intech Online- Mum. & Mah (88.70%) Ishan Netsol - Gujarat (98.48%) TATA(TTSL) - All India (94.00%), TATA(TTML) - Mah. & Goa (91.00%)
3	Billing Performance		
	%age of bills disputed	<2%	Intech Online- Mum & Mah.(3.01%)
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 (39.00%)
4.3	%age of calls answered by operator (Voice to voice) within 90 sec	>80%	Atria Convergence - All India (58.00%)
5	Bandwidth utilisation/throughput		
5.2	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

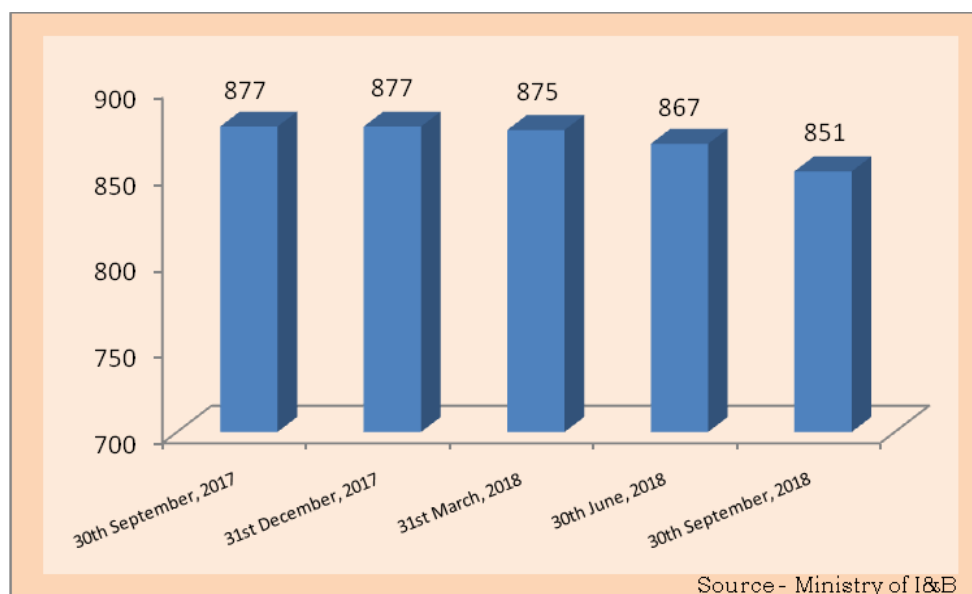
Table 5.1: Key Parameters - Broadcasting & Cable TV Services

S.No	Parameter	QE Jun-18	QE Sep-18
1	Number of Private satellite TV channels permitted by the Ministry of Information and Broadcasting (MIB) for uplinking only/ downlinking / uplinking	867	851
2	Number of Pay TV Channels as reported by broadcasters	309	313
3	Number of FM Radio Stations (excluding All India Radio)	328	350
4	Number of pay DTH Operators	5	5
5	Number of pay subscribers net active with private DTH service providers	69.37 Million	69.45 Million
6	Number of Operational Community Radio Stations	237	238

A. Satellite TV Channels

5.1 A total of 851 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 30th September, 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



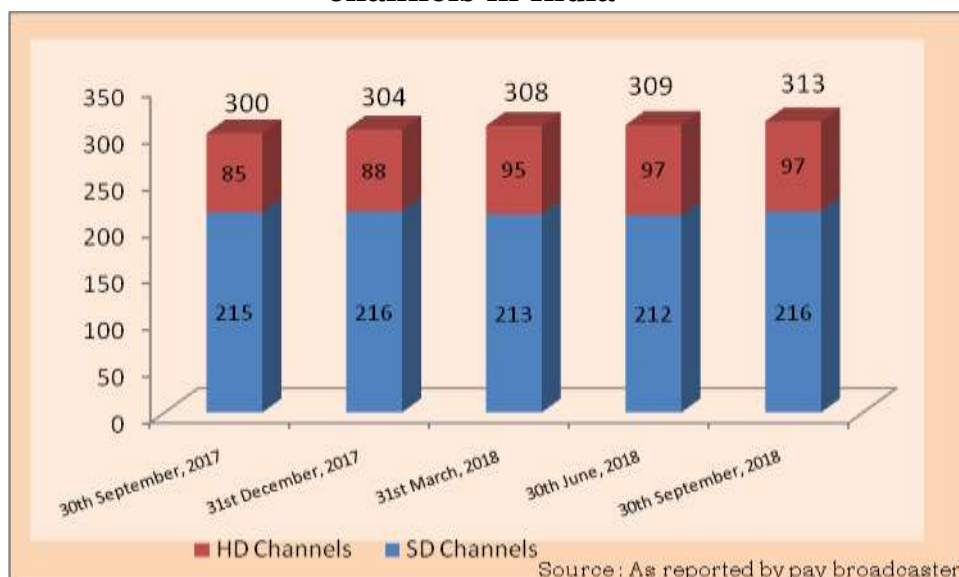
B. Pay TV Channels

5.2 During the quarter ending 30th September, 2018, there are 313 pay channels as reported by 49 broadcasters as compared to 309 pay channels reported in the previous quarter. 313 pay channels include 216 SD pay TV channels and 97 HD Pay TV channels. List of broadcasters and their Pay TV Channels as reported to TRAI as on 30th September, 2018 is placed at **Annexure-5.1**

5.3 During the quarter ending 30th September 2018, as per the reporting, three new pay channels were reported and one FTA channel namely “NDTV India” converted into Pay channel. Further, the intimation about merger of M/s United Home Entertainment Private Limited with M/s Disney Broadcasting (India) Limited was also received. The details of new pay channels reported during the quarter ending 30th September, 2018 are as under:

S.No	Name of the Broadcaster	Channel's name
1	M/s Media World wide Limited	Travel XP
2	M/s Sony Pictures Networks India Private Limited	Sony Marathi
	M/s Viacom 18 Media Private Limited	Colors Kannada Cinema

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 30th September, 2018, there were 5 pay DTH service providers in India.

5.6 DTH has attained net pay active subscriber base of around 69.45 million with 5 pay DTH service providers as on 30th September, 2018. 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

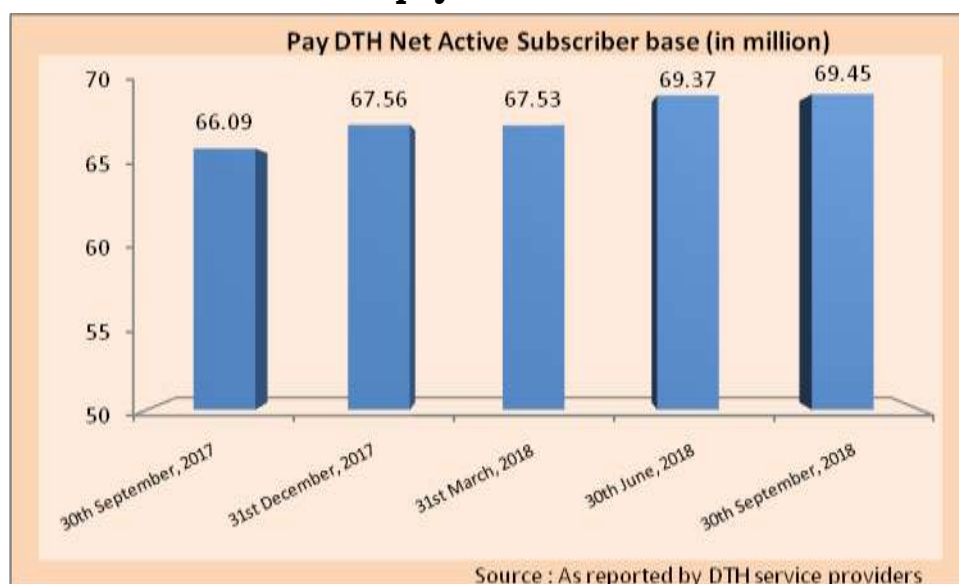
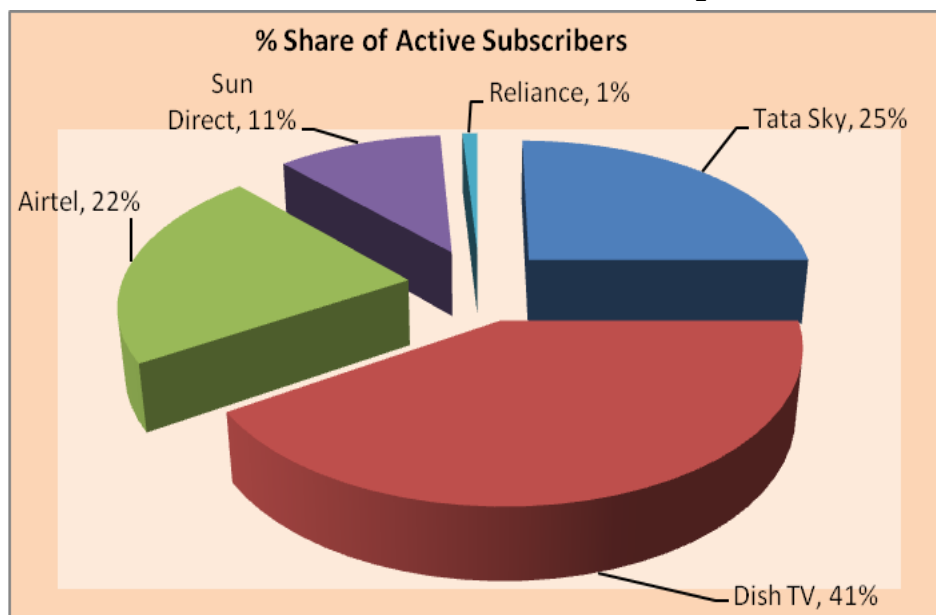


Chart 5.4 : Market share of DTH Operators



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 30th September 2018, there are 350 operational private FM Radio stations in 95 cities with operational 33 Private FM Radio broadcaster as compared to 328 private FM Radio Stations in 86 cities with operational 34 FM Radio broadcasters in the previous quarter.

5.8 During the quarter ending September, 2018, intimation was received from one FM Radio operator namely M/s Syntech Informatics Private Limited, about shutting down the transmission/operation of its single FM Radio station at Siliguri. A list of 95 existing cities with operational private FM radio channels in India as on 30th September, 2018 is placed at **Annexure 5.3**.

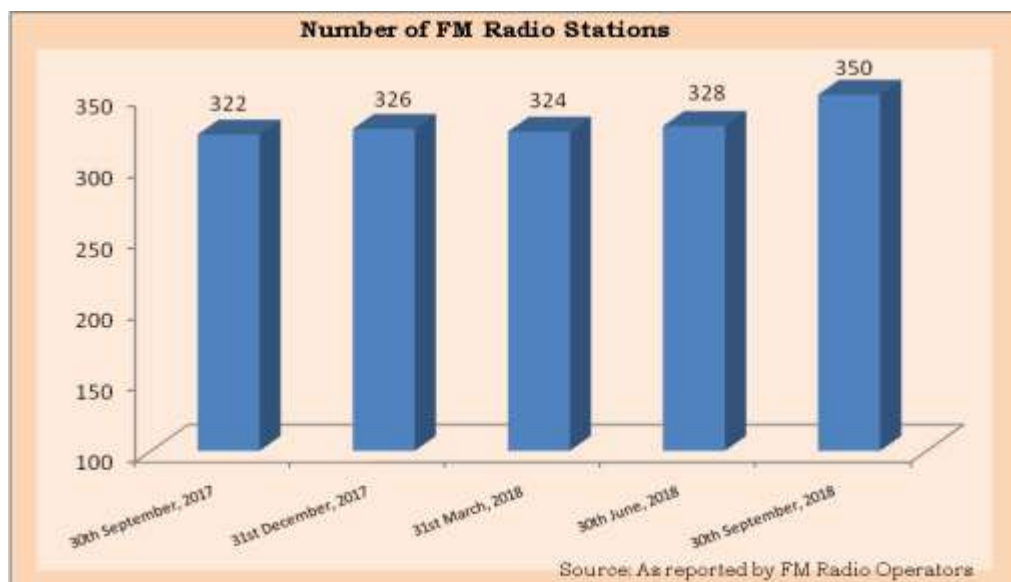
5.9 During the quarter ending 30th September, 2018, 23 new private FM Radio Stations have become operational. The details of new private FM Radio stations are as under:-

New Private FM Radio Stations

Sl. No.	Name of FM Radio Operator	No of stations	Name of Cities	
			(Existing)	(New)
1	The Entertainment Network (I) Ltd	10	1. Akola 2. Jhansi 3. Rajahmundry 4. Siliguri 5. Tiruchy 6. Tirunelveli 7. Warangal	1. Bharuch 2. Junagadh 3. Ujjain
2	M/s Malar Publications Pvt. Ltd	03	-----	1. Vellore 2. Salem 3. Erode
3	M/s KAL Radio Limited	06	1. Hyderabad	1. Nellore 2. Vellore 3. Salem 4. Erode 5. Hubli
4	M/s South Asia FM Limited	04	1. Dhule 2. Nanded 3. Muzzaffarpur	1. Dehradun
	Total	23		

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

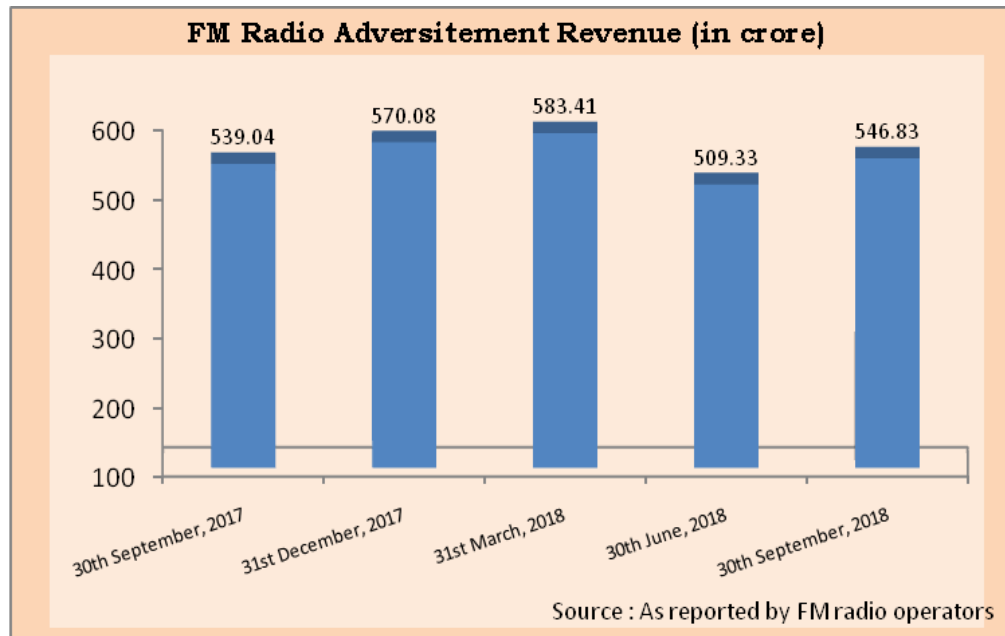
Chart 5.5 : Quarterly growth in private FM Radio stations



5.11 The reported advertisement revenue during the quarter ending 30th September, 2018 in respect of 349 private FM Radio stations is Rs.546.83 crore as against Rs.509.33 crore in respect of 327 private FM Radio stations for the previous quarter i.e 30th June, 2018. One FM Radio Broadcaster, M/s Gwalior Firm Private Limited, operating in the city of Guwahati, has not submitted the advertisement revenue.

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

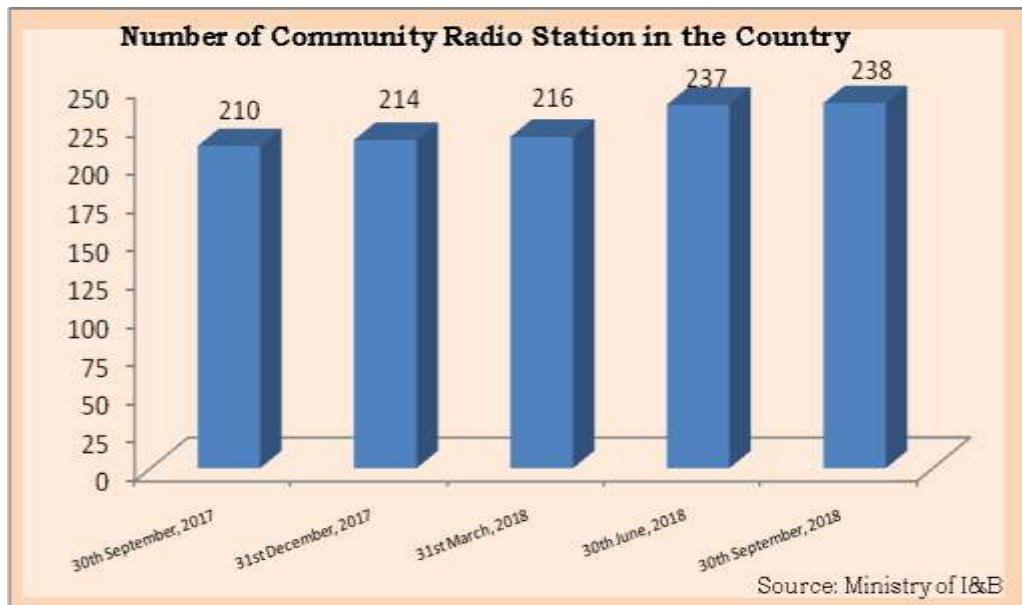
Chart 5.6 : Quarterly growth in FM Radio Advertisement Revenue



F. Community Radio

5.13 As on 30th September, 2018, there are 238 Community Radio stations in operation as compared to 237 Community Radio station at the end of previous quarter. 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



Annexures

Annexure 1.1: Wireless Subscriber Base

Service Area	Vodafone		Bharti		Idea		Reliance		Tata	
	Jun-18	Sep-18	Jun-18	Sep-18	Jun-18	Sep-18	Jun-18	Sep-18	Jun-18	Sep-18
Andhra Pradesh	6,158,618	5,917,224	30,772,427	30,026,566	18,489,040	18,060,586	7,512	2,623	2,423,008	1,931,249
Assam	4,378,717	4,406,691	8,466,018	8,418,266	1,544,518	1,369,539	1	-	-	-
Bihar	10,309,247	10,375,094	39,327,547	39,593,326	14,769,833	14,661,777	93	102	561,478	386,772
Delhi	12,300,497	12,494,486	14,594,774	15,172,046	7,560,308	7,234,188	14,922	6,424	690,474	137,248
Gujarat	20,376,688	20,010,367	13,567,103	12,449,875	15,051,326	14,553,820	2,288	287	1,290,280	1,066,720
Haryana	6,288,917	6,399,044	4,111,712	3,869,469	5,559,462	5,330,093	70	76	1,160,855	981,753
Himachal Pradesh	526,865	501,889	3,643,647	3,657,922	1,055,896	993,491	70	72	12,557	6,073
Jammu & Kashmir	851,022	809,122	5,395,378	5,659,892	749,744	674,860	-	-	-	-
Karnataka	7,898,945	7,529,192	26,059,540	27,196,971	9,899,489	9,376,999	11,908	3,743	3,953,783	3,533,210
Kerala	8,003,882	7,745,232	5,116,047	5,097,537	12,719,595	12,757,000	2,229	260	484,342	390,245
Madhya Pradesh	6,039,325	5,598,615	15,714,386	15,822,548	29,102,862	28,188,196	2,286	498	2,530,115	2,222,462
Maharashtra	19,953,885	20,112,179	17,768,594	16,649,830	31,125,189	30,158,495	4,960	982	2,713,128	2,024,488
Mumbai	10,024,536	11,154,461	8,279,834	8,389,788	4,887,193	4,826,219	14,646	6,989	1,547,139	1,068,859
North East	1,820,579	1,834,157	5,362,395	5,387,075	609,305	519,815	-	-	-	-
Orissa	4,461,769	4,448,021	12,814,537	13,194,247	2,269,471	2,135,684	103	47	831,959	646,536
Punjab	4,880,951	4,481,132	10,031,756	10,450,837	7,916,754	7,609,769	566	84	1,152,795	1,029,811
Rajasthan	12,458,500	12,005,472	23,363,145	23,850,722	8,503,358	8,036,988	1,433	248	285,598	162,978
Tamil Nadu (incl. Chennai)	21,051,180	20,124,422	25,777,781	26,015,186	6,644,475	6,339,257	11,834	4,806	1,908,910	1,706,322
UP(E)	24,074,363	24,739,638	34,987,402	33,187,047	13,866,909	13,100,928	1,298	470	1,931,993	1,889,481
UP(W)	12,241,906	12,550,108	14,649,194	14,213,444	18,279,598	17,771,069	162	59	1,675,701	1,530,798
Kolkata	6,776,764	7,064,615	6,551,316	6,480,384	3,139,528	2,959,917	805	45	1,391,749	1,214,176
West Bengal	21,855,824	21,556,488	18,209,588	18,740,367	6,854,810	6,448,067	169	198	77,763	51,789
Total	222,732,980	221,857,649	344,564,121	343,523,345	220,598,663	213,106,757	77,355	28,013	26,623,627	21,980,970

Annexure 1.1 (contd.)

Service Area	BSNL		MTNL		Reliance Jio		Total		Net Additions
	Jun-18	Sep-18	Jun-18	Sep-18	Jun-18	Sep-18	Jun-18	Sep-18	
Andhra Pradesh	10,125,005	10,117,353	-	-	17,705,512	20,399,046	85,681,122	86,454,647	773,525
Assam	2,298,077	2,336,741	-	-	4,323,989	5,028,609	21,011,320	21,559,846	548,526
Bihar	4,735,039	4,724,672	-	-	14,896,598	17,780,229	84,599,835	87,521,972	2,922,137
Delhi	-	-	2,257,250	2,233,956	12,196,458	13,325,084	49,614,683	50,603,432	988,749
Gujarat	5,691,260	5,641,764	-	-	14,832,731	16,576,888	70,811,676	70,299,721	(511,955)
Haryana	4,623,506	4,779,107	-	-	5,380,953	6,179,323	27,125,475	27,538,865	413,390
Himachal Pradesh	2,643,178	2,715,771	-	-	2,205,994	2,505,658	10,088,207	10,380,876	292,669
Jammu & Kashmir	1,417,374	1,208,592	-	-	2,598,401	2,975,802	11,011,919	11,328,268	316,349
Karnataka	7,137,640	7,014,510	-	-	11,754,210	13,666,438	66,715,515	68,321,063	1,605,548
Kerala	10,729,192	10,825,739	-	-	5,958,439	6,501,146	43,013,726	43,317,159	303,433
Madhya Pradesh	6,172,590	6,017,078	-	-	14,079,350	18,740,661	73,640,914	76,590,058	2,949,144
Maharashtra	6,843,506	6,925,452	-	-	15,796,135	18,698,415	94,205,397	94,569,841	364,444
Mumbai	-	-	1,268,005	1,260,470	9,381,057	10,370,022	35,402,410	37,076,808	1,674,398
North East	1,708,973	1,603,167	-	-	2,020,993	2,349,334	11,522,245	11,693,548	171,303
Orissa	5,507,640	5,510,262	-	-	6,065,010	7,180,438	31,950,489	33,115,235	1,164,746
Punjab	5,340,035	5,212,346	-	-	9162537	10310181	38,485,394	39,094,160	608,766
Rajasthan	5,627,488	5,640,989	-	-	11,733,748	16,165,830	61,973,270	65,863,227	3,889,957
Tamil Nadu (incl. Chennai)	11,603,497	11,696,433	-	-	14,239,424	16,296,598	81,237,101	82,183,024	945,923
UP(E)	11,754,257	11,905,520	-	-	14,659,312	17,103,514	101,275,534	101,926,598	651,064
UP(W)	5,810,769	5,886,864	-	-	10,897,871	12,598,432	63,555,201	64,550,774	995,573
Kolkata	1,607,222	1,683,227	-	-	6,651,592	7,424,214	26,118,976	26,826,578	707,602
West Bengal	1,739,538	1,602,433	-	-	8,715,386	10,076,141	57,453,078	58,475,483	1,022,405
Total	113,115,786	113,048,020	3,525,255	3,494,426	215,255,700	252,252,003	1,146,493,487	1,169,291,183	22,797,696

Annexure 1.2: Wireline Subscriber Base

Service Area	Bharti		Reliance		Quadrant		Tata		MTNL		BSNL		Vodafone		Total		Net Additions
	Jun-18	Sep-18	Jun-18	Sep-18	Jun-18	Sep-18	Jun-18	Sep-18	Jun-18	Sep-18	Jun-18	Sep-18	Jun-18	Sep-18	Jun-18	Sep-18	
Andhra Pradesh	169,691	170,731	51,579	49,901			175,726	175,192			1,019,418	1,012,648	30,720	30,230	1,447,134	1,438,702	-8,432
Assam											128,326	123,444	2,730	2,790	131,056	126,234	-4,822
Bihar			4,582	4,374			10,983	8,749			238,514	230,498	2,190	1,800	256,269	245,421	-10,848
Delhi	1,336,479	1,358,401	150,310	140,679			147,112	151,721	1,519,100	1,503,186			39,480	42,580	3,192,481	3,196,567	4,086
Gujarat	81,245	81,614	26,340	23,975			94,596	91,102			1,012,307	1,009,137	13,638	20,088	1,228,126	1,225,916	-2,210
Haryana	22,178	22,668	3,194	3,049			37,293	35,843			230,890	225,606	150	150	293,705	287,316	-6,389
Himachal Pradesh			3,380	3,121			2,010	2,001			117,566	114,891	30		122,986	120,013	-2,973
Jammu & Kashmir											111,388	107,958			111,388	107,958	-3,430
Karnataka	654,011	661,126	151,405	146,662			275,845	277,374			1,074,243	1,052,271	38,625	40,145	2,194,129	2,177,578	-16,551
Kerala	58,523	59,559	21,004	19,857			18,776	19,854			1,833,642	1,813,189	2,730	2,880	1,934,675	1,915,339	-19,336
Madhya Pradesh	242,248	242,223	12,540	11,487			15,510	15,728			656,620	656,329	780	690	927,698	926,457	-1,241
Maharashtra	85,434	87,100	59,079	54,992			300,860	297,202			1,206,056	1,162,466	17,854	16,597	1,669,283	1,618,357	-50,926
Mumbai	361,994	362,239	210,738	195,555			571,134	569,615	1,796,131	1,784,706			39,947	47,195	2,979,944	2,959,310	-20,634
North East											108,258	107,170	270	270	108,528	107,440	-1,088
Orissa			2,907	2,642			7,849	7,798			254,203	237,613	1,800	1,950	266,759	250,003	-16,756
Punjab	123,770	126,264	12,422	11,702	239,215	233,693	14,430	14,502			446,168	426,496	1,440	1,530	837,445	814,187	-23,258
Rajasthan	50,709	52,352	26,048	25,527			12,323	12,199			489,358	470,038	7,200	7,140	585,638	567,256	-18,382
Tamil Nadu (incl. Chennai)	557,697	557,755	81,038	76,665			118,790	118,397			1,496,764	1,474,450	17,400	17,590	2,271,689	2,244,857	-26,832
U.P.(E)	64,175	65,518	11,142	10,285			12,130	8,897			362,574	362,054	11,430	11,520	461,451	458,274	-3,177
U.P.(W)	22,276	22,736	4,852	4,271			8,296	6,051			298,803	289,358	4,230	3,900	338,457	326,316	-12,141
Kolkata	124,674	125,629	44,538	43,375			52,669	53,060			540,418	515,718	7,500	7,940	769,799	745,722	-24,077
West Bengal			1,769	1,757			2,853	2,587			261,949	249,066	90	120	266,661	253,530	-13,131
Total	3,955,104	3,995,915	878,867	829,876	239,215	233,693	1,879,185	1,867,872	3,315,231	3,287,892	11,887,465	11,640,400	240,234	257,105	22,395,301	22,112,753	-282,548

Annexure 1.3: Service Area and Operator wise details of PCOs

Name of the Circle/Service Area	Service Provider	Number of PCOs as on 30.6.2018	Number of PCOs as on 30.9.2018	Net PCO increase/ decrease as on 30.9.2018
Andhra Pradesh (Excluding Telangana)	Bharat Sanchar Nigam Ltd.	8,526	7,755	-771
	Bharti Group	181	181	0
	Tata Group	4,616	4,389	-227
Telangana	Bharat Sanchar Nigam Ltd.	5,391	5,257	-134
Andhra Pradesh (Including Telangana)	Bharat Sanchar Nigam Ltd.	13,917	13,012	-905
	Bharti Group	181	181	0
	Tata Group	4,616	4,389	-227
Assam	Bharat Sanchar Nigam Ltd.	4,879	4,853	-26
Bihar (excluding Jharkhand)	Bharat Sanchar Nigam Ltd.	1,209	1,209	0
	Tata Group	27	12	-15
Jharkhand	Bharat Sanchar Nigam Ltd.	428	2,441	2,013
Bihar (including Jharkhand)	Bharat Sanchar Nigam Ltd.	1,637	3,650	2,013
	Tata Group	27	12	-15
Delhi	Bharti Group	330	330	0
	Mahanagar Telephone Nigam Ltd./MTNL	46,778	46,524	-254
	Tata Group	585	229	-356
Gujarat	Bharat Sanchar Nigam Ltd.	19,071	18,579	-492
	Bharti Group	14	14	0
	Tata Group	470	275	-195
Haryana	Bharat Sanchar Nigam Ltd.	1,539	1,361	-178
	Bharti Group	143	142	-1
	Tata Group	39	42	3
Himachal Pradesh	Bharat Sanchar Nigam Ltd.	1,074	1,002	-72
Jammu & Kashmir	Bharat Sanchar Nigam Ltd.	1,682	1,218	-464
Karnataka	Bharat Sanchar Nigam Ltd.	19,772	18,317	-1,455
	Bharti Group	3,493	3,384	-109
	Tata Group	16	13	-3
Kerala	Bharat Sanchar Nigam Ltd.	15,893	15,513	-380
	Bharti Group	446	440	-6
	Tata Group	21	21	0
Kolkata	Bharat Sanchar Nigam Ltd.	4,189	3,868	-321
	Bharti Group	26	27	1
	Tata Group	22	10	-12

Annexure 1.3 (contd.)

Name of the Circle/Service Area	Service Provider	Number of PCOs as on 30.6.2018	Number of PCOs as on 30.9.2018	Net PCO increase/ decrease as on 30.9.2018
Madhya Pradesh (excluding Chhattisgarh)	Bharat Sanchar Nigam Ltd.	16,976	16,357	-619
	Bharti Group	1,677	1,595	-82
	Tata Group	360	346	-14
Chhattisgarh	Bharat Sanchar Nigam Ltd.	1,219	1,022	-197
Madhya Pradesh (including Chhattisgarh)	Bharat Sanchar Nigam Ltd.	18,195	17,379	-816
	Bharti Group	1,677	1,595	-82
	Tata Group	360	346	-14
Maharashtra & Goa	Bharat Sanchar Nigam Ltd.	35,257	34,723	-534
	Tata Group	6,104	5,579	-525
Mumbai	Bharti Group	40	50	10
	Mahanagar Telephone Nigam Ltd./MTNL	47,530	33,192	-14,338
	Tata Group	749	358	-391
Maharashtra (including Mumbai & Goa)	Bharat Sanchar Nigam Ltd.	35,257	34,723	-534
	Bharti Group	40	50	10
	Mahanagar Telephone Nigam Ltd./MTNL	47,530	33,192	-14,338
	Tata Group	6,853	5,937	-916
Arunachal Pradesh	Bharat Sanchar Nigam Ltd.	1,095	1,353	258
Manipur	Bharat Sanchar Nigam Ltd.	0	855	855
Meghalaya	Bharat Sanchar Nigam Ltd.	0	431	431
Mizoram	Bharat Sanchar Nigam Ltd.	2,336	130	-2,206
Nagaland	Bharat Sanchar Nigam Ltd.	0	118	118
Tripura	Bharat Sanchar Nigam Ltd.	0	529	529
Orissa	Bharat Sanchar Nigam Ltd.	1,852	1,778	-74
	Tata Group	5	3	-2
Punjab	Bharat Sanchar Nigam Ltd.	1,741	2,142	401
	Bharti Group	24	20	-4
	Quadrant Televentures Ltd.	1,420	1,420	0
	Tata Group	212	203	-9
Rajasthan	Bharat Sanchar Nigam Ltd.	5,016	3,894	-1,122
	Bharti Group	209	209	0
	Tata Group	142	125	-17
Tamilnadu (excluding chennai)	Bharat Sanchar Nigam Ltd.	35,625	32,967	-2,658
	Bharti Group	4,887	4,677	-210
	Tata Group	64	65	1

Annexure 1.3 (contd.)

Name of the Circle/Service Area	Service Provider	Number of PCOs as on 30.6.2018	Number of PCOs as on 30.9.2018	Net PCO increase/ decrease as on 30.9.2018
Chennai	Bharat Sanchar Nigam Ltd.	8,656	9,022	366
Tamil Nadu (including Chennai)	Bharat Sanchar Nigam Ltd.	44,281	41,989	-2,292
	Bharti Group	4,887	4,677	-210
	Tata Group	64	65	1
Uttar Pradesh-East	Bharat Sanchar Nigam Ltd.	9,155	8,024	-1,131
	Bharti Group	79	77	-2
	Tata Group	7	6	-1
Uttarakhand	Bharat Sanchar Nigam Ltd.	1,084	988	-96
Uttar Pradesh - West (excluding Uttarakhand)	Bharat Sanchar Nigam Ltd.	1,975	1,975	0
	Bharti Group	36	20	-16
	Tata Group	114	94	-20
Uttar Pradesh - West (including Uttarakhand)	Bharat Sanchar Nigam Ltd.	3,059	2,963	-96
	Bharti Group	36	20	-16
	Tata Group	114	94	-20
West Bengal (excluding Andaman & Nicobar)	Bharat Sanchar Nigam Ltd.	3,853	3,497	-356
	Tata Group	3	3	0
Andaman and Nicobar	Bharat Sanchar Nigam Ltd.	142	142	0
West Bengal (including Andaman & Nicobar)	Bharat Sanchar Nigam Ltd.	3,995	3,639	-356
	Tata Group	3	3	0
Total		330,504	305,395	-25,109

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

Name of Circle/Service Area	Service Provider	Number of VPTs as on 30.6.2018	Number of VPTs as on 30.9.2018	Net VPTs increase/ decreased as on 30.9.2018
Andhra Pradesh (Excluding Telangana)	Bharat Sanchar Nigam Ltd.	6,639	3,138	-3,501
Telangana	Bharat Sanchar Nigam Ltd.	0	1,533	1,533
Andhra Pradesh (Including Telangana)	Bharat Sanchar Nigam Ltd.	6,639	4,671	-1,968
Assam	Bharat Sanchar Nigam Ltd.	2,600	105	-2,495
Bihar (excluding Jharkhand)	Bharat Sanchar Nigam Ltd.	6,368	6,368	0
Jharkhand	Bharat Sanchar Nigam Ltd.	489	489	0
Bihar (including Jharkhand)	Bharat Sanchar Nigam Ltd.	6,857	6,857	0
Gujarat	Bharat Sanchar Nigam Ltd.	8,682	5,297	-3,385
Haryana	Bharat Sanchar Nigam Ltd.	692	687	-5
Himachal Pradesh	Bharat Sanchar Nigam Ltd.	2,479	2,312	-167
Jammu & Kashmir	Bharat Sanchar Nigam Ltd.	2,191	1,057	-1,134
Karnataka	Bharat Sanchar Nigam Ltd.	6,902	6,781	-121
Kerala	Bharat Sanchar Nigam Ltd.	381	358	-23
Kolkata	Bharat Sanchar Nigam Ltd.	130	130	0
Madhya Pradesh (excl. Chhattisgarh)	Bharat Sanchar Nigam Ltd.	39,692	39,692	0
Chhattisgarh	Bharat Sanchar Nigam Ltd.	8,362	444	-7,918
Madhya Pradesh (inclu. Chhattisgarh)	Bharat Sanchar Nigam Ltd.	48,054	40,136	-7,918
Maharashtra & Goa	Bharat Sanchar Nigam Ltd.	22,012	8,295	-13,717
Maharashtra (inclu. Mumbai & Goa)	Bharat Sanchar Nigam Ltd.	22,012	8,295	-13,717

Annexure 1.4 (contd.)

Name of Circle/Service Area	Service Provider	Number of VPTs as on 30.6.2018	Number of VPTs as on 30.9.2018	Net VPTs increase/ decreased as on 30.9.2018
Orissa	Bharat Sanchar Nigam Ltd.	6,205	4,122	-2,083
Punjab	Bharat Sanchar Nigam Ltd.	5,860	0	-5,860
Rajasthan	Bharat Sanchar Nigam Ltd.	5,430	1,366	-4,064
Tamilnadu (excluding chennai)	Bharat Sanchar Nigam Ltd.	9,776	6,086	-3,690
Chennai	Bharat Sanchar Nigam Ltd.	144	144	0
Tamil Nadu (including Chennai)	Bharat Sanchar Nigam Ltd.	9,920	6,230	-3,690
Uttar Pradesh- East	Bharat Sanchar Nigam Ltd.	981	981	0
Uttarakhand	Bharat Sanchar Nigam Ltd.	3,473	3,473	0
Uttar Pradesh - West (exclu. Uttarakhand)	Bharat Sanchar Nigam Ltd.	3,357	2,112	-1,245
Uttar Pradesh - West (inclu. Uttarakhand)	Bharat Sanchar Nigam Ltd.	6,830	5,585	-1,245
West Bengal (excluding Andaman & Nicobar)	Bharat Sanchar Nigam Ltd.	36781	26352	-10429
Andaman & Nicobar	Bharat Sanchar Nigam Ltd.	340	327	-13
West Bengal (including Andaman & Nicobar)	Bharat Sanchar Nigam Ltd.	37,121	26,679	-10,442
Total		186,951	123,736	-63,215

**Annexure 1.5 : Internet Service Provider(ISP) wise Internet Subscriber base
as on 30.09.2018**

Sl. No.	Name of the Service Provider:	Narrowband Subscribers	Broadband Subscribers	Total Subscribers
1	Reliance Jio Infocomm Ltd	0	252252003	252252003
2	Vodafone Idea Limited	40403348	99716114	140119462
3	Bharti Airtel Ltd.	27647765	99288662	126936427
4	Bharat Sanchar Nigam Ltd.	8488560	20119754	28608314
5	Tata Teleservices Limited	1262488	2619804	3882292
6	Atria Convergence Technologies Pvt. Ltd.	0	1363593	1363593
7	Mahanagar Telephone Nigam Ltd.	426855	1197210	1624065
8	Hathway Cable & Datacom Pvt. Ltd.	10640	755580	766220
9	You Broadband India Pvt. Ltd.	15038	691505	706543
10	CSC e-Governance Services India Ltd.	0	417540	417540
11	GTPL Broadband Pvt. Ltd.	1	259980	259981
12	D-Vois Broadband Private Limited	0	232810	232810
13	Tikona Infinet Ltd.	471	230425	230896
14	Asianet Satellite Communications Ltd.	0	201025	201025
15	Excitel Broadband Private Limited	0	198471	198471
16	Quadrant Televentures Ltd.	172	197073	197245
17	Alliance Broadband Services Pvt. Ltd.	0	185403	185403
18	Syscon Infoway Pvt Ltd	0	143311	143311
19	Indinet Service Pvt Ltd	0	136247	136247
20	DEN Networks Ltd	0	111693	111693
21	RailTel Corporation of India Ltd.	0	103079	103079
22	Planet E-Shop Holdings India Ltd.	0	88512	88512
23	Airlink Communications Pvt. Ltd	0	69635	69635
24	Five Network Solution (India) Ltd.	0	60254	60254
25	Honesty Net Solutions (I) Pvt Ltd	1510	52240	53750
26	Nextra Teleservices Pvt. Ltd.	0	51530	51530
27	INTECH ONLINE PVT LTD	0	43686	43686
28	Wish Net Pvt. Ltd.	0	40751	40751
29	Limras Eronet Broadband Service Pvt Ltd	7089	33409	40498
30	Ortel Communication Ltd.	0	36541	36541
31	Wan and Lan Internet Pvt. Ltd.	0	32669	32669
32	Citycom Networks Pvt. Ltd.	0	32318	32318
33	AIRNET CABLE AND DATACOM PVT LTD	0	30412	30412
34	Ishan Netsol Pvt Ltd	0	29021	29021
35	SITI Broadband Services Pvt. Ltd.	0	26634	26634
36	City Online Services Ltd	0	26148	26148
37	K NET SOLUTIONS PVT LTD	0	22017	22017
38	Fusionnet Web Services Pvt. Ltd.	0	21573	21573

Annexure 1.5 (contd.)

Sl. No.	Name of the Service Provider:	Narrowband Subscribers	Broadband Subscribers	Total Subscribers
39	DNA Infotel Pvt Ltd	0	21202	21202
40	Digital Cloud Technologies Pvt. Ltd.	0	21048	21048
41	Vasai Cable Pvt. Ltd.	0	20509	20509
42	Reliance Communications Limited	288	26261	26549
43	RAJESH DIGITAL DATACOM PVT LTD	37	16745	16782
44	Sampark Infotainment Pvt Ltd	0	15731	15731
45	Geocity Network Solutions Pvt. Ltd.	0	14827	14827
46	MICROSCAN COMPUTERS PVT LTD	7721	6093	13814
47	Quest Consultancy Pvt. Ltd.	0	13318	13318
48	IKF Technologies Ltd	0	12615	12615
49	Broadband Pacenet (I) Pvt. Ltd.	0	12375	12375
50	Digital Network associates Pvt. Ltd	0	11867	11867
51	Sikka Broadband(P) Ltd.	0	10944	10944
52	Meghbela Cable & Broadband Servies (P) Ltd	0	10611	10611
53	Multicraft Digital Technologies Private Ltd	0	10606	10606
54	Yashash Cable Network Pvt Ltd	0	10429	10429
55	World Phone Internet Services Pvt Ltd	0	9326	9326
56	North East Dataa Network Pvt Ltd.	0	8978	8978
57	SmartLink Broadband Services	0	8958	8958
58	Sifi OnlinePvt. Ltd.	0	8577	8577
59	Pioneerelabs	0	8553	8553
60	CANDOR INFOSOLUTION PVT LTD	8496	0	8496
61	RI Networks Pvt Ltd	0	8409	8409
62	Apna Telelink Ltd.	0	7998	7998
63	United Telecoms Ltd.	182	7256	7438
64	FOXTEL TELECOMMUNICATIONS Pvt Ltd	7325	0	7325
65	Netplus Broadband Services Pvt. Ltd	0	7260	7260
66	Net 9 Online Hathway Private Limited	0	7237	7237
67	Kappa Internet Services Pvt Ltd.	0	7111	7111
68	Jetway Broadband India Pvt.Ltd.	0	7097	7097
69	Ethernet Xpress India Pvt. Ltd	0	6564	6564
70	Readylink Internet Services Pvt Ltd	121	6282	6403
71	GBPS Networks Pvt. Ltd.	0	6172	6172
72	Tata Sky Broadband Private Limited	0	6110	6110
73	SSCN PVT LTD	0	5836	5836
74	Swiftmail Communications Ltd.	1489	4331	5820
75	Cityzone Infonet Pvt. Ltd	0	5723	5723
76	Swiftnet Broadband Pvt Ltd	0	5632	5632

Annexure 1.5 (contd.)

Sl. No.	Name of the Service Provider:	Narrowband Subscribers	Broadband Subscribers	Total Subscribers
77	DL GTPL BROADBAND PVT LTD	0	5609	5609
78	WOW SOLUTIONS & SYSTEM PVT LTD	0	5609	5609
79	Shri Omkar Infocom Pvt. Ltd.	0	5550	5550
80	Intermedia Cable Communication Pvt Ltd	0	5219	5219
81	Mukand Infotel Pvt. Ltd.	5084	0	5084
82	Digital Satellite Connect Pvt. Ltd.	0	4964	4964
83	Narmada Cyberzone Pvt Ltd	1858	3097	4955
84	IAXN Telecom Pvt. Ltd.	0	4766	4766
85	Southern Online Bio Technologies Ltd.	8	4407	4415
86	Multinet (Udaipur) Pvt. Ltd.	0	4385	4385
87	Siliguri Internet & Cable TV Pvt. Ltd.	0	4374	4374
88	Powernet Communication Pvt Ltd	2086	2086	4172
89	Vision Smartlink Networking Pvt. Ltd.	0	4147	4147
90	Blazenet Ltd.	0	4017	4017
91	Wnet Telecom Private Limited	0	3814	3814
92	GIGATEL NETWORKS PVT LTD	0	3808	3808
93	Spacenet Internet Services Pvt Ltd	0	3777	3777
94	Zoram Business Enterprise Pvt Ltd	0	3624	3624
95	Bittel Telecom Pvt.Ltd	0	3440	3440
96	Aerocast Networks Pvt Ltd.	0	3393	3393
97	Airgenie Communications Pvt. Ltd.	0	3093	3093
98	Star Broadband Services (I) Pvt Ltd	0	3053	3053
99	SONALI INTERNET SERVICES PVT LTD	0	2932	2932
100	Spiderlink Networks Pvt. Ltd.	0	2846	2846
101	NISS INTERNET SERVICES PVT. LTD.	0	2704	2704
102	Transmedia Technologies (AP) PVT LTD	0	2696	2696
103	TGN NETWORKS PVT LTD	0	2679	2679
104	F/X Wireless Technology Services Pvt Ltd	0	2620	2620
105	Kaizen Infonet Pvt Ltd	0	2526	2526
106	Chandra Net Pvt. Limited	0	2435	2435
107	Speed Online.net Pvt. Ltd.	0	2324	2324
108	S.S.Netcom Pvt Ltd	0	2155	2155
109	FIVE NET SERVICE PROVIDER PVT LTD	0	2115	2115
110	LM ENERGY & SOFTWARE PVT LTD	0	2070	2070
111	Rainbow Internet teleservices Pvt Ltd	35	2004	2039
112	SMARTLINK SOLUTIONS PVT. LTD.	0	1965	1965
113	SCUD COMMUNICATION PVT LTD	0	1898	1898
114	Capture Network Systems Pvt. Ltd.	288	1517	1805
115	Rajesh Patel Net Services Pvt. Ltd.	37	1714	1751

Annexure 1.5 (contd.)

Sl. No.	Name of the Service Provider:	Narrowband Subscribers	Broadband Subscribers	Total Subscribers
116	Assistive networks & technologie Pvt Ltd	0	1701	1701
117	Jetspot Networks Pvt. Ltd.	0	1651	1651
118	Touch Net India Pvt. Ltd.	0	1617	1617
119	ULTRANET INFOTECH SOLUTION PRIVATE LIMITED	0	1600	1600
120	Sphier Infotech Pvt. Ltd.	0	1578	1578
121	Nettlinx Ltd.	0	1569	1569
122	CJ Online Pvt. Ltd.	0	1537	1537
123	Sanchit Infocomm Pvt Ltd	0	1502	1502
124	WSNS PVT LTD	0	1405	1405
125	Harisree CableNet Pvt. Ltd.	0	1395	1395
126	Craze IT Solutions Pvt Ltd	0	1394	1394
127	Symbois Creations Pvt. Ltd.	6	1388	1394
128	Hughes Communications India Ltd.	429	937	1366
129	Imperium Digital Network Pvt. Ltd.	0	1341	1341
130	GURU NETCOMM PVT LTD	0	1301	1301
131	Fiberzone Communications Pvt. Ltd.	0	1280	1280
132	FIBERZONE COMMUNICATION (P) LTD	0	1270	1270
133	MAKS COMMUNICATIONS PVT.LTD.	0	1248	1248
134	Netfirre Communications Pvt Ltd	0	1225	1225
135	Aeroway Networks Pvt Ltd.	0	1179	1179
136	delDSL Internet Pvt Ltd	0	1178	1178
137	GALAXYNET CONNECTIONS PVT LTD	0	1091	1091
138	HARDWORK CABLE & INTERNET SERVICES PVT LTD	0	1078	1078
139	Elyzium Technologies Pvt. Ltd.	0	1060	1060
140	Correl IT Services Pvt. Ltd.	0	1033	1033
141	Shree Balaji Infoway Pvt Ltd	0	1392	1392
142	GIGACAST NETWORK PVT LTD	0	924	924
143	SS FIBER NET OPTICAL COMMUNICATION PVT. LTD	0	918	918
144	Sify Technologies Ltd.	458	405	863
145	SKY ONLINE TECHNOSYSTEM PVT LTD	0	863	863
146	NetMagic Solutions(P) Ltd.	0	856	856
147	DREAMLINK TECHNOLOGIES PVT LTD	0	848	848
148	ESTO BORADNAD PVT LTD./ESTO INTERNET PVT LTD	0	824	824
149	Touchnet Broadband Services Pvt. Ltd.	0	824	824
150	Japra Tele Link Pvt. Ltd.	0	803	803
151	Barani Data Solutions Private Limited	456	346	802

Annexure 1.5 (contd.)

Sl. No.	Name of the Service Provider:	Narrowband Subscribers	Broadband Subscribers	Total Subscribers
152	ANTARIKSH BROADBAND & WIRELESS SOLUTIONS PVT LTD	800	0	800
153	Ani Broadband Service Pvt. Ltd.	0	763	763
154	Datawave IT solutions Pvt. Ltd.	0	761	761
155	Click4Net Internet Services Pvt Ltd	0	760	760
156	STN Communication & Advertising PvtLtd	3	757	760
157	Daksh Broadband Services Pvt Ltd	0	730	730
158	NGC Broadband Pvt. Ltd.	726	0	726
159	INET FIBER INDIA PVT LTD	0	715	715
160	CLOUDNET COMMUNICATIONS PVT LTD	0	714	714
161	VIVA Communications Pvt Ltd	0	708	708
162	Suncity Broadband Pvt Ltd.	0	697	697
163	SVD DIGITAL NETWORKS PVT LTD	0	676	676
164	HPS DIGITAL BROADBAND PVT LTD	0	672	672
165	Smart Net India Pvt Ltd	0	670	670
166	HOSTAXIS NETWORKS PVT LTD	0	617	617
167	Wi-Link Network Pvt. Ltd	0	614	614
168	Gorakhpur Net Services Pvt. Ltd.	0	612	612
169	Panav Network and Communications Private Limited	0	604	604
170	FASTNET COMMUNICATION PVT LTD	200	401	601
171	Primenet Global Ltd.	0	594	594
172	WEBRIDERS INTERNET PVT LTD	0	594	594
173	Cyber Crazy Infocom Pvt. Ltd.	0	591	591
174	Data Infosys Ltd.	0	574	574
175	Grace Teleinfra Pvt Ltd	0	574	574
176	Alphanet Broadband Pvt Ltd	0	571	571
177	Alegra Communication Pvt Ltd	0	552	552
178	Digital2Virtual ISP Pvt. Ltd.	0	549	549
179	DATAMAX TECHNOLOGY PVT LTD	39	482	521
180	Shree Manoranjn Broadband Pvt Ltd	0	511	511
181	Rida Communication Pvt. Ltd.	0	504	504
182	LAIRONET COMMUNICATION PVT LTD	0	496	496
183	INFINITY WIRELESS SERVICES Pvt Ltd	0	491	491
184	Light Air Transmission Pvt. Ltd.	245	245	490
185	VARESHA AIR WORLD Network Pvt Ltd	483	0	483
186	Development Logics Solutions Pvt Ltd	0	482	482
187	Conjoinix Technologies Pvt Ltd	0	480	480
188	Micronova Network Solutions Ltd	80	400	480

Annexure 1.5 (contd.)

Sl. No.	Name of the Service Provider:	Narrowband Subscribers	Broadband Subscribers	Total Subscribers
189	ELECON INFOTMATION Technology Ltd	0	473	473
190	HELM CONSULTANTS PVT LTD	193	274	467
191	Oasis Cable Pvt Ltd.	0	445	445
192	Power Grid Corporation of India Ltd.	0	437	437
193	AIRMAX INTERNET PVT LTD	0	432	432
194	Tamana Winet Pvt. Ltd.	0	414	414
195	PACKNET SOLUTIONS PVT Ltd	0	397	397
196	Speedmaxx Digital Networks Pvt Ltd	0	396	396
197	Gleam Worldwide Services Pvt. Ltd.	0	394	394
198	CNS INFOTEL SERVICES PVT LTD	0	392	392
199	Oistel Telecom Pvt. Ltd.	190	198	388
200	Packenet Solutions Pvt. Ltd.	0	387	387
201	Reticule Infotech Pvt. Ltd.	0	360	360
202	WINDSOR INTERNET PVT LTD	0	351	351
203	Sai Akshay Internet Services Pvt Ltd.	0	332	332
204	ADRI INFOCOM PVT. LTD.	0	329	329
205	PANCHSHEEL BROADBAND SERVICES'S PVT LTD.	0	329	329
206	CATLA IT&ENGG. CO. PVT LTD.	0	327	327
207	Pulse Telesystems Pvt. Ltd.	0	317	317
208	REVOLUTION BROADBAND PVT LTD	0	311	311
209	Pimoonny Broadband Serives Pvt Ltd	0	309	309
210	MORADABAD INTERNET DERVICES PVT LTD	0	293	293
211	BASS JOKERNET PRIVATE LIMITED	0	283	283
212	Twincity Communication Private Limited	0	277	277
213	SG IT Infotech Pvt. Ltd.	0	276	276
214	SRINAGAR TECHNOLOGY CONSULTANTS LTD	271	0	271
215	AUSPICE INFRATAL PVT LTD	142	128	270
216	NEXTGEN COMPUSOFT PVT LTD	0	263	263
217	Singh Internet Services Pvt. Ltd.	0	260	260
218	Cityline Networks Pvt Ltd	0	251	251
219	ALWAR ONLINE PVT LTD	250	0	250
220	Faiconet Internet Pvt Ltd	0	245	245
221	WAVETREE NETWORKS PVT LTD	0	244	244
222	Wi5 Internet Services P Limited	0	241	241
223	SUPER SONIC BROADBAND PVT LTD	0	237	237
224	SEFARO NETWORKS PRIVATE LTD	0	233	233
225	ANUSHREE DIGITAL NETWORK PVT LTD	0	229	229

Annexure 1.5 (contd.)

Sl. No.	Name of the Service Provider:	Narrowband Subscribers	Broadband Subscribers	Total Subscribers
226	SPIRENET DIGITAL COMMUNICATION PVT LTD	0	229	229
227	Khetan Cable Network (P) Ltd	0	228	228
228	VMO BROADBAND PVT LTD	225	0	225
229	Bhiwani Communications Pvt. Ltd.	73	151	224
230	CIT SOLUTIONS PVT. LTD.	0	217	217
231	NETTECH INFOVISION PVT LTD	0	217	217
232	Gazillio Technologies Pvt. Ltd.	0	213	213
233	Shreepad Communication Pvt. Ltd.	0	211	211
234	Saibaba Broadband Pvt. Ltd.	0	206	206
235	Rajdhani Telecom Pvt. Ltd.	4	199	203
236	CERALINK COMMUNICATION PVT LTD	0	196	196
237	Spider Broadband and Cable Pvt Ltd	0	182	182
238	AirFiber IT Solutions Pvt. Ltd	2	178	180
239	STN Infotech Pvt. Ltd	0	175	175
240	Microsense Pvt. Ltd.	0	174	174
241	Kataria Net Solutions Pvt. Ltd.	0	163	163
242	ERNET India	108	54	162
243	NETVISION AWADH NETWORKS Pvt Ltd	0	153	153
244	NETWIRE INTERNET SOLUTIONS Pvt Ltd	0	146	146
245	Unitel Media Pvt Ltd	0	142	142
246	Shineplus Networks Pvt Ltd	0	137	137
247	Global India Tele Infra Pvt. Ltd.	16	120	136
248	SOUTHNET BROADBAND PVT LTD	0	134	134
249	ROYAL WIRELESS SERVICES PVT LTD	0	133	133
250	MLC INTERNET PVT LTD	0	126	126
251	Airtechzone Services India Pvt Ltd	78	47	125
252	Cheetah Networks Pvt Ltd	0	122	122
253	SKYNETZONE WIFI SERVICES PVT LTD	5	115	120
254	Kartik Network Pvt. Ltd.	0	119	119
255	PROLINE DATATECH Services Pvt Ltd	0	114	114
256	Optisky Fiber Pvt Ltd	0	112	112
257	SHRI RAM Broadband Services Pvt Ltd	0	112	112
258	CLASSIC INTERNET AND CABLE SERVICES PVT LTD	108	0	108
259	Pronoc Technologies Pvt. Ltd.	0	107	107
260	Invensys Networks pvt ltd	3	102	105
261	Verizon Communications India Pvt. Ltd.	0	102	102
262	QBC Infotech Pvt. Ltd.	0	100	100

Annexure 1.5 (contd.)

Sl. No.	Name of the Service Provider:	Narrowband Subscribers	Broadband Subscribers	Total Subscribers
263	ACEBROWSE PVT LTD	0	99	99
264	Achiever Communication and Services Pvt. Ltd.	0	99	99
265	Airmesh Communications Limited	0	94	94
266	Angel Air Network Solutions Pvt Ltd	0	89	89
267	SATH TECHNOLOGIES PVT LTD	0	88	88
268	AT&T Global Network Services India Private Limited	0	86	86
269	Vidarbha Wi-Fi & Network Services PvtLtd	84	0	84
270	Dream Plus Multi Services Pvt. Ltd.	0	82	82
271	TRIPLE LINK PVT LTD	0	82	82
272	DigiStar Info Solutions Pvt Ltd	40	40	80
273	GETWAY BROADBAND PVT LTD	0	77	77
274	PMG NETWORKD PVT LTD	0	74	74
275	Sanyog Networks Pvt Ltd	0	70	70
276	Malang Solutions Pvt. Ltd.	0	69	69
277	Telestra Telecommunications Pvt. Ltd.	0	69	69
278	Shri Vinayagaa Internet Pvt Ltd	1	67	68
279	NR DATA SERVICE PVT LTD	0	64	64
280	Satpar Infotech Pvt Ltd	0	62	62
281	Edge Telecommunications Pvt. Ltd.	0	60	60
282	S A INTERNET SOLUTION PVT LTD	0	59	59
283	DRONAGIRI INFOTECH PVT LTD	0	57	57
284	Infiber Broadnet Pvt. Ltd.	0	55	55
285	Airlink Broadband Pvt Ltd	0	52	52
286	City Broadband Pvt. Ltd.	0	52	52
287	Trans Virtual Pvt. Ltd.	5	47	52
288	TOUCHOUS COMMUNICATION PVT LTD	0	51	51
289	ARP INFONET PVT. LTD.	0	48	48
290	V NET NETWORKS PVT. LTD	0	48	48
291	Pacific Internet India Pvt. Ltd.	0	45	45
292	IWAVE TELECOMMUNICATIONS Pvt Ltd	0	38	38
293	Navariya Satellite Services Pvt.Ltd.	33	0	33
294	Mastek Infosystems OPC Pvt. Ltd.	0	31	31
295	Dreamnet Pvt.Ltd.	0	30	30
296	West Bengal Electronics Industry Development Corp. Ltd.	0	30	30
297	Adya Tech One Services Pvt Ltd	0	27	27
298	JAI MATA DI TELETRONIX PVT LTD	0	26	26
299	Divine Broadband Services Pvt Ltd	0	25	25

Annexure 1.5 (contd.)

Sl. No.	Name of the Service Provider:	Narrowband Subscribers	Broadband Subscribers	Total Subscribers
300	HCL Comnet Systems & Services Ltd.	11	14	25
301	SUN BOARDBAND AND DATA SERVICES PVT LTD	0	25	25
302	Orange Business Services India Network Pvt. Ltd.	0	21	21
303	WE INTERNET LIMITED	0	20	20
304	FASTHOOK NETWORKS PVT LTD	0	18	18
305	A TO Z INFOLINK PVT.LTD.	0	15	15
306	Novanet India Ltd.	0	14	14
307	Texas Connect Private Limited	0	14	14
308	UBERCORE DATA LABS PVT LTD	0	14	14
309	Marutham Networks Pvt. Ltd.	0	13	13
310	Financial Technologies Communications Ltd.	10	0	10
311	Essel Shyam Communications Limited	0	7	7
312	Sab Infotech	0	7	7
313	ABT Ltd.	3	2	5
314	Angrow Netcomm Pvt. Ltd.	5	0	5
315	Clear Beam Communication Pvt Ltd	0	5	5
316	Aristo Telenet Pvt Ltd	0	3	3
317	Tatanet Services Ltd	0	3	3
318	KIIRUS INFONET PVT. LTD.	0	2	2
319	Nelco Ltd.	0	2	2
320	Sabse Internet Services Provider Pvt Ltd	0	2	2
	Total	78,304,777	481,703,970	560,008,747

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

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

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.
17	Warmconnect Internet Services Pvt. Ltd.

Annexure 1.7: Service Area wise PMRTS subscriber Base

S No.	Operative Area	Service Provider	Subscriber Base	
			30.06.2018	30.09.2018
1	Delhi (Faridabad/ Gurgaon)	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	5511	5720
		Procall(Delhi)	2911	2910
		Total	8422	8630
2	Mumbai (Navi Mumbai)	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	8076	8241
		Smartalk (Mumbai)	545	572
		Bhilwara Telenet(Mumbai)	830	855
		Airtalk Solutions & Services Pvt. Ltd	339	339
		Total	9790	10007
3	Kolkata	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	2469	2409
		Total	2469	2409
4	Tamil Nadu (Chennai)	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	7183	7100
		Quick Calls	579	590
		Total	7762	7690
5	Karnataka (Bangalore)	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	7020	7170
		Quick Calls	602	595
		Total	7622	7765
6	Andhra Pradesh (Vishakhapatnam & Hyderabad)	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	5255	5384
		Quick Calls (Hyderabad Urban)	883	872
		Total	6138	6256
7	Madhya Pradesh (Indore)	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1387	1382
		Total	1387	1382
8	Rajasthan (Jaipur)	Procall	281	268
		Arya Omnitalk Radio Trunking Services Pvt.Ltd.	626	635
		Total	907	903

Annexure- 1.7 (Contd.)

S No.	Operative Area	Service Provider	Subscriber Base	
			30.06.2018	30.09.2018
9	Gujarat (Ahmedaba/Surat /Vadodara/ Bharuch/Dahej/ Kutch/Amrela / Jamnagar)	Arya Omnitalk Radio Trunking Services Pvt.Ltd. (Ahmedaba/Surat/Vadodara / Bharuch/Dahej)	6490	6481
		Inative Network Pvt. Ltd. (Ahmedaba/Surat/Vadodara / Bharuch/ Kutch/Amrela / Jamnagar)	1820	1820
		Total	8310	8301
10	Maharashtra (Pune)	Arya Omnitalk Radio Trunking Services Pvt.Ltd.	1693	1754
		Smartalk	428	432
		Total	2121	2186
11	Kerala (Cochin City & Quilon)	Wiwanet Solutions Pvt. Ltd.	361	361
		Arya Omnitalk Radio Trunking Services Pvt.Ltd.	794	810
		Total	1155	1171
Grand Total			56083	56700

**Annexure 2.1: Wireless Revenue Service - Service Area wise Statistics for
QE Sep-18**

Key parameters for service areas of category-A

Service Area	% of pre-paid in total subscribers	ARPU (₹ per month)	Total usage (from & outside HSA) per subscriber per month			
			Outgoing SMS	Outgoing MOU	Incoming MOU	Total MOU
AP	95.54	87	23	296	304	600
Gujarat	95.16	67	13	274	244	518
Karnataka	93.86	82	25	300	285	585
MH	95.56	72	36	257	251	508
TN (incl. Chennai)	94.94	88	20	285	283	568

Key parameters for service areas of category-B

Service Area	% of pre-paid in total subscribers	ARPU (₹ per month)	Total usage (from & outside HSA) per subscriber per month			
			Outgoing SMS	Outgoing MOU	Incoming MOU	Total MOU
Haryana	97.75	46	11	306	299	604
Kerala	97.14	92	15	244	263	507
MP	97.99	61	18	279	299	578
Punjab	95.56	71	11	317	291	608
Rajasthan	97.64	62	12	325	340	664
UP(E)	98.77	47	9	311	355	667
UP(W)	98.36	50	11	300	332	633
WB	99.38	57	13	284	335	620

Key parameters for service areas of category-C

Service Area	% of pre-paid in total subscribers	ARPU (₹ per month)	Total usage (from & outside HSA) per subscriber per month			
			Outgoing SMS	Outgoing MOU	Incoming MOU	Total MOU
Assam	97.60	76	31	351	419	771
Bihar	99.35	51	10	354	454	808
HP	98.39	65	11	306	295	602
J&K	80.32	85	22	470	434	904
NE	98.32	72	39	309	319	628
Orissa	98.89	62	15	343	399	743

Key parameters for service areas of category-Metro

Service Area	% of pre-paid in total subscribers	ARPU (₹ per month)	Total usage (from & outside HSA) per subscriber per month			
			Outgoing SMS	Outgoing MOU	Incoming MOU	Total MOU
Kolkata	93.67	54	15	291	277	568
Delhi	85.91	66	15	433	332	764
Mumbai	79.73	90	16	393	291	685

Annexure 4.1: Performance of QoS Parameters for Cellular Mobile Service

Performance Monitoring Report on Quality of Service of Cellular Mobile Service Providers for quarter ending, September, 2018																				
Name of Service Area	Name of Service Provider	Network Related Parameters									Customer Service Quality Parameters									
		Network Availability		Connection Establishment (Accessibility)			Connection Maintenance (Retainability)			POI	Metering and billing				Response time to the customer for assistance		Termination / closure of service			
		ES Accumulated down-time (not available for service) (%age)	Worst affected ESs due to down-time (%age)	Call Set-up Success Rate and Session Establishment Success Rate for Circuit Switched Voice or VoLTE as applicable (within licensee's own network)	SDCCH / Paging Channel Congestion / RRC Congestion (%age)	TCH, RAB and E-RAB Congestion (%age)	Network QoS DCR Spatial Distribution Measure [Network_QSD(90,90)]	Network QoS DCR Temporal Distribution Measure [Network_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 benchmark) (Averaged over a period of)	Metering and billing credibility - post paid	Metering and billing credibility - pre paid	Resolution of billing/charging complaints	Period of applying credit/waiver/ adjustment to customer's account from the date of resolution of complaints	Accessibility of call centre/ customer care	Percentage of calls answered by the operators (voice to voice) within 90 seconds	%age requests for Termination / Closure of service complied within 7 days	Time taken for refund of deposits after closures		
		≤ 2%	≤ 2%	≥ 95%	≤ 1%	≤ 2%	≤ 2%	≤ 3%	≥ 95%	≤ 0.5%	≤ 0.1%	≤ 0.1%	98% within 4 weeks	100% within 6 weeks	within 1 week of resolution of complaint	≥ 95%	≥ 95%	100% within 7 days	100% within 60 days	
The achievement of benchmark against each parameter is to be averaged over a period of one quarter for 2G, 3G and 4G VoLTE Services (combined) as per the measurement methodology explained in Explanatory Memorandum to regulations																				
Andhra Pradesh	Airtel	0.16	0.46	97.87	0.33	0.71	1.69	2.33	96.37	0	0.01	0.02	100.00	100.00	100.00	100.00	95.00	100.00	100.00	
	BSNL	0.92	1.17	98.15	0.63	1.36	1.85	1.96	99.42	0	0.00	0.00	100.00	100.00	100.00	97.00	98.00	100.00	100.00	
	Idea	0.04	0.00	98.86	0.37	0.75	1.84	2.17	99.35	0	0.01	0.00	99.94	100.00	100.00	98.69	98.43	100.00	100.00	
	RJio	0.06	0.12	99.60	0.00	0.00	0.35	0.43	99.91	0	0.00	0.00	100.00	100.00	100.00	96.92	99.10	100.00	100.00	
	TATA	0.34	0.33	99.49	0.15	0.04	0.00	1.11	98.75	0	0.00	0.00	100.00	100.00	100.00	97.44	83.98	100.00	100.00	
	Vodafone	0.07	0.24	99.92	0.07	0.08	1.51	1.81	99.16	0	0.13	0.02	100.00	100.00	100.00	100.00	97.32	100.00	100.00	
Assam	Airtel	0.73	1.19	97.81	0.42	0.57	1.72	2.11	98.96	0	0.01	0.00	100.00	100.00	100.00	100.00	99.00	100.00	100.00	
	BSNL	1.97	1.94	98.18	0.82	1.82	1.69	2.71	96.80	0	0.01	0.00	100.00	100.00	100.00	97.00	98.57	100.00	100.00	
	Idea	0.73	0.24	98.76	0.32	0.54	2.16	3.51	95.71	0	0.06	0.01	100.00	100.00	100.00	97.84	97.77	99.02	59.11	
	RJio	0.50	1.59	99.55	0.00	0.00	0.55	0.64	99.86	0	0.00	0.00	100.00	100.00	100.00	96.97	97.52	100.00	100.00	
	Vodafone	0.80	0.78	98.84	0.21	1.10	1.99	2.54	97.89	0	0.03	0.03	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
Bihar	Airtel	0.16	0.89	97.64	0.72	1.04	1.80	1.99	96.93	0	0.01	0.01	100.00	100.00	100.00	94.00	97.00	100.00	100.00	
	BSNL	1.73	1.83	95.66	0.39	0.50	1.97	2.87	97.15	0	0.04	0.00	99.35	100.00	100.00	98.00	98.69	100.00	100.00	
	Idea	0.82	1.37	98.12	0.98	1.41	1.85	2.42	99.45	0	0.01	0.00	100.00	100.00	100.00	96.36	99.04	100.00	100.00	
	RJio	0.37	1.58	99.46	0.00	0.01	0.61	0.75	99.87	0	0.00	0.00	100.00	100.00	100.00	97.15	96.73	100.00	100.00	
	TATA	0.24	0.00	97.87	0.20	0.15	0.00	0.00	98.26	0	0.00	0.00	100.00	100.00	100.00	97.99	68.68	100.00	100.00	
	Vodafone	0.47	1.50	99.16	0.20	0.84	1.92	2.46	98.14	0	0.04	0.07	100.00	100.00	100.00	100.00	96.43	100.00	100.00	
Chennai	BSNL	0.29	1.19	98.40	0.39	1.62	1.87	2.38	97.18	0	0.00	0.00	99.00	100.00	100.00	100.00	95.28	100.00	100.00	
Delhi	Airtel	0.11	0.00	98.55	0.23	0.37	1.79	2.94	97.57	0	0.03	0.01	100.00	100.00	100.00	100.00	96.00	100.00	100.00	
	Idea	0.26	1.29	98.91	0.19	0.50	1.96	2.45	97.90	0	0.08	0.01	100.00	100.00	100.00	99.17	97.48	99.98	100.00	
	MTNL	0.04	0.38	97.36	0.07	0.78	1.60	1.80	97.70	0	0.03	0.01	100.00	100.00	100.00	99.80	97.60	100.00	100.00	
	RJio	0.18	0.76	99.53	0.00	0.01	0.28	0.38	99.88	0	0.00	0.00	100.00	100.00	100.00	97.16	97.69	100.00	100.00	
	TATA	0.17	0.31	99.22	0.00	0.13	0.00	2.89	99.02	0	0.00	0.00	100.00	100.00	100.00	98.23	95.06	100.00	100.00	
	Vodafone	0.15	0.80	99.21	0.16	0.49	1.71	2.24	99.32	0	0.04	0.07	99.98	100.00	100.00	100.00	96.07	100.00	100.00	

Annexure 4.1 (Contd.)

Gujarat	Airtel	0.10	0.33	99.21	0.20	0.33	1.87	2.14	95.49	0	0.02	0.02	100.00	100.00	100.00	100.00	96.00	100.00	100.00
	BSNL	1.46	1.26	97.59	0.20	0.61	1.88	2.41	100.00	0	0.01	0.00	100.00	100.00	100.00	97.00	98.36	100.00	100.00
	Idea	0.10	0.31	98.38	0.35	1.12	1.75	2.22	97.99	0	0.02	0.00	99.98	100.00	100.00	98.11	99.39	100.00	100.00
	RJio	0.13	0.40	99.58	0.00	0.00	0.44	0.57	99.89	0	0.00	0.00	100.00	100.00	100.00	97.19	98.97	100.00	100.00
	TATA	0.01	0.00	96.02	0.00	0.00	0.00	0.00	98.64	0	0.01	0.00	100.00	100.00	100.00	99.04	78.19	100.00	100.00
	Vodafone	0.18	0.27	99.46	0.10	0.41	1.45	1.90	99.11	0	0.07	0.02	100.00	100.00	100.00	100.00	95.33	100.00	100.00
Haryana	Airtel	0.15	0.11	99.63	0.12	0.16	1.64	2.50	97.84	0	0.02	0.02	100.00	100.00	100.00	100.00	95.00	100.00	100.00
	BSNL	0.59	0.16	98.73	0.16	0.35	1.87	1.89	97.79	0	0.01	0.00	100.00	100.00	100.00	100.00	99.99	100.00	100.00
	Idea	0.18	0.58	99.14	0.27	0.50	1.82	2.44	98.16	0	0.03	0.01	99.90	100.00	100.00	98.25	98.00	100.00	91.81
	RJio	0.13	0.37	99.56	0.00	0.00	0.49	0.60	99.92	0	0.00	0.00	100.00	100.00	100.00	96.82	98.37	100.00	100.00
	TATA	0.66	0.00	99.63	0.08	0.01	0.00	0.18	98.59	0	0.00	0.00	100.00	100.00	100.00	97.95	65.81	100.00	100.00
	Vodafone	0.21	0.81	99.60	0.22	0.33	1.52	2.22	99.10	0	0.05	0.03	100.00	100.00	100.00	100.00	99.41	100.00	100.00
Himachal Pradesh	Airtel	0.10	0.22	99.01	0.20	0.47	1.27	2.00	96.96	0	0.01	0.01	100.00	100.00	100.00	100.00	96.00	100.00	100.00
	BSNL	1.92	1.93	98.58	0.78	0.92	1.94	2.10	95.54	0	0.01	0.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	Idea	0.17	0.27	99.18	0.10	0.40	2.24	2.56	96.41	0	0.01	0.01	100.00	100.00	100.00	99.11	99.35	100.00	100.00
	RJio	0.12	0.42	99.52	0.00	0.00	0.43	0.54	99.91	0	0.00	0.00	100.00	100.00	100.00	97.17	98.38	100.00	100.00
	TATA	0.04	0.00	96.82	0.00	0.07	0.00	0.00	96.27	0	0.00	0.00	100.00	100.00	100.00	100.00	74.17	100.00	100.00
	Vodafone	0.09	0.23	99.97	0.03	0.03	1.96	2.53	98.05	0	0.03	0.01	100.00	100.00	100.00	100.00	97.92	100.00	100.00
Jammu & Kashmir	Airtel	0.17	0.00	97.64	0.19	0.50	1.22	1.55	98.68	0	0.01	0.01	99.00	100.00	100.00	100.00	96.00	100.00	100.00
	BSNL	1.11	1.95	98.80	0.60	0.90	1.93	2.94	96.70	0	0.01	0.00	100.00	100.00	100.00	100.00	99.00	100.00	100.00
	Idea	0.47	0.84	98.79	0.19	0.72	2.16	2.60	96.94	0	0.04	0.02	100.00	100.00	100.00	96.99	98.89	100.00	100.00
	RJio	0.13	0.40	99.55	0.00	0.01	0.66	0.71	99.91	0	0.00	0.00	100.00	100.00	100.00	97.44	99.51	100.00	100.00
	Vodafone	0.09	0.35	99.97	0.02	0.03	1.98	2.47	98.58	0	0.01	0.02	100.00	100.00	100.00	100.00	97.95	100.00	100.00
Karnataka	Airtel	0.25	0.70	99.31	0.67	0.23	1.56	2.80	97.47	0	0.02	0.01	100.00	100.00	100.00	100.00	94.00	100.00	100.00
	BSNL	1.32	1.83	98.12	0.34	0.76	1.98	2.97	97.12	0	0.00	0.00	99.76	100.00	100.00	98.00	98.20	100.00	100.00
	Idea	0.09	0.19	99.70	0.11	0.14	1.68	2.03	99.16	0	0.04	0.02	100.00	100.00	100.00	99.60	99.38	100.00	100.00
	RJio	0.20	0.95	99.66	0.00	0.00	0.41	0.52	99.91	0	0.00	0.00	100.00	100.00	100.00	96.85	99.47	100.00	100.00
	TATA	0.48	0.75	98.80	0.07	0.08	0.58	1.70	99.22	0	0.00	0.00	100.00	100.00	100.00	98.44	62.41	100.00	100.00
	Vodafone	0.32	1.97	99.86	0.15	0.06	1.09	1.42	99.63	0	0.05	0.04	99.91	100.00	100.00	100.00	96.87	100.00	100.00
Kerala	Airtel	0.18	0.24	99.48	0.11	0.18	1.85	2.81	97.27	0	0.01	0.00	100.00	100.00	100.00	100.00	97.00	100.00	100.00
	BSNL	0.76	1.44	98.64	0.39	1.03	1.79	2.04	99.61	0	0.01	0.00	99.00	100.00	100.00	97.00	96.78	100.00	100.00
	Idea	0.23	0.87	99.36	0.15	0.43	1.52	2.00	97.71	0	0.06	0.01	99.92	100.00	100.00	98.46	98.29	100.00	100.00
	RJio	0.06	0.12	99.67	0.00	0.00	0.41	0.65	99.90	0	0.00	0.00	100.00	100.00	100.00	97.26	95.57	100.00	100.00
	TATA	0.60	0.00	99.82	0.00	0.01	0.00	0.00	99.87	0	0.00	0.00	100.00	100.00	100.00	98.16	81.75	100.00	100.00
	Vodafone	0.07	0.19	99.71	0.18	0.21	1.08	1.36	99.52	0	0.07	0.08	100.00	100.00	100.00	100.00	96.89	100.00	100.00

Annexure 4.1 (Contd.)

Kolkata	Airtel	0.02	0.00	99.15	0.16	0.07	1.90	2.14	98.59	0	0.01	0.01	100.00	100.00	100.00	98.00	94.00	100.00	100.00
	BSNL	1.07	1.48	99.02	0.55	0.50	1.77	1.92	97.76	0	0.01	0.02	98.78	100.00	100.00	95.00	95.03	100.00	100.00
	Idea	0.04	0.38	99.70	0.11	0.14	1.23	1.72	99.35	0	0.04	0.00	100.00	100.00	100.00	97.37	99.37	100.00	100.00
	RJio	0.02	0.05	99.61	0.00	0.01	0.24	0.35	99.91	0	0.00	0.00	100.00	100.00	100.00	97.15	98.52	100.00	100.00
	TATA	0.74	1.77	99.47	0.02	0.15	0.00	0.95	98.82	0	0.00	0.00	100.00	100.00	100.00	98.74	76.76	100.00	100.00
	Vodafone	0.18	0.88	99.15	0.06	0.80	1.19	1.62	98.73	0	0.03	0.04	100.00	100.00	100.00	100.00	96.79	100.00	100.00
Madhya Pradesh	Airtel	0.10	0.09	98.64	0.33	0.79	1.96	2.38	95.71	0	0.02	0.00	100.00	100.00	100.00	100.00	98.00	100.00	100.00
	BSNL	1.67	1.89	97.46	0.52	1.05	1.20	2.93	97.01	0	0.02	0.02	99.91	100.00	100.00	98.50	98.53	100.00	100.00
	Idea	0.14	0.38	96.93	0.63	2.22	1.75	2.13	97.26	0	0.02	0.00	100.00	100.00	100.00	99.28	99.34	100.00	100.00
	RJio	0.28	1.25	99.56	0.00	0.00	0.53	0.73	99.89	0	0.00	0.00	100.00	100.00	100.00	97.31	95.28	100.00	100.00
	TATA	0.30	0.00	95.72	0.24	0.05	0.00	0.00	99.42	0	0.00	0.00	100.00	100.00	100.00	99.06	63.53	100.00	100.00
	Vodafone	0.17	0.71	99.89	0.06	0.11	1.89	2.39	98.62	0	0.02	0.02	100.00	100.00	100.00	100.00	98.73	100.00	100.00
Maharashtra	Airtel	0.03	0.00	98.93	0.58	0.47	1.89	2.44	95.52	0	0.02	0.00	100.00	100.00	100.00	100.00	96.00	100.00	100.00
	BSNL	1.31	1.91	97.65	0.75	1.32	1.90	2.49	95.61	0	0.01	0.01	100.00	100.00	100.00	100.00	99.00	100.00	100.00
	Idea	0.23	1.03	98.09	0.59	0.91	1.72	2.21	97.75	0	0.03	0.00	99.99	100.00	100.00	99.90	99.72	100.00	100.00
	RJio	0.27	1.38	99.58	0.00	0.00	0.47	0.60	99.87	0	0.00	0.00	100.00	100.00	100.00	97.44	96.89	100.00	100.00
	TATA	0.47	0.68	96.30	0.22	1.08	0.00	1.69	99.41	0	0.00	0.00	100.00	100.00	100.00	98.76	74.46	100.00	100.00
	Vodafone	0.18	0.87	98.98	0.36	0.95	1.58	2.08	98.99	0	0.05	0.02	100.00	100.00	100.00	99.99	98.04	100.00	100.00
Mumbai	Airtel	0.21	0.61	99.24	0.54	0.53	1.85	1.95	95.09	0	0.01	0.00	100.00	100.00	100.00	100.00	95.00	100.00	100.00
	Idea	0.10	0.09	99.35	0.36	0.24	1.90	2.77	96.97	0	0.01	0.00	100.00	100.00	100.00	98.73	97.16	99.87	100.00
	MTNL	0.70	1.10	97.50	0.50	0.30	1.87	2.86	98.10	0	0.02	0.00	100.00	100.00	100.00	100.00	95.14	100.00	100.00
	RJio	0.16	0.94	99.52	0.01	0.01	0.24	0.34	99.89	0	0.00	0.00	100.00	100.00	100.00	97.11	98.70	100.00	100.00
	TATA	0.45	0.00	99.12	0.05	0.31	0.00	0.00	97.62	0	0.00	0.00	100.00	100.00	100.00	99.04	71.23	100.00	100.00
	Vodafone	0.29	1.87	98.43	0.35	1.42	1.60	2.38	98.85	0	0.04	0.03	100.00	100.00	100.00	99.94	96.08	99.77	100.00
North East	Airtel	1.07	1.55	96.96	0.95	1.18	1.75	2.44	98.98	0	0.02	0.00	99.00	100.00	100.00	100.00	98.00	100.00	100.00
	BSNL	1.78	1.94	97.39	0.77	1.79	1.72	2.42	97.71	0	0.03	0.03	99.50	100.00	100.00	98.50	96.67	100.00	100.00
	Idea	1.35	0.51	99.02	0.19	0.29	2.22	3.39	96.45	0	0.01	0.01	100.00	100.00	100.00	96.05	96.67	100.00	61.64
	RJio	0.74	1.82	99.56	0.00	0.00	0.93	1.68	99.89	0	0.00	0.00	100.00	100.00	100.00	96.99	98.16	100.00	100.00
	Vodafone	1.19	1.36	98.51	0.65	1.25	1.96	2.85	98.07	0	0.03	0.08	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Orissa	Airtel	0.79	0.60	99.15	0.39	0.79	1.59	1.87	97.60	0	0.02	0.00	100.00	100.00	100.00	100.00	99.00	100.00	100.00
	BSNL	1.52	1.98	98.55	0.92	1.45	1.94	2.15	97.84	0	0.02	0.00	100.00	100.00	100.00	99.00	99.87	100.00	100.00
	Idea	0.22	0.87	99.38	0.14	0.27	1.52	1.87	95.27	0	0.01	0.01	100.00	100.00	100.00	97.17	97.48	100.00	100.00
	RJio	0.21	0.71	99.62	0.00	0.00	0.43	0.54	99.90	0	0.00	0.00	100.00	100.00	100.00	96.90	98.67	100.00	100.00
	TATA	0.57	0.00	99.60	0.14	0.00	0.00	0.00	98.48	0	0.00	0.00	100.00	100.00	100.00	98.29	71.87	100.00	100.00
	Vodafone	0.18	0.23	99.27	0.45	0.72	1.90	2.73	98.37	0	0.06	0.04	100.00	100.00	100.00	100.00	98.46	100.00	100.00

Annexure 4.1 (Contd.)

Punjab	Airtel	0.08	0.10	99.38	0.17	0.13	1.96	2.62	97.76	0	0.02	0.01	100.00	100.00	100.00	100.00	96.00	100.00	100.00
	BSNL	0.40	1.80	98.61	0.29	0.28	1.78	2.02	98.20	0	0.04	0.00	100.00	100.00	100.00	100.00	99.99	100.00	100.00
	Idea	0.09	0.17	99.42	0.10	0.11	1.49	2.00	99.10	0	0.01	0.00	100.00	100.00	100.00	99.89	99.29	100.00	100.00
	RJio	0.06	0.11	99.57	0.00	0.00	0.22	0.31	99.94	0	0.00	0.00	100.00	100.00	100.00	96.38	98.90	100.00	100.00
	TATA	0.35	0.61	99.47	0.35	0.06	0.00	0.00	99.07	0	0.00	0.00	100.00	100.00	100.00	97.78	69.14	100.00	100.00
	Vodafone	0.06	0.17	99.67	0.10	0.29	1.43	1.92	98.96	0	0.03	0.03	100.00	100.00	100.00	100.00	95.73	100.00	100.00
Rajasthan	Airtel	0.20	0.37	97.14	0.27	0.92	1.64	2.08	98.07	0	0.03	0.01	100.00	100.00	100.00	99.00	96.00	100.00	100.00
	BSNL	1.22	1.85	98.46	0.73	1.54	1.70	2.16	98.30	1	0.03	0.03	100.00	100.00	100.00	98.00	100.00	100.00	100.00
	Idea	0.07	0.07	99.49	0.17	0.29	1.96	2.13	99.43	0	0.03	0.01	100.00	100.00	100.00	98.27	99.50	100.00	99.97
	RJio	0.06	0.09	99.52	0.00	0.00	0.76	0.92	99.91	1	0.00	0.00	100.00	100.00	100.00	97.44	95.83	100.00	100.00
	TATA	0.35	0.35	98.26	0.03	0.04	0.00	0.00	99.81	0	0.00	0.00	100.00	100.00	100.00	98.16	62.24	100.00	100.00
	Vodafone	0.18	0.69	99.18	0.21	0.79	1.83	2.53	97.57	0	0.03	0.04	100.00	100.00	100.00	100.00	98.35	100.00	100.00
Tamil Nadu	Airtel	0.08	0.15	99.41	0.24	0.29	1.54	2.24	97.42	0	0.02	0.02	100.00	100.00	100.00	100.00	96.00	100.00	100.00
	BSNL	0.56	1.79	98.09	0.14	0.34	1.92	2.43	97.69	0	0.00	0.00	100.00	100.00	100.00	100.00	95.00	100.00	100.00
	Idea	0.02	0.02	99.87	0.07	0.05	1.11	1.56	99.05	0	0.00	0.01	100.00	100.00	100.00	98.05	99.77	100.00	100.00
	RJio	0.03	0.04	99.62	0.00	0.00	0.22	0.32	99.93	0	0.00	0.00	100.00	100.00	100.00	98.07	99.47	100.00	100.00
	TATA	0.13	0.63	99.56	0.04	0.02	0.00	1.54	98.91	0	0.00	0.00	100.00	100.00	100.00	97.97	89.82	100.00	100.00
	Vodafone	0.08	0.17	98.58	0.54	1.34	1.44	1.85	98.87	0	0.08	0.04	100.00	100.00	100.00	100.00	97.32	100.00	100.00
UP-East	Airtel	0.58	1.74	96.11	0.53	1.01	1.57	2.31	97.64	0	0.02	0.00	100.00	100.00	100.00	100.00	97.00	100.00	100.00
	BSNL	1.67	1.71	97.82	0.88	1.46	1.66	2.04	96.15	0	0.09	0.08	98.70	100.00	100.00	99.00	98.46	100.00	100.00
	Idea	0.29	1.06	98.27	0.70	1.42	1.75	2.24	98.49	0	0.03	0.00	100.00	100.00	100.00	99.84	98.76	100.00	100.00
	RJio	0.49	1.46	99.32	0.01	0.00	0.53	0.64	99.88	0	0.00	0.00	100.00	100.00	100.00	96.84	96.97	100.00	100.00
	TATA	0.21	0.38	96.00	0.16	0.71	0.00	1.84	97.37	0	0.00	0.00	100.00	100.00	100.00	97.95	60.99	100.00	100.00
	Vodafone	0.33	1.68	96.84	0.94	3.04	1.98	2.96	98.12	0	0.04	0.02	100.00	100.00	100.00	100.00	99.55	100.00	100.00
UP-West	Airtel	1.08	1.10	99.33	0.65	0.13	1.98	2.63	98.72	0	0.04	0.01	100.00	100.00	100.00	100.00	96.00	100.00	100.00
	BSNL	1.69	1.87	98.22	0.52	1.29	1.79	2.36	96.43	0	0.01	0.00	100.00	100.00	100.00	100.00	96.70	100.00	100.00
	Idea	0.25	0.79	95.43	0.55	2.51	1.71	2.44	97.66	0	0.03	0.00	99.91	100.00	100.00	99.44	98.76	100.00	100.00
	RJio	0.23	1.10	99.41	0.00	0.00	0.60	0.73	99.91	0	0.00	0.00	100.00	100.00	100.00	97.15	97.16	100.00	100.00
	TATA	0.57	0.00	99.41	0.29	0.05	0.00	0.11	99.13	0	0.01	0.00	100.00	100.00	100.00	97.57	62.96	100.00	100.00
	Vodafone	0.31	1.82	94.97	0.76	5.00	1.98	2.83	98.43	0	0.05	0.02	100.00	100.00	100.00	100.00	98.52	100.00	100.00
West Bengal	Airtel	0.09	0.02	98.68	0.82	0.94	1.88	2.17	98.27	0	0.01	0.00	99.89	100.00	100.00	100.00	95.00	100.00	100.00
	BSNL	0.50	1.00	97.62	0.81	1.58	3.09	3.67	96.01	0	0.01	0.04	99.50	100.00	100.00	98.50	99.53	100.00	100.00
	Idea	0.18	1.13	99.59	0.05	0.08	1.91	2.97	99.27	0	0.02	0.00	100.00	100.00	100.00	96.24	99.36	100.00	100.00
	RJio	0.21	0.75	99.54	0.00	0.00	0.68	0.90	99.83	0	0.00	0.00	100.00	100.00	100.00	96.96	97.03	100.00	100.00
	TATA	0.38	1.11	99.88	0.03	0.00	0.00	0.00	98.32	0	0.00	0.00	100.00	100.00	100.00	97.93	82.55	100.00	100.00
	Vodafone	0.09	0.14	99.14	0.39	0.83	1.71	2.15	97.56	0	0.03	0.06	100.00	100.00	100.00	100.00	97.11	100.00	100.00

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

Quarterly Performance Monitoring Report (PMR) on QoS of Basic Telephone Service (Wireline) for QE September, 2018																			
Sl. No.	Name of Service Area	Name of Service Provider	Faults incidences (No. of faults/ 100 Subs./ month)	Fault Repair				Rent Rebate	Mean Time to Repair (MTTR)	POI	Metering and Billing					Response time to the customer for Assistance		Termination / Closure of service	
				% 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				Point of Interconnection (POI) Congestion (No. of POIs not meeting the benchmark	Metering and Billing credibility - post paid	Metering and billing credibility - pre paid	Resolution of billing/ 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
				≤7	For urban areas by next working day: ≥85%	For urban areas: ≥ 100%	For rural and hilly areas: ≥ 75%				For rural and hilly areas: ≥ 100%	≤ 10 Hrs	≤0.5%	≤0.1%	≤0.1%	98% within 4 weeks	100% within 6 weeks	1 week of resolution of complaint	≥95%
1	A&N	BSNL	6.00	85.00%	100.00%	85.00%	100%	35	7.00	0.00	0.00%	0.00%	98.00%	100.00%	100.00%	98.96%	100.00%	100.00%	100.00%
2	AP	Bharti	2.30	95.44%	100.00%	NA	NA	816	3.75	0.00	0.01%	NA	100.00%	100.00%	100.00%	100.00%	94.00%	100.00%	100.00%
3		BSNL	4.00	99.00%	100.00%	96.00%	100%	202	5.00	0.00	0.01%	0.00%	100.00%	100.00%	100.00%	97.81%	97.65%	100.00%	100.00%
4		TTSL	6.08	93.50%	100.00%	NA	NA	66	5.38	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	95.56%	95.57%	100.00%	100.00%
5		Vodafone	0.29	100.00%	100.00%	NA	NA	NA	1.38	0.00	0.00%	NA	NA	NA	NA	97.00%	100.00%	100.00%	NA
6	Assam	BSNL	3.00	95.00%	100.00%	93.00%	100%	313	5.00	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	99.34%	100.00%	100.00%	100.00%
7		Vodafone	1.76	100.00%	100.00%	NA	NA	NA	6.27	0.00	0.00%	NA	NA	NA	NA	97.00%	100.00%	NA	NA
8	Bihar	BSNL	4.00	93.00%	100.00%	92.00%	100%	0	5.00	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	99.36%	100.00%	100.00%	100.00%
9		TTSL	0.95	98.80%	100.00%	NA	NA	6	2.51	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	96.58%	96.96%	100.00%	100.00%
10		Vodafone	2.28	100.00%	100.00%	NA	NA	NA	4.07	0.00	0.00%	NA	NA	NA	NA	97.00%	100.00%	100.00%	NA
11	Chattisgarh	BSNL	4.00	97.00%	100.00%	97.00%	100%	529	6.00	0.00	0.01%	0.00%	99.00%	100.00%	100.00%	97.31%	97.27%	100.00%	100.00%
12	Chennai	BSNL	5.00	92.00%	100.00%	92.00%	100%	291	7.00	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	98.76%	98.76%	100.00%	100.00%
13	Delhi	Bharti	2.94	92.04%	100.00%	NA	NA	2407	4.42	0.00	0.01%	NA	100.00%	100.00%	100.00%	100.00%	94.00%	100.00%	100.00%
14		MTNL	5.23	88.88%	99.49%	NA	NA	5090	4.08	0.00	0.01%	0.00%	99.71%	100.00%	100.00%	99.84%	99.94%	100.00%	100.00%
15		TTSL	1.85	90.00%	100.00%	NA	NA	6	8.01	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	96.73%	99.88%	100.00%
16		Vodafone	0.62	100.00%	100.00%	NA	NA	NA	2.55	0.00	0.00%	NA	NA	NA	NA	97.00%	100.00%	100.00%	NA
17	Gujarat	Bharti	1.82	90.72%	100.00%	NA	NA	742	7.69	0.00	0.06%	NA	100.00%	100.00%	100.00%	100.00%	97.00%	100.00%	100.00%
18		BSNL	5.00	96.00%	100.00%	94.00%	100%	167	5.00	0.00	0.02%	0.00%	100.00%	100.00%	100.00%	97.36%	97.19%	100.00%	100.00%
19		TTSL	2.01	88.70%	100.00%	NA	NA	10	7.44	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	98.02%	96.85%	99.81%	100.00%
20		Vodafone	0.25	100.00%	100.00%	NA	NA	NA	4.00	0.00	0.00%	NA	NA	NA	NA	97.00%	100.00%	100.00%	NA

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HP	BSNL	6.00	88.00%	100.00%	93.00%	100%	116	6.00	0.00	0.03%	0.00%	98.27%	100.00%	100.00%	95.94%	100.00%	NA	100.00%
	Vodafone	0.00	100.00%	100.00%	NA	NA	NA	0.0	0.00	0.00%	NA	NA	NA	NA	97.00%	100.00%	NA	NA
HR	Bharti	4.92	94.18%	100.00%	NA	NA	35	3.54	0.00	0.02%	NA	100.00%	100.00%	100.00%	100.00%	93.00%	100.00%	100.00%
	BSNL	5.00	95.00%	100.00%	93.00%	100%	285	7.00	0.00	0.09%	0.00%	100.00%	100.00%	100.00%	96.74%	100.00%	100.00%	100.00%
	TTSL	0.28	100.00%	100.00%	NA	NA	0	5.93	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	97.38%	96.89%	100.00%	100.00%
	Vodafone	6.22	100.00%	100.00%	NA	NA	NA	1.44	0.00	0.00%	NA	NA	NA	NA	97.00%	100.00%	NA	NA
J&K	BSNL	5.00	95.00%	100.00%	94.00%	100%	5	7.00	0.00	0.01%	0.00%	98.00%	100.00%	100.00%	95.41%	100.00%	100.00%	100.00%
JHAR	BSNL	4.00	99.00%	100.00%	97.00%	100%	707	5.00	0.00	0.08%	0.00%	98.00%	100.00%	100.00%	99.49%	99.67%	100.00%	100.00%
KERLA	Bharti	3.48	92.17%	100.00%	NA	NA	720	8.70	0.00	0.02%	NA	100.00%	100.00%	100.00%	100.00%	92.00%	100.00%	100.00%
	BSNL	5.00	93.00%	100.00%	93.00%	100%	7669	6.00	0.00	0.03%	0.00%	99.82%	100.00%	100.00%	96.55%	96.52%	100.00%	100.00%
	TTSL	0.52	90.50%	100.00%	NA	NA	0	6.73	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	97.13%	97.12%	99.71%	100.00%
	Vodafone	1.04	100.00%	100.00%	NA	NA	NA	3.31	0.00	0.00%	NA	NA	NA	NA	97.00%	100.00%	100.00%	NA
KOL	Bharti	2.91	91.42%	100.00%	NA	NA	768	9.86	0.00	0.01%	NA	100.00%	100.00%	100.00%	100.00%	93.00%	100.00%	100.00%
	BSNL	7.00	91.00%	100.00%	NA	NA	392	8.00	0.00	0.02%	0.00%	98.17%	100.00%	100.00%	98.17%	100.00%	100.00%	100.00%
	Vodafone	0.75	100.00%	100.00%	NA	NA	NA	4.18	0.00	0.00%	NA	NA	NA	NA	97.00%	100.00%	100.00%	NA
KTK	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%
	BSNL	4.00	97.00%	100.00%	96.00%	100%	3552	6.00	0.00	0.09%	0.00%	98.00%	100.00%	100.00%	97.66%	97.68%	100.00%	100.00%
	TTSL	0.49	80.00%	100.00%	NA	NA	10	11.63	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	97.79%	96.66%	99.81%	100.00%
	Vodafone	0.70	100.00%	100.00%	NA	NA	NA	2.57	0.00	0.00%	NA	NA	NA	NA	97.00%	100.00%	100.00%	NA
MH	Bharti	0.91	95.24%	100.00%	NA	NA	148	4.98	0.00	0.01%	NA	100.00%	100.00%	100.00%	100.00%	94.00%	100.00%	100.00%
	BSNL	6.00	91.00%	100.00%	85.00%	100%	923	7.00	0.00	0.01%	0.00%	100.00%	100.00%	100.00%	96.50%	96.48%	100.00%	100.00%
	TTSL	1.66	88.40%	100.00%	NA	NA	163	7.75	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	96.62%	95.38%	99.92%	100.00%
	Vodafone	0.52	100.00%	100.00%	NA	NA	NA	4.07	0.00	0.00%	NA	NA	NA	NA	97.00%	100.00%	100.00%	NA
MP	Bharti	6.08	87.35%	100.00%	NA	NA	2105	5.39	0.00	0.02%	NA	100.00%	100.00%	100.00%	100.00%	92.00%	100.00%	100.00%
	BSNL	5.00	88.00%	100.00%	85.00%	100%	279	4.00	0.00	0.03%	0.00%	100.00%	100.00%	100.00%	96.73%	96.70%	100.00%	100.00%
	TTSL	4.70	98.00%	100.00%	NA	NA	0	2.66	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	96.00%	97.54%	100.00%	100.00%
	Vodafone	2.95	100.00%	100.00%	NA	NA	NA	2.41	0.00	0.00%	NA	NA	NA	NA	97.00%	100.00%	100.00%	NA
MUM	Bharti	0.81	93.36%	100.00%	NA	NA	673	5.43	0.00	0.02%	NA	100.00%	100.00%	100.00%	100.00%	95.00%	100.00%	100.00%
	MTNL	4.63	93.04%	99.63%	NA	NA	311134	7.12	0.00	0.04%	NA	99.44%	100.00%	100.00%	96.30%	95.85%	100.00%	100.00%
	TTSL	5.05	85.10%	100.00%	NA	NA	778	9.97	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	98.28%	96.48%	99.85%	100.00%
	Vodafone	0.59	100.00%	100.00%	NA	NA	NA	3.17	0.00	0.00%	NA	NA	NA	NA	97.00%	100.00%	100.00%	NA

Annexure 4.2 (Contd.)

NE	Vodafone	0.00	100.00%	100.00%	NA	NA	NA	0.00	0.00	0.00%	NA	NA	NA	NA	97.00%	100.00%	NA	NA
NE-I	BSNL	5.00	92.00%	100.00%	94.00%	100%	28	7.00	0.00	0.03%	0.00%	98.00%	100.00%	100.00%	97.84%	99.67%	100.00%	100.00%
NE-II	BSNL	2.00	92.00%	100.00%	99.00%	100%	297	5.00	0.00	0.01%	0.00%	100.00%	100.00%	100.00%	98.51%	99.67%	100.00%	100.00%
ORISA	BSNL	6.00	94.00%	100.00%	89.00%	100%	240	5.00	0.00	0.08%	0.00%	99.00%	100.00%	100.00%	98.42%	100.00%	100.00%	100.00%
	TTSL	1.51	100.00%	100.00%	NA	NA	2	2.46	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	97.28%	96.94%	100.00%	100.00%
	Vodafone	0.80	100.00%	100.00%	NA	NA	NA	1.19	0.00	0.00%	NA	NA	NA	NA	97.00%	100.00%	100.00%	NA
PUNJAB	Bharti	3.69	88.03%	100.00%	NA	NA	476	5.18	0.00	0.00%	NA	100.00%	100.00%	100.00%	100.00%	92.00%	100.00%	100.00%
	BSNL	5.00	94.00%	100.00%	87.00%	100%	170	6.00	0.00	0.01%	0.00%	98.00%	100.00%	100.00%	96.13%	100.00%	100.00%	100.00%
	Quadrant	4.77	95.00%	100.00%	100.00%	100%	0	4.36	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	99.10%	95.00%	100.00%	100.00%
	TTSL	0.64	95.60%	100.00%	NA	NA	4	4.26	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	96.61%	97.67%	100.00%	100.00%
	Vodafone	0.37	100.00%	100.00%	NA	NA	NA	0.08	0.00	0.00%	NA	NA	NA	NA	97.00%	100.00%	100.00%	NA
RAJASTHAN	Bharti	3.08	85.44%	100.00%	NA	NA	804	6.10	0.00	0.02%	NA	100.00%	100.00%	100.00%	100.00%	93.00%	100.00%	100.00%
	BSNL	5.00	96.00%	100.00%	97.00%	100%	590	7.00	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	95.92%	100.00%	100.00%	100.00%
	TTSL	2.60	96.70%	100.00%	NA	NA	0	2.80	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	96.09%	97.94%	100.00%	100.00%
	Vodafone	0.72	100.00%	100.00%	NA	NA	NA	3.53	0.00	0.00%	NA	NA	NA	NA	97.00%	100.00%	100.00%	NA
TAMILNADU	Bharti	4.82	95.26%	100.00%	NA	NA	2466	6.71	0.00	0.02%	NA	100.00%	100.00%	100.00%	100.00%	98.00%	100.00%	100.00%
	BSNL	3.00	94.00%	100.00%	92.00%	100%	2487	7.00	0.00	0.09%	0.00%	100.00%	100.00%	100.00%	98.32%	98.31%	100.00%	100.00%
	TTSL	0.85	95.10%	100.00%	NA	NA	4	4.51	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	96.57%	97.01%	100.00%	100.00%
	Vodafone	4.86	100.00%	100.00%	NA	NA	NA	2.04	0.00	0.00%	NA	NA	NA	NA	97.00%	100.00%	100.00%	NA
UPE	Bharti	4.55	85.17%	100.00%	NA	NA	377	6.06	0.00	0.01%	NA	100.00%	100.00%	100.00%	100.00%	93.00%	100.00%	100.00%
	BSNL	4.00	89.00%	100.00%	93.00%	100%	491	5.00	0.00	0.05%	0.00%	100.00%	100.00%	100.00%	96.02%	100.00%	100.00%	100.00%
	TTSL	4.10	100.00%	100.00%	NA	NA	0	1.65	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	97.40%	97.13%	100.00%	100.00%
	Vodafone	0.43	100.00%	100.00%	NA	NA	NA	3.25	0.00	0.00%	NA	NA	NA	NA	97.00%	100.00%	100.00%	NA
UPW	Bharti	6.50	85.13%	100.00%	NA	NA	174	6.11	0.00	0.02%	NA	100.00%	100.00%	100.00%	100.00%	94.00%	100.00%	100.00%
	BSNL	6.00	93.00%	100.00%	95.00%	100%	361	5.00	0.00	0.04%	0.00%	100.00%	100.00%	100.00%	95.92%	100.00%	100.00%	100.00%
	TTSL	2.92	100.00%	100.00%	NA	NA	0	1.64	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	97.44%	97.14%	100.00%	100.00%
	Vodafone	0.87	100.00%	100.00%	NA	NA	NA	3.12	0.00	0.00%	NA	NA	NA	NA	97.00%	100.00%	100.00%	NA
Uttaranchal	BSNL	5.00	93.00%	100.00%	96.00%	100%	178	5.00	0.00	0.00%	0.00%	98.00%	100.00%	100.00%	96.92%	100.00%	100.00%	100.00%
WB	BSNL	5.00	91.00%	100.00%	91.00%	100%	2168	4.00	0.00	0.01%	0.00%	100.00%	100.00%	100.00%	98.38%	99.67%	100.00%	100.00%
	TTSL	1.39	98.00%	100.00%	NA	NA	2	3.50	0.00	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	97.18%	99.80%	100.00%
	Vodafone	5.00	100.00%	100.00%	NA	NA	NA	3.03	0.00	0.00%	NA	NA	NA	NA	97.00%	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 September 2018																				
Sl. No	Service Provider	Service area	Service Provisioning	Faults Repair		Billing Performance				Response Time to the Customer for assistance		Bandwidth utilisation/throughput				Service availability /uptime (for all users) in %age	Packet Loss	Network latency (for wired broadband access)		
			%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 MKTG) <90%	Broadband Connection Speed available (download) from ISP node to user	Packet loss (for wired broadband access) in %age	User reference point at POP/ISP Gateway node to International gateway (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%	>90%	=>99%	in nos.	<2%	100% within 4 weeks	100% within 60 days	>60%	>80%	0	0	<90%	>80%	>98%	<1%	<120 ms	<350 ms	<800 ms
1	Bharat Sanchar Nigam Ltd.(BSNL)	All India (except Delhi & Mumbai)	100.00%	93.91%	99.72%	4748	0.08%	100.00%	100.00%	98.18%	98.80%	NA	0	45.20%	91.34%	99.67%	0.01%	15	176	NA
2	Mahanagar Telephone Nigam Ltd.	Delhi & Mumbai	100.00%	92.83%	98.32%	10730	0.64%	100.00%	100.00%	96.99%	97.49%	Nil	0	80.74%	89.66%	99.83%	0.53%	47	297	NA
3	Airlink Communications Pvt. Ltd.	All India	100.00%	91.69%	99.37%	0	NA	100.00%	NA	67.50%	100.00%	0	0	84.76%	88.16%	99.80%	0.62%	120	350	NA
	AIRNET CABLE AND DATACOM PVT LTD																			
4	Alliance Broadband Services Pvt. Ltd.	All India	100.00%	93.53%	99.33%	Nil	0.00%	100.00%	Nil	85.00%	96.63%	0	0	77.38%	98.76%	99.31%	0.24%	75	217	449
5	Asianet Satellite Communications Ltd.	All India	100.00%	90.18%	99.42%	Nil	1.90%	100.00%	100.00%	60.87%	80.33%	Nil	0	66.85%	90.00%	99.40%	1.00%	50	270	NA
6	Atria Convergence Technologies Pvt. Ltd.	All India	100.00%	91.95%	98.74%	40391	0.57%	100.00%	Nil	39.00%	58.00%	0	0	48.95%	90.00%	99.92%	1.00%	40	220	NA
7	Bharti Airtel Ltd.	Andhra Pradesh	100.00%	96.04%	100.00%	717	0.07%	100.00%	100.00%	89.00%	94.00%	0	0	61.00%	100.00%	99.93%	0	35	46	NA
		Delhi	100.00%	93.74%	99.59%	1763	0.03%	100.00%	100.00%	89.00%	93.00%	0	0	89.00%	100.00%	99.97%	0	47	77	NA
		Gujarat	100.00%	91.60%	99.21%	603	0.06%	100.00%	100.00%	89.00%	94.00%	0	NA	NA	100.00%	99.98%	0	20	NA	NA
		Haryana	100.00%	95.32%	99.73%	8	0.02%	100.00%	100.00%	89.00%	93.00%	0	NA	NA	100.00%	99.76%	0	28	NA	NA
		Karnataka	100.00%	90.35%	100.00%	2348	0.06%	100.00%	100.00%	91.00%	96.00%	0	0	72.00%	100.00%	99.81%	0	27	39	NA
		Kerala	100.00%	91.57%	99.93%	366	0.02%	100.00%	100.00%	88.00%	93.00%	0	NA	NA	100.00%	99.92%	0	33	NA	NA
		Kolkata	100.00%	90.69%	100.00%	533	0.01%	100.00%	100.00%	89.00%	93.00%	0	0	69.00%	100.00%	99.99%	0	80	69	NA
		Madhya Pradesh	100.00%	90.46%	99.04%	912	0.04%	100.00%	100.00%	86.00%	90.00%	0	0	72.00%	100.00%	99.84%	0	65	64	NA
		Maharashtra	100.00%	95.23%	99.25%	131	0.02%	100.00%	100.00%	91.00%	95.00%	0	NA	NA	100.00%	99.97%	0	51	NA	NA
		Mumbai	100.00%	94.56%	99.27%	427	0.02%	100.00%	100.00%	90.00%	94.00%	0	0	87.00%	100.00%	99.94%	0	33	57	NA
		Punjab	100.00%	91.24%	99.10%	267	0.01%	100.00%	100.00%	92.00%	95.00%	0	0	75.00%	100.00%	99.80%	0	54	87	NA
		Rajasthan	100.00%	90.40%	99.66%	503	0.02%	100.00%	100.00%	89.00%	93.00%	0	NA	NA	100.00%	99.99%	0	62	NA	NA
		Tamilnadu	100.00%	93.66%	99.74%	1495	0.03%	100.00%	100.00%	94.00%	97.00%	0	0	66.00%	100.00%	99.89%	0	37	34	NA
Uttar Pradesh - East	100.00%	90.17%	99.04%	212	0.01%	100.00%	100.00%	90.00%	94.00%	0	0	86.00%	100.00%	99.65%	0	68	91	NA		
Uttar Pradesh - West	100.00%	90.13%	99.04%	100	0.01%	100.00%	100.00%	89.00%	93.00%	0	NA	NA	100.00%	99.96%	0	20	NA	NA		
8	Broadband Pacenet India Pvt. Ltd.	All India	100.00%	90.40%	99.50%	2	1.00%	100.00%	0.00	90.00%	90.00%	0	0	53.00%	92.00%	99.40%	0.45%	80	260	0
	City Online Services Ltd																			
9	DEN Networks Ltd.	All India	100.00%	95.90%	99.60%	0	Nil	Nil	Nil	86.83%	89.62%	0	0	79.20%	100.00%	99.94%	0.00%	NA	262	NA
10	Digital Cloud Technologies Pvt. Ltd.	All India	100.00%	90.54%	NA	NA	NA	NA	NA	61.19%	80.32%	0	0	79.00%	90.00%	98.69%	1.00%	2	4	NA
11	Digital Network Associates Pvt. Ltd	Maharashtra & Goa	100.00%	90.84%	99.41%	None	0.13%	100.00%	Nil	61.08%	82.06%	Nil	0	80.00%	80.00%	99.68%	1.00%	4	255	600
		Mumbai	100.00%	97.34%	100.00%	None	0.00%	100.00%	Nil	72.70%	97.52%	Nil	0	80.00%	80.00%	99.86%	1.00%	4	255	600
12	DNA Infotel Pvt. Ltd.	Maharashtra	100.00%	90.68%	99.52%	None	0.02%	100.00%	Nil	60.59%	81.19%	Nil	0	80.00%	80.00%	99.00%	1.00%	4	255	600
13	D-Vois Communications Pvt.Ltd.	All India	100.00%	92.52%	99.78%	0	1.72%	Nil	Nil	77.49%	91.10%	0	Nil	Nil	90.00%	100.00%	0.10%	120	350	800
14	Excitel Broadband Pvt.Ltd.	Delhi	100.00%	90.00%	99.00%	Nil	Nil	Nil	Nil	61.78%	80.07%	Nil	Nil	79.20%	98.70%	98.40%	0.00%	4	288	NIL
		Hyderabad	100.00%	92.00%	99.00%	Nil	NA	NA	NA	89.82%	94.17%	Nil	Nil	79.80%	98.90%	98.40%	0.00%	4	288	NIL

Annexure 4.3 (Contd.)

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%	94.20%	99.30%	7	0.00%	100.00%	100.00%	96.70%	97.90%	0	0	64.00%	100.00%	100.00%	1.00%	120	350	NA
17	Geocity Network Solutions Pvt.Ltd.	Delhi	100.00%	91.67%	100.00%	0	0.00%	100.00%	100.00%	64.00%	85.33%	0	0	89.85%	86.33%	99.30%	0.50%	30	100	400
18	GTPL Broadband Pvt.Ltd.	All India	100.00%	96.00%	99.00%	2626	0.53%	100.00%	NA	95.00%	99.00%	NA	0	75.61%	91.00%	99.86%	0.00%	11	300	NA
19	Hathway Cable & Datacom Ltd.	All India	100.00%	94.06%	99.32%	6764	0.80%	100.00%	100.00%	66.20%	87.52%	0	0	80.62%	90.00%	99.69%	0.31%	80	255	NA
20	Honesty Net Solutions (I) Pvt. Ltd.	Mumbai	100.00%	93.00%	100.00%	0	Nil	100.00%	0.00	68.00%	100.00%	0	NA	NA	95.00%	99.00%	1.00%	NA	66	NA
21	IKF Technologies Ltd	All India	100.00%	92.66%	99.40%	0	0.00%	100.00%	100.00%	69.60%	86.30%	0	0	86.50%	84.30%	98.30%	0.70%	107	321	NA
22	Indinet Service Pvt Ltd	All India	100.00%	91.67%	100.00%	0	0.00%	100.00%	100.00%	89.00%	94.00%	0	0	80.00%	99.00%	99.45%	0.50%	45	255	0
23	INTECH ONLINE PVT LTD	Mumbai & Maharashtra	100.00%	80.81%	88.70%	52	3.01%	100.00%	0.00	100.00%	Nil	0	0	43.90%	98.00%	99.63%	1.00%	1	74.33	455
24	Ishan Netsol Pvt Ltd	Gujarat	99.76%	92.54%	98.48%	4	0.00%	100.00%	100.00%	72.39%	91.61%	62	18	0.00%	90.00%	99.70%	1.00%	100	250	NA
25	Joister Inforserve Pvt. Ltd.	Mumbai	100.00%	93.67%	100.00%	Nil	0.00%	100.00%	0.00	83.33%	87.67%	0	0	69.00%	99.00%	100.00%	0.00%	1	47	265
	(Formerly Syscon Infoway Private Limited)	Maharashtra	100.00%	93.00%	100.00%	Nil	0.00%	100.00%	NA	83.67%	90.00%	0	0	21.00%	99.00%	100.00%	1.00%	1	225	265
26	K Net Solutions Pvt.Ltd.	Chennai	100.00%	92.38%	99.43%	33	NA	100.00%	100.00%	95.93%	96.33%	0	0	NA	100.00%	99.99%	0.00%	9	211.92	NA
		Tamilnadu	100.00%	94.51%	99.42%	0	NA	100.00%	100.00%	95.93%	96.33%	0	0	NA	100.00%	99.93%	0.00%	15	218.72	NA
27	Limras Eronet Broadband Service Pvt. Ltd.	All India	100.00%	99.00%	100.00%	0	1.00%	100.00%	0.00	90.00%	100.00%	0	0	0.00%	95.00%	99.00%	1.00%	34	259	0
28	Meghbela Cable & Broadband Services (P) Ltd	All India	100.00%	95.00%	100.00%	0	0.00%	100.00%	100.00%	95.00%	100.00%	0	0	0.00%	95.00%	99.90%	0.00%	60	150	0
29	Multicraft Digital Technologies Pvt Ltd	All India (Pan India)	100.00%	99.00%	100.00%	NA	NA	100.00%	NA	70.00%	90.00%	NA	NA	65.00%	85.00%	99.00%	NA	30	NA	NA
30	Nextra Teleservices Pvt. Ltd.	Delhi	100.00%	92.82%	99.40%	3617	2.00%	100.00%	100.00%	92.00%	94.00%	0	0	86.00%	100.00%	100.00%	1.00%	120	350	NA
31	Ortel Communications Ltd.	All India	100.00%	94.65%	99.43%	NA	NA	NA	NA	100.00%	100.00%	0	0	51.39%	92.00%	99.09%	0.00%	82	225	NA
32	ONEOTT Intertainment Limited (formerly 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	64.00%	80.00%	98.00%	1.00%	45	260	NA
33	Quadrant Televentures Ltd.	Punjab	100.00%	98.20%	100.00%	0	0.02%	100.00%	100.00%	90.00%	92.00%	0	0	75.40%	100.00%	99.97%	0.00%	80	280	NA
34	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
35	RaiiTel Corporation of India Ltd.	All India (Pan India)	100.00%	97.60%	100.00%	Nil	0.00%	Nil	Nil	84.00%	92.60%	0	0	41.04%	100.00%	99.95%	1.00%	120	350	NA
36	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
	Sampark Infotainment Pvt Ltd																			
37	Siti Broadband Services Pvt.Ltd.	All India (Pan India)	100.00%	96.85%	99.90%	21	NA	NA	NA	NA	NA	0	0	82.00%	98.00%	99.37%	0.00%	41	132	NA
38	Shyam Spectra Pvt. Ltd. (formely Citycom Networks Pvt. Ltd.)	All India	100.00%	92.80%	99.10%	3170	1.01%	100.00%	100.00%	79.00%	84.00%	0	0	22.90%	86.60%	98.43%	0.00%	39	135.3	NA
39	Tata Tele.Ltd. (TTSL)	All India (Pan India)	100.00%	82.00%	94.00%	612	0.02%	100.00%	100.00%	85.00%	90.00%	0	0	70.00%	93.00%	99.70%	0.00%	57	65	Nil
40	Tata Tele.(Mah) Ltd. (TTML)	Maharashtra & Goa	100.00%	77.00%	91.00%	500	0.00%	100.00%	100.00%	81.00%	87.00%	0	0	77.33%	87.59%	99.80%	0.00%	62	202	Nil
41	Vasai Cable Pvt. Ltd.	Mumbai	100.00%	95.33%	100.00%	None	0.24%	100.00%	Nil	80.53%	89.15%	Nil	0	63.00%	90.00%	100.00%	1.00%	4	255	NA
42	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
		Kolkata	100.00%	98.67%	100.00%	0	0.01%	100.00%	NA	82.66%	98.66%	0	0	48.76%	100.00%	99.99%	1.00%	20	NA	NA
		West Bengal	100.00%	98.70%	100.00%	0	0.01%	100.00%	NA	89.66%	98.66%	0	0	39.21%	100.00%	99.93%	1.00%	20	NA	NA
44	Yashash Cable Network Pvt Ltd	Karnataka	100.00%	96.95%	99.27%	0	0.00%	NA	NA	92.10%	99.91%	0	0	75.02%	80.00%	99.00%	1.00%	5	30	301
45	You Broadband India Pvt. Ltd.	All India	99.71%	95.07%	99.16%	348	0.00%	Nil	0.00	76.35%	83.70%	0	0	71.20%	87.07%	99.47%	0.00%	9	277	0
				DNF= Data not as per Format				NR= Data not reported by the Service Provider							NA = Not Applicable			C/DNF= Complied the parameter but Data is not in the required format		

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

Sl. No	Name of the broadcaster	Sl. 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 Limited	7	Asianet	SD
		8	Asianet Plus	SD
		9	Asianet Movies	SD
		10	Suvarna Plus	SD
		11	Star Suvarna HD	HD
		12	Asianet HD	HD
5	AXN Networks India Private Limited	13	Star Suvarna (Earlier name "Suvarna")	SD
		14	SONY ESPN (Earlier name "SONY KIX")	SD
		15	AXN HD	HD
6	Bangla Entertainment Pvt Ltd	16	AATH	SD
7	BBC Global News India Pvt Ltd	17	BBC World News	SD
8	Bennett, Coleman & Company Limited	18	Zoom	SD
		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
11	CSL Info Media Private Limited	32	JAN TV PLUS	SD
12	Discovery Communications India	33	Animal Planet	SD
		34	Discovery Channel	SD
		35	Discovery Channel – Tamil	SD
		36	Discovery Kids Channel	SD
		37	Discovery Science	SD

Annexure 5.1(Contd.)

Sl. No	Name of the broadcaster	Sl. No	Name of the channel	Declared as SD or HD
		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 &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	Hangama TV	SD
		51	The Disney Channel	SD
14	E-24 Glamour Limited	52	E 24	SD
15	Eenadu Televisoin Private Limited	53	ETV Telugu	SD
		54	ETV Andhra Pradesh (earlier name "ETV-2")	SD
		55	ETV - Telangana (earlier name "ETV-3")	SD
		56	ETV Cinema	SD
		57	ETV Life	SD
		58	ETV Plus	SD
		59	ETV Abhiruchi	SD
		60	ETV HD	HD
16	EPIC Television Networks Pvt Limited	61	EPIC TV (HD Distribution)	HD
17	Genx Entertainment Limited	62	UTV Bindass	SD
		63	UTV Action	SD
18	Greycells18 Media Limited	64	Topper TV (#)	SD
19	IBN Lokmat News Private Ltd	65	News 18 Lokmat (earlier name "IBN Lokmat")	SD
20	Living Entertainment Enterprises Private Ltd	66	Living Foodz HD	HD
21	Mavis Satcom Limited	67	J Movies	SD
		68	Jaya Max	SD
		69	Jaya Plus	SD
		70	Jaya TV HD	HD
22	Media World Wide Limited	71	Travel XP	SD

Annexure 5.1(Contd.)

Sl. No	Name of the broadcaster	Sl. No	Name of the channel	Declared as SD or HD
23	MSM World Wide Factual Media Private Limited	72	SONY BBC EARTH	SD
		73	SONY BBC EARTH HD	HD
24	NDTV Life style Limited	74	NDTV Good Times	SD
25	Neo Sports Broadcast Pvt Limited	75	NEO Prime (Earlier name "Neo Cricket")	SD
		76	Neo Sports	SD
26	New Delhi Television Limited	77	NDTV 24*7	SD
		78	NDTV India	SD
		79	NDTV Profit	SD
27	NGC Network (India) Pvt Limited	80	Fox Life	SD
		81	National Geographic Channel (NGC)	SD
		82	Fox Life HD	HD
		83	Nat Geo Wild	SD
		84	National Geographic HD	HD
		85	Nat Geo Music HD	HD
		86	Nat Geo Wild HD	HD
		87	Nat Geo People HD	HD
88	Baby TV HD	HD		
28	NOIDA Software Technology Park Limited	89	NHK World Premium (HD Distribution)	HD
29	Odisha Television Limited	90	Prarthana	SD
		91	Tarang	SD
		92	Tarang Music	SD
		93	Alankar	SD
30	Panorama Television Private Limited	94	News 18 Bihar Jharkhand (Earlier name "ETV Bihar Jharkhand")	SD
		95	News 18 Madhya Pradesh / Chattisgarh (Earlier name ETV Madhya Pradesh / Chattisgarh")	SD
		96	News 18 Rajasthan (Earlier name "ETV Rajasthan")	SD
		97	News 18 Uttar Pradesh/ Uttaranchal (Earlier name "ETV Uttar Pradesh/ Uttaranchal")	SD
		98	News 18 Urdu (Earlier name "ETV Urdu")	SD
		99	News 18 Kannada (earlier name "ETV News Kannada")	SD
		100	News 18 Bangla (Earlier name "ETV News Bangla")	SD
		101	News 18 Punjab / Haryana / Himachal Pradesh (Earlier name "ETV Haryana/Himachal Pradesh")	SD

Annexure 5.1(Contd.)

Sl. No	Name of the broadcaster	Sl. No	Name of the channel	Declared as SD or HD
		102	News 18 Gujarati (Earlier name "ETV News Gujarati")	SD
		103	News 18 Odia (Earlier name "ETV News Odia")	SD
31	Paul Entertainments Pvt Limited	104	9X Tashan (Earlier name "Purvaiya")	SD
32	Raj Television Network Limited	105	Raj Musix Kannada	SD
		106	Raj Digital Plus	SD
		107	Raj Musix	SD
		108	Raj News	SD
		109	Raj TV	SD
		110	Vissa TV	SD
33	Sahara India Commercial Corporation Ltd	111	Sahara Filmy	SD
		112	Sahara One	SD
34	Sarthak Entertainment Pvt Ltd	113	Sarthak TV	SD
35	Silverstar Communications Limited	114	Mega 24	SD
		115	Mega Musiq	SD
		116	Mega TV	SD
36	Sony Pictures Networks India Private Limited	117	Sony YAY! (Earlier name "Animax")	SD
		118	AXN	SD
		119	SET MAX	SD
		120	MIX	SD
		121	SAB	SD
		122	SONY ENTERTAINMENT CHANNEL (SET)	SD
		123	PIX	SD
		124	SIX	SD
		125	MAX 2 (Earlier name "MAX HD")	SD
		126	PAL (Earlier Name "SAB HD")	SD
		127	SET HD	HD
		128	SIX HD	HD
		129	PIX HD	HD
		130	MAX HD	HD
		131	SONY ESPN HD	HD
		132	Le PLEX HD	HD
		133	Ten 2 HD	HD
134	Ten 3 HD	HD		
135	Sony Marathi	SD		
136	SAB HD	HD		
137	SONY ROX HD	HD		
37	Star India Private Limited	138	Channel (V)	SD
		139	Star Sports 1 Tamil (Earlier name "Star Sports 4")	SD
		140	Star Sports Select 2 (Earlier name "FX")	SD

Annexure 5.1(Contd.)

Sl. No	Name of the broadcaster	Sl. No	Name of the channel	Declared as SD or HD
		141	Star Bharat (earlier name "Life Ok")	SD
		142	Movies OK (earlier name "Gold Action")	SD
		143	Star Sports 1 Hindi (Earlier name "Star Sports 3")	SD
		144	Star Gold	SD
		145	Star Jalsha	SD
		146	Star Movies	SD
		147	Star Gold Select (Earlier name "Star Movies Action")	SD
		148	Star Plus	SD
		149	Star Pravah	SD
		150	Star Sports 1	SD
		151	Star Sports 2	SD
		152	Star World	SD
		153	Jalsha Movies (Earlier name "Star Bengali")	SD
		154	Star Sports HD 2	HD
		155	Star Sports HD 1	HD
		156	Star Bharat HD (earlier name "Life Ok HD")	HD
		157	Star Gold HD	HD
		158	Star Movies HD	HD
		159	Star Plus HD	HD
		160	Star World Prmiere HD	HD
		161	Star Sports 1 HD Hindi (Earlier name "Star Sports HD 3")	HD
		162	Star Sports Select 1 (Earlier name "Star Sports HD 4")	SD
		163	Star Movies Select HD	HD
		164	Star World HD	HD
		165	Star Sports First (Earlier Name "FX HD")	SD
		166	MAA Gold	SD
		167	MAA Movies	SD
		168	MAA Music	SD
		169	MAA TV	SD
		170	Star Pravah HD	HD
		171	Star Jalsha HD	HD
		172	Jalsha Movies HD	HD
		173	Star Sports Select HD 1	HD
		174	Star Sports Select HD 2	HD
		175	MAA HD	HD
		176	Star Gold Select HD	HD
		177	MAA Movies HD	HD

Annexure 5.1(Contd.)

Sl. No	Name of the broadcaster	Sl. No	Name of the channel	Declared as SD or HD
38	SUN TV Network Limited	178	Adithya TV	SD
		179	Chintu TV	SD
		180	Chutti TV	SD
		181	Gemini Comedy	SD
		182	Gemini Life	SD
		183	Gemini Movies	SD
		184	Gemini Music	SD
		185	Gemini News	SD
		186	Gemini TV	SD
		187	KTV	SD
		188	Surya Movies (Earlier name "Kiran TV")	SD
		189	Kushi TV	SD
		190	SUN Life	SD
		191	Sun Music	SD
		192	Sun News	SD
		193	Surya Music (Earlier name "Sun News English")	SD
		194	SUN TV	SD
		195	Surya Comedy (Earlier name "SUN TV RI")	SD
		196	Surya TV	SD
		197	Udaya Comedy	SD
		198	Udaya Movies	SD
		199	Udaya Music	SD
		200	Udaya News	SD
		201	Udaya TV	SD
		202	Kochu TV	SD
		203	Sun TV HD	HD
		204	KTV HD	HD
		205	Sun Music HD	HD
		206	Gemini TV HD	HD
		207	Gemini Music HD (Earlier name "Sun Action")	HD
208	Gemini Movies HD (Earlier name "Gemini Action")	HD		
209	Surya HD (Earlier name "Surya Action")	HD		
210	Udaya HD (Earlier name "Suriyan TV")	HD		
39	Taj Television India Private Limited	211	Ten 2 (earlier name 'Ten Action')	SD
		212	Ten 1 (earlier name 'Ten Sports')	SD
		213	Ten 3	SD
		214	Ten Golf HD	HD
		215	Ten 1 HD (earlier name 'Ten HD')	HD
40	Turmeric Vision Pvt Ltd	216	Food Food TV	SD

Annexure 5.1(Contd.)

Sl. No	Name of the broadcaster	Sl. No	Name of the channel	Declared as SD or HD
41	Turner International India Pvt Ltd	217	Cartoon Network	SD
		218	CNN International	SD
		219	HBO	SD
		220	POGO	SD
		221	Cartoon Network HD+	HD
		222	WB	SD
		223	HBO HD (Earlier name "HBO Hits HD")	HD
42	TV 18 Broadcast Limited	224	CNN News 18 (earlier name "CNN-IBN")	SD
		225	CNBC Bazaar	SD
		226	CNBC TV 18 Prime HD	HD
		227	CNBC Awaaz	SD
		228	CNBC TV 18	SD
43	TV Today Network Limited	229	Aaj Tak	SD
		230	Delhi Aaj Tak	SD
		231	India Today (Earlier name "Headlines Today")	SD
		232	Aaj Tak Tez	SD
44	Viacom 18 Media Private Limited	233	Colors	SD
		234	Comedy Central (HD Distribution)	HD
		235	MTV	SD
		236	NICK	SD
		237	NICK JR (Earlier name "Nick Jr / Teen Nick")	SD
		238	SONIC	SD
		239	VH 1 (HD Distribution)	HD
		240	Colors Infinity HD	HD
		241	Colors Infinity	SD
		242	Colors HD	HD
		243	NICKS HD+	HD
		244	MTV Indies (HD Distribution)	HD
		245	Rishtey Cineplex	SD
		246	MTV Beats (Earlier name "X Zone")	SD
		247	Colors Kannada HD	HD
		248	Colors Marathi HD	HD
249	Colors Bangla HD	HD		
250	Colors Super	SD		
251	Colors Bangla (Earlier name "ETV Bangla")	SD		
252	Colors Gujarati (Earlier name "ETV Gujarati")	SD		
253	Colors Kannada (Earlier name "ETV Kannada")	SD		

Annexure 5.1(Contd.)

Sl. No	Name of the broadcaster	Sl. No	Name of the channel	Declared as SD or HD
		254	Colors Marathi (Earlier name "ETV Marathi")	SD
		255	Colors Oriya (Earlier name "ETV Oriya")	SD
		256	MTV Beats HD	HD
		257	Colors Tamil (earlier name "NXT")	SD
		258	Cineplex HD	HD
		259	VH 1	SD
		260	Colors Tamil HD	HD
		261	Colors Kannada Cinema	SD
		262	MTV HD+	HD
		263	Comedy Central	SD
45	Vijay Television Pvt Limited	264	Vijay TV (except Tamil Nadu)	SD
		265	Vijay Super	SD
		266	Vijay HD	HD
46	Zee Akaash News Pvt Ltd	267	24 Ghanta	SD
47	Zee Entertainment Enterprises Limited	268	Zee ETC Bollywood (Earlier name "Zee Bollywood")	SD
		269	Action Cinema	SD
		270	Zee Bangla Cinema	SD
		271	Zee Café HD	HD
		272	Zee Café	SD
		273	Zee Cinema	SD
		274	Classic Cinema	SD
		275	Zee Studio	SD
		276	Zee Talkies	SD
		277	Zee TV	SD
		278	Zing	SD
		279	& Picture	SD
		280	Zee Bangla	SD
		281	Zee Marathi	SD
		282	Living Foodz (earlier name "Zee Khana Khazana")	SD
		283	Zee TV HD	HD
		284	Zee Cinema HD	HD
		285	Zee Studio HD	HD
		286	& TV	SD
		287	& TV HD	HD
		288	Zee Kannada	SD
		289	Zee Telugu	SD
		290	& Pictures HD	HD
		291	Zee Cinemalu	SD
		292	Zee Yuva	SD
		293	Zee Marathi HD	HD
		294	Living Zen	SD
		295	& Prive HD	HD

Annexure 5.1(Contd.)

Sl. No	Name of the broadcaster	Sl. No	Name of the channel	Declared as SD or HD
		296	Zee Bangla HD	HD
		297	Zee Tamil HD	HD
		298	Zee Cinemalu HD	HD
		299	Zee Telugu HD	HD
		300	Zee Tamil	SD
		301	Zee Kannada HD	HD
		302	Zee Talkies HD	HD
48	Zee Media Corporation Limited	303	Zee 24 Taas	SD
		304	Zee Kalinga (Earlier name "Zee 24 Ghantalu)	SD
		305	Zee Business	SD
		306	Zee Punjab Haryana Himachal (Earlier name "Zee Punjabi")	SD
		307	Zee Madhya Pradesh Chattisgarh	SD
		308	Zee Salaam	SD
		309	Zee 24 Kalak	SD
		310	WION	SD
		311	Zee Uttar Pradesh Uttrakhand	SD
		312	Zee Rajasthan News (Earliner name "Zee Marudhara" and "Zee Rajasthan Plus")	SD
49	Zoom Entertainment Network Limited	313	Movies Now	SD

Note :

(A) # Advertisement free channel

(B) The reporting of pay channels by the 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

- 1. M/s. Tata Sky Ltd.,**
Unit 301 to 305, 3rd 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 : www.airtel.in

- 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

Annexure 5.3: List of 86 existing cities with operational FM Radio Channels in India as on 30th September, 2018

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

Annexure 5.3 (Contd.)

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

Annexure 5.3 (Contd.)

S.No.	Name of City	Category	Number of operational channels
76	Shillong	D	3
77	Shimla	D	3
78	Sholapur	C	4
79	Siliguri	C	3
80	Srinagar	C	4
81	Surat	A	6
82	Thiruvananthapuram	C	4
83	Thrissur	C	3
84	Tiruchy	C	3
85	Tirunelveli	C	3
86	Tirupati	C	2
87	Tuticorin	C	2
88	Udaipur	C	4
89	Ujjain	C	1
90	Vadodra	B	4
91	Varanasi	B	5
92	Vellore	C	2
93	Vijayawada	B	2
94	Vishakapatnam	B	3
95	Warrangal	C	2
Total			350

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

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