(Press Release No.62/2020)

Information Note to the Press





TELECOM REGULATORY AUTHORITY OF INDIA

New Delhi, 26th August, 2020 (www.trai.gov.in)

Highlights of Telecom Subscription Data as on 31st May, 2020

Particulars	Wireless	Wireline	Total (Wireless+ Wireline)
Total Telephone Subscribers (Million)	1143.91	19.77	1163.67
Net Addition in May, 2020 (Million)	-5.61	-0.15	-5.76
Monthly Growth Rate	-0.49%	-0.77%	-0.49%
Urban Telephone Subscribers (Million)	620.21	17.65	637.85
Net Addition in May, 2020 (Million)	-9.23	-0.11	-9.34
Monthly Growth Rate	-1.47%	-0.62%	-1.44%
Rural Telephone Subscribers (Million)	523.70	2.12	525.82
Net Addition in May, 2020 (Million)	3.62	-0.04	3.57
Monthly Growth Rate	0.70%	-2.01%	0.68%
Overall Tele-density*(%)	84.69%	1.46%	86.15%
Urban Tele-density*(%)	133.99%	3.81%	137.81%
Rural Tele-density*(%)	58.99%	0.24%	59.23%
Share of Urban Subscribers	54.22%	89.28%	54.81%
Share of Rural Subscribers	45.78%	10.72%	45.19%
Broadband Subscribers (Million)	664.40	19.38	683.77

- ❖ In the month of May, 2020, 2.98 million subscribers submitted their requests for Mobile Number Portability (MNP). With this, the cumulative MNP requests increased from 488.23 million at the end of Apr-20 to 491.21 million at the end of May-20, since implementation of MNP.
- Number of active wireless subscribers (on the date of peak VLR*) in May, 2020 was 960.78 million.

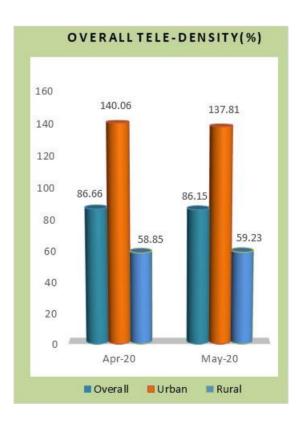
Note:

- 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

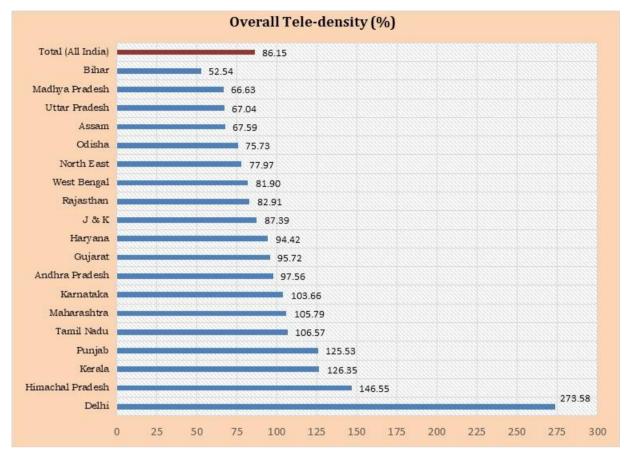
• The number of telephone subscribers in India decreased from 1,169.44 million at the end of Apr-20 to 1,163.67 million at the end of May-20, thereby showing a monthly decline rate of 0.49%. Urban telephone subscription decreased from 647.19 million at the end of Apr-20 to 637.85 million at the end of May-20, however the rural subscription increased from 522.24 million to 525.82 million during the same period. The monthly growth rates of urban and rural telephone subscription were -1.44% and 0.68% respectively during the month of May-20.





• The overall Tele-density in India decreased from 86.66 at the end of Apr-20 to 86.15 at the end of May-20. The Urban Tele-density declined from 140.06 at the end of Apr-20 to 137.81 at the end of May-20. Rural Tele-density increased from 58.85 at the end of Apr-20 to 59.23 at the end of May-20. The share of rural and urban subscribers in total number of telephone subscribers at the end of May-20 was 45.19% and 54.81% respectively.





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 May-20. Delhi service area
has maximum tele-density of 273.58 and the Bihar service area has
minimum tele-density of 52.54 at the end of May-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.

II. Category-wise Growth in subscriber base

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

Circle		s in the month ny, 2020	Telephone Subscriber base on 31 st May, 2020					
Category	Wireline segment	Wireless segment	Wireline segment	Wireless segment				
Circle A	-83,162	-21,04,769	76,38,096	39,16,35,855				
Circle B	-11,490	-20,20,642	44,19,201	46,32,87,235				
Circle C	-1,218	-73,485	8,26,521	17,45,37,998				
Metro	-57,115	-14,12,442	68,82,803	11,44,44,487				
All India	-1,52,985	-56,11,338	1,97,66,621	1,14,39,05,575				

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

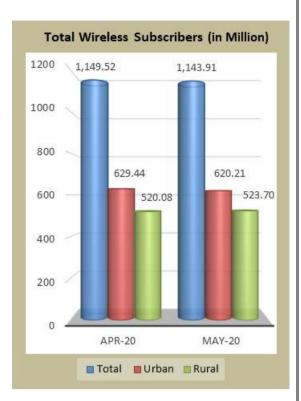
Circle		wth rate (%) o May-20)	Yearly growth rate (%) (May-19 to May-20)				
Category	Wireline Segment	Wireless Segment	Wireline Segment	Wireless Segment			
Circle A	-1.08%	-0.53%	-7.52%	-1.56%			
Circle B	-0.26%	-0.43%	-16.02%	-1.76%			
Circle C	-0.15%	-0.04%	-6.17%	-0.42%			
Metro	-0.82%	-1.22%	-0.06%	-2.34%			
All India	-0.77%	-0.49%	-7.15%	-1.55%			

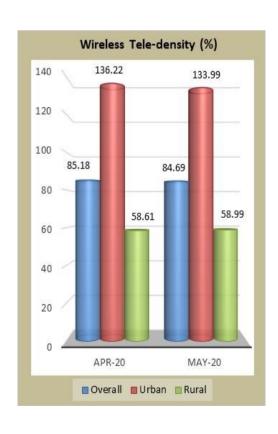
Note: Circle Category-Metro includes Delhi, Mumbai and Kolkata. Data for Chennai has been included in Circle Category-A, as part of TamilNadu.

• As can be seen in the above tables, in both wireless and wireline segment, on monthly and yearly basis, Circles of all Categories showed decline rate in their subscribers during the month of May-20.

Wireless Subscribers

• Total wireless subscribers (2G, 3G & 4G) decreased from 1,149.52 million at the end of Apr-20 to 1,143.91 million at the end of May-20, thereby registering a monthly decline rate of 0.49%. Wireless subscription in urban areas decreased from 629.44 million at the end of Apr-20 to 620.21 million at the end of May-20 however wireless subscription in rural areas increased from 520.08 million at the end of Apr-20 to 523.70 million at the end of May-20. Monthly growth rates of urban and rural wireless subscription were -1.47% and 0.70% respectively.

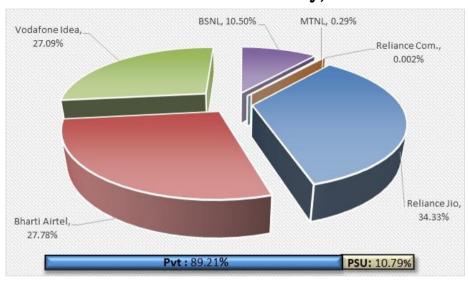




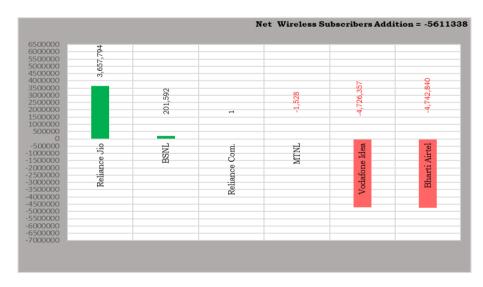
The Wireless Tele-density in India decreased from 85.18 at the end of Apr-20 to 84.69 at the end of May-20. The Urban Wireless Tele-density declined from 136.22 at the end of Apr-20 to 133.99 at the end of May-20, however, Rural Wireless Tele-density increased 58.61 to 58.99 during the same period. The share of urban and rural wireless subscribers in total number of wireless subscribers was 54.22% and 45.78% respectively at the end of May-20. Detailed statistics of wireless subscriber base is available at **Annexure-I**.

- As on 31st May, 2020, the private access service providers held 89.21% market share of the wireless subscribers whereas BSNL and MTNL, the two PSU access service providers, had a market share of only 10.79%.
- 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 May, 2020



Net Additions in Wireless Subscribers of Access Service Providers in the month of May, 2020



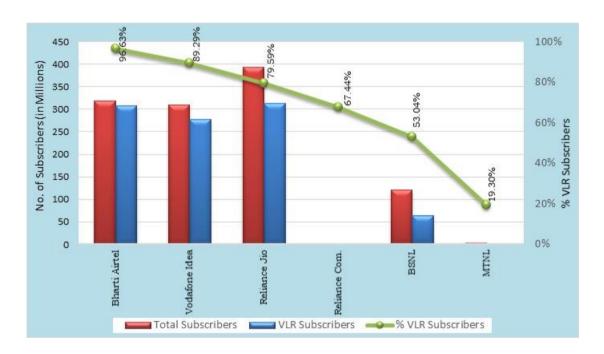
Note: 1. M/s Bharti Airtel Ltd has reported the wireless subscribers including the subscribers of M/s Tata Teleservices Ltd.

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.

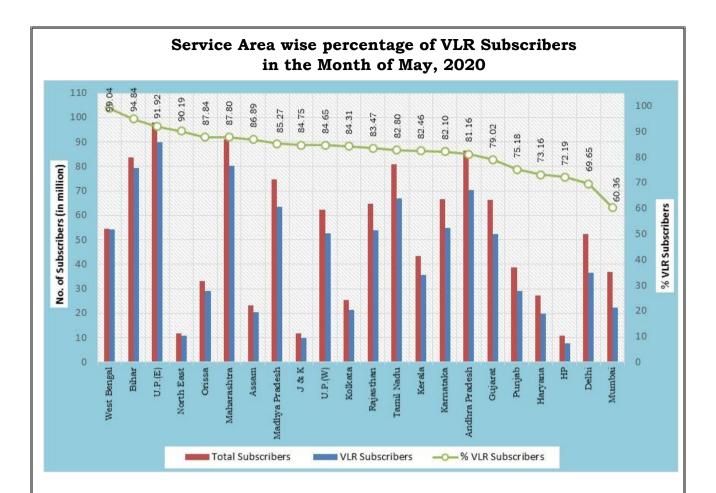
III. Active Wireless Subscribers (VLR Data)

- Out ofthe total wireless subscribers (1,143.91)million), 960.78 million wireless subscribers were active on the date of peak VLR in the month of May-20. The proportion of active wireless subscribers approximately was 83.99% 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 May-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 May, 2020



- Bharti Airtel has the maximum proportion (96.63%) of its active wireless subscribers (VLR) as against its total wireless subscribers (HLR) on the date of
- peak VLR in the month of May-20 and MTNL has the minimum proportion of VLR (19.30%) of its HLR during the same period.

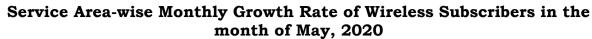


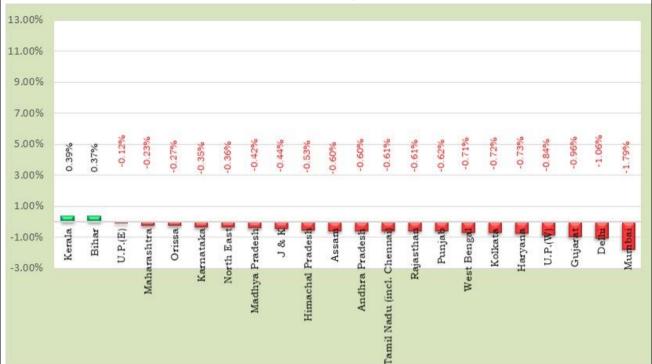
V. Growth in Wireless Subscribers

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



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





 All service areas showed decline except Kerala and Bihar in their wireless subscribers during the month of May-20. Kerala service area showed maximum growth of 0.39% in their wireless subscriber 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 MNP Area has 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 May-20, a total of 2.98 million requests were received for MNP. Out of total 2.98 million new requests, 1.35 million requests received from Zone-I and 1.63 million requests received from Zone-II. The cumulative MNP requests increased from 488.23 million at the end of Apr-20 to 491.21 million at the end of May-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 38.11 million) followed by Rajasthan (about 37.57 million) service area.
- In MNP Zone-II (Southern and Eastern India), the highest number of requests till date have been received in Karnataka (about 43.86 million) followed by Andhra Pradesh (about 41.09 million).

Service Area Wise MNP Status										
Zon	e -1		Zone – 2							
Service Area	Reque	of Porting ests (in ion)	Service Area	Number of Porting Requests (in Million)						
	Apr-20	May-20		Apr-20	May-20					
Delhi	25.06	25.14	Andhra Pradesh	40.85	41.09					
Gujarat	32.61	32.78	Assam	3.70	3.72					
Haryana	17.53	17.62	Bihar	20.27	20.47					
Himachal Pradesh	2.38	2.40	Karnataka	43.65	43.86					
Jammu & Kashmir	1.18	1.18	Kerala	12.47	12.72					
Maharashtra	37.86	38.11	Kolkata	11.41	11.45					
Mumbai	24.05	24.07	Madhya Pradesh	32.67	32.89					
Punjab	18.81	18.91	North East	1.44	1.45					
Rajasthan	37.42	37.57	Orissa	9.71	9.77					
U.P.(East)	28.22	28.48	Tamil Nadu	40.33	40.57					
U.P.(West)	22.66	22.86	West Bengal	23.94	24.09					
Total	247.79	249.14	Total	240.44	242.07					
Total (Zone-1 + Z	one-2)			488.23	491.21					
Net Addition (May	, 2020)			2.98	8 million					

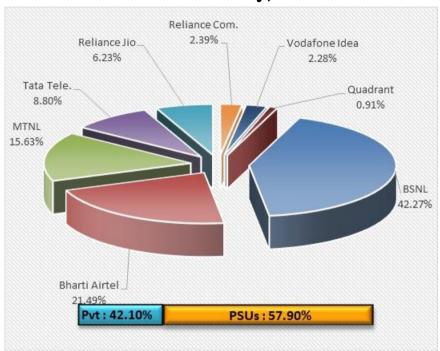
VII. Wireline Subscribers

• Wireline subscribers decreased from 19.92 million at the end of Apr-20 to 19.77 million at the end of May-20. Net decline in the wireline subscriber base was 0.15 million with a monthly decline rate

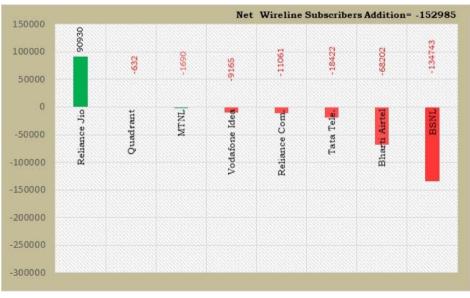
of 0.77%. The share of urban and rural subscribers in total wireline subscribers were 89.28% and 10.72% respectively at the end of May-20.

- The Overall Wireline Tele-density declined from 1.48 at the end of Apr-20 to 1.46 at the end of May-20. Urban and Rural Wireline Tele-density were 3.81 and 0.24 respectively during the same period.
- BSNL and MTNL, the two PSU access service providers, held 57.90% of the wireline market share as on 31st May, 2020.
 Detailed statistics of wireline subscriber base are available at Annexure-III.

Access Service Provider-wise Market Shares of Wireline Subscribers as on 31st May, 2020



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



VIII. Broadband (≥ 512 Kbps download)

 As per the reports received from 344 operators in the month of May, 2020, the number of broadband subscribers increased from 676.14 million at the end of Apr-20 to 683.77 million at the end of May-20 with a monthly growth rate of 1.13%. Segment-wise broadband subscribers and their monthly growth rates are as below: -

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

	Broadband s	Monthly growth	
Segment	As on 30 th April, 2020	As on 31st May, 2020	rate in the month of May-20
Wired subscribers	19.02	19.38	1.88%
Mobile devices users (Phones and dongles)	656.51	663.78	1.11%
Fixed Wireless subscribers (Wi-Fi, Wi-Max, Point-to- Point Radio & VSAT)	0.61	0.61	0.13%
Total	676.14	683.77	1.13%

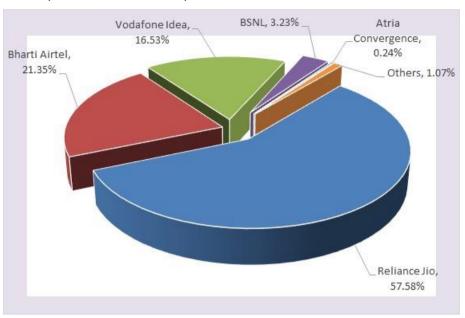
• Top five service providers constituted 98.93% market share of the total broadband subscribers at the end of May-20. These service providers were Reliance Jio

Infocomm Ltd (393.72 million), Bharti Airtel (145.96 million), Vodafone Idea (113.06 million), BSNL (22.07 million) and Atria Convergence (1.64 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 31.05.2020



- As on 31st May, 2020, the top five Wired Broadband Service providers were BSNL (7.93 million), Bharti (2.41)million), Airtel Atria Convergence Technologies (1.64)Cable million), Hathway & (0.97)million) Datacom and Reliance Jio Infocomm Ltd (0.97 million).
- As on 31st May, 2020, the top five Broadband Service Wireless providers were Reliance Jio Infocom Ltd (392.75)million), Bharti Airtel (143.55 million), Vodafone Idea (113.05 million), BSNL (14.14 million) and MTNL (0.29 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.trai@nic.in Authorized to issue:

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

					Wireless	Subscribe	er Base										Annexure-I
Circle	Bharti (including		Relian	ce Com.	Vodafo	Vodafone Idea		BSNL		BSNL (VNO's)		MTNL		ice Jio	Total		Net Addition
•	Apr-20	May-20	Apr-20	M ay-20	Apr-20	May-20	Apr-20	May-20	Apr-20	May-20	Apr-20	May-20	Apr-20	May-20	Apr-20	May-20	
Andhra Pradesh	28972986	28582118	2212	2212	17683144	17256983	9881535	9886981					30601661	30887378	87141538	86615672	-52586
Assam	8249311	8215866	0	0	4173958	3989780	2815919	2830191					8287547	8349301	23526735	23385138	-14159
Bihar	34585811	34018344	381	381	13528501	13971724	5640105	5661488					29721424	30133590	83476222	83785527	30930
Delhi	15392076	15169741	1789	1789	16982626	16616523	0	0			2181437	2180443	18302250	18332935	52860178	52301431	-55874
Gujarat	10311741	9950419	604	604	26575630	26169015	6104253	6105800					23824235	23952073	66816463	66177911	-63855
Haryana	4482455	4417778	136	136	8646982	8500081	5001387	5000882					9348593	9359933	27479553	27278810	-20074
Himachal Pradesh	3278997	3197077	104	104	837019	811814	2992738	2995104					3637021	3684668	10745879	10688767	-5711
J & K	5870663	5762957	0	0	619462	609095	1252838	1269166					4079081	4128865	11822044	11770083	-5196
Karnataka	28258387	27969035	1540	1540	11030507	10879575	7274791	7268263					20441097	20652189	67006322	66770602	-235720
Kerala	5538046	5483225	633	633	17603735	17626920	10944266	10944716					8990383	9188896	43077063	43244390	16732
Kolkata	6105132	5933434	36	36	7285432	7135138	2105043	2127898					10056731	10170852	25552374	25367358	-18501
Madhya Pradesh	14157984	13588300	750	751	23672162	23451962	6377687	6395871					30688624	31148199	74897207	74585083	-31212
Maharashtra	15759463	15564759	1046	1046	36994987	36570907	7057401	7077504					31647484	32034054	91460381	91248270	-21211
Mumbai	9743289	9449530	2386	2386	12483442	12080028	0	0			1178618	1178084	14036642	14065670	37444377	36775698	-66867
North East	5152370	5105383	0	0	1706084	1671945	1400558	1392938					3658488	3703915	11917500	11874181	-4331
Orissa	11203486	10987306	364	364	3083567	2971272	6248099	6300428					12587587	12774932	33123103	33034302	-8880
Punjab	10116953	9960135	316	316	9180985	9028866	5782584	5782584					13834813	13904006	38915651	38675907	-23974
Rajasthan	20821142	20515565	368	368	13334087	13183993	6275568	6298309					24595250	24633165	65026415	64631400	-39501
Tamil Nadu (incl. Chennai)	24793264	24566667	3130	3130	20053473	19644967	12551745	12532225	92052	92107			23822256	23984304	81315920	80823400	-492520
U.P.(E)	30696400	30697332	862	862	27179466	26641385	11703589	11710173					28427340	28839335	98007657	97889087	-118570
U.P.(W)	13807864	13773902	300	300	23131097	22594917	5979790	5990127					19916026	19947485	62835077	62306731	-52834
West Bengal	15245279	14891386	811	811	18865402	18518501	2370159	2390944					18587603	18874185	55069254	54675827	-39342
Total	322543099	317800259	17768	17769	314651748	309925391	119760055	119961592	92052	92107	3360055	3358527	389092136	392749930	1149516913	1143905575	-5611338
Net Addition		-4742840		1		-4726357		201537		55		-1528		3657794	0	-5611338	
Rural Subscribers	155785366	153157053	0		164400292	168417334	38080225	38174454	0	0	45592	45571	161769777	163904417	520081252	523698829	361757

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 V	LR on the d	An	Annexure-II				
Circle	Bharti	BSNL	Vodafone Idea	MTNL	Reliance Com.	Reliance Jio	Total
Andhra Pradesh	94.12	61.87	90.67		58.41	70.04	81.16
Assam	99.08	51.02	87.24		-	86.90	86.89
Bihar	100.75	48.86	89.98		98.49	99.08	94.84
Delhi	79.51		71.17	10.64	29.14	67.12	69.65
Gujarat	89.53	48.78	91.00		29.14	69.28	79.02
Haryana	102.01	37.10	90.28		52.21	63.26	73.16
Himachal Pradesh	103.27	37.86	93.83		33.65	68.35	72.19
J & K	95.45	56.72	80.21		-	79.10	84.75
Karnataka	92.80	55.24	87.56		88.12	74.21	82.10
Kerala	98.01	66.21	94.11		28.44	70.21	82.46
Kolkata	87.41	58.67	85.19		-	87.25	84.31
Madhya Pradesh	98.30	47.42	86.09		47.40	86.74	85.27
Maharashtra	98.04	55.19	92.45		49.43	84.74	87.80
Mumbai	62.82		72.31	35.33	127.33	50.53	60.36
North East	98.66	66.17	83.49		-	90.58	90.19
Orissa	104.53	64.08	88.47		13.46	85.05	87.84
Punjab	97.47	40.49	89.34		20.89	64.44	75.18
Rajasthan	98.33	45.05	91.55		36.14	76.59	83.47
Tamil Nadu (incl. Chennai)	94.89	63.52	90.84		72.33	73.97	82.80
U.P. (E)	108.10	38.00	94.32		38.05	94.36	91.92
U.P. (W)	105.88	42.42	91.06		11.67	75.40	84.65
West Bengal	100.46	86.19	96.31		26.88	102.23	99.04
Total	96.63	53.04	89.29	19.30	67.44	79.59	83.99

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	Subscri	ber Base									Annexur	e-III	
	BS	NL	мт	'nL	Bharti	Airtel	Reliance Com.		Tata	Tele.	Quad	lrant	Vodafone Idea		Relian	ice Jio	Total		Net
Service Area	Apr-20	May-20	Apr-20	May-20	Apr-20	May-20	Apr-20	May-20	Apr-20	May-20	Apr-20	May-20	Apr-20	May-20	Apr-20	May-20	Apr-20	May-20	Addition
Andhra Pradesh	728414	722984			211116	212608	27999	27480	165717	164535			51345	51855	109350	119599	1293941	1299061	5120
Assam	94874	93155											3450	3450	13314	14945	111638	111550	-88
Bihar	145766	143398					1973	1940	8286	8204			2010	1800	18493	20740	176528	176082	-446
Delhi	0	0	1394251	1393468	1460886	1431467	65012	63894	147080	145007			78575	74675	89953	92670	3235757	3201181	-34576
Gujarat	592781	588262			101465	99301	9279	9000	82561	82445			31082	31902	132586	137626	949754	948536	-1218
Haryana	176915	180077			23080	23782	1487	1390	37813	37826			360	360	25178	29379	264833	272814	7981
Himachal Pradesh	93617	91952			0	0	1045	954	1917	1915			60	30	840	942	97479	95793	-1686
J & K	117176	114791			1860	3263	0	0	0	0			0	0	15976	19923	135012	137977	2965
Karnataka	849574	837394			772675	765799	94797	93267	270724	268163			82917	80327	55374	68778	2126061	2113728	-12333
Kerala	1430506	1396849			60588	59490	9957	9584	19577	19502			5670	5880	15507	17282	1541805	1508587	-33218
Kolkata	387892	385624			131191	130328	32915	32811	48752	48574			12480	10700	36583	39211	649813	647248	-2565
Madhya Pradesh	326644	307294			236269	232252	4588	4397	13078	12903			2310	2130	52074	56989	634963	615965	-18998
Maharashtra	887272	847705			112042	112289	34945	34372	256219	252046			29743	29113	37591	39536	1357812	1315061	-42751
Mumbai	0	0	1697538	1696631	385451	370950	126539	122394	535719	529243			86637	86962	222464	228194	3054348	3034374	-19974
North East	89812	88758											270	270	6728	8061	96810	97089	279
Orissa	185504	181386					1622	1591	8738	8760			5760	6030	8648	10263	210272	208030	-2242
Punjab	312625	305342			132774	130338	9267	9088	12112	11881	180870	180238	3030	3180	41187	43529	691865	683596	-8269
Rajasthan	352049	344714			56781	55817	12378	12135	11463	11339			9960	6780	40672	43085	483303	473870	-9433
Tamil Nadu (incl. Chennai)	1146534	1120078			540444	531540	43374	41843	122086	121375			35505	36105	105747	110769	1993690	1961710	-31980
U.P.(E)	217783	251162			62535	61662	2710	2711	8173	7938			13330	13870	39240	45000	343771	382343	38572
U.P.(W)	197523	193274			26222	26291	2087	2071	4776	4758			5550	5460	64874	75215	301032	307069	6037
West Bengal	156008	160327					1549	1540	2422	2377			120	120	9020	10593	169119	174957	5838
Total	8489269	8354526	3091789	3090099	4315379	4247177	483523	472462	1757213	1738791	180870	180238	460164	450999	1141399	1232329	19919606	19766621	-152985
Net Addition		-134743		-1690		-68202		-11061		-18422		-632		-9165		90930		-152985	
Rural Subscribers	2077921	2035124	0	0	0	0	940	845	45394	44657	35365	35170	0	0	3019	3387	2162639	2119183	-43456

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.