Information Note to the Press



### TELECOM REGULATORY AUTHORITY OF INDIA



New Delhi, 25<sup>th</sup> November, 2016 (www.trai.gov.in)

## Highlights of Telecom Subscription Data as on 31st August, 2016

Particulars	Wireless	Wireline	Total (Wireless+ Wireline)
Total Telephone Subscribers (Million)	1028.88	24.51	1053.40
Net Addition in August, 2016 (Million)	-5.35	-0.11	-5.45
Monthly Growth Rate	-0.52%	-0.44%	-0.52%
Urban Telephone Subscribers (Million)	585.89	20.57	606.46
Net Addition in August, 2016 (Million)	-3.71	-0.05	-3.76
Monthly Growth Rate	-0.63%	-0.23%	-0.62%
Rural Telephone Subscribers (Million)	442.99	3.94	446.94
Net Addition in August, 2016 (Million)	-1.64	-0.06	-1.69
Monthly Growth Rate	-0.37%	-1.47%	-0.38%
Overall Tele-density*	80.62	1.92	82.54
Urban Tele-density*	146.84	5.15	152.00
Rural Tele-density*	50.50	0.45	50.95
Share of Urban Subscribers	56.94%	83.91%	57.57%
Share of Rural Subscribers	43.06%	16.09%	42.43%
Broadband Subscribers (Million)	154.04	17.67	171.71

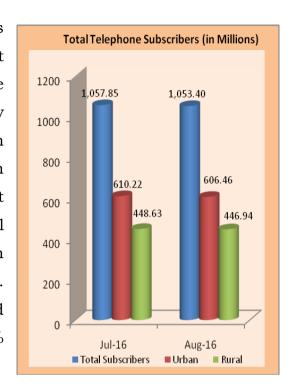
- ❖ In the month of August, 2016, 5.13 million subscribers submitted their requests for Mobile Number Portability (MNP). With this, the cumulative MNP requests increased from 229.34 million at the end of Jul-16 to 234.47 million at the end of Aug-16, since implementation of MNP.
- ❖ Number of active wireless subscribers (on the date of peak VLR<sup>#</sup>) in August, 2016 was 930.57 million.

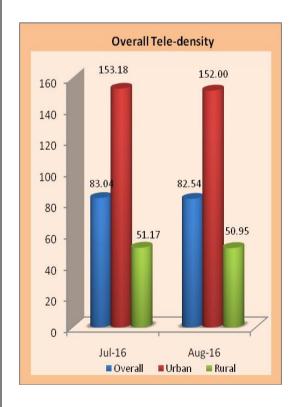
#### Note:

- 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

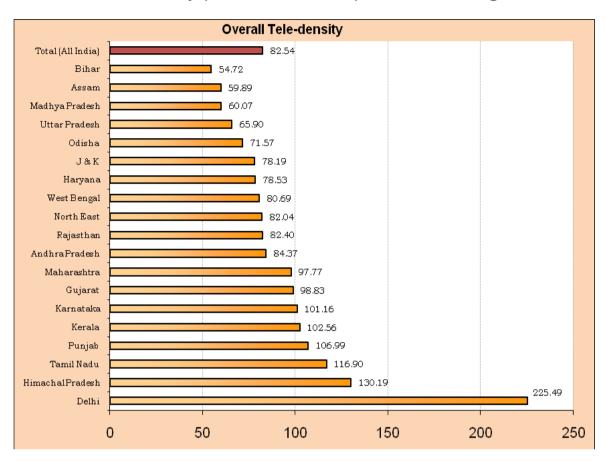
The number of telephone subscribers in India declined from 1,058.85 million at the end of Jul-16 to 1,053.40 million at the end of Aug-16, thereby showing a monthly 0.52%. decline rate of The subscription declined from 610.22 million at the end of Jul-16 to 606.46 million at the end of Aug-16 whereas the rural subscription declined from 448.63 million to 446.94 million during the same period. The monthly decline rates of urban and rural subscription were 0.62% and 0.38% respectively during the month of Aug-16.





Tele-density in India The overall declined from 83.04 at the end of Jul-16 to 82.54 at the end of Aug-16. The Urban Tele-density declined from 153.18 at the end of Jul-16 to 152.00 at the end of Aug-16, and the Rural Tele-density also declined from 51.17 at the end of Jul-16 to 50.95 at the end of Aug-16. The share of urban subscribers and rural subscribers in total number of telephone subscribers at the end of Aug-16 was 57.57% and 42.43% respectively.

# Overall Tele-density (Circle/State Wise) - As on 31st August, 2016



#### 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). West Bengal includes Kolkata, Maharashtra includes Mumbai and Tamil Nadu includes Chennai service area.

## II. Category-wise Growth in subscriber base

Circle Category-wise Net Additions in Telephone Subscribers in the month of August, 2016

Circle		in the month of t, 2016	Telephone Subscriber base on 31st August, 2016					
Category	Wireline segment			Wireless segment				
Circle A	-48,879	-1,025,707	9,651,439	360,722,955				
Circle B	-39,759	-1,609,853	6,598,926	411,265,899				
Circle C	-13,168	-95,370	1,177,134	155,123,121				
Metro	-5,309	-2,616,870	7,083,417	101,772,312				
All India	-107,115	-5,347,800	24,510,916	1,028,884,287				

# Circle Category-wise monthly and yearly Growth Rates in Telephone Subscribers in the month of August, 2016

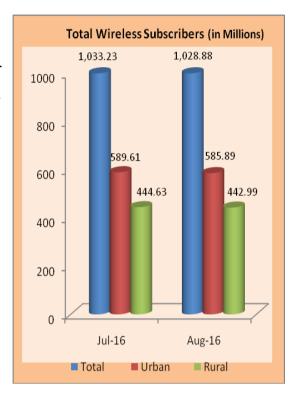
Circle	Monthly gro (Jul-16 t	wth rate (%) o Aug-16)	Yearly growth rate (%) (Aug-15 to Aug-16)					
Category	Wireline Segment	Wireless Segment	Wireline Segment	Wireless Segment				
Circle A	-0.50	-0.28	-6.95	3.50				
Circle B	-0.60	-0.39	-8.38	5.28				
Circle C	-1.11	-0.06	-8.23	4.56				
Metro	-0.07	-2.51	-1.02	1.14				
All India	-0.44	-0.52	-5.78	4.12				

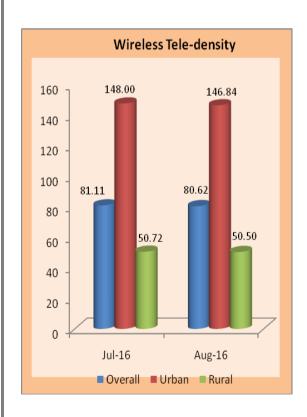
Note: Circle Category-Metro includes Delhi, Mumbai and Kolkata. Data for Chennai has been included in Circle Category-A, as part of TamilNadu.

- As can be seen in the above tables, in wireless segment, all Categories showed negative monthly net growth rate during the month of Aug-16.
  Metro circles showed the maximum net decline and maximum decline rate in their wireless subscriber base during the same period.
- In Wireline segment, Circles of Category-A showed the highest net decline. However, Circles of Category-C showed highest monthly decline rate in subscriber base during the month of Aug-16.

### III. Wireless Subscribers

**Total** wireless subscriber base declined from 1,034.23 million at the end of Jul-16 to 1,028.88 million at the end of Aug-16, thereby registering a monthly decline rate of 0.52%. The Wireless subscription in urban areas declined from 589.61 million at the end of Jul-16 to 585.89 million at the end of Aug-16, and wireless subscription in rural areas declined from 444.63 million to 442.99 million during the same period. The monthly decline rates of urban and rural wireless subscription were 0.63% and 0.37% respectively.

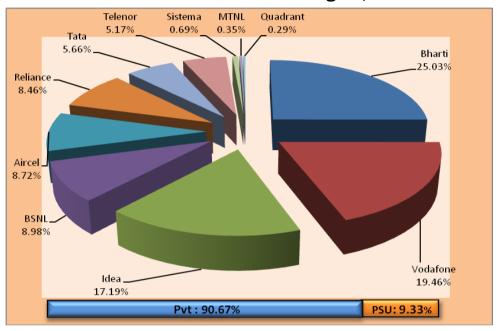




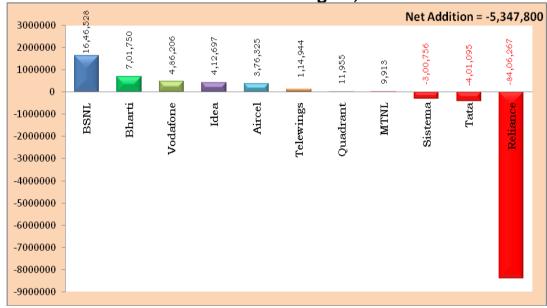
• The Wireless Tele-density in India declined from 81.11 at the end of Jul-16 to 80.62 at the end of Aug-16. The Urban Wireless Tele-density declined from 148.00 at the end of Jul-16 to 146.84 at the end of Aug-16, and Rural Wireless Tele-density also declined from 50.72 to 50.50 during the same period. The share of urban and rural wireless subscribers in total number of wireless subscribers was 56.94% and 43.06% respectively at the end of Aug-16. Detailed statistics of wireless subscriber base is available at **Annexure-I**.

• As on 31st August, 2016, the private access service providers held 90.67% market share of the wireless subscribers whereas BSNL and MTNL, the two PSU access service providers, had a market share of only 9.33%. 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 Subscriber base as on 31st August, 2016



Net Additions in Wireless Subscriber Bases of Access Service Providers in the Month of August, 2016

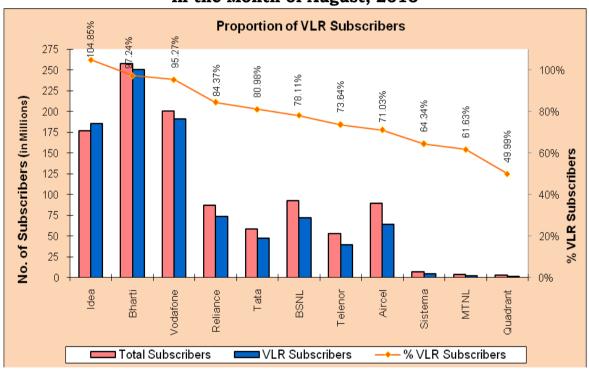


Note: Consequent upon migration from CDMA to LTE by M/s Reliance Communications, CDMA subscriber base reduced by 18 million during the month of Aug-16.

## IV. Active Wireless Subscribers (VLR Data)

- Out of the total wireless subscriber base (1,028.88 million), 930.57 million wireless subscribers were active on the date of peak VLR in the month of Aug-16. The proportion of active wireless subscribers was approximately 90.45% 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 Aug-16 is available at **Annexure-II** and the methodology used for reporting VLR subscribers is available at **Annexure-IV**.

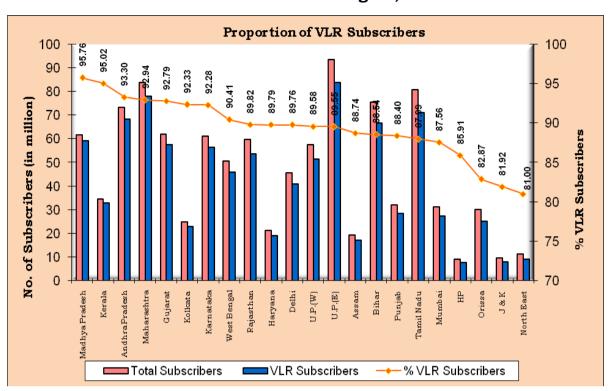
Access Service Provider-wise Proportion of VLR Subscribers in the Month of August, 2016



#### Note-

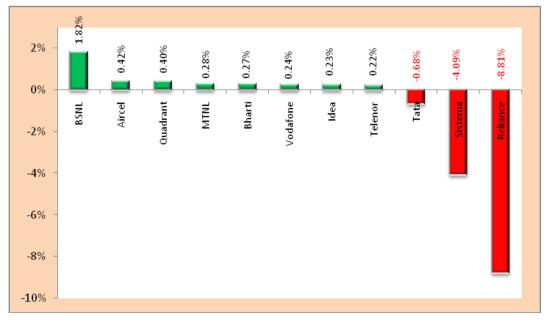
1. Number of VLR subscribers of Idea Cellular was more than its subscriber base due to a large number of inroamers in its network.

# Service Area wise proportion of VLR Subscribers in the Month of August, 2016

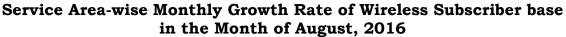


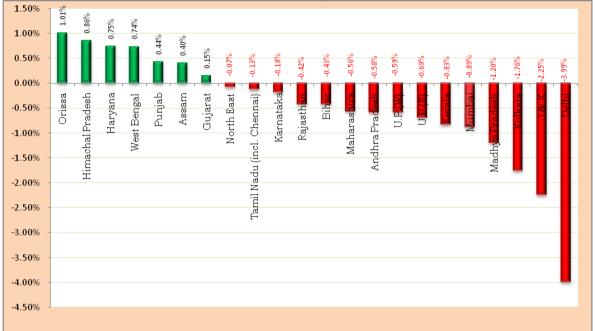
### V. Growth in Wireless Subscribers

# Access Service Provider-wise Monthly Growth Rate of Wireless Subscriber base in the Month of August, 2016



Note: Consequent upon migration from CDMA to LTE by M/s Reliance Communications, CDMA subscriber base reduced by 18 million during the month of Aug-16.





• Orissa service area recorded the highest growth rate in wireless subscribers during the month of Aug-16, whereas Delhi service area showed maximum decline in wireless subscribers.

# VI. Mobile Number Portability (MNP)

- Intra-service area Mobile number portability (MNP) has been implemented 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.
- In the month of Aug-16, a total of 5.13 million requests were received for MNP. With this, the cumulative MNP requests increased from 229.34 million at the end of Jul-16 to 234.47 million at the end of Aug-16, 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 19.80 million) followed by Gujarat (about 17.48 million).

• In MNP Zone-II (Southern and Eastern India), the highest number of requests till date have been received in Karnataka (about 25.85 million) followed by Andhra Pradesh (about 21.77 million).

Service Area Wise MNP Status at the end of August, 2016								
Zone -	[	Zone – II						
Service Area	Number of Porting Requests	Service Area	Number of Porting Requests					
Delhi	9453882	Andhra Pradesh	21766733					
Gujarat	17483744	Assam	1160416					
Haryana	9080410	Bihar	8917029					
Himachal Pradesh	832115	Karnataka	25848974					
Jammu & Kashmir	90644	Kerala	6917727					
Maharashtra	16165247	Kolkata	5110835					
Mumbai	12947221	Madhya Pradesh	16301932					
Punjab	8336209	North East	464713					
Rajasthan	19798940	Orissa	4821709					
Uttar Pradesh - East	11206893	Tamil Nadu	14764431					
Uttar Pradesh - West	10591451	West Bengal	12405256					
Total	115,986,756	Total	118,479,755					
Total (Zone-I + Zone-II)			234,466,511					
Net Addition (in August, 2016)			5,127,066					

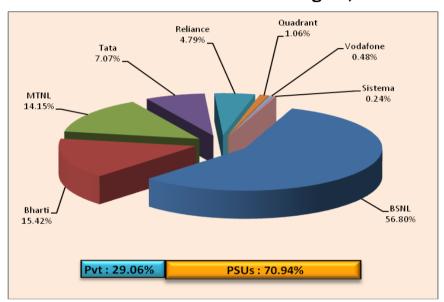
Note: For Zone-II, available MNP data for August, 2016 are provisional.

### VII. Wireline Subscribers

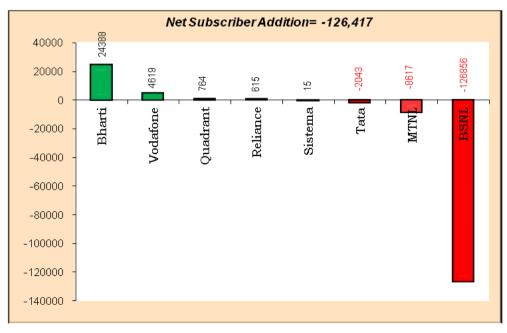
- Wireline subscriber base declined from 24.62 million at the end of Jul-16 to 24.51 million at the end of Aug-16. Net decline in the wireline subscriber base was 0.11 million with a monthly decline rate of 0.44%. The shares of urban and rural subscribers in total wireline subscribers were 83.91% and 16.09% respectively at the end of Aug-16.
- The Overall Wireline Tele-density declined from 1.93 at the end of Jul-16 to 1.92 at the end of Aug-16. Urban Wireline Tele-density and Rural Wireline Tele-density were workout as 5.15 and 0.45 respectively.

- BSNL and MTNL, the two PSU access service providers, held 70.94% of the wireline market share. Detailed statistics of wireline subscriber base are available at **Annexure-III**.
- The graphical representations of service provider-wise market shares in the wireline segment and net additions in wireline subscriber bases in the month of Aug-16 are given below:

Access Service Provider-wise Market Shares in term of Wireline Subscriber base as on 31st August, 2016



Access Service Provider-wise Net Additions/declines in Wireline Subscriber Base in the Month of August, 2016



## VIII. Broadband (≥ 512 Kbps download)

 As per the reports received from the service providers, the number of broadband subscribers increased from 166.96 Million at the end of Jul-16 to 171.71 million at the end of Aug-16 with a monthly growth rate of 2.84%. Segment-wise broadband subscribers and their monthly growth rates are as below:

Segment-wise Broadband Subscriber base and Monthly Growth Rates in the month of August, 2016

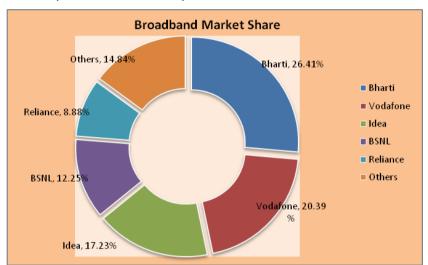
	Broadband s	Monthly growth			
Segment	As on 31st July, 2016	As on 31st August, 2016	rate in the month of Aug-16		
Wired subscribers	17.49	17.67	1.01%		
Mobile devices users (Phones and dongles)	148.93	153.45	3.01%		
Fixed Wireless subscribers (Wi-Fi, Wi-Max, Point-to- Point Radio & VSAT)	0.54	0.59	8.65%		
Total	166.96	171.71	2.84%		

• Top five service providers constituted 85.16% market share of the total broadband subscribers at the end of Aug-16. These service providers were Bharti Airtel (45.35 million), Vodafone (35.01 million), Idea Cellular (29.58 million), BSNL (21.04 million) and Reliance Communications Group (15.24 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 31.08.2016



- As on 31<sup>st</sup> August, 2016, the top five <u>Wired</u> Broadband Service providers were BSNL (9.84 million), Bharti Airtel (1.91 million), Atria Convergence Technologies (1.09 million), MTNL (1.07 million) and YOU Broadband (0.57 million).
- As on 31<sup>st</sup> August, 2016, the top five <u>Wireless</u> Broadband Service providers were Bharti Airtel (43.44 million), Vodafone (35.00 million), Idea Cellular (29.58 million), Reliance Communications Group (15.13 million) and BSNL (11.20 million).

Contact details in case of any clarification:

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Authorized to issue:

(Vinod Kotwal) Advisor (F&EA)

## **Wireless Subscriber Base**

Annexure-I

	Group											
	Bha	arti	Reliance		Voda	fone	Та	ıta	lde	ea	Air	cel
Circle	Jul-16	Aug-16	Jul-16	Aug-16	Jul-16	Aug-16	Jul-16	Aug-16	Jul-16	Aug-16	Jul-16	Aug-16
Andhra Pradesh	24155714	24171916	4365123	3843841	6915119	6927929	4549564	4525943	15771048	15930994	2558752	2503649
Assam	6130263	6146640	1387226	1387811	3802782	3811436			1145245	1135313	5494490	5526825
Bihar	29015941	29075396	4287389	3531794	9350006	9431191	1661391	1636626	10921767	11032400	7285922	7304133
Delhi	11347967	11363084	7871060	5848669	10261081	10332092	1999736	1984310	6153618	6189560	6528812	6588147
Gujarat	8624110	8681122	6128929	5938303	19468939	19537547	2923117	2908136	12085087	12142681	17063	17063
Haryana	3256498	3265001	1588005	1527196	5536706	5514537	2951090	2922113	4786690	4762702	3092	3092
Himachal Pradesh	2886707	2894284	1580063	1596607	738522	742057	64758	63687	808547	816352	1109565	1113105
J & K	3297984	3306275	936523	936292	986900	837949			603451	439146	2673069	2709894
Karnataka	21252139	21266007	5228605	5067382	7737923	7785945	7166268	7123707	8572991	8668824	3228366	3260541
Kerala	4410132	4422391	1676850	1422921	7603067	7654224	1541148	1540071	10940786	10689387	343317	358715
Kolkata	4756286	4769157	4713041	4146795	5511471	5551513	2775546	2766801	2101661	2162973	4190123	4217247
Madhya Pradesh	13167350	13203342	10880742	10211247	6915435	6925758	5105712	4991418	21824953	21804516	20694	20694
Maharashtra	13465482	13502087	5212833	4467254	18576601	18558350	6327559	6276945	23672908	23894242	2667542	2695324
Mumbai	5901183	5917396	5536742	5079263	8795190	8855350	3032934	3067715	4158027	4184682	2947094	2977940
North East	3952201	3962945	380801	385384	1596240	1593396			501315	506612	3359472	3323760
Orissa	10672418	10701977	1988078	2118123	4149994	4176201	2182016	2169506	1756655	1779034	4688700	4705125
Punjab	8080854	8115745	1619082	1638753	5160489	5171788	2710718	2695932	6480725	6441759	1120948	1130974
Rajasthan	19650609	19704646	6237454	5870773	11932709	11906722	1530909	1528743	7463937	7480112	6569311	6585457
Tamil Nadu (incl. Chennai)	17721709	17789278	5725663	5256274	15695190	15795369	4453033	4433414	6020780	6228669	21747149	21759680
U.P.(E)	21513837	21623930	9331738	8165067	19397997	19436583	3913903	3888500	10678160	10597971	7078854	7135469
U.P.(W)	8396686	8453255	5786358	5422833	11420206	11365101	3368797	3342936	14588360	14543297	747219	761217
West Bengal	15150564	15172510	3006005	3199461	18157193	18284928	419854	410455	5453611	5471793	4958238	5016066
Total	256806634	257508384	95468310	87062043	199709760	200195966	58678053	58276958	176490322	176903019	89337792	89714117
Net Addition		701750		-8406267		486206		-401095		412697		376325

### **Wireless Subscriber Base**

### Annexure-I (contd.)

						Grou	ıb						
	BS	NL	МТ	NL	Tele	enor	Sist	tema Quadr		drant	To	Total	
Circle	Jul-16	Aug-16	Jul-16	Aug-16	Jul-16	Aug-16	Jul-16	Aug-16	Jul-16	Aug-16	Jul-16	Aug-16	Net Addition
Andhra Pradesh	9755416	9749119			5544449	5532255					73615185	73185646	-429539
Assam	1346488	1376500									19306494	19384525	78031
Bihar	3602857	3668316			9577703	9699057					75702976	75378913	-324063
Delhi			2319421	2322713			897854	861745			47379549	45490320	-1889229
Gujarat	3893247	3981399			8411103	8447456	200971	192160			61752566	61845867	93301
Haryana	3095274	3381109									21217355	21375750	158395
Himachal Pradesh	1850631	1890439									9038793	9116531	77738
J & K	1355374	1402315									9853301	9631871	-221430
Karnataka	7014429	6948271					1054981	1021910			61255702	61142587	-113115
Kerala	8062726	8210583					322200	313775			34900226	34612067	-288159
Kolkata	793502	801348					519081	499439			25360711	24915273	-445438
Madhya Pradesh	4544318	4552116									62459204	61709091	-750113
Maharashtra	6109273	6181652			8225145	8208641					84257343	83784495	-472848
Mumbai			1277752	1284373							31648922	31366719	-282203
North East	1599386	1608799									11389415	11380896	-8519
Orissa	4489651	4580419									29927512	30230385	302873
Punjab	3931434	4037262							2957171	2969126	32061421	32201339	139918
Rajasthan	4521306	4672878					2093440	1997157			59999675	59746488	-253187
Tamil Nadu (incl. Chennai)	8796582	8832314					707760	669362			80867866	80764360	-103506
U.P.(E)	9570382	9924699			12648317	12713150					94133188	93485369	-647819
U.P.(W)	4679393	4839974			8703300	8624402	138715	135857			57829034	57488872	-340162
West Bengal	1705579	1724264					1424605	1367446			50275649	50646923	371274
Total	90717248	92363776	3597173	3607086	53110017	53224961	7359607	7058851	2957171	2969126	1034232087	1028884287	-5347800
Net Addition		1646528		9913		114944		-300756		11955		-5347800	

### Proportion of VLR on the date of Peak VLR in the month of Aug-16 (%)

### Annexure-II

Circle	Aircel	Bharti	BSNL	Quadrant	Idea	MTNL	Reliance	Sistema	Tata	Telenor	Vodafone	Total
Andhra Pradesh	64.12	99.17	83.80		104.09		97.43		88.93	77.39	85.14	93.30
Assam	86.14	100.14	86.58		99.39		4.23				102.51	88.74
Bihar	86.46	96.44	73.45		102.18		8.77		71.96	72.14	105.30	88.54
Delhi	64.84	94.31			103.72	55.87	93.32	49.61	56.99		107.56	89.76
Gujarat	2951.59	96.00	85.65		106.20		95.52	52.16	75.59	70.74	93.66	92.79
Haryana	0.49	95.74	58.47		103.46		98.85		82.05		95.30	89.79
Himachal Pradesh	52.75	89.07	76.00		116.26		98.82		37.35		91.52	85.91
J & K	78.64	85.43	78.67		135.02		46.13				96.26	81.92
Karnataka	62.08	99.11	71.75		105.16		95.32	71.96	90.57		92.54	92.28
Kerala	74.64	95.65	81.61		109.09		96.29	67.66	89.38		92.38	95.02
Kolkata	72.25	98.96	98.59		96.93		98.71	94.11	82.80		99.04	92.33
Madhya Pradesh	0.93	96.65	81.79		108.83		96.29		76.49		75.47	95.76
Maharashtra	57.23	95.62	83.47		105.07		92.52		80.85	74.53	96.05	92.94
Mumbai	56.95	99.43			93.54	72.04	91.86		81.49		88.99	87.56
North East	66.73	97.34	70.78		100.58		4.86				92.64	81.00
Orissa	63.22	97.03	77.79		101.86		7.73		80.98		105.32	82.87
Punjab	64.86	99.16	75.77	49.99	105.23		98.98		75.06		91.24	88.40
Rajasthan	54.66	96.40	80.06		106.21		97.09	60.83	110.42		90.54	89.82
<b>Tamil Nadu</b> (incl. Chennai)	71.26	100.80	77.79		97.40		95.23	57.21	80.64		99.56	87.99
U.P. (E)	70.87	97.45	79.11		110.16		95.31		74.27	74.00	92.51	89.55
U.P. (W)	101.32	94.72	63.72		99.90		96.55	57.87	76.56	74.39	95.19	89.58
West Bengal	81.99	97.47	86.60		105.51		7.56	67.24	57.31		99.69	90.41
Total	71.03	97.24	78.11	49.99	104.85	61.63	84.37	64.34	80.98	73.64	95.27	90.45

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

Wireline Subscriber Base Annexure-III

	Group																		
Circle	BS	NL	МТ	`NL	Bharti		Reli	ance	Ta	ıta	Quad	lrant	Sist	ema	Voda	fone	Tot	tal	
	Jul-16	Aug-16	Jul-16	Aug-16	Jul-16	Aug-16	Jul-16	Aug-16	Jul-16	Aug-16	Jul-16	Aug-16	Jul-16	Aug-16	Jul-16	Aug-16	Jul-16	Aug-16	Net Addition
Andhra Pradesh	1245824	1236364			151961	153568	75871	75816	173237	171798					10,740	11,010	1657633	1648556	-9077
Assam	155938	155756													1,890	1,890	157828	157646	-182
Bihar	303514	302335					6,540	6,365	13,267	13,201					1110	1170	324431	323071	-1360
Delhi			1613927	1612396	1245036	1249460	174556	174466	133797	134707					22,350	23,730	3189666	3194759	5093
Gujarat	1110773	1105500			75571	75796	74252	73990	86692	87323					5,220	5,250	1352508	1347859	-4649
Haryana	2,92,591	2,90,471			22105	22366	4397	4397	37066	37189					30	0	356189	354423	-1766
Himachal Pradesh	1,51,802	1,49,823					4066	4066	2643	2641					30	30	158541	156560	-1981
J & K	1,27,977	1,27,792															127977	127792	-185
Karnataka	1247499	1231498			608262	613640	152815	153691	208179	206541					18,030	19,290	2234785	2224660	-10125
Kerala	2080918	2051414			57087	57173	33276	33216	18673	18732					1590	1590	2191544	2162125	-29419
Kolkata	637073	632122			118272	118763	69156	69154	48615	49147					5070	5130	878186	874316	-3870
Madhya Pradesh	724367	722934			270875	272910	19725	19733	16422	16709					390	390	1031779	1032676	897
Maharashtra	1447592	1433965			75849	76446	82670	82580	285300	285124					12,240	12,274	1903651	1890389	-13262
Mumbai			1861967	1854881	351477	351727	253940	254667	534428	533320					19062	19747	3020874	3014342	-6532
North East	129906	122226													150	150	130056	122376	-7680
Orissa	278978	277171					3293	3293	8208	8205					990	1,020	291469	289689	-1780
Punjab	625250	617630			114979	116519	21284	21284	16979	16984	258144	258908			930	930	1037566	1032255	-5311
Rajasthan	629885	625045			47983	48249	20524	20344	11815	11847			58412	58427	1,920	1,920	770539	765832	-4707
Tamil Nadu (incl. Chennai)	1768204	1749609			530857	537400	134137	134112	109873	109824					8670	9030	2551741	2539975	-11766
U.P.(E)	385183	383098			63220	63746	34931	34817	15246	15203					1,170	1,170	499750	498034	-1716
U.P.(W)	372894	370192			22807	22966	7105	7187	10189	10098					450	930	413445	411373	-2072
West Bengal	331886	336253					1964	1939	3963	3956					60	60	337873	342208	4335
Total	14048054	13921198	3475894	3467277	3756341	3780729	1174502	1175117	1734592	1732549	258144	258908	58412	58427	112092	116711	24618031	24510916	-107115
Net Addition		-126856		-8617		24388		615		-2043		764		15		4619		-107115	

# 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 and numbers available in VLR.

The VLR data calculated here is on the basis of active subscribers in VLR on the date of Peak 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.