For immediate release

(Press Release No. 74/2019)

Information Note to the Press





TELECOM REGULATORY AUTHORITY OF INDIA

New Delhi, 18th September, 2019 (www.trai.gov.in)

Highlights of Telecom Subscription I	Data as on	31 st July	<mark>, 2019</mark>
Particulars	Wireless	Wireline	Total (Wireless+ Wireline)
Total Telephone Subscribers (Million)	1168.31	20.96	1189.28
Net Addition in July, 2019 (Million)	2.85	-0.20	2.65
Monthly Growth Rate	0.24%	-0.97%	0.22%
Urban Telephone Subscribers (Million)	659.87	18.16	678.02
Net Addition in July, 2019 (Million)	2.60	-0.16	2.44
Monthly Growth Rate	0.40%	-0.87%	0.36%
Rural Telephone Subscribers (Million)	508.45	2.81	511.25
Net Addition in July, 2019 (Million)	0.25	-0.05	0.21
Monthly Growth Rate	0.05%	-1.60%	0.04%
Overall Tele-density*(%)	88.64	1.59	90.23
Urban Tele-density*(%)	156.80	4.31	161.12
Rural Tele-density*(%)	56.67	0.31	56.98
Share of Urban Subscribers	56.48%	86.60%	57.01%
Share of Rural Subscribers	43.52%	13.40%	42.99%
Broadband Subscribers (Million)	585.60	18.52	604.12

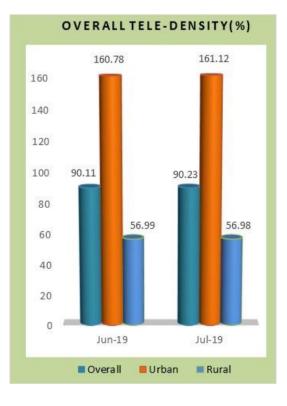
- In the month of July, 2019, 5.92 million subscribers submitted their requests for Mobile Number Portability (MNP). With this, the cumulative MNP requests increased from 441.49 million at the end of Jun-19 to 447.41 million at the end of Jul-19, since implementation of MNP.
- Number of active wireless subscribers (on the date of peak VLR[#]) in July, 2019 was 972.38 million.

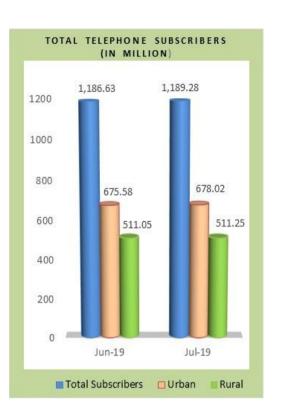
Note:

- Information in this Press Release is based on the data provided by the Service Providers
- * Based on the population projections from Census data published by the Office of Registrar General & Census Commissioner of India.
- # VLR is acronym of Visitor Location Register. The dates of peak VLR for various TSPs are different in different service areas.

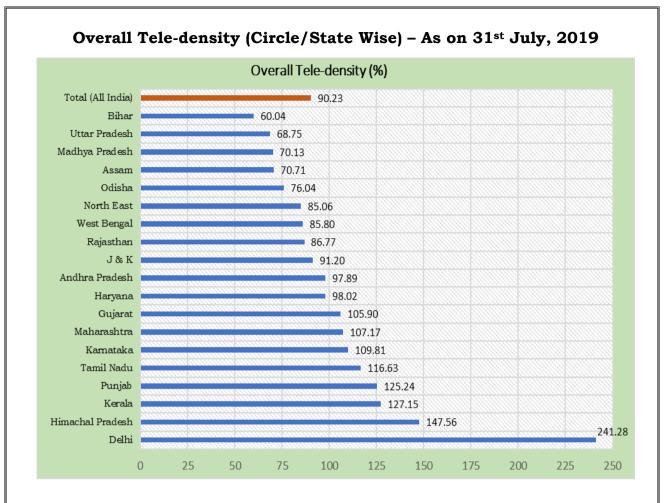
I. Total Telephone Subscribers

• The number of telephone subscribers in India increased from 1,186.63 million at the end of Jun-19 to 1,189.28 million at the end of Jul-19, thereby showing a monthly growth rate of 0.22%. The Urban subscription increased from 675.58 million at the end of Jun-19 to 678.02 million at the end of Jul-19 and the rural subscription also increased from 511.05 million to 511.25 million during the same period. The monthly growth rates of urban and rural subscription were 0.36% and 0.04% respectively during the month of Jul-19.





• The overall Tele-density in India increased from 90.11 at the end of Jun-19 to 90.23 at the end of Jul-19. The Urban Tele-density increased from 160.78 at the end of Jun-19 to 161.12 at the end of Jul-19. However, Rural Tele-density slightly declined from 56.99 at the end of Jun-19 to 56.98 at the end of Jul-19. The share of rural and urban subscribers in total number of telephone subscribers at the end of Jul-19 was 57.01% and 42.99% 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 Jul-19. Delhi service area has maximum tele-density of 241.28 and the Bihar service area has minimum tele-density of 60.04 at the end of July, 2019.

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 projections of population published by the Office of the Registrar General & Census Commissioner, India.
- 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		s in the month ly, 2019	Telephone Subscriber base a on 31 st July, 2019							
Category	Wireline segment	Wireless segment	Wireline segment	Wireless segment						
Circle A	-70,590	1,273,991	8,125,951	40,0047,186						
Circle B	-63,984	547,500	5,152,325	473,692,257						
Circle C	-44,748	648,120	821,977	176,572,815						
Metro	-25,492	383,454	6,864,465	118,000,567						
All India	-204,814	2,853,065	20,964,718	1,168,312,825						

Circle Category-wise Net Additions in Telephone Subscribers in the month of July, 2019

Circle Category-wise monthly and yearly Growth Rates in Telephone Subscribers in the month of July, 2019

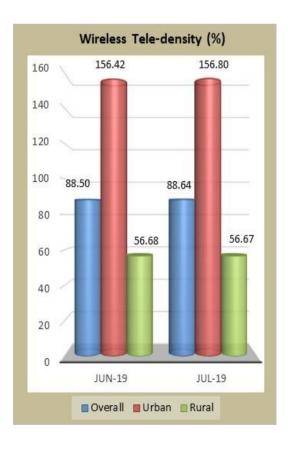
Circle	Monthly gro (Jun-19	wth rate (%) to Jul-19)		wth rate (%) to Jul-19)
Category	Wireline Segment			Wireless Segment
Circle A	-0.86	0.32	-7.12	0.14
Circle B	-1.23	0.12	-8.06	0.35
Circle C	-5.16	0.37	-16.93	1.38
Metro	-0.37	0.33	-0.95	5.96
All India	-0.97	0.24	-5.87	0.97

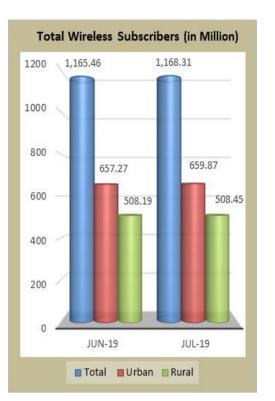
Note: Circle Category-Metro includes Delhi, Mumbai and Kolkata. Data for Chennai has been included in Circle Category-A, as part of TamilNadu.

- As can be seen in the above tables, in wireless segment, Circles of all Categories showed monthly growth in their subscribers during Jul-19. Circles in Category 'A' showed maximum net addition in their wireless subscribers during the month.
- In Wireline segment, Circles in all other Categories showed decline rate in their subscribers during the month of Jul-19. Circles in Category 'A' showed maximum decline in wireline subscribers, however circles in Category 'C' showed maximum decline rate during the month.

III. Wireless Subscribers

Total wireless subscribers (GSM, CDMA & LTE) increased from 1,165.46 million at the end of Jun-19 to 1,168.31 million at the end of Jul-19, thereby registering a monthly growth rate of 0.24%. Wireless subscription in urban areas increased from 657.27 million at the end of Jun-19 to 659.87 million at the end of Jul-19 and wireless subscription in rural areas increased from 508.19 million at the end of Jul-19. Monthly growth rates of urban and rural wireless subscription were 0.40% and 0.05% respectively.



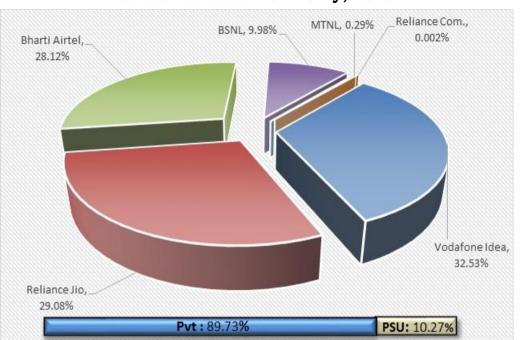


The Wireless Tele-density in India increased from 88.50 at the end of Jun-19 to 88.64 at the end of Jul-19. The Urban Wireless Tele-density increased from 156.42 at the end of Jun-19 to 156.80 at the end of Jul-19. However, Rural Wireless Tele-density slightly declined from 56.68 to 56.67 during the same period. The share of urban and rural wireless subscribers in total number of wireless subscribers was 56.48% and 43.52% respectively at the end of Jul-19. Detailed statistics of wireless subscriber base is available at Annexure-I.

• As on 31st July, 2019, the private access service providers held 89.73% market share of the wireless subscribers whereas BSNL and MTNL, the two PSU access service providers, had a market share of only 10.27%.

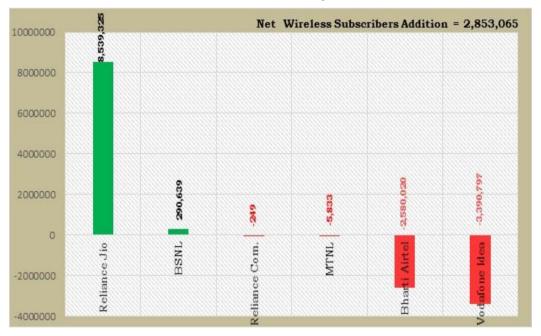
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• The graphical representation of access service provider-wise market share and net additions in wireless subscriber base are given below:



Access Service Provider-wise Market Shares in term of Wireless Subscribers as on 31st July, 2019

Net Additions in Wireless Subscribers of Access Service Providers in the month of July, 2019

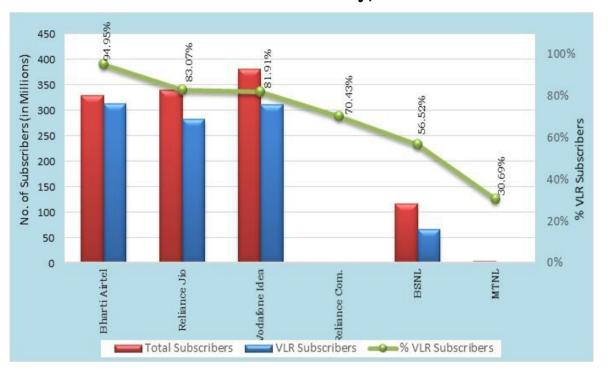


- **Note:** 1. M/s Bharti Airtel Ltd has reported the wireless subscribers including the subscribers of M/s Tata Teleservices Ltd. However, DoT has not yet approved merger of them.
 - 2. Virtual Network Operator (VNO) of BSNL has started reporting of its subscribers from the month of October, 2018 and the same has been included in the subscriber base of BSNL.

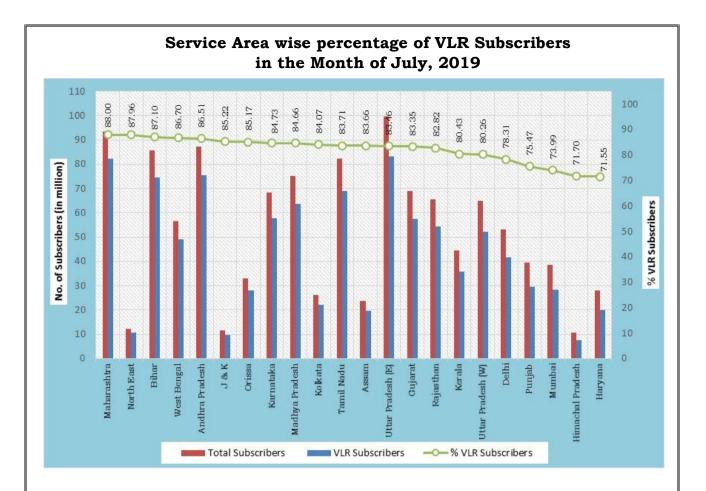
IV. Active Wireless Subscribers (VLR Data)

- Out of the total wireless subscribers (1, 168.31)million), 972.38 million wireless subscribers were active on the date of peak VLR in the month of Jul-19. The of proportion active wireless subscribers approximately was 83.23% of total wireless the 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 Jul-19 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, 2019

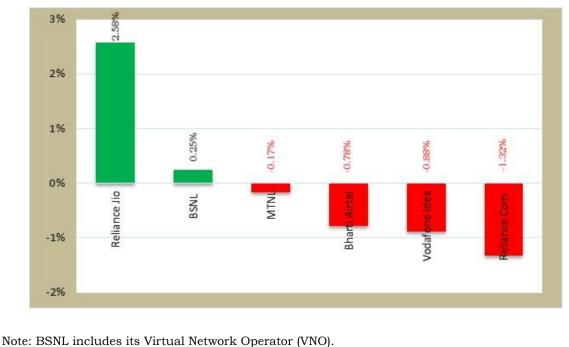


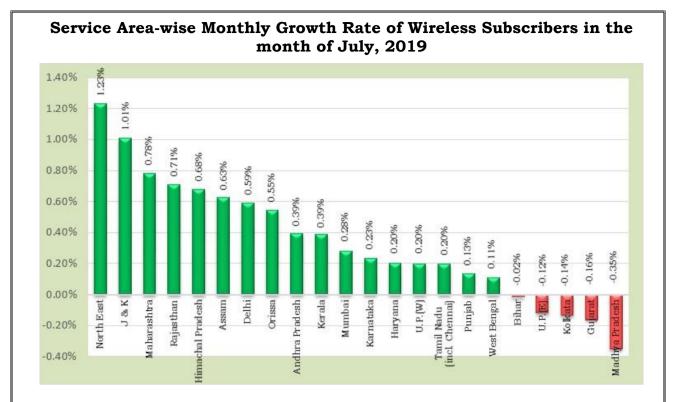
 Bharti Airtel (including Tata Teleservices) has the maximum proportion (94.95%) of its active wireless subscribers (VLR) as against its total wireless subscribers (HLR) on the date of peak VLR in the month of Jul-19.



V. Growth in Wireless Subscribers

Access Service Provider-wise Monthly Growth Rate of Wireless Subscribers in the month of July, 2019





 Out of the total 22 service areas, five service areas showed negative growth in their wireless subscribers during the month of July, 2019. North-East service area showed maximum growth of 1.23% and Madhya Pradesh service area showed maximum decline (0.35%) in their wireless subscriber during the month.

VI. Mobile Number Portability (MNP)

Intra-service area Mobile number portability (MNP) was implemented first in Harvana 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 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 Jul-19, a • total of 5.92 million requests were received for MNP. Out of total 5.92 million new requests, 2.58 million requests received from Zone-I and 3.34 million requests received from The Zone-II. cumulative MNP requests increased from 441.49 million at the end of Jun-19 to 447.41 million at the end of Jul-19, since the implementation of MNP.

In MNP Zone-I (Northern and Western India), the highest number of requests till date have been received in Rajasthan (about 35.24 million) followed by Maharashtra (about 33.04 million) service area. In MNP Zone-II (Southern and Eastern India), the highest number of requests till date have been received in Karnataka (about 41.44 million) followed by Andhra Pradesh (about 37.84 million) and Tamil Nadu (about 37.67 million).

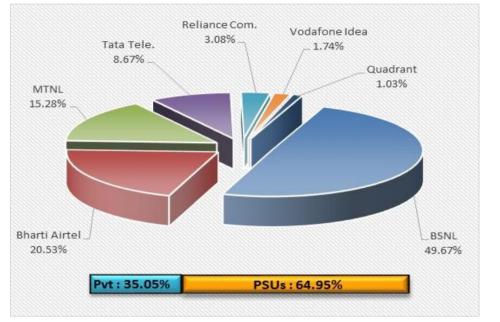
Service Area Wise MNP Status									
Zon	e -1		Zone - 2						
Service Area	Number o Reque Mill	•	Service Area	Number of Porting Requests (in Million)					
	Jun-19	Jul-19		Jun-19	Jul-19				
Delhi	22.77	23.03	Andhra Pradesh	37.31	37.84				
Gujarat	29.44	29.78	Assam	3.45	3.48				
Haryana	16.09	16.26	Bihar	17.79	18.05				
Himachal Pradesh	2.15	2.18	Karnataka	40.77	41.44				
Jammu & Kashmir	1.09	1.11	Kerala	10.75	10.96				
Maharashtra	32.50	33.04	Kolkata	10.52	10.76				
Mumbai	22.53	22.71	Madhya Pradesh	28.94	29.47				
Punjab	17.04	17.24	North East	1.35	1.36				
Rajasthan	34.98	35.24	Orissa	8.80	9.00				
U.P.(East)	24.31	24.63	Tamil Nadu	37.19	37.67				
U.P.(West)	19.66	19.93	West Bengal	22.04	22.24				
Total	222.56	225.14	Total	218.93	222.27				
Total (Zone-1 + Zon	e-2)			441.49	447.41				
Net Addition (July, 2	019)				5.92				

VII. Wireline Subscribers

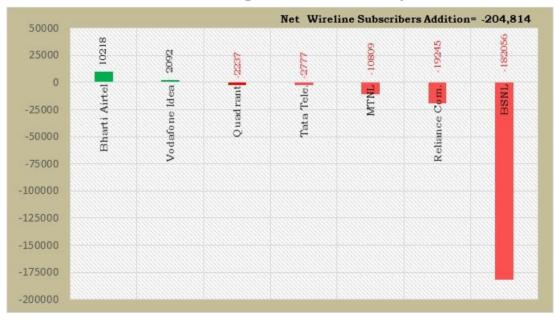
• Wireline subscribers further declined from 21.17 million at the end of Jun-19 to 20.96 million at the end of Jul-19. Net decline in the wireline subscriber base was 0.21 million with a monthly decline rate of 0.97%. The share of urban and rural subscribers in total wireline subscribers were 86.60% and 13.40% respectively at the end of Jul-19.

- The Overall Wireline Tele-density declined from 1.61 at the end of Jun-19 to 1.59 at the end of Jul-19. Urban and Rural Wireline Tele-density were 4.31 and 0.31 respectively during the same period.
- BSNL and MTNL, the two PSU access service providers, held 64.95% of the wireline market share as on 31st July, 2019. Detailed statistics of wireline subscriber base are available at Annexure-III.

Access Service Provider-wise Market Shares of Wireline Subscribers as on 31st July, 2019



Access Service Provider-wise Net Additions/declines in Wireline Subscribers during the month of July, 2019



VIII. Broadband (≥ 512 Kbps download)

As per the reports received from 324 operators in the month of July, 2019, the number of broadband subscribers increased from 594.59 million at the end of Jun-19 to 604.12 million at the end of Jul-19 with a monthly growth rate of 1.60%. Segmentwise broadband subscribers and their monthly growth rates are as below:

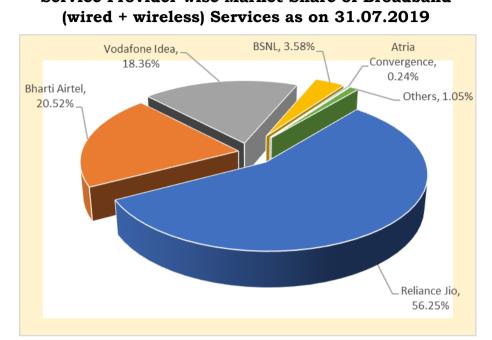
Segment-wise Broadband Subscribers and Monthly Growth Rate in the month of July, 2019

	Broadband s (in mil	Monthly growth	
Segment	As on 30 th June, 2019	As on 30 th July, 2019	rate in the month of Jul-19
Wired subscribers	18.42	18.52	0.56%
Mobile devices users (Phones and dongles)	575.63	585.05	1.64%
Fixed Wireless subscribers (Wi-Fi, Wi-Max, Point-to- Point Radio & VSAT)	0.54	0.55	1.33%
Total	594.59	604.12	1.60%

• Top five service providers constituted 98.95% market share of the total broadband subscribers at the end of Jul-19. These service providers were Reliance Jio Infocomm Ltd (339.79 million), Bharti Airtel (123.94 million), Vodafone Idea (110.92 million), BSNL (21.64 million) and Atria Convergence (1.47 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

- As on 31st July, 2019, the top five Wired Broadband Service providers were BSNL (9.05 million), Bharti (2.40)million), Airtel Atria Convergence Technologies (1.47)million). Hathway Cable & Datacom (0.85 million) and You Broadband (0.75 million).
- As on 31st July, 2019, the top five Broadband Service Wireless providers were Reliance Jio Infocomm Ltd (339.79 million), Bharti Airtel (121.54)million), Vodafone Idea (110.90 million), BSNL (12.58 million) and MTNL (0.21 million).

Contact details in case of any clarification:

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Authorized to issue:

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Circle -	Bharti (including Jun-19																
	True 10	Tata Tele.)	Relian	ce Com.	Vodafone Idea		BSNL		BSNL (VNO's)		МТ	NL	Relian	ce Jio	Total		Net
Andhra Pradesh	Jun-19	Jul-19	Jun-19	Jul-19	Jun-19	Jul-19	Jun-19	Jul-19	Jun-19	Jul-19	Jun-19	Jul-19	Jun-19	Jul-19	Jun-19	Jul-19	Addition
	28922938	28819821	2055	2060	21546770	21345464	10086993	10075956					26415879	27074628	86974635	87317929	343294
Assam	8256291	8327828			5724541	5663147	2627522	2552782					6936372	7148423	23544726	23692180	147454
Bihar	36731684	36568810	221	229	19836397	19238015	4759554	4837277					24241071	24910635	85568927	85554966	-13961
Delhi	15480305	15426329	2473	2260	19042181	19065315					2205188	2202615	16226566	16571642	52956713	53268161	311448
Gujarat	11232618	11047857	581	584	30758854	30365913	6035935	6049371					20898968	21350850	68926956	68814575	-112381
Haryana	4391688	4259707	182	182	10387003	10342007	4982715	4977904					8136927	8375544	27898515	27955344	56829
Himachal Pradesh	3338046	3347009	72	72	1290579	1248951	2866605	2890712					3068725	3149088	10564027	10635832	71805
J & K	5575369	5620579			1145475	1124763	1188249	1206629					3569571	3642510	11478664	11594481	115817
Karnataka	28676100	28410654	1666	1609	14197272	14047662	7213935	7257083					18064488	18594624	68153461	68311632	158171
Kerala	5371037	5367259	498	498	20199999	20155387	10917598	10919476					7777070	7994970	44266202	44437590	171388
Kolkata	6667314	6494422	0	34	8792103	8705084	1639440	1664788					9200591	9399016	26299448	26263344	-36104
Madhya Pradesh	15329290	15092709	839	850	28465545	28007021	6400394	6404824					25204518	25629060	75400586	75134464	-266122
Maharashtra	15637406	15622797	4897	856	44465283	44277040	7108632	7152795					25393380	26280060	92609598	93333548	723950
Mumbai	9518089	9410475	0	3945	14973795	14950899					1209351	1206091	12659717	12897652	38360952	38469062	108110
North East	5211537	5258804			2287414	2285848	1456548	1468229					3079691	3170522	12035190	12183403	148213
Orissa	12301257	12210338	299	305	4563459	4472686	5707785	5715289					10160361	10513335	32733161	32911953	178792
Punjab	10464104	10266681	294	296	10994036	11027742	5464880	5483368					12397296	12595197	39320610	39373284	52674
Rajasthan	21434612	21487144	396	411	16224497	16057949	6048835	6065131					21446728	22008449	65155068	65619084	464016
Tamil Nadu (incl. Chennai)	25599398	25376254	2784	2834	23497069	23353520	12169578	12202304	104720	107332			20734996	21227258	82108545	82269502	160957
U.P.(E)	31091701	30630083	869	812	33500937	33236041	11703066	11671692					23523837	24159850	99820410	99698478	-121932
U.P.(W)	13275541	12999576	0	62	28434559	28366191	5853201	5887283					17306295	17745706	64869596	64998818	129222
West Bengal	16587064	16468233	747	725	23083463	22683789	1929929	1966528					14812567	15355920	56413770	56475195	61425
Total	331093389	328513369	18873	18624	383411231	380020434	116161394	116449421	104720	107332	3414539	3408706	331255614	339794939	1165459760	1168312825	2853065
Net Addition		-2580020		-249		-3390797		288027		2612		-5833		8539325	0	2853065	

Note: 1. The subscribers of M/s Bharti Airtel includes subscribers of M/s Tata Teleservices Ltd. However, DoT has not yet approved the merger of them.

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

Proportion of V	LR on the	date of Pea	k VLR in the	month	of Jul-19 (%)	Anı	nexure-II
Circle	Bharti	BSNL	Vodafone Idea	MTNL	Reliance Com.	Reliance Jio	Total
Andhra Pradesh	100.12	65.87	84.20		65.97	81.52	86.51
Assam	95.21	59.06	73.51			87.03	83.66
Bihar	91.62	57.71	74.10		41.92	96.22	87.10
Delhi	94.83		72.89	21.10	90.80	76.76	78.31
Gujarat	95.24	50.01	87.63		33.05	80.56	83.35
Haryana	102.89	37.21	80.66		40.66	64.77	71.55
Himachal Pradesh	92.13	42.35	83.63		51.39	72.20	71.70
J & K	93.83	67.00	70.55		-	82.51	85.22
Karnataka	94.49	61.04	83.28		95.90	80.17	84.73
Kerala	98.14	65.82	88.23		37.55	68.82	80.43
Kolkata	94.48	62.59	83.79		-	80.93	84.07
Madhya Pradesh	93.33	51.36	82.33		45.76	90.42	84.66
Maharashtra	96.82	54.23	87.84		62.03	92.24	88.00
Mumbai	76.92		71.22	48.20	-	77.47	73.99
North East	97.21	75.78	72.25		-	89.61	87.96
Orissa	93.49	73.20	79.41		19.34	84.47	85.17
Punjab	98.36	43.39	76.41		28.38	69.95	75.47
Rajasthan	95.45	47.04	82.44		39.42	80.63	82.82
Tamil Nadu (incl. Chennai)	94.57	69.36	87.50		83.24	74.87	83.71
U.P. (E)	96.61	41.41	79.21		44.09	92.96	83.46
U.P. (W)	100.24	43.82	79.99			78.14	80.26
West Bengal	92.85	87.97	81.53		30.48	87.58	86.70
Total	94.95	56.52	81.91	30.69	70.43	83.07	83.23

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.

					ŢŢ	Wireline	Subscri	ber Base		' بــــــــــــــــــــــــــــــــــــ	I	ļ '			Annexure	:-III	
	BSI	NL	MT	NL	Bharti	Airtel	Reliance Com.		liance Com. Tata 1		Quad	lrant	Vodafone Idea		Total		Net
Service Area	Jun-19	Jul-19	Jun-19	Jul-19	Jun-19	Jul-19	Jun-19	Jul-19	Jun-19	Jul-19	Jun-19	Jul-19	Jun-19	Jul-19	Jun-19	Jul-19	Addition
Andhra Pradesh	882330	871268	1	·	212945	212265	42141	39806	173592	174058	,		60820	61130	1371828	1358527	-13301
Assam	106661	104384	1	·		·	,,	ıl	ı]	I	[]	۱ <u> </u>	2970	3030	109631	107414	-2217
Bihar	204211	167630	1	·		·	2957	2643	8428	8396	·[]	·'	1950) 1980	217546	180649	-36897
Delhi		·	1466619	1461217	1496226	1500205	5 107370	103294	155335	155294	[]	I	59040	60190	3284590	3280200	-4390
Gujarat	866711	862943	1	·	97329	97781	16648	16001	88408	87665	, I	I	30940	30660	1100036	1095050	-4986
Haryana	202096	197769	ı	·1	23336	23251	2170	2160	36461	36909		·'	240	240	264303	260329	-3974
Himachal Pradesh	106212	104094		,,	1	ıī	1710	1676	1772	1780			60	60	109754	107610	-2144
J & K	101706	101706		·		,T		, <u> </u>	,			1			101706	101706	0
Karnataka	978200	968952		·	702520	706830	114402	112728	272182	273059		1	53407	51307	2120711	2112876	-7835
Kerala	1750579	1740081	1	·	62207	61927	14491	13922	18923	18948	اا	·'	3750	4110	1849950	1838988	-10962
Kolkata	459691	446093	ı	·	132527	133727	37334	36835	53053	53705	<u>ا</u> ا	<u>ا</u> ا	11380	11290	693985	681650	-12335
Madhya Pradesh	643404	640629	ı	·	244404	243509	9478	7835	14354	14399	<u>ا</u> ا	<u>ا</u> ا	1140	1170	912780	907542	-5238
Maharashtra	1026765	1004915	ı	· !	101564	102225	43420	42091	269841	268695	<u>ا</u> ا	·'	23777	23990	1465367	1441916	-23451
Mumbai			1747717	1742310	383620	386497	167421	165441	555495	551199	۱ <u> </u>	<u> </u>	57129	57168	2911382	2902615	-8767
North East	100547	99004	ı	·		اا	<u> </u>	ıl	ا <u></u> ا	<u>ا</u> '	<u> </u>	<u> </u>	270	240	100817	99244	-1573
Orissa	214462	209793	ı	·		اا ۱ا	2195	2075	8304	8146	اا		2310	5340	227271	225354	-1917
Punjab	374052	364626	ı	ا <u> </u>	137834	137954	10651	10408	12084	12414	4 219089	216852	2 1680) 1770	755390	744024	-11366
Rajasthan	423266	412952	ı	·	57651	57673	18901	17662	11617	11507		<u>ا</u> '	12600	12480	524035	512274	-1176
Tamil Nadu (incl. Chennai)	1375905	1357712	ı	·	551464	550079	64152	62663	124018	124698	J	I'	23060	22430	2138599	2117582	-21017
U.P.(E)	324057	318756		·	65091	64858	5495	4882	8203	8317		I'	12350	12320	415196	409133	-606
U.P.(W)	254593	249489	·	· !	24134	24289	3056	2625	4954	4987	<u>ا</u> ا	·'	4410	4470	291147	285860	-528
West Bengal	199373	189969	ı	·	اا	ا <u> </u>	1562	1562	2453	2524	<u>ا</u> ا	<u>ا</u> '	120	120	203508	194175	-933
Total	10594821	10412765	3214336	3203527	4292852	4303070	665554	646309	1819477	1816700	219089	216852	2 363403	365495	21169532	20964718	-20481
Net Addition	ı	-182056	1 I	-10809	1	10218	1	-19245	1	-2777	1	-2237	1	2092		-204814	I

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.