Information Note to the Press





### TELECOM REGULATORY AUTHORITY OF INDIA

New Delhi, 18<sup>th</sup> January, 2019 (www.trai.gov.in)

### Highlights of Telecom Subscription Data as on 30th November, 2018

Particulars	Wireless	Wireline	Total (Wireless+ Wireline)
Total Telephone Subscribers (Million)	1171.76	21.96	1193.72
Net Addition in November, 2018 (Million)	1.74	-0.06	1.68
Monthly Growth Rate	0.15%	-0.28%	0.14%
Urban Telephone Subscribers (Million)	645.71	18.83	664.54
Net Addition in November, 2018 (Million)	-2.54	-0.05	-2.59
Monthly Growth Rate	-0.39%	-0.26%	-0.39%
Rural Telephone Subscribers (Million)	526.05	3.13	529.18
Net Addition in November, 2018 (Million)	4.28	-0.01	4.26
Monthly Growth Rate	0.82%	-0.44%	0.81%
Overall Tele-density*(%)	89.54	1.68	91.21
Urban Tele-density*(%)	155.28	4.53	159.81
Rural Tele-density*(%)	58.92	0.35	59.27
Share of Urban Subscribers	55.11%	85.76%	55.67%
Share of Rural Subscribers	44.89%	14.24%	44.33%
Broadband Subscribers (Million)	493.81	18.09	511.90

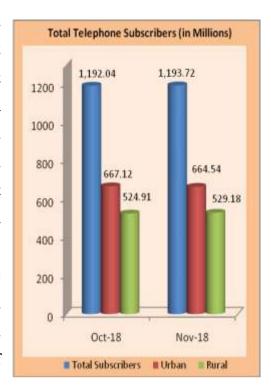
- ❖ In the month of November, 2018, 3.24 million subscribers submitted their requests for Mobile Number Portability (MNP). With this, the cumulative MNP requests increased from 403.97 million at the end of Oct-18 to 407.22 million at the end of Nov-18, since implementation of MNP.
- ❖ Number of active wireless subscribers (on the date of peak VLR<sup>#</sup>) in November, 2018 was 1,031.28 million.

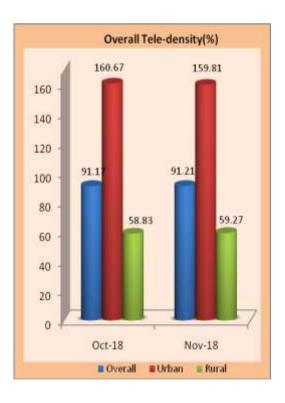
### Note:

- 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

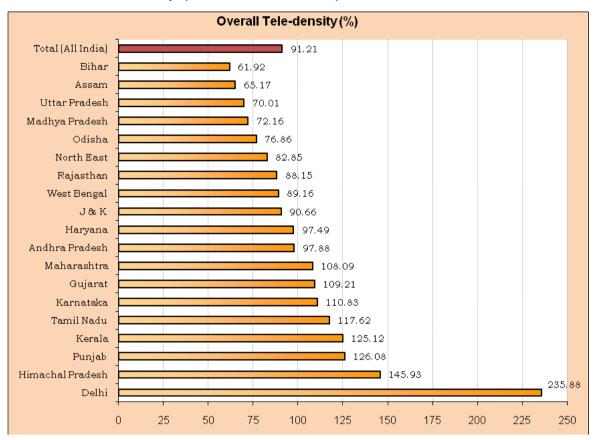
• The number of telephone subscribers in India increased from 1,192.04 million at the end of Oct-18 to 1,193.72 million at the end of Nov-18, thereby showing a monthly growth rate of 0.14%. The urban subscription declined from 667.12 million at the end of Oct-18 to 664.54 million at the end of Nov-18, however the rural 524.91 subscription increased from million to 529.18 million during the same period. The monthly growth rates of urban and rural subscription were -0.39% and 0.81% respectively during the month of Nov-18.





• The overall Tele-density in India increased from 91.17 at the end of Oct-18 to 91.21 at the end of Nov-18. The Urban Tele-density declined from 160.67 at the end of Oct-18 to 159.81 at the end of Nov-18, however Rural Tele-density increased from 58.83 at the end of Oct-18 to 59.27 at the end of Nov-18. The share of urban and rural subscribers in total number telephone subscribers at the end of Nov-18 was 55.67% and 44.33% respectively.

## Overall Tele-density (Circle/State Wise) - As on 30th November, 2018



#### 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 Category-wise Net Additions in Telephone Subscribers in the month of November, 2018

Circle		s in the month mber, 2018	_	bscriber base as vember, 2018	
Category	Wireline segment			Wireless segment	
Circle A	-28,503	568,765	8,645,593	402,751,423	
Circle B	-21,988	663,152	5,488,874	477,623,473	
Circle C	-6,699	341,951	936,673	176,015,189	
Metro	-5,058	165,235	6,890,105	115,364,926	
All India	-62,248	1,739,103	21,961,245	1,171,755,011	

## Circle Category-wise monthly and yearly Growth Rates in Telephone Subscribers in the month of November, 2018

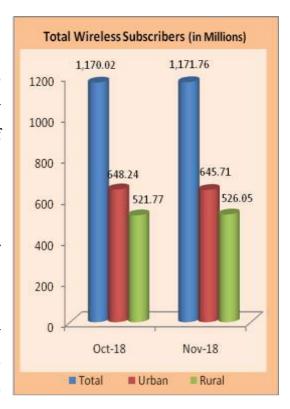
Circle	Monthly gro (Oct-18 t	wth rate (%) to Nov-18)	Yearly growth rate (%) (Nov-17 to Nov-18)				
Category	Wireline Segment	Wireless Segment	Wireline Segment	Wireless Segment			
Circle A	-0.33	0.14	-6.66	0.48			
Circle B	-0.40	0.14	-8.92	3.21			
Circle C	-0.71	0.19	-10.95	-0.70			
Metro	-0.07	0.14	-2.58	-5.11			
All India	-0.28	0.15	-6.20	0.80			

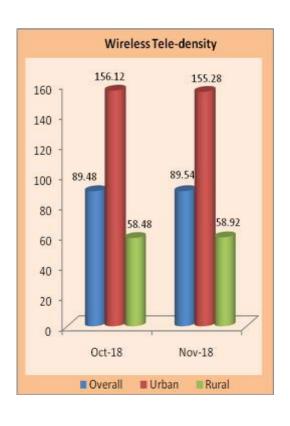
Note: Circle Category-Metro includes Delhi, Mumbai and Kolkata. Data for Chennai has been included in Circle Category-A, as part of TamilNadu.

- As can be seen in the above tables, in wireless segment, Circles of all
  categories showed positive monthly growth in their subscriber base in
  Nov-18. However on yearly basis, Circles in Category 'C' and Metro
  Circles showed negative growth in their subscriber base during the
  month of Nov-18.
- In Wireline segment, Circles of all Categories showed monthly and yearly (Y-o-Y basis) decline in their number of wireline subscribers during the month of Nov-18.

### III. Wireless Subscribers

wireless subscribers Total (GSM. CDMA & LTE) increased from 1,170.02 million at the end of Oct-18 to 1,171.76 million at the end of Nov-18, thereby registering a monthly growth rate of 0.15%. The Wireless subscription in 648.24 urban areas declined from million at the end of Oct-18 to 645.71 million at the end of Nov-18, however wireless subscriptions in rural areas increased from 521.77 million to 526.05 million during the month. The monthly growth rates of urban and rural wireless subscription were -0.39% and 0.82% respectively.

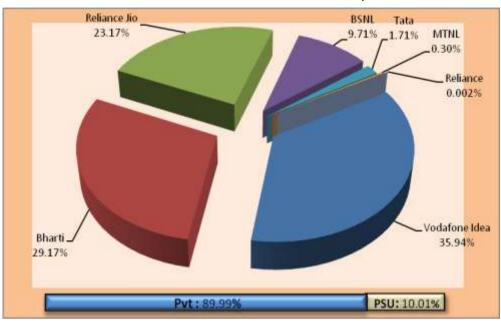




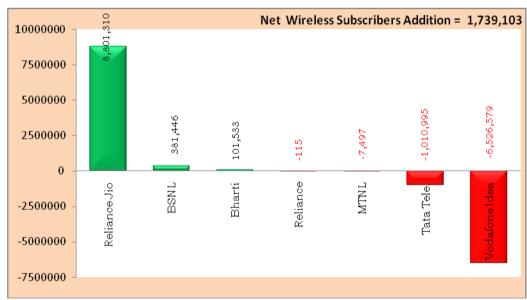
- The Wireless Tele-density in India increased from 89.48 at the end of Oct-18 to 89.54 at the end of Nov-18. The Urban Wireless Tele-density declined 156.12 at the end of Oct-18 to 155.28 at end of Nov-18, however Wireless Tele-density increased from 58.48 to 58.92 during the same period. The share of urban and rural wireless subscribers in total number of wireless subscribers was 55.11% and 44.89% respectively at the end of Nov-18. Detailed statistics of wireless subscriber base is available at **Annexure-I**.
- As on 30<sup>th</sup> November, 2018, the private access service providers held 89.99% market share of the wireless subscribers whereas BSNL and MTNL, the two PSU access service providers, had a market share of only 10.01%.

• 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 November, 2018



Net Additions in Wireless Subscribers of Access Service Providers in the Month of November, 2018



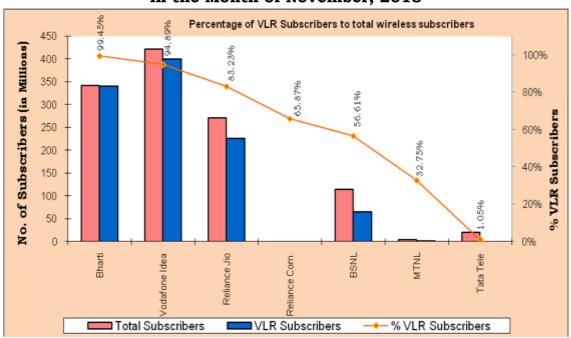
**Note:** 1. On noticing that while reporting number of subscribers, some of the TSPs were deducting inactive subscribers. A Direction was issued on 18<sup>th</sup> August 2017 to TSPs to strictly adhere to the Department of Telecommunications' methodology for reporting their number of subscribers. However, some of the Telecom Service Providers are yet to comply with the Direction.

- 2. M/s Vodafone and M/s Idea have been merged together and became a new company namely M/s Vodafone Idea Ltd.
- 3. 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 number of BSNL.

## IV. Active Wireless Subscribers (VLR Data)

- Out of the total wireless subscribers (1,171.76 million), 1,031.28 million wireless subscribers were active on the date of peak VLR in the month of Nov-18. The proportion of active wireless subscribers was approximately 88.01% 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 Nov-18 is available at **Annexure-II** and the methodology used for reporting VLR subscribers is available at **Annexure-IV**.

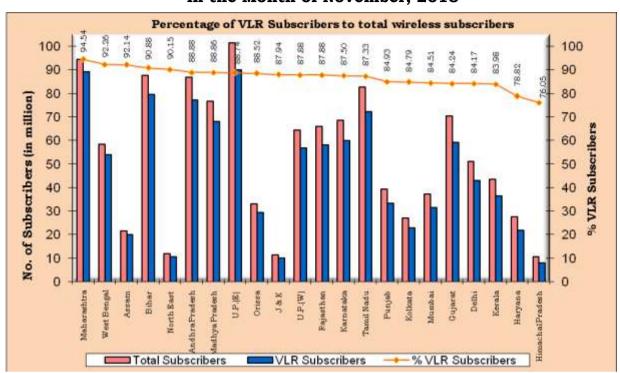
Access Service Provider-wise Percentage of VLR Subscribers in the Month of November, 2018



 Bharti Airtel has the maximum proportion (99.45%) of its active wireless subscribers (VLR) as against its total wireless subscribers (HLR) on the date of peak VLR in the month of Nov-18.

Note: M/s Vodafone and M/s Idea have been merged together and became a new company namely M/s Vodafone Idea Ltd.

## Service Area wise percentage of VLR Subscribers in the Month of November, 2018



### V. Growth in Wireless Subscribers

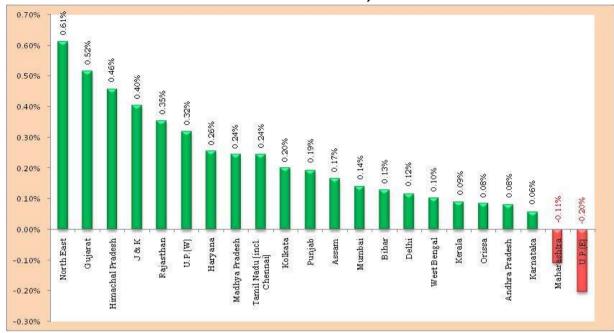
# Access Service Provider-wise Monthly Growth Rate of Wireless Subscribers in the Month of November, 2018



Note: 1. M/s Vodafone and M/s Idea have been merged together and became a new company namely M/s Vodafone Idea Ltd.

2. BSNL includes its Virtual Network Operator (VNO)





• During the month of November, 2018, Maharashtra and U.P.(East) service areas showed negative monthly growth in their wireless subscribers. All other service areas showed positive growth during the month of Nov-18.

## 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 Nov-18, a total of 3.24 million requests were received for MNP. Out of total 3.24 million requests, 1.71 million requests received from Zone-I and 1.53 million requests received from Zone-II. The cumulative MNP requests increased from 403.97 million at the end of Oct-18 to 407.22 million at the end of Nov-18, 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 32.98 million) followed by Maharashtra (about 28.92 million) service area. In MNP Zone-II (Southern and Eastern India), the highest number of requests till date have been received in Karnataka (about 38.56 million) followed by Tamilnadu (about 34.69 million).

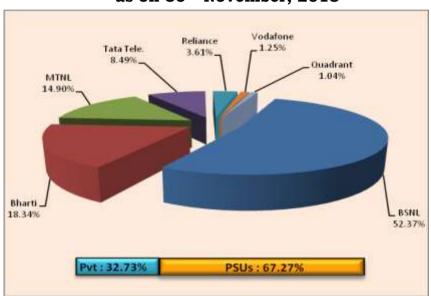
Service Area Wise MNP Status										
Zon	e -1	Zone - 2								
Service Area	Number o Reque Mill	sts (in	Service Area	Number of Porting Requests (in Million)						
	Oct-18	Nov-18		Oct-18	Nov-18					
Delhi	20.74	20.95	Andhra Pradesh	34.35	34.68					
Gujarat	26.34	26.53	Assam	3.24	3.26					
Haryana	14.65	14.76	Bihar	15.59	15.73					
Himachal Pradesh	1.94	1.96	Karnataka	38.33	38.56					
Jammu & Kashmir	0.96	0.97	Kerala	9.74	9.82					
Maharashtra	28.56	28.92	Kolkata	9.89	9.94					
Mumbai	21.14	21.28	Madhya Pradesh	26.46	26.64					
Punjab	15.32	15.49	North East	1.28	1.29					
Rajasthan	32.83	32.98	Orissa	7.96	8.01					
U.P.(East)	22.02	22.20	Tamil Nadu	34.34	34.69					
U.P.(West)	17.65	17.83	West Bengal	20.63	20.72					
Total	202.15	203.87	Total	201.82	203.35					
Total (Zone-1 + Zon	e-2)			403.97	407.22					
Net Addition (Novem	ber, 2018)				3.24					

### VII. Wireline Subscribers

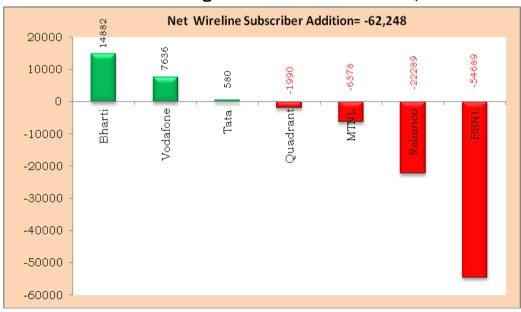
• Wireline subscribers further declined from 22.02 million at the end of Oct-18 to 21.96 million at the end of Nov-18. Net decline in the wireline subscriber base was 0.06 million with a monthly decline rate of 0.28%. The share of urban and rural subscribers in total wireline subscribers were 85.76% and 14.24% respectively at the end of Nov-18.

- The Overall Wireline Tele-density(%) remained same i.e. 1.68 at the end of Nov-18 as compared to previous month. Urban and Rural Wireline Teledensity were 4.53 and 0.35 respectively during the same period.
- BSNL and MTNL, the two PSU access service providers, held 67.27% of the wireline market share. Detailed statistics of wireline subscriber base are available at **Annexure-III**.

Access Service Provider-wise Market Shares of Wireline Subscribers as on 30<sup>th</sup> November, 2018



Access Service Provider-wise Net Additions/declines in Wireline Subscribers during the Month of November, 2018



## VIII. Broadband (≥ 512 Kbps download)

• As per the reports received from 306 operators, the number of broadband subscribers increased from 496.12 million at the end of Oct-18 to 511.90 million at the end of Nov-18 with a monthly growth rate of 3.18%. Segment-wise broadband subscribers and their monthly growth rates are as below:

Segment-wise Broadband Subscribers and Monthly Growth Rate in the month of November, 2018

	Broadband (in m	Monthly growth	
Segment	As on 31st October, 2018	As on 30 <sup>th</sup> November, 2018	rate in the month of Nov-18
Wired subscribers	18.10	18.09	-0.06%
Mobile devices users (Phones and dongles)	477.20	493.40	3.39%
Fixed Wireless subscribers (Wi-Fi, Wi-Max, Point-to- Point Radio & VSAT)	0.82	0.41	-49.51%
Total	496.12	511.90	3.18%

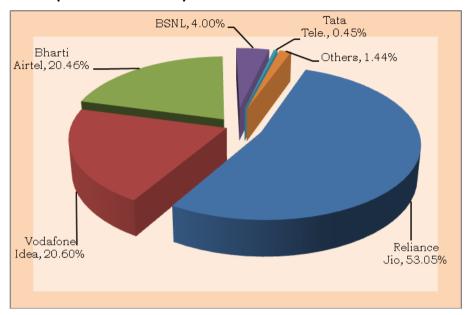
• Top five service providers constituted 98.56% market share of the total broadband subscribers at the end of Nov-18. These service providers were Reliance Jio Infocomm Ltd (271.55 million), Vodafone Idea (105.44 million), Bharti Airtel (104.74 million), BSNL (20.45 million) and Tata Tele. Group (2.32 million).

Note: 1. Some wireless service providers exclude incidental data users from their subscriber base, based on minimum usage decided by them.

<sup>2.</sup> M/s Vodafone and M/s Idea have been merged together and became a new company namely M/s Vodafone Idea Ltd.

• 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 30.11.2018



- As on 30<sup>th</sup> November, 2018, the top five <u>Wired</u> Broadband Service providers were BSNL (9.17 million), Bharti Airtel (2.26 million), Atria Convergence Technologies (1.38 million), MTNL (0.78 million) and Hathway Cable & Datacom (0.77 million).
- As on 30<sup>th</sup> November, 2018, the top five <u>Wireless</u> Broadband Service providers were Reliance Jio Infocomm Ltd (271.55 million), Vodafone Idea (105.43 million), Bharti Airtel (102.49 million), BSNL (11.29 million) and Tata Teleservices (1.84 million).

Contact details in case of any clarification:

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(S. K. Mishra) Pr. Advisor (F&EA) Wireless Subscriber Base Annexure-I

a. 1	Bharti	Airtel	Reliano	e Com.	Vodafo	ne Idea	Tata Tele	eservices	BS	NL	BSNL	(VNO's)	МЛ	`NL	Relian	ce Jio	To	tal	Net
Circle	Oct-18	Nov-18	Oct-18	Nov-18	Oct-18	Nov-18	Oct-18	Nov-18	Oct-18	Nov-18	Oct-18	Nov-18	Oct-18	Nov-18	Oct-18	Nov-18	Oct-18	Nov-18	Addition
Andhra Pradesh	29902547	29910249	2261	2317	23678091	23343019	1852045	1775981	10118070	10120866					21205842	21676902	86758856	86829334	70478
Assam	8400558	8400240			5619521	5429789	0	0	2368109	2398599					5240777	5436194	21628965	21664822	35857
Bihar	39476741	39484571	108	125	24224417	23652071	358305	332814	4774861	4812751					18617878	19282993	87452310	87565325	113015
Delhi	15187013	15185787	5025	5052	19628067	19518337	106345	81798					2227662	2223150	13844596	14043912	50998708	51058036	59328
Gujarat	12345373	12352211	288	297	34238324	34040798	1007691	945422	5665661	5665443					16754132	17368502	70011469	70372673	361204
Haryana	3823169	3822401	81	84	11445660	11283270	933061	882790	4842023	4895554					6422849	6652923	27466843	27537022	70179
Himachal Pradesh	3625105	3625481	72	72	1454925	1401598	5311	4725	2733636	2750156					2588414	2672960	10407463	10454992	47529
J & K	5658666	5662138			1423521	1364924	0	0	1214396	1216613					3111852	3210867	11408435	11454542	46107
Karnataka	27227312	27227136	3433	3550	16495015	16117363	3408060	3283682	7091733	7100130					14283293	14816287	68508846	68548148	39302
Kerala	5145521	5143007	238	304	20446732	20354931	364961	339150	10811257	10838850					6676436	6807729	43445145	43483971	38826
Kolkata	6461736	6462727	46	45	9886389	9747043	1177537	1133949	1723664	1760312					7668703	7868206	26918075	26972282	54207
Madhya Pradesh	15670666	15674471	537	555	33014816	32412661	2143359	2038768	5987994	6053950					19667288	20491619	76484660	76672024	187364
Maharashtra	16471221	16475445	989	983	49597331	49051770	1889095	1759403	6919638	6819600					19630101	20298143	94508375	94405344	-103031
Mumbai	8458979	8459225	6146	5770	15906536	15746707	988803	914643					1258696	1255711	10663748	10952552	37282908	37334608	51700
North East	5348491	5349921			2287469	2261332	0	0	1619490	1631525					2453087	2537465	11708537	11780243	71706
Orissa	13152845	13156393	55	62	6303530	6063240	603887	564031	5515519	5545728					7491692	7765811	33067528	33095265	27737
Punjab	10447702	10461029	116	131	11896958	11643628	989320	941135	5256963	5269546					10643713	10994602	39234772	39310071	75299
Rajasthan	23446963	23454701	251	253	19292176	18884902	148359	135615	5650565	5662320					17304294	17938192	65842608	66075983	233375
Tamil Nadu (incl. Chennai)	25967209	25977613	3721	3507	26083651	25528930	1655878	1589243	11708598	11850637	22935	26594			16953120	17619400	82395112	82595924	200812
U.P.(E)	32844119	32849495	491	597	37210434	36618419	1885794	1844635	11939298	11905419					17879616	18334225	101759752	101552790	-206962
U.P.(W)	14000286	14028886	61	61	29935403	29553828	1490990	1434550	5885866	5902048					13000001	13599038	64312607	64518411	205804
West Bengal	18597058	18597686	263	302	27534275	27058102	46870	42342	1584670	1589751					10650798	11185018	58413934	58473201	59267
Total	341659280	341760813	24182	24067	427603241	421076662	21055671	20044676	113412011	113789798	22935	26594	3486358	3478861	262752230	271553540	1170015908	1171755011	1739103
Net Addition		101533		-115		-6526579		-1010995		377787		3659		-7497		8801310	0	1739103	
Rural Subscribers	170188344	170205815	0	0	225575652	223642819	2907365	2731784	35828917	35893329	0	0	46558	46464	87227196	93529767	521774032	526049978	4275946

Note: 1. M/s Vodafone and M/s Idea have been merged together and became a new company namely M/s Vodafone Idea Ltd.

<sup>2.</sup> 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 Nov-18 (%)

### Annexure-II

Circle	Bharti	BSNL	Vodafone Idea	MTNL	Reliance Com.	Reliance Jio	Tata Tele.	Total
Andhra Pradesh	99.21	69.90	95.78		71.13	83.30	0.69	88.88
Assam	96.63	63.57	100.47			89.46		92.14
Bihar	92.23	57.51	92.52		5.60	96.00	0.39	90.88
Delhi	93.40		92.78	22.46	75.51	72.34	26.30	84.17
Gujarat	96.02	44.25	95.15		29.29	72.12	0.03	84.24
Haryana	121.06	34.16	97.91		3.57	65.43	0.56	78.82
Himachal Pradesh	91.33	45.28	106.89		2.78	70.93	1.10	76.05
J & K	92.30	73.42	100.17		-	80.56		87.94
Karnataka	104.02	61.88	97.01		70.25	78.36	0.53	87.50
Kerala	102.26	63.05	95.60		46.05	72.81	2.56	83.98
Kolkata	104.52	53.70	94.11		40.00	75.18	7.09	84.79
Madhya Pradesh	103.21	54.31	93.32		2.70	89.86	0.29	88.86
Maharashtra	114.36	55.51	97.46		42.83	92.63	0.78	94.54
Mumbai	116.07		79.00	50.97	66.05	78.78	2.09	84.51
North East	95.48	74.41	94.69		-	85.00		90.15
Orissa	95.65	70.28	94.03		4.84	91.51	1.03	88.52
Punjab	103.61	48.68	96.22		2.29	79.84	0.08	84.93
Rajasthan	93.36	46.51	95.93		8.30	85.94	0.56	87.88
<b>Tamil Nadu</b> (incl. Chennai)	97.32	67.07	97.83		92.67	78.88	0.71	87.33
U.P. (E)	101.72	44.96	94.16		12.73	92.01	0.10	88.74
U.P. (W)	105.98	42.26	95.79		22.95	81.09	0.22	87.88
West Bengal	93.08	86.88	95.24		7.95	84.82	1.21	92.26
Total	99.45	56.61	94.89	32.75	65.87	83.23	1.05	88.01

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

	Group												_				
Circle	BS	NL	MT	NL	Bharti		Reli	ance	Та	ıta	Quad	irant	Voda	afone	To	tal	
	Oct-18	Nov-18	Oct-18	Nov-18	Oct-18	Nov-18	Oct-18	Nov-18	Oct-18	Nov-18	Oct-18	Nov-18	Oct-18	Nov-18	Oct-18	Nov-18	Net Addition
Andhra Pradesh	1006300	1002188			171938	172711	49519	48951	173861	174635			30370	30340	1431988	1428825	-3163
Assam	121400	119097											2790	2820	124190	121917	-2273
Bihar	228096	228431					4282	3789	8517	8478			1830	1770	242725	242468	-257
Delhi			1498491	1495038	1363540	1371572	136911	132794	151886	153257			44610	50850	3195438	3203511	8073
Gujarat	1008722	1008158			82081	82548	24161	22815	91065	90072			20328	20310	1226357	1223903	-2454
Haryana	222112	220778			22668	22690	2956	2925	36367	36136			150	150	284253	282679	-1574
Himachal Pradesh	114192	113704					3098	3066	1905	1866			60	60	119255	118696	-559
J & K	106883	106247													106883	106247	-636
Karnataka	1047452	1043592			666765	668925	144875	142944	275152	275626			41925	42435	2176169	2173522	-2647
Kerala	1810470	1808479			59686	59749	18942	18226	19606	19542			2970	2550	1911674	1908546	-3128
Kolkata	511235	506268			125746	126394	42960	41346	52548	52986			8020	8280	740509	735274	-5235
Madhya Pradesh	656396	656829			242456	242589	11631	11400	16064	15506			930	930	927477	927254	-223
Maharashtra	1147993	1135855			87663	88212	54164	51648	292885	292243			17564	17720	1600269	1585678	-14591
Mumbai			1780717	1777792	362562	362885	191229	185216	574701	575432			50007	49995	2959216	2951320	-7896
North East	107090	106895											270	270	107360	107165	-195
Orissa	230662	227956					2574	2484	7743	7640			1980	2100	242959	240180	-2779
Punjab	420330	415876			127130	127958	11578	12130	14439	14116	230601	228611	1590	1590	805668	800281	-5387
Rajasthan	463994	458062			52956	53310	25149	24674	12498	12506			7170	7260	561767	555812	-5955
Tamil Nadu (incl. Chennai)	1468675	1463431			557876	558015	76452	75012	118445	118802			17865	18405	2239313	2233665	-5648
U.P.(E)	358242	358167			66111	66344	9371	8279	8590	8197			11550	11780	453864	452767	-1097
U.P.(W)	278226	275117			23077	23235	4151	4016	5672	5584			3900	3900	315026	311852	-3174
West Bengal	246730	245381					1753	1752	2530	2430			120	120	251133	249683	-1450
Total	11555200	11500511	3279208	3272830	4012255	4027137	815756	793467	1864474	1865054	230601	228611	265999	273635	22023493	21961245	-62248
Net Addition		-54689		-6378		14882		-22289		580		-1990		7636		-62248	
Rural Subscribers	3039590	3026275	0	0	0	0	1523	1488	51943	51803	47780	47320	0	0	3140836	3126886	-13950

## 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.