



TELECOM REGULATORY AUTHORITY OF INDIA

New Delhi, 3rd December, 2020 (www.trai.gov.in)

Highlights of Telecom Subscription Data as on 30th September, 2020

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Particulars Total Telephone Subscribers (Million)	Wireless	Wireline 20.08	Total (Wireless+ Wireline) 1168.66
Net Addition in September, 2020 (Million)	0.66	0.19	0.85
Monthly Growth Rate	0.06%	0.95%	0.07%
Urban Telephone Subscribers (Million)	626.16	18.10	644.26
Net Addition in September , 2020 (Million)	1.23	0.24	1.47
Monthly Growth Rate	0.20%	1.33%	0.23%
Rural Telephone Subscribers (Million)	522.42	1.98	524.39
Net Addition in September, 2020 (Million)	-0.57	-0.05	-0.62
Monthly Growth Rate	-0.11%	-2.37%	-0.12%
Overall Tele-density*(%)	84.74%	1.48%	86.22%
Urban Tele-density*(%)	134.37%	3.88%	138.25%
Rural Tele-density*(%)	58.74%	0.22%	58.96%
Share of Urban Subscribers	54.52%	90.16%	55.13%
Share of Rural Subscribers	45.48%	9.84%	44.87%
Broadband Subscribers (Million)	705.20	21.12	726.32

- In the month of September, 2020, 8.71 million subscribers submitted their requests for Mobile Number Portability (MNP). With this, the cumulative MNP requests increased from 512.10 million at the end of Aug-20 to 520.80 million at the end of September-20, since implementation of MNP.
- Number of active wireless subscribers (on the date of peak VLR#) in September, 2020 was 958.45 million.

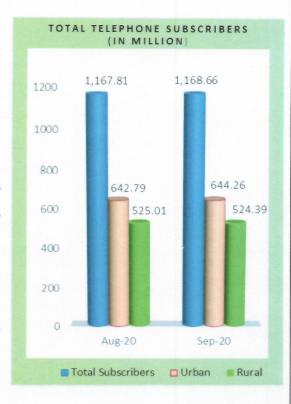
Note:

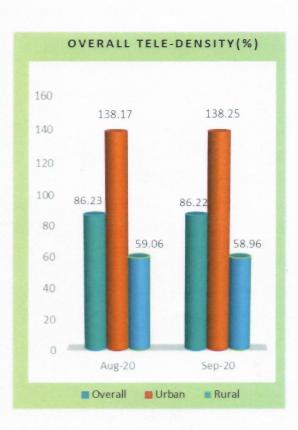
- Information in this Press Release is based on the data provided by the Service Providers
- * Based on the projection of population from the 'Report of the Technical Group on Population Projections for India and States 2011 2036', Ministry of Health & Family Welfare.
- # VLR is acronym of Visitor Location Register. The dates of peak VLR for various TSPs are different in different service areas.



I. Total Telephone Subscribers

• The number of telephone subscribers in India increased from 1,167.81 million at the end of August-20 to 1,168.66 million at the end of September-20, thereby showing a monthly growth rate of 0.07%. Urban telephone subscription increased from 642.79 million at the end of August-20 to 644.26 million at the end of September-20 however, the rural subscription decreased from 525.01 million to 524.39 million during the same period. The monthly growth rates of urban and rural telephone subscription were 0.23% and -0.12% respectively during the month of September-20.

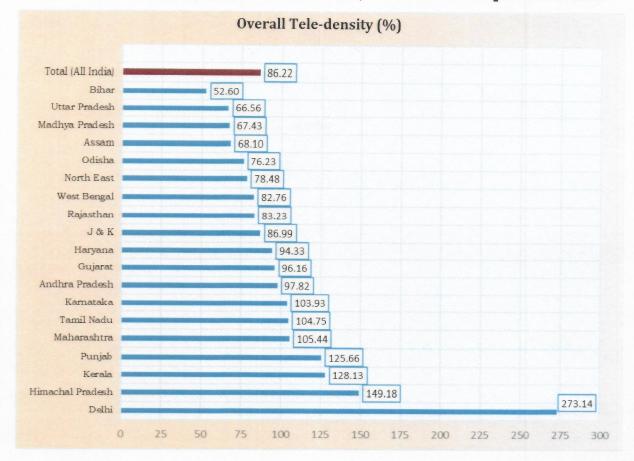




• The overall Tele-density in India decreased from 86.23 at the end of August-20 to 86.22 at the end of The September-20. Urban density increased from 138.17 at the end of August-20 to 138.25 at the end of September-20. Rural density decreased from 59.06 at the end of August-20 to 58.96 at the end of September-20. The share of urban rural subscribers in total number of telephone subscribers at the end of September-20 was 55.13% and 44.87% respectively.



Overall Tele-density (Circle/State Wise) - As on 30th September 2020



• As may be seen in the above chart, eight states have less tele-density than the all India average tele-density at the end of September-20. Delhi service area has maximum tele-density of 273.14 and the Bihar service area has minimum tele-density of 52.60 at the end of September-20.

Notes:

- 1. Population data/projections are available state wise only.
- 2. Tele-density figures are derived from the telephone subscriber data provided by the access service providers and the projection of population from the "Report of the Technical Group on Population Projections for India and States 2011 2036, Ministry of Health & Family Welfare".
- 3. Telephone subscriber data for Delhi, includes, apart from the data for the State of Delhi, wireless subscriber data for the areas served by the local exchanges of Ghaziabad & Noida (in Uttar Pradesh) and Gurgaon & Faridabad (in Haryana).
- 4. Data/information for West Bengal includes Kolkata, Maharashtra includes Mumbai, Tamil Nadu includes Chennai and Uttar Pradesh includes UPE & UPW service area(s).
- 5. 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.

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II. Category-wise Growth in subscriber base

Circle Category-wise Net Additions in Telephone Subscribers in the month of September, 2020

Circle		in the month ber, 2020		bscriber base as otember, 2020
Category	Wireline segment	Wireless segment	Wireline segment	Wireless segment
Circle A	63,994	125,049	7,780,412	392,109,609
Circle B	24,042	234,089	4,428,097	465,800,015
Circle C	14,715	225,138	852,400	175,861,407
Metro	86,995	74,626	7,016,027	114,810,449
All India	189,746	658,902	20,076,936	1,148,581,480

Circle Category-wise monthly and yearly Growth Rates in Telephone Subscribers in the month of September, 2020

Circle		owth rate (%) September-20)		growth rate (%) 19 to September-20)
Category	Wireline Segment	Wireless Segment	Wireline Segment	Wireless Segment
Circle A	0.83%	0.03%	-6.38%	-2.43%
Circle B	0.55%	0.05%	-15.02%	-2.24%
Circle C	1.76%	0.13%	0.73%	-0.39%
Metro	1.26%	0.07%	-1.51%	-3.40%
All India	0.95%	0.06%	-6.58%	-2.14%

Note: Circle Category-Metro includes Delhi, Mumbai and Kolkata. Data for Chennai has been included in Circle Category-A, as part of TamilNadu.

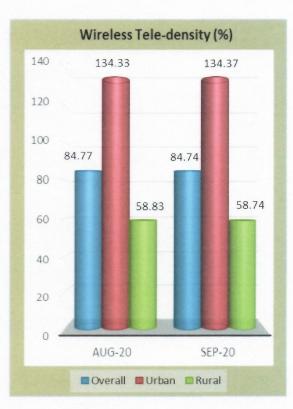
- As can be seen in the above tables, in wireless segment, on monthly basis Circles of all Categories showed growth rate in their subscribers during the month of September-20. However, on yearly basis circle of all categories have registered declining rate in their subscriber base.
- In Wireline segment, on monthly basis circle of all categories showed growth rate in their number of wireline subscribers during the month of September, 2020. However, on yearly basis only Circle C showed growth in their number of wireline subscribers.

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III. Wireless subscriber

• Total wireless subscribers increased from 1,147.92 million at the end of August-20 to 1,148.58 million at the end of September-20, thereby registering a monthly growth rate of 0.06%. Wireless subscription in urban areas increased from 624.93 million at the end of August-20 to 626.16 million at the end of September-20 however, wireless subscription in rural areas decreased from 522.99 million to 522.42 during the same period. Monthly growth rates of urban and rural wireless subscription were 0.20% and -0.11% respectively.





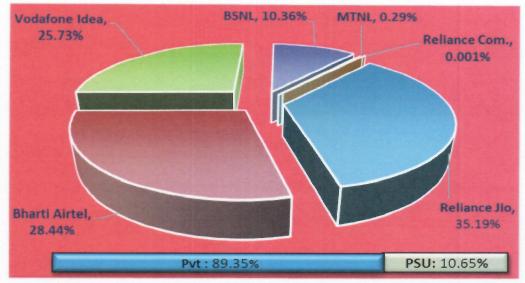
Wireless Tele-density India decreased from 84.77 at the end of August-20 to 84.74 at the end of September-20. The Urban Wireless Tele-density increased from 134.33 at the end of August-20 to 134.37 at the end of September-20 however, Rural Tele-density decreased from 58.83 to 58.74 during the same period. The share urban and rural wireless subscribers in total number of wireless subscribers was 54.52% and 45.48% respectively at the end

of September-20. Detailed statistics of wireless subscriber base is available at **Annexure-I**.

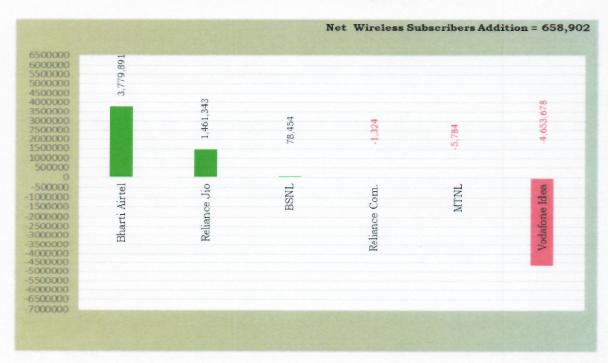


- As on 30th September, 2020, the private access service providers held 89.35% market share of the wireless subscribers whereas BSNL and MTNL, the two PSU access service providers, had a market share of only 10.65%.
- The graphical representation of access service provider-wise market share and net additions in wireless subscriber base are given below: -

Access Service Provider-wise Market Shares in term of Wireless Subscribers as on 30th September, 2020



Net Additions/decline in Wireless Subscribers of Access Service Providers in the month of September 2020



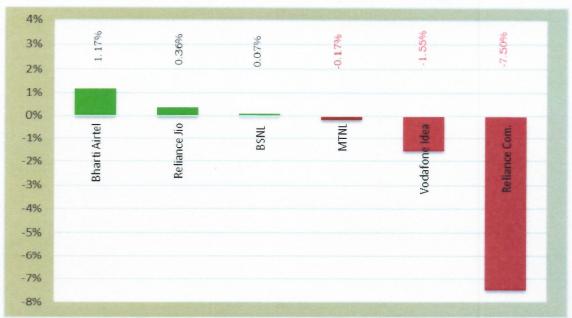
Note: 1. M/s Bharti Airtel Ltd has reported the wireless subscribers including the subscribers of M/s Tata Teleservices Ltd.

2. Virtual Network Operator (VNO) of BSNL has started reporting of its subscribers from the month of October, 2018 and the same has been included in the subscriber base of BSNL.

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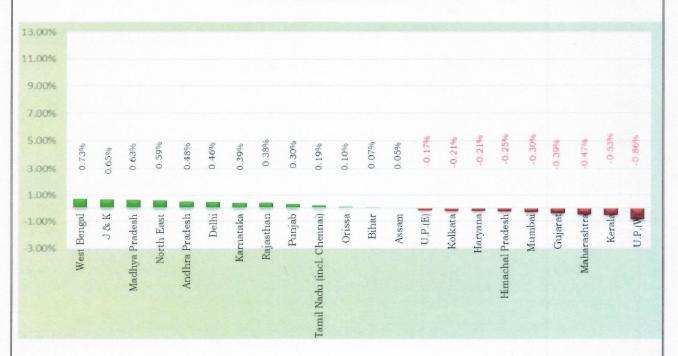
IV. Growth in Wireless Subscribers

Access Service Provider-wise Monthly Growth Rate of Wireless Subscribers in the month of September, 2020



Note: BSNL includes its Virtual Network Operator (VNO).

Service Area-wise Monthly Growth Rate of Wireless Subscribers in the month of September, 2020



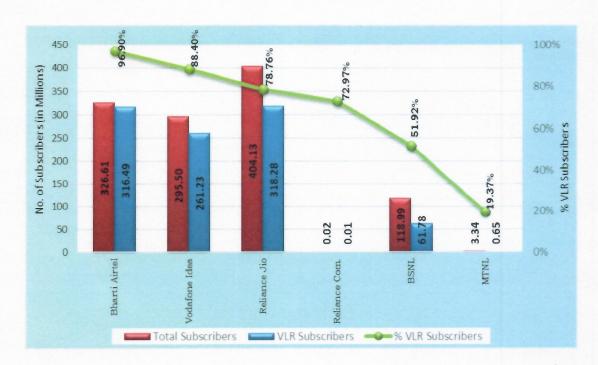
• All service areas except U.P. (E), Kolkata, Haryana, Himachal Pradesh, Mumbai, Gujarat, Maharashtra, Kerala and U.P.(W) showed growth in their wireless subscribers during the month of September-20. West Bengal service area showed maximum growth of 0.73% in its wireless subscriber base during the month.

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V. Active Wireless Subscribers (VLR Data)

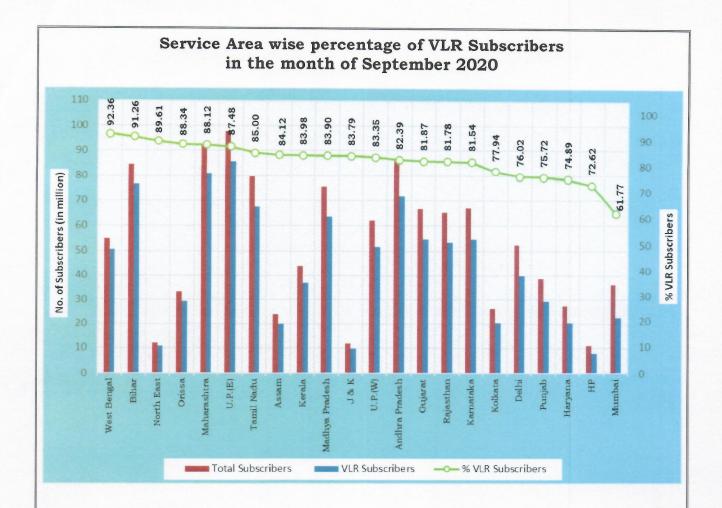
- Out of the total wireless subscribers (1,148.58)million), 958.45 million wireless subscribers were active on the date of peak VLR in the month of September-20. The proportion of active wireless subscribers was approximately 83.45% wireless of the total subscriber base.
- The detailed statistics on proportion of active wireless subscribers (also referred to as VLR subscribers) on the date of peak VLR in the month of available September-20 is Annexure-II and the methodology used for reporting VLR subscribers is available at Annexure-IV.

Access Service Provider-wise Percentage of VLR Subscribers in the month of September, 2020



 Bharti Airtel has the maximum proportion (96.90%) of its active wireless subscribers (VLR) as against its total wireless subscribers (HLR) on the date of peak VLR in the month of September-20 and MTNL has the minimum proportion of VLR (19.37%) of its HLR during the same period.





VI. Mobile Number Portability (MNP)

- Intra-service area Mobile number portability (MNP) was implemented first in Haryana service area w.e.f. 25.11.2010 and in the rest of the country w.e.f. 20.01.2011. Inter-**MNP** has Service Area been implemented in the country w.e.f. 03.07.2015. Now, the wireless telephone subscribers can retain their mobile numbers when they relocate from one service area to another.
- During the month of September-20, a total of 8.71 million requests were received for MNP. Out of total
- 8.71 million new requests, 4.79 million requests received Zone-I and 3.91 million requests Zone-II. received from The cumulative **MNP** requests increased from 512.10 million at the end of August-20 to 520.80 million at the end of September-20, since the implementation of MNP.
- In MNP Zone-I (Northern and Western India), the highest number of requests till date have been received in Maharashtra (about 41.49 million) followed by



Rajasthan (about 39.14 million) service area.

• In MNP Zone-II (Southern and Eastern India), the highest

number of requests till date have been received in Karnataka (about 45.35 million) followed by Andhra Pradesh (about 42.78 million).

	Service	ce Area Wis	se MNP Status		
Zor	ie -1		Zoı	ne – 2	
Service Area	Reque	of Porting ests (in lion)	Service Area	Porting	ber of Requests illion)
	Aug-20	Sept-20		Aug-20	Sept-20
Delhi	25.94	26.29	Andhra Pradesh	42.31	42.78
Gujarat	34.33	35.02	Assam	3.84	3.89
Haryana	18.22	18.43	Bihar	21.82	22.48
Himachal Pradesh	2.50	2.53	Karnataka	44.91	45.35
Jammu & Kashmir	1.22	1.24	Kerala	13.56	13.85
Maharashtra	40.48	41.49	Kolkata	11.76	11.87
Mumbai	24.34	24.49	Madhya Pradesh	34.92	35.78
Punjab	19.57	19.81	North East	1.48	1.49
Rajasthan	38.68	39.14	Orissa	10.08	10.19
U.P.(East)	30.56	31.46	Tamil Nadu	41.83	42.30
U.P.(West)	24.52	25.25	West Bengal	25.23	25.68
Total	260.35	265.14	Total	251.75	255.66
Total (Zone-1 + 2	Zone-2)			512.10	520.80
Net Addition (Sep 2020)	tember,			8.7	1 million

VII. Wireline Subscribers

• Wireline subscribers increased from 19.89 million at the end of August-20 to 20.08 million at the end of September-20. Net addition in the wireline subscriber base was 0.19 million with a monthly growth rate of 0.95%. The share of urban and rural subscribers in total wireline subscribers were 90.16%

and 9.84% respectively at the end of September-20.

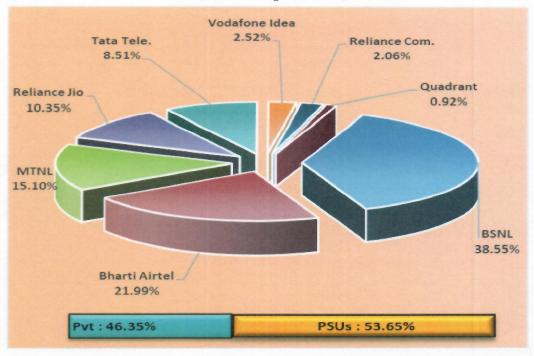
• The Overall Wireline Tele-density increased from 1.47 at the end of August-20 to 1.48 at the end of September-20. Urban and Rural Wireline Tele-density were 3.88 and 0.22 respectively during the same period.

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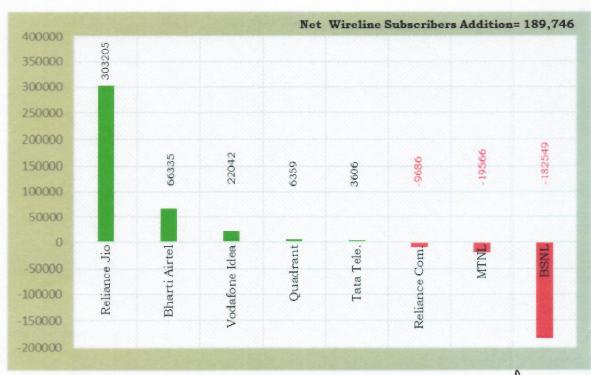
BSNL and MTNL, the two PSU access service providers, held
 53.65% of the wireline market share as on 30th September, 2020.

Detailed statistics of wireline subscriber base are available at **Annexure-III**.

Access Service Provider-wise Market Share of Wireline Subscribers as on 30th September, 2020



Access Service Provider-wise Net Additions in Wireline Subscribers during the month of September, 2020



VIII. Broadband (≥ 512 Kbps download)

 As per the reports received from 368 operators in the month of September, 2020, the number of broadband subscribers increased from 716.19 million at the end of August-20 to 726.32 million at the end of September-20 with a monthly growth rate of 1.41%. Segment-wise broadband subscribers and their monthly growth rates are as below: -

Segment-wise Broadband Subscribers and Monthly Growth Rate in the month of September, 2020

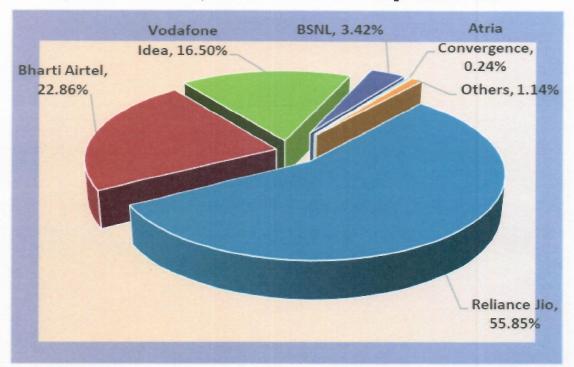
	Broadband s		Monthly growth rate in
Segment	As on 31st August, 2020	As on 30 th September, 2020	the month of September-20
Wired subscribers	20.47	21.12	3.13%
Mobile devices users (Phones and dongles)	695.08	704.57	1.36%
Fixed Wireless subscribers (Wi-Fi, Wi-Max, Point-to- Point Radio & VSAT)	0.64	0.64	0.04%
Total	716.19	726.32	1.41%

 Top five service providers constituted 98.86% market share of the total broadband subscribers at the end of September-20. These service providers were Reliance Jio Infocomm Ltd (405.65 million), Bharti Airtel (166 million), Vodafone Idea (119.85 million), BSNL (24.83 million) and Atria Convergence (1.73 million).

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

• The graphical representation of the service provider-wise market share of broadband services is given below: -

Service Provider-wise Market Share of Broadband (wired + wireless) Services as on 30th September 2020



- As on 30th September, 2020, the top five Wired Broadband Service providers were BSNL (7.80 million), Bharti Airtel (2.60 million), Atria Convergence Technologies (1.73 million), Reliance Jio Infocomm Ltd (1.52 million) and Hathway Cable & Datacom (1.05 million).
- As on 30th September, 2020, the Wireless five Broadband top Service providers were Reliance Jio million), Infocom (404.13)Ltd Bharti Airtel (163.41 million), Vodafone Idea (119.84 million). BSNL (17.03 million) and Tikona Infinet Ltd. (0.31 million).

Contact details in case of any clarification: -

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E-mail: skmishra.trai@nic.in

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Secretary, TRAI

					WILCIOS	wileless Subscriber	T Dasc										
Circle	Bharti Airtel (including Tata Tele.)	Bharti Airtel	Relian	Reliance Com.	Vodafone Idea	ne Idea	BS	BSNL	BSNL (VNO's)	/NO's)	MTNL	T T	Reliance Jio	ce Jio	To	Total	Net
	Aug-20	Sep-20	Aug-20	Sep-20	Aug-20	Sep-20	Aug-20	Sep-20	Aug-20	Sep-20	Aug-20	Sep-20	Aug-20	Sep-20	Aug-20	Sep-20	Addition
Andhra Pradesh	29027558	29367090	2265	1694	16652935	16630879	9746340	9781494					31118595	31184600	86547693	86965757	418064
Assam	8387563	8485892			3719563	3581363	2863248	2888111					8658069	8684391	23628443	23639757	11314
Bihar	34163354	34560614	364	351	13322141	12862375	5788419	5875219					30945656	30983400	84219934	84281959	62025
Delhi	15299368	15477754	1707	1190	16070879	16101122					2174737	2174003	18709134	18740188	52255825	52494257	238432
Gujarat	10248688	10372247	627	, 614	25948792	25474201	6104391	6109492					24748289	24830736	67050787	66787290	-263497
Haryana	4712177	4767758	131	130	8224705	8088541	5069776	5073981					9410796	9429315	27417585	27359725	-57860
Himachal Pradesh	3243177	3280745	104	104	820380	744572	2997173	2988503					3875219	3894963	10936053	10908887	-27166
J & K	5495530	5558818	0	0	577507	540719	1251246	1254948					4328384	4374426	11652667	11728911	76244
Karnataka	28417768	28750088	1674	2269	10393238	10266022	7255253	7256391					20734690	20785830	66802623	00909029	257977
Kerala	5944643	6014889	709	869	17719606	17362961	10950711	10951796					9670481	9723173	44286150	44053517	-232633
Kolkata	5877420	5945343	33	33	7386895	7185220	2270745	2327265					10631555	10653841	26166648	26111702	-54946
Madhya Pradesh	13888383	14051370	774	791	22957368	23083055	6366973	6303315					32099584	32346106	7531 3082	75784637	471555
Maharashtra	16198014	16390350	606	859	35108302	34017639	7017961	7083722					33860766	34256776	92185952	91749346	-436606
Mumbai	9376506	9486228	3 2157	1651	11480536	11239051					1168445	1163395	14285706	14314165	36313350	36204490	-108860
North East	5129676	5189422	0	0	1557000	1535017	1361613	1367606					3876455	3902705	11924744	11994750	70006
Odisha	10718118	10842112	386	386	2788672	2697878	6365207	6357676					13402045	13409091	3327 4428	33307143	32715
Punjab	10179972	10298938	404	402	8715164	8677625	5837299	5856662					13977119	13991923	38709958	38825550	115592
Rajasthan	21016824	21261002	417	416	12732409	12646298	6356303	6356489					24806017	24895132	6491 1970	65159337	247367
Tamil Nadu (incl. Chennai)	24900733	25191670	3097	2512	19269072	19228919	11034871	10921003	92280	92482			24097452	24110030	79397505	79546616	149111
U.P.(E)	31420044	31790706	744	737	25334173	24752673	11720064	11675292					29470603	29555077	97945628	97774485	-171143
U.P.(W)	14545289	14718017	342	340	21794274	21041049	6027208	6018620					20125736	20180022	62492849	61958048	-534801
West Bengal	14641012	14810655	814	1157	17575810	17738564	2435122	2450590					19835946	19883750	54488704	54884716	396012
Total	322831817	326611708	17658	16334	300149421	295495743	118819923	118898175	92280	92482	3343182	3337398	402668297	404129640	1147922578	1148581480	658902
Net Addition		3779891		-1324		4653678		78252		202		-5784		1461343	0	658902	
Rural Subscribers	152555230	153842506	0	0	163281312	160374597	38007851	38082539	C	C	45450	15407	160101660	01100000	101100001	00101000	1

Note: 1. The subscribers of M/s Bharti Airtel includes subscribers of M/s Tata Teleservices Ltd.

^{2.} Virtual Network Operator (VNO) of BSNL has reported its subscriber number from the month of October, 2018.

Proportion of VLR		date of Pe	on the date of Peak VLR in the month of September-20 (%)	month	of September		Annexure-II
Circle	Bharti	BSNL	Vodafone Idea	MTNL	Reliance Com.	Reliance Jio	Total
Andhra Pradesh	97.10	60.75	90.12		73.61	71.21	82.39
Assam	26.86	49.81	87.78			79.50	84.12
Bihar	95.71	46.40	87.50		142.27	96.37	91.26
Delhi	89.23		76.15	11.59	29.97	72.47	76.02
Gujarat	100.09	46.64	90.48		29.97	74.09	81.87
Haryana	109.06	35.79	89.80		50.00	65.87	74.89
Himachal Pradesh	102.52	37.02	97.13		32.69	70.06	72.62
J & K	97.55	58.11	82.48		1	73.82	83.79
Karnataka	93.26	52.65	86.98		64.61	72.73	81.54
Kerala	08.80	65.90	94.40		36.10	75.95	83.98
Kolkata	92.53	44.61	85.34		-	72.09	77.94
Madhya Pradesh	97.62	46.26	82.26		46.65	86.44	83.90
Maharashtra	101.85	54.91	91.75		56.58	84.82	88.12
Mumbai	70.67		71.73	33.91	180.01	50.29	61.77
North East	100.67	66.41	88.88		-	84.12	89.61
Orissa	102.83	62.19	91.42		17.36	88.42	88.34
Punjab	97.78	39.24	88.93		36.32	96.56	75.72
Rajasthan	93.93	44.63	06.98		41.11	76.76	81.78
Tamil Nadu (incl. Chennai)	96.39	70.03	90.33		90.37	75.68	85.00
U.P. (E)	101.60	36.17	91.78		26.59	88.98	87.48
U.P. (W)	104.61	40.91	88.45		10.29	75.17	83.35
West Bengal	97.91	77.42	94.71		16.42	87.98	92.36
Total	06.96	51.92	88.40	19.37	72.97	78.76	83.45

Note: Peak VLR figures in some circles of some of the service providers are more than their HLR figures due to a large number of inroamers.

								Section 1	The state of the s										
	BSNL	NL	MINT	NL	Bharti Airtel	Airtel	Reliance Com.	Com.	Tata Tele.	Tele.	Quadrant	rant	Vodafone Idea	e Idea	Reliance Jio	se Jio	Total	tal	Net
Service Area	Aug-20	Sep-20	Aug-20	Sep-20	Aug-20	Sep-20	Aug-20	Sep-20	Aug-20	Sep-20	Aug-20	Sep-20	Aug-20	Sep-20	Aug-20	Sep-20	Aug-20	Sep-20	Addition
Andhra Pradesh	695193	671604			222703	228534	24824	24265	161563	162180			54760	62290	170303	204571	1329346	1353444	24098
Assam	90548	88179											3480	3480	20400	25245	114428	116904	2476
Bihar	138261	136451					1141	1064	7837	7619			1770	1830	33849	44948	182858	191912	9054
Delhi	0	0	1367374	1361213	1435667	1453257	57694	54847	142753	145610			75420	76820	122222	172397	3201130	3264144	63014
Gujarat	556577	543509			112069	114715	7257	7003	82068	83005			32502	32907	166530	180740	957003	961879	4876
Haryana	155113	151169			26945	28306	912	895	36880	36795			360	360	62160	73457	282370	290982	8612
Himachal Pradesh	86422	85059			0	0	069	684	1879	1839			30	30	3310	4745	92331	92357	26
J & K	106282	102635			7464	9585	0	0	0	0			0	0	33775	43115	147521	155335	7814
Karnataka	831794	816343			779823	783151	90162	89354	263701	263744			87092	90212	116758	140128	2169330	2182932	13602
Kerala	1316646	1279325			60245	60921	8295	8062	19620	19620			0609	6150	28238	35834	1439134	1409912	-29222
Kolkata	367308	357271			135422	138089	32106	31930	47289	47898			12030	13130	68242	93064	662397	681382	18985
Madhya Pradesh	293773	288195			243328	249866	3550	3511	12173	11785			3675	3675	80545	102763	637044	659795	22751
Maharashtra	824339	834521			122340	125867	24278	23558	244425	241556			30013	30373	54899	65164	1300294	1321039	20745
Mumbai	0	0	1683058	1669653	374590	374374	110390	109083	517255	517936			92994	93581	287218	305874	3065505	3070501	4996
North East	84381	76059											270	270	13284	17154	97935	93483	-4452
Odisha	168201	162307					1523	1519	9375	9283			6150	6240	17363	23060	202612	202409	-203
Punjab	276932	268507			136104	138258	6617	6169	12160	12379	179256	185615	3180	3210	58005	69937	672254	684075	11821
Rajasthan	310430	299894			62122	65473	9186	8826	11559	11496			16430	16430	61503	74466	471230	476585	5355
Tamil Nadu (nel Chenna)	1074349	1044710			528490	535940	39776	37998	119343	120865			37865	39165	160622	182440	1960445	1961118	673
U.P.(E)	187605	185049			67812	71477	1845	1792	7834	7727			13960	19960	67376	80426	346432	366431	19999
U.P.(W)	177484	171597			33104	36750	1640	1640	4615	4534			5430	5430	130724	113179	352997	333130	-19867
We st Bengal	181277	177982					1418	1418	2375	2439			120	120	17404	25228	202594	207187	4593
Total	7922915	7740366	3050432	3030866	4348228	4414563	423304	413618	1704704	1708310	179256	185615	483621	505663	1774730	2077935	19887190	20076936	189746
Net Addition		-182549		-19566		66335		9896-		3606		6329		22042		303205		189746	
Rural Subscribers	1941250	1892625	0	0	0	0	681	651	43346	47867	32801	30160	C	-	5005	7040			

VLR Subscribers in the Wireless Segment

Home Location Register (HLR) is a central database that contains details of each mobile phone subscriber that is authorized to use the GSM core network. The HLRs store details of every SIM card issued by the service provider. Each SIM has a unique identifier called an International Mobile Subscriber Identity (IMSI), which is the primary key to each HLR record. The HLR data is stored for as long as a subscriber remains with the service provider. HLR also manages the mobility of subscribers by means of updating their position in administrative areas. It sends the subscriber data to a Visitor Location Register (VLR).

Subscriber numbers reported by the service providers is the difference between the numbers of IMSI registered in service provider's HLR and sum of other figures as given below: -

1	Total IMSI's in HLR (A)
2	Less: $(B = a + b + c + d + e)$
a.	Test/Service Cards
b.	Employees
C.	Stock in hand/in Distribution Channels (Active Card)
d.	Subscriber Retention period expired
e.	Service suspended pending disconnection
3	Subscribers Base (A-B)

Visitor Location Register (VLR) is a temporary database of the subscribers who have roamed into the particular area, which it serves. Each base station in the network is served by exactly one VLR; hence a subscriber cannot be present in more than one VLR at a time.

If subscriber is in active stage i.e. he is able to send/receive calls/SMSs he is available both in HLR and VLR. However, it may be possible that the subscriber is registered in HLR but not in VLR due to the reason that he is either switched-off or moved out of coverage area, not reachable etc. In such circumstances he will be available in HLR but not in VLR. This causes difference between subscriber number reported by the service providers based on HLR and numbers available in VLR.

The VLR subscriber data calculated here is based on active subscribers in VLR on the date of Peak subscriber number in VLR of the particular month for which the data is being collected. This data is to be taken from the switches having the purge time of not more than 72 hours.