

**TELECOM REGULATORY AUTHORITY OF INDIA**New Delhi, 12th October, 2020

(www.trai.gov.in)

**Highlights of Telecom Subscription Data as on 31st July, 2020**

Particulars	Wireless	Wireline	Total (Wireless+ Wireline)
Total Telephone Subscribers (Million)	1144.18	19.82	1164.00
Net Addition in July, 2020 (Million)	3.47	0.01	3.48
Monthly Growth Rate	0.30%	0.05%	0.30%
Urban Telephone Subscribers (Million)	620.68	17.78	638.46
Net Addition in July, 2020 (Million)	1.57	0.06	1.63
Monthly Growth Rate	0.25%	0.31%	0.26%
Rural Telephone Subscribers (Million)	523.50	2.04	525.54
Net Addition in July, 2020 (Million)	1.90	-0.05	1.86
Monthly Growth Rate	0.36%	-2.17%	0.35%
Overall Tele-density*(%)	84.56%	1.46%	86.03%
Urban Tele-density*(%)	133.64%	3.83%	137.47%
Rural Tele-density*(%)	58.91%	0.23%	59.14%
Share of Urban Subscribers	54.25%	89.70%	54.85%
Share of Rural Subscribers	45.75%	10.30%	45.15%
Broadband Subscribers (Million)	685.27	20.13	705.40

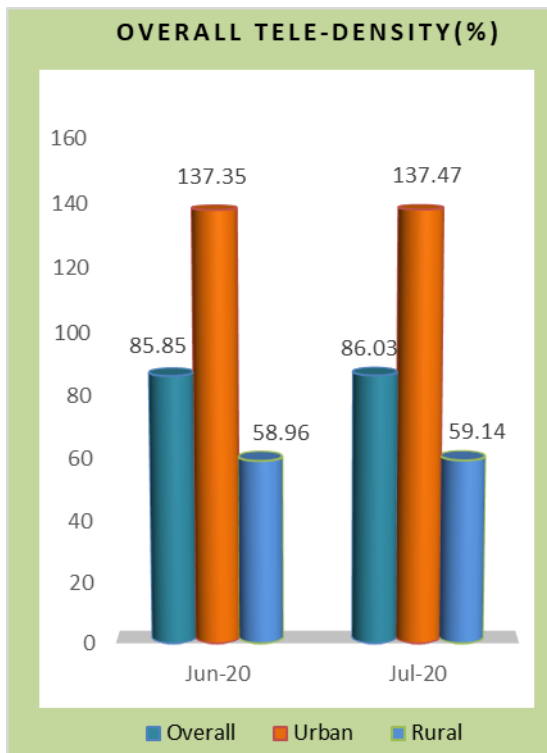
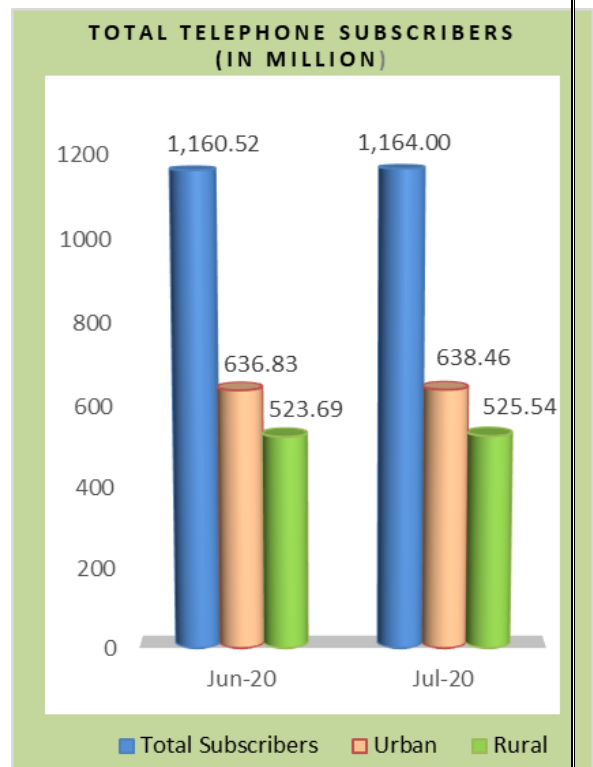
- ❖ In the month of July, 2020, 7.53 million subscribers submitted their requests for Mobile Number Portability (MNP). With this, the cumulative MNP requests increased from 497.04 million at the end of Jun-20 to 504.57 million at the end of July-20, since implementation of MNP.
- ❖ Number of active wireless subscribers (on the date of peak VLR#) in July, 2020 was 955.82 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.

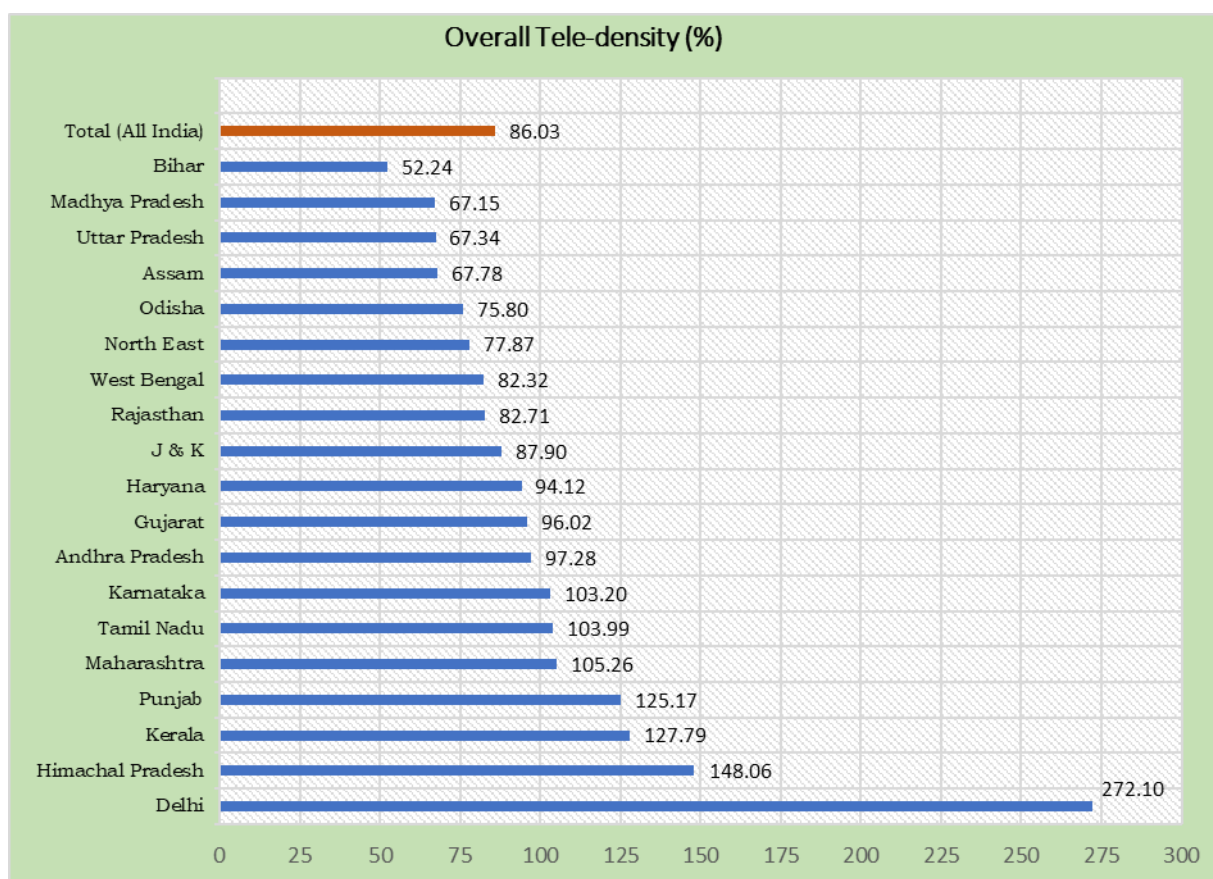
I. Total Telephone Subscribers

- The number of telephone subscribers in India increased from 1,160.52 million at the end of June-20 to 1,164 million at the end of July-20, thereby showing a monthly growth rate of 0.30%. Urban telephone subscription increased from 636.83 million at the end of June-20 to 638.46 million at the end of July-20 and the rural subscription also increased from 523.69 million to 525.54 million during the same period. The monthly growth rates of urban and rural telephone subscription were 0.26% and 0.35% respectively during the month of July-20.



- The overall Tele-density in India increased from 85.85 at the end of June-20 to 86.03 at the end of June-20. The Urban Tele-density increased from 137.35 at the end of June-20 to 137.47 at the end of July-20. Rural Tele-density also increased from 58.96 at the end of June-20 to 59.14 at the end of July-20. The share of urban and rural subscribers in total number of telephone subscribers at the end of July-20 was 54.85% and 45.15% respectively.

Overall Tele-density (Circle/State Wise) – As on 31st July 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 July-20. Delhi service area has maximum tele-density of 272.10 and the Bihar service area has minimum tele-density of 52.24 at the end of July-20.

Notes:

- Population data/projections are available state wise only.
- 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”.
- 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).
- Data/information for West Bengal includes Kolkata, Maharashtra includes Mumbai, Tamil Nadu includes Chennai and Uttar Pradesh includes UPE & UPW service area(s).
- 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.

II. Category-wise Growth in subscriber base

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

Circle Category	Net additions in the month of July, 2020		Telephone Subscriber base as on 31 st July, 2020	
	Wireline segment	Wireless segment	Wireline segment	Wireless segment
Circle A	11,625	5,87,979	76,75,034	38,97,69,965
Circle B	-26,312	24,46,219	43,89,583	46,55,73,455
Circle C	6,530	93,199	8,31,451	17,46,28,115
Metro	18,024	3,44,863	69,24,351	11,42,06,561
All India	9,867	34,72,260	1,98,20,419	1,14,41,78,096

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

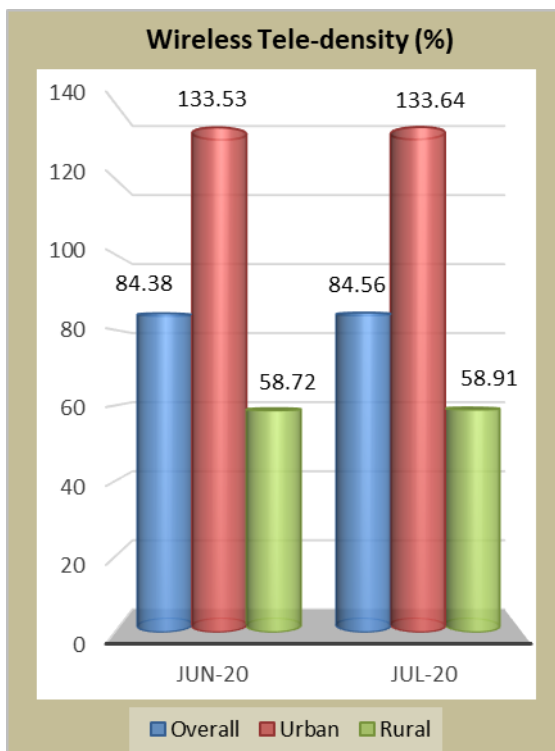
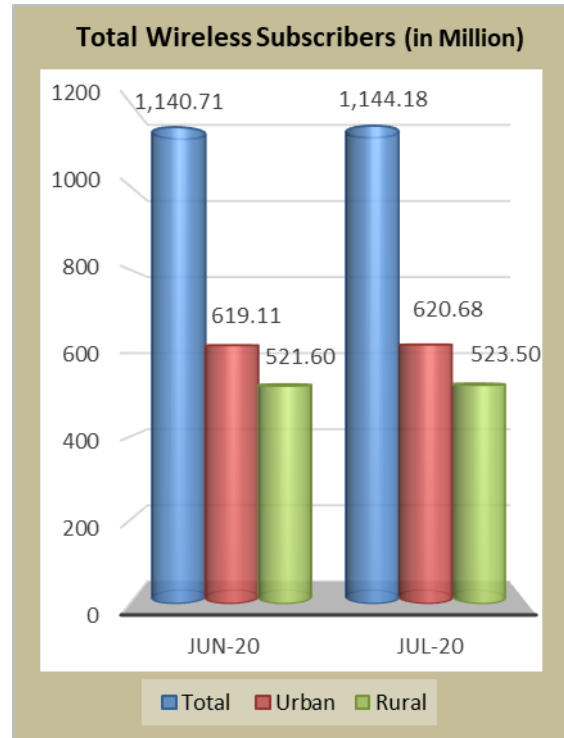
Circle Category	Monthly growth rate (%) (Jun-20 to July-20)		Yearly growth rate (%) (July-19 to July-20)	
	Wireline Segment	Wireless Segment	Wireline Segment	Wireless Segment
Circle A	0.15%	0.15%	-5.55%	-2.57%
Circle B	-0.60%	0.53%	-14.80%	-1.71%
Circle C	0.79%	0.05%	1.15%	-1.10%
Metro	0.26%	0.30%	0.87%	-3.22%
All India	0.05%	0.30%	-5.46%	-2.07%

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 July-20. However, on yearly basis circle of all categories have registered declining rate in their subscriber base.
- In Wireline segment, on monthly basis except circle of B Category circle of all categories showed growth rate in their number of wireline subscribers during the month of July, 2020. On yearly basis, only Circle C and Metro Circle showed growth in their number of wireline subscribers.

Wireless Subscribers

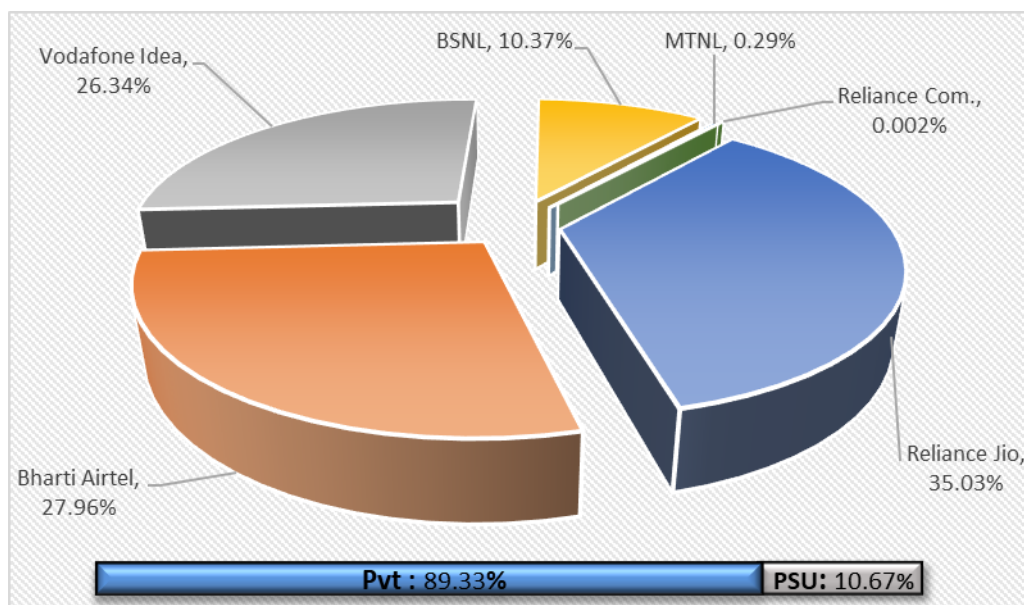
- Total wireless subscribers (2G, 3G & 4G) increased from 1,140.71 million at the end of June-20 to 1,144.18 million at the end of July-20, thereby registering a monthly growth rate of 0.30%. Wireless subscription in urban areas increased from 619.11 million at the end of June-20 to 620.68 million at the end of July-20 and wireless subscription in rural areas also increased from 521.60 million to 523.50 during the same period. Monthly growth rates of urban and rural wireless subscription were 0.25% and 0.36% respectively.



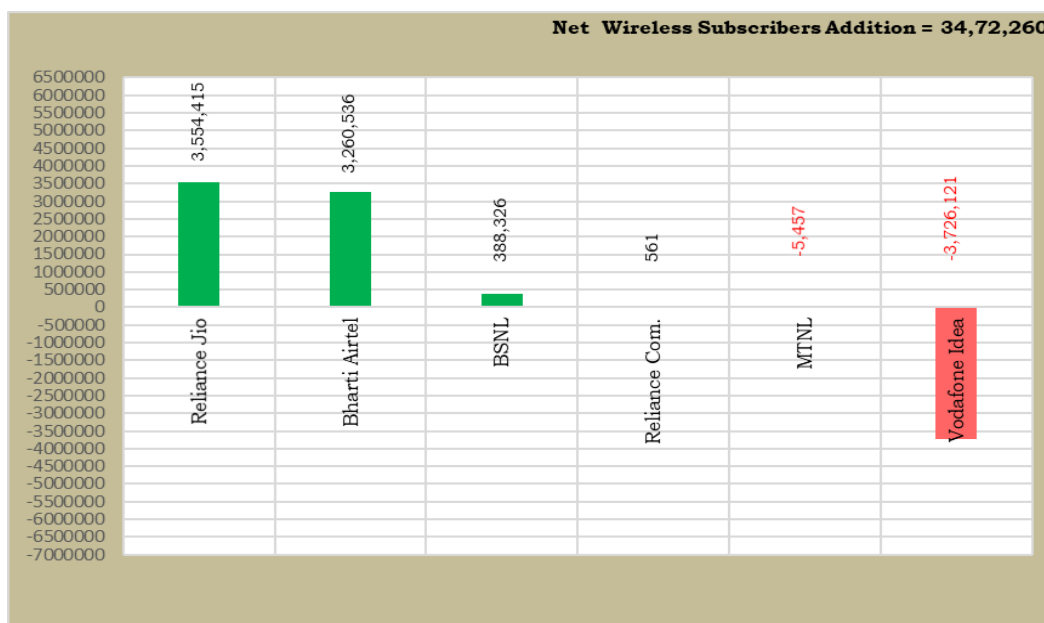
- The Wireless Tele-density in India increased from 84.38 at the end of June-20 to 84.56 at the end of July-20. The Urban Wireless Tele-density increased from 133.53 at the end of June-20 to 133.64 at the end of July-20 and Rural Tele-density also increased from 58.72 to 58.91 during the same period. The share of urban and rural wireless subscribers in total number of wireless subscribers was 54.25% and 45.75% respectively at the end of July-20. Detailed statistics of wireless subscriber base is available at **Annexure-I**.

- As on 31st July, 2020, the private access service providers held 89.33% market share of the wireless subscribers whereas BSNL and MTNL, the two PSU access service providers, had a market share of only 10.67%.
- 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 31st July, 2020



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

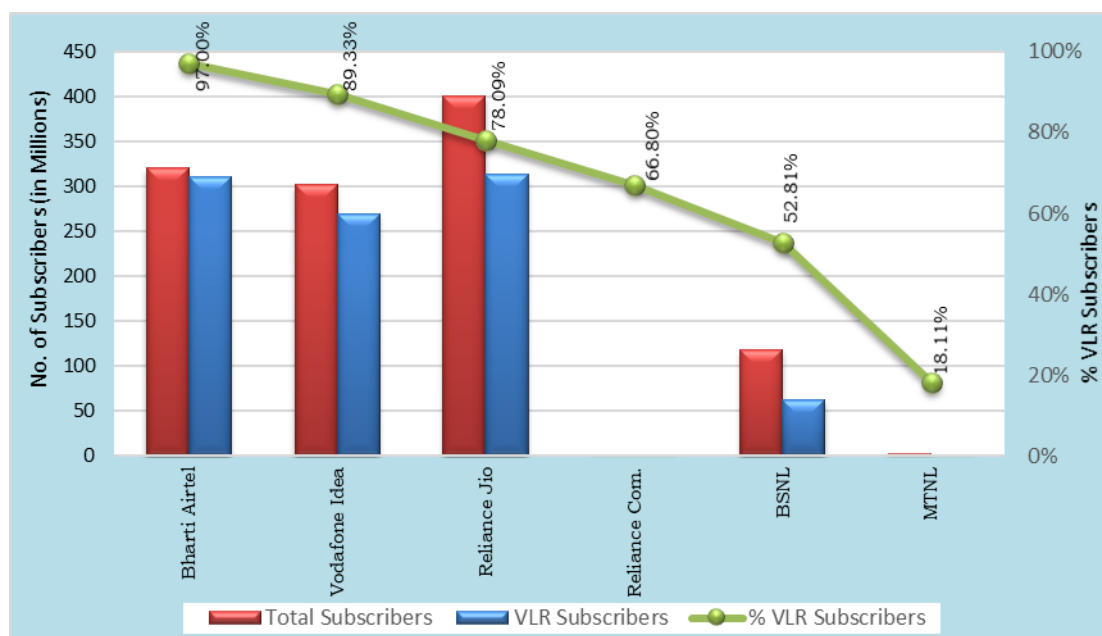


- Note:**
1. M/s Bharti Airtel Ltd has reported the wireless subscribers including the subscribers of M/s Tata Teleservices Ltd.
 2. Virtual Network Operator (VNO) of BSNL has started reporting of its subscribers from the month of October, 2018 and the same has been included in the subscriber base of BSNL.

III. Active Wireless Subscribers (VLR Data)

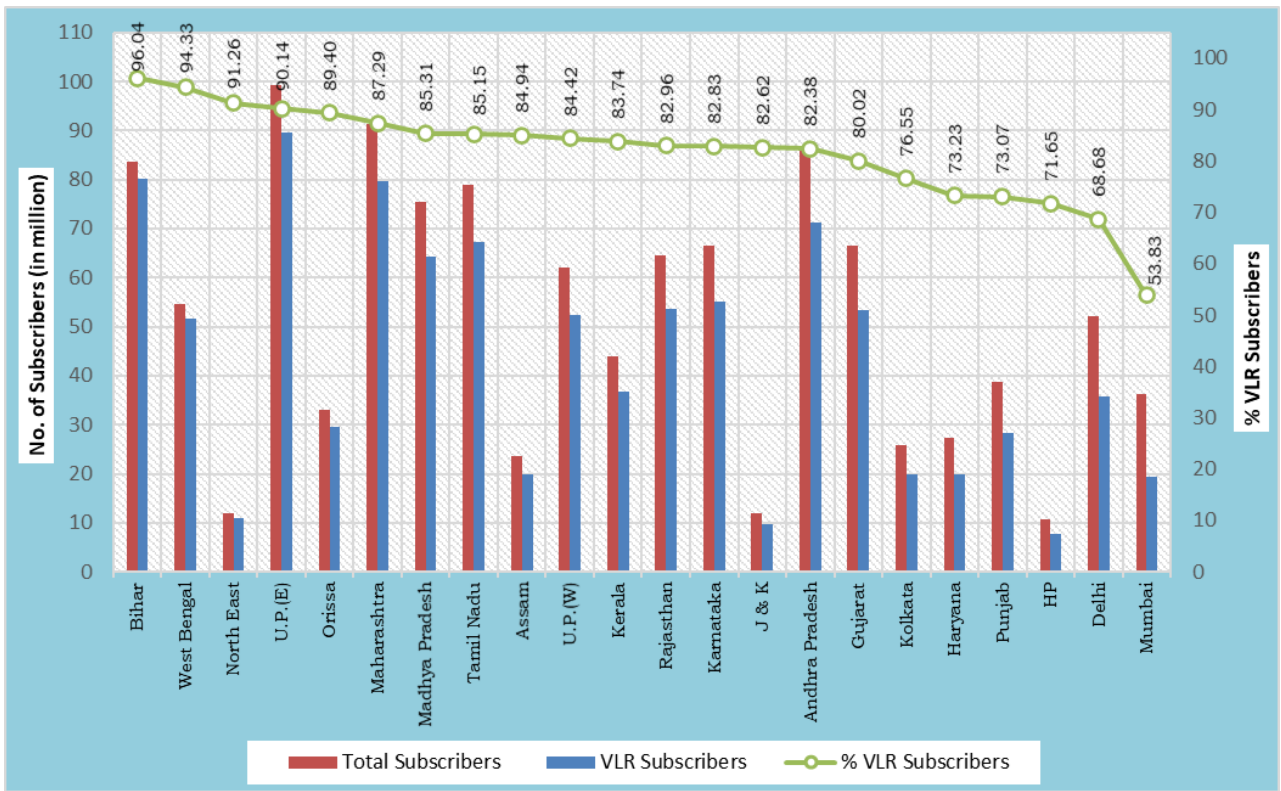
- Out of the total wireless subscribers (1,144.18 million), 955.82 million wireless subscribers were active on the date of peak VLR in the month of July-20. The proportion of active wireless subscribers was approximately 83.54% of the total wireless subscriber base.
- The detailed statistics on proportion of active wireless subscribers (also referred to as VLR subscribers) on the date of peak VLR in the month of July-20 is available at **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 July, 2020



- Bharti Airtel has the maximum proportion (97%) of its active wireless subscribers (VLR) as against its total wireless subscribers (HLR) on the date of peak VLR in the month of July-20 and MTNL has the minimum proportion of VLR (18.11%) of its HLR during the same period.

Service Area wise percentage of VLR Subscribers in the Month of July, 2020



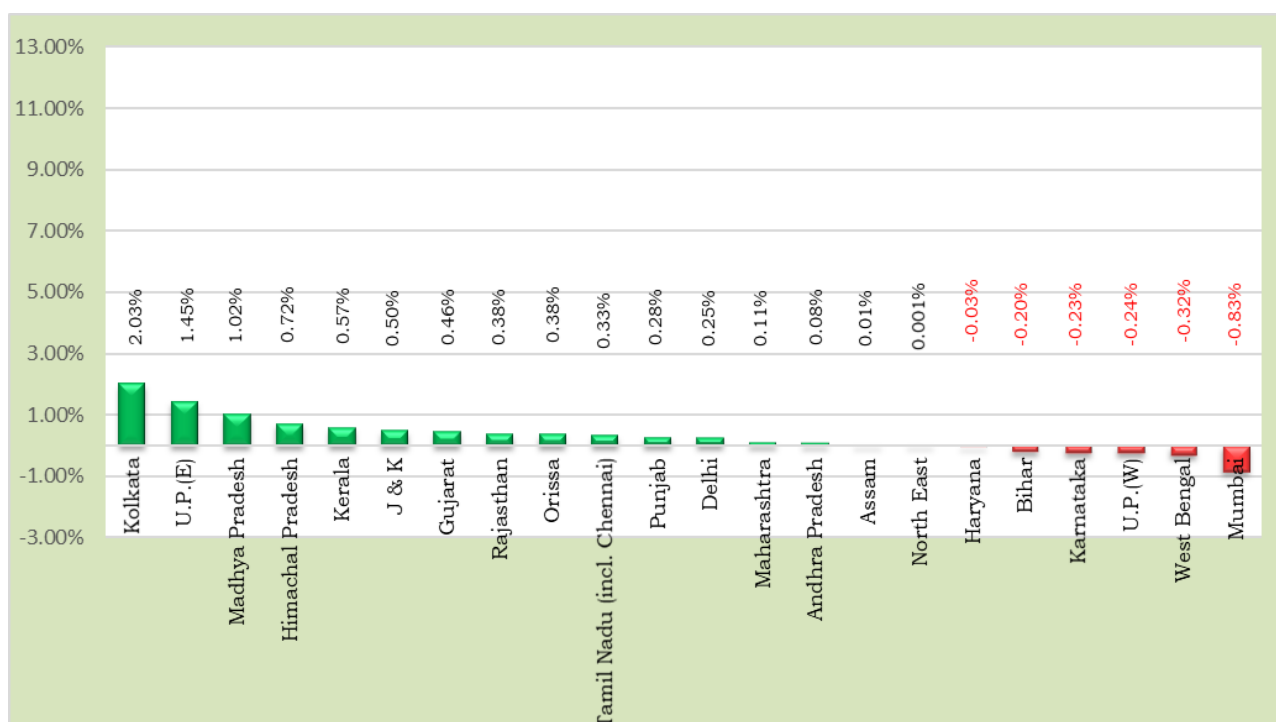
V. Growth in Wireless Subscribers

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



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

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



- All service areas showed growth except Mumbai, West Bengal, U.P. (W), Karnataka, Bihar and Haryana in their wireless subscribers during the month of

July-20. Kolkata service area showed maximum growth of 2.03% in its wireless subscriber base during the month.

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-Service Area MNP has 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 July-20, a total of 7.53 million requests were received for MNP. Out of total 7.53 million new requests, 4.16 million requests received from Zone-I and 3.37 million requests received from Zone-II. The cumulative MNP requests increased from 497.04

million at the end of Jun-20 to 504.57 million at the end of July-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

39.60 million) followed by Rajasthan (about 38.27 million) service area.

- In MNP Zone-II (Southern and Eastern India), the highest number of requests till date have been received in Karnataka (about 44.54 million) followed by Andhra Pradesh (about 41.92 million).

Service Area Wise MNP Status					
Zone - 1			Zone - 2		
Service Area	Number of Porting Requests (in Million)		Service Area	Number of Porting Requests (in Million)	
	Jun-20	Jul-20		Jun-20	Jul-20
Delhi	25.33	25.63	Andhra Pradesh	41.50	41.92
Gujarat	33.20	33.79	Assam	3.76	3.80
Haryana	17.78	18.01	Bihar	20.84	21.29
Himachal Pradesh	2.43	2.46	Karnataka	44.19	44.54
Jammu & Kashmir	1.19	1.21	Kerala	13.03	13.30
Maharashtra	38.75	39.60	Kolkata	11.55	11.66
Mumbai	24.13	24.22	Madhya Pradesh	33.37	34.13
Punjab	19.09	19.34	North East	1.46	1.47
Rajasthan	37.86	38.27	Orissa	9.87	9.97
U.P.(East)	29.06	29.83	Tamil Nadu	40.94	41.38
U.P.(West)	23.30	23.92	West Bengal	24.42	24.84
Total	252.12	256.28	Total	244.92	248.29
Total (Zone-1 + Zone-2)				497.04	504.57
Net Addition (July, 2020)			7.53 million		

VII. Wireline Subscribers

- Wireline subscribers increased from 19.81 million at the end of June-20 to 19.82 million at the end of July-20. Net addition in the

wireline subscriber base was 0.01 million with a monthly growth rate of 0.05%. The share of urban and rural subscribers in total wireline

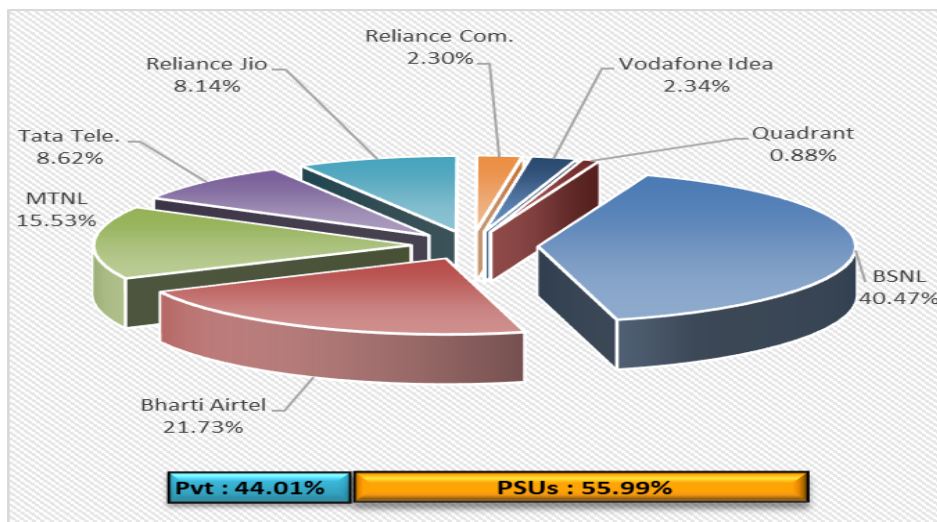
subscribers were 89.70% and 10.30% respectively at the end of July-20.

- The Overall Wireline Tele-density decreased from 1.47 at the end of Jun-20 to 1.46 at the end of July-20. Urban and Rural Wireline Tele-density were 3.83 and 0.23

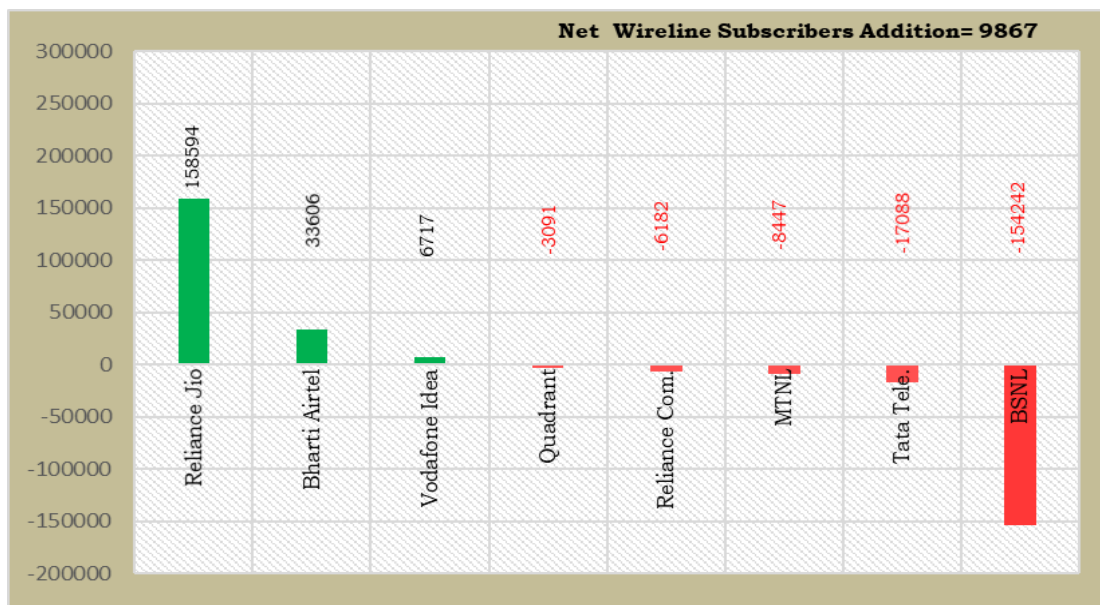
respectively during the same period.

- BSNL and MTNL, the two PSU access service providers, held 55.99% of the wireline market share as on 31st July, 2020. Detailed statistics of wireline subscriber base are available at **Annexure-III**.

Access Service Provider-wise Market Share of Wireline Subscribers as on 31st July, 2020



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



VIII. Broadband (\geq 512 Kbps download)

- As per the reports received from 345 operators in the month of July, 2020, the number of broadband subscribers increased from 698.23 million at the end of June-20 to 705.40 million at the end of July-20 with a monthly growth rate of 1.03%. Segment-wise broadband subscribers and their monthly growth rates are as below: -

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

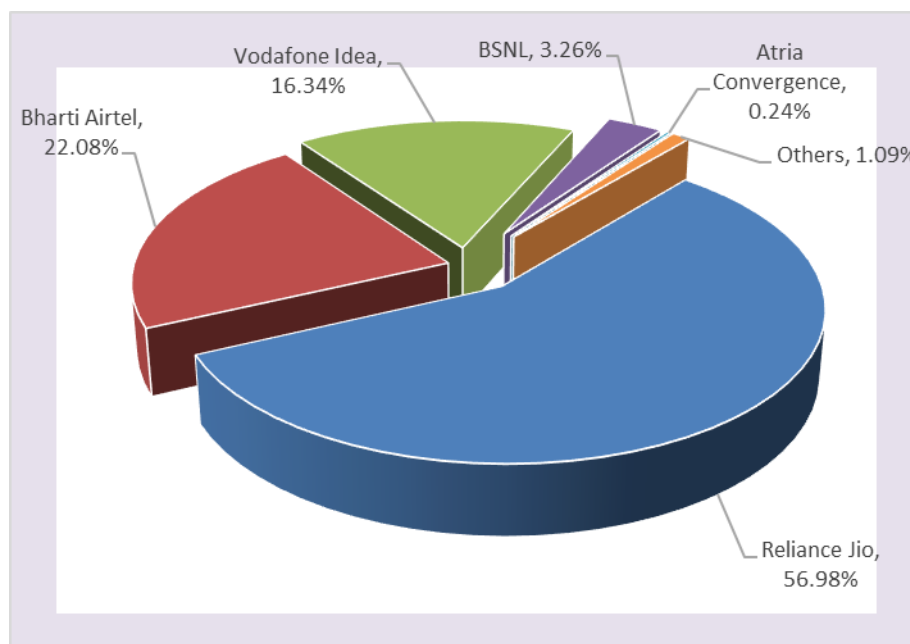
Segment	Broadband subscribers (in million)		Monthly growth rate in the month of July-20
	As on 30 th June, 2020	As on 31 st July, 2020	
Wired subscribers	19.82	20.13	1.56%
Mobile devices users (Phones and dongles)	677.79	684.64	1.01%
Fixed Wireless subscribers (Wi-Fi, Wi-Max, Point-to-Point Radio & VSAT)	0.63	0.64	1.76%
Total	698.23	705.40	1.03%

- Top five service providers constituted 98.91% market share of the total broadband subscribers at the end of July-20. These service providers were Reliance Jio Infocomm Ltd (401.96 million), Bharti Airtel (155.74 million), Vodafone Idea (115.27 million), BSNL (23.03 million) and Atria Convergence (1.69 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 31.07.2020**



- As on 31st July, 2020, the top five Wired Broadband Service providers were BSNL (7.86 million), Bharti Airtel (2.49 million), Atria Convergence Technologies (1.69 million), Reliance Jio Infocomm Ltd (1.16 million) and Hathway Cable & Datacom (1.01 million).

- As on 31st July, 2020, the top five Wireless Broadband Service providers were Reliance Jio Infocom Ltd (400.80 million), Bharti Airtel (153.25 million), Vodafone Idea (115.26 million), BSNL (15.17 million) and Tikona Infinet Ltd. (0.30 million).

Contact details in case of any clarification:

Shri S. K. Mishra, Pr. Advisor (F&EA),
Telecom Regulatory Authority of India
Mahanagar Doorsanchar Bhawan
Jawahar Lal Nehru Marg,
New Delhi – 110002,
Ph: 011-23221856
Fax: 011-23235249
E-mail: skmishra.tra@nic.in

Authorized to issue:

(S. K. Mishra)
Pr. Advisor (F&EA)

Wireless Subscriber Base																	Annexure-I
Circle	Bharti Airtel (including Tata Tele.)		Reliance Com.		Vodafone Idea		BSNL		BSNL (VNO's)		MTNL		Reliance Jio		Total		Net Addition
	Jun-20	Jul-20	Jun-20	Jul-20	Jun-20	Jul-20	Jun-20	Jul-20	Jun-20	Jul-20	Jun-20	Jul-20	Jun-20	Jul-20	Jun-20	Jul-20	
Andhra Pradesh	28513977	28758029	2175	2341	16948499	16794919	9855027	9791631					31033822	31079879	86353500	86426799	73299
Assam	8285759	8320961	0	0	3892299	3746876	2843947	2854631					8465436	8567697	23487441	23490165	2724
Bihar	33693996	33965932	360	361	13652772	12951818	5701746	5730453					30622243	30853581	83671117	83502145	-168972
Delhi	15048030	15207120	1751	1751	16417191	16156528	0	0			2179026	2176588	18388992	18623583	52034990	52165570	130580
Gujarat	9920925	10086878	612	617	25892692	25636836	6106266	6106818					24316715	24712462	66237210	66543611	306401
Haryana	4498706	4625751	130	131	8361858	8187141	5013844	5034319					9381819	9400570	27256357	27247912	-8445
Himachal Pradesh	3211925	3239054	103	104	788330	766921	2997445	3001782					3739380	3806360	10737183	10814221	77038
J & K	5720475	5692818	0	0	588643	566556	1259303	1269147					4220936	4319217	11789357	11847738	58381
Karnataka	27876260	28133587	1601	1667	10825486	10399133	7274657	7265504					20702665	20725379	66680669	66525270	-155399
Kerala	5622201	5775421	690	710	17575190	17476433	10949638	10948307					9441962	9638284	43589681	43839155	249474
Kolkata	5836094	5864930	33	33	7013690	7305360	2169503	2217846					10338362	10484937	25357682	25873106	515424
Madhya Pradesh	13315433	13683182	728	763	23058064	23321872	6376004	6338937					31814555	31983994	74564784	75328748	763964
Maharashtra	15598186	15815103	912	913	35920408	35208617	7022942	7061627					32741143	33301395	91283591	91387655	104064
Mumbai	9205994	9330044	2318	2326	11937699	11431084	0	0			1175694	1172675	14147321	14231756	36469026	36167885	-301141
North East	5086549	5108808	0	0	1625330	1538975	1402201	1411278					3763129	3818245	11877209	11877306	97
Orissa	10770115	10727899	379	384	2851806	2760992	6354332	6395337					12995977	13211928	32972609	33096540	123931
Punjab	9926586	10111557	307	399	8838348	8720112	5817451	5831493					13940730	13967189	38523422	38630750	107328
Rajasthan	20458171	20774831	385	408	12928571	12762583	6312472	6331582					24671680	24744275	64371279	64613679	242400
Tamil Nadu (incl. Chennai)	24498103	24689184	3132	3149	19408811	19155903	10597025	10869880	92161	92174			24027784	24076340	78627016	78886630	259614
U.P.(E)	30874068	31143539	687	743	26206694	27124916	11717082	11690792					29138887	29394755	97937418	99354745	1417327
U.P.(W)	13934826	14178928	283	341	22054123	21611413	6036679	6030856					20050305	20102648	62076216	61924186	-152030
West Bengal	14775105	14698464	801	807	18317372	17752767	2409240	2422897					19305561	19759345	54808079	54634280	-173799
Total	316671484	319932020	17387	17948	305103876	301377755	118216804	118605117	92161	92174	3354720	3349263	397249404	400803819	1140705836	1144178096	3472260
Net Addition		3260536		561		-3726121		388313		13		-5457		3554415	0	3472260	
Rural Subscribers	151088155	152304920	0	0	166021253	164855848	38093493	38118586	0	0	45542	45491	166349991	168173963	521598434	523498808	1900374

- 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 on the date of Peak VLR in the month of JuLY-20 (%)							Annexure-II
Circle	Bharti	BSNL	Vodafone Idea	MTNL	Reliance Com.	Reliance Jio	Total
Andhra Pradesh	96.96	61.95	90.62		53.44	70.87	82.38
Assam	99.80	50.54	88.63		-	80.35	84.94
Bihar	101.13	48.05	94.87		97.14	99.84	96.04
Delhi	79.56		70.78	10.58	30.15	64.75	68.68
Gujarat	94.11	48.20	90.38		30.15	71.38	80.02
Haryana	102.34	35.65	92.21		50.38	62.51	73.23
Himachal Pradesh	102.32	37.26	93.73		32.69	68.23	71.65
J & K	95.86	57.07	82.78		-	72.66	82.62
Karnataka	93.15	54.39	88.48		88.30	75.95	82.83
Kerala	99.02	67.26	94.98		35.92	72.91	83.74
Kolkata	91.04	45.64	84.60		-	69.37	76.55
Madhya Pradesh	98.39	47.11	85.30		48.62	87.29	85.31
Maharashtra	98.47	55.04	92.85		53.67	82.93	87.29
Mumbai	59.26		64.34	32.10	128.33	43.60	53.83
North East	101.06	64.15	88.60		-	89.25	91.26
Orissa	105.88	62.96	94.02		17.71	87.84	89.40
Punjab	96.27	39.60	89.39		37.09	60.06	73.07
Rajasthan	96.03	44.45	92.17		42.16	77.08	82.96
Tamil Nadu (incl. Chennai)	94.82	71.69	91.43		72.37	76.37	85.15
U.P. (E)	108.19	37.52	91.88		26.65	90.36	90.14
U.P. (W)	103.88	40.68	90.99		10.26	76.75	84.42
West Bengal	100.94	77.71	98.63		24.91	87.60	94.33
Total	97.00	52.81	89.33	18.11	66.80	78.09	83.54

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.

Wireline Subscriber Base																		Annexure-III	
Service Area	BSNL		MTNL		Bharti Airtel		Reliance Com.		Tata Tele.		Quadrant		Vodafone Idea		Reliance Jio		Total		Net Addition
	Jun-20	Jul-20	Jun-20	Jul-20	Jun-20	Jul-20	Jun-20	Jul-20	Jun-20	Jul-20	Jun-20	Jul-20	Jun-20	Jul-20	Jun-20	Jul-20	Jun-20	Jul-20	
Andhra Pradesh	710649	704315			217071	220748	26517	25844	161986	161461			51915	51520	142988	156753	1311126	1320641	9515
Assam	91870	91091											3450	3450	17159	18587	112479	113128	649
Bihar	140696	139230					1937	1936	8124	7860			1830	1770	25121	29548	177708	180344	2636
Delhi	0	0	1391811	1388567	1416973	1427532	62940	61214	144233	143756			75335	73950	97012	112705	3188304	3207724	19420
Gujarat	579193	567204			101627	102145	8597	8286	82095	81693			32022	32222	154695	160180	958229	951730	-6499
Haryana	174789	158566			24810	26038	1314	1314	38349	36665			360	360	49461	55561	289083	278504	-10579
Himachal Pradesh	89491	88052			0	0	953	953	1820	1818			30	30	1352	2149	93646	93002	-644
J & K	111452	109156			4325	6127	0	0	0	0			0	0	25251	30375	141028	145658	4630
Karnataka	823344	818104			776627	784179	92714	91985	267925	263251			80357	81702	84124	102949	2125091	2142170	17079
Kerala	1379954	1345487			60252	60244	9487	9329	19377	19456			6090	6060	21465	24532	1496625	1465108	-31517
Kolkata	382620	374271			133050	133701	32293	32211	48127	47485			10700	11850	49137	61080	655927	660598	4671
Madhya Pradesh	303347	297946			234566	239150	4368	4241	12452	12287			2130	3585	64190	72631	621053	629840	8787
Maharashtra	838078	826534			116173	117832	30889	30554	249175	245830			29223	29953	44952	49835	1308490	1300538	-7952
Mumbai	0	0	1694184	1688981	373704	367340	119526	118437	524705	520226			86886	90503	263091	270542	3062096	3056029	-6067
North East	86189	85570											270	270	10107	11787	96566	97627	1061
Orissa	174878	170386					1590	1588	8747	8721			6060	6060	12219	14937	203494	201692	-1802
Punjab	294817	285150			133009	134320	9023	8960	11773	11865	177039	173948	3180	3180	48715	53681	677556	671104	-6452
Rajasthan	328940	318890			57600	59963	11802	11641	11303	11358			11780	11270	50095	56590	471520	469712	-1808
Tamil Nadu (incl. Chennai)	1102690	1086393			531136	529810	41223	40545	120655	120084			36755	37325	128014	145798	1960473	1959955	-518
U.P.(E)	193146	189436			63375	66143	2701	2684	7575	7585			13900	13960	51960	60386	332657	340194	7537
U.P.(W)	186171	181830			28135	30767	2040	2041	4662	4601			5460	5430	101403	108258	327871	332927	5056
West Bengal	182698	183159					1509	1478	2372	2365			120	120	12831	15072	199530	202194	2664
Total	8175012	8020770	3085995	3077548	4272433	4306039	461423	455241	1725455	1708367	177039	173948	457853	464570	1455342	1613936	19810552	19820419	9867
Net Addition		-154242		-8447		33606		-6182		-17088		-3091		6717		158594		9867	
Rural Subscribers	2003884	1959350	0	0	0	0	810	782	44147	43573	34626	33798	0	0	4019	4664	2087486	2042167	-45319

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.