

**TELECOM REGULATORY AUTHORITY OF INDIA**

New Delhi, 7th October, 2016
(www.trai.gov.in)

**Highlights of Telecom Subscription Data as on 31st July, 2016**

Particulars	Wireless	Wireline	Total (Wireless+ Wireline)
Total Telephone Subscribers (Million)	1034.23	24.62	1058.85
Net Addition in July, 2016 (Million)	-0.88	-0.13	-1.01
Monthly Growth Rate	-0.09%	-0.51%	-0.10%
Urban Telephone Subscribers (Million)	589.61	20.61	610.22
Net Addition in July, 2016 (Million)	0.82	-0.05	0.77
Monthly Growth Rate	0.14%	-0.23%	0.13%
Rural Telephone Subscribers (Million)	444.63	4.00	448.63
Net Addition in July, 2016 (Million)	-1.71	-0.08	-1.78
Monthly Growth Rate	-0.38%	-1.92%	-0.40%
Overall Tele-density*	81.11	1.93	83.04
Urban Tele-density*	148.00	5.17	153.18
Rural Tele-density*	50.72	0.46	51.17
Share of Urban Subscribers	57.01%	83.74%	57.63%
Share of Rural Subscribers	42.99%	16.26%	42.37%
Broadband Subscribers (Million)	149.47	17.49	166.96

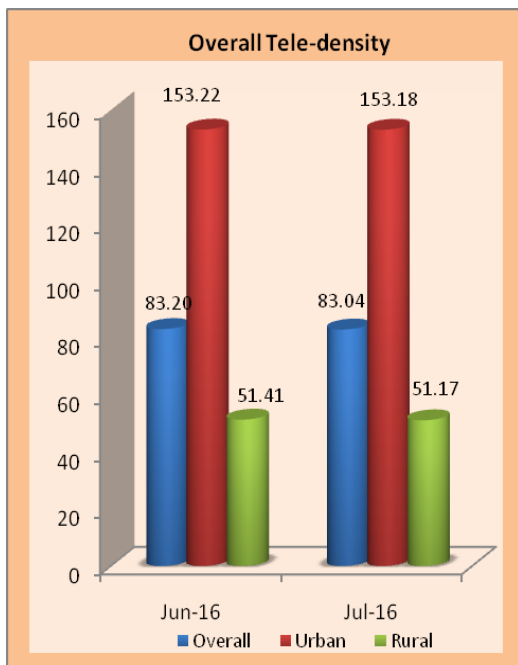
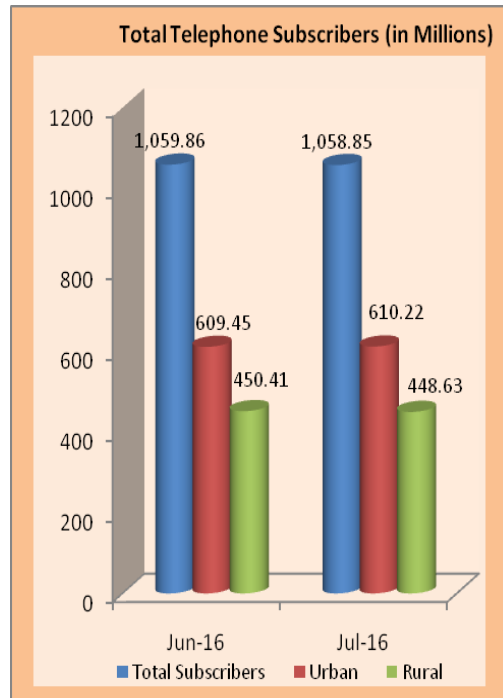
- ❖ In the month of July, 2016, 4.91 million subscribers submitted their requests for Mobile Number Portability (MNP). With this, the cumulative MNP requests increased from 224.43 million at the end of Jun-16 to 229.34 million at the end of Jul-16, since implementation of MNP.
- ❖ Number of active wireless subscribers (on the date of peak VLR#) in July, 2016 was 919.28 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.

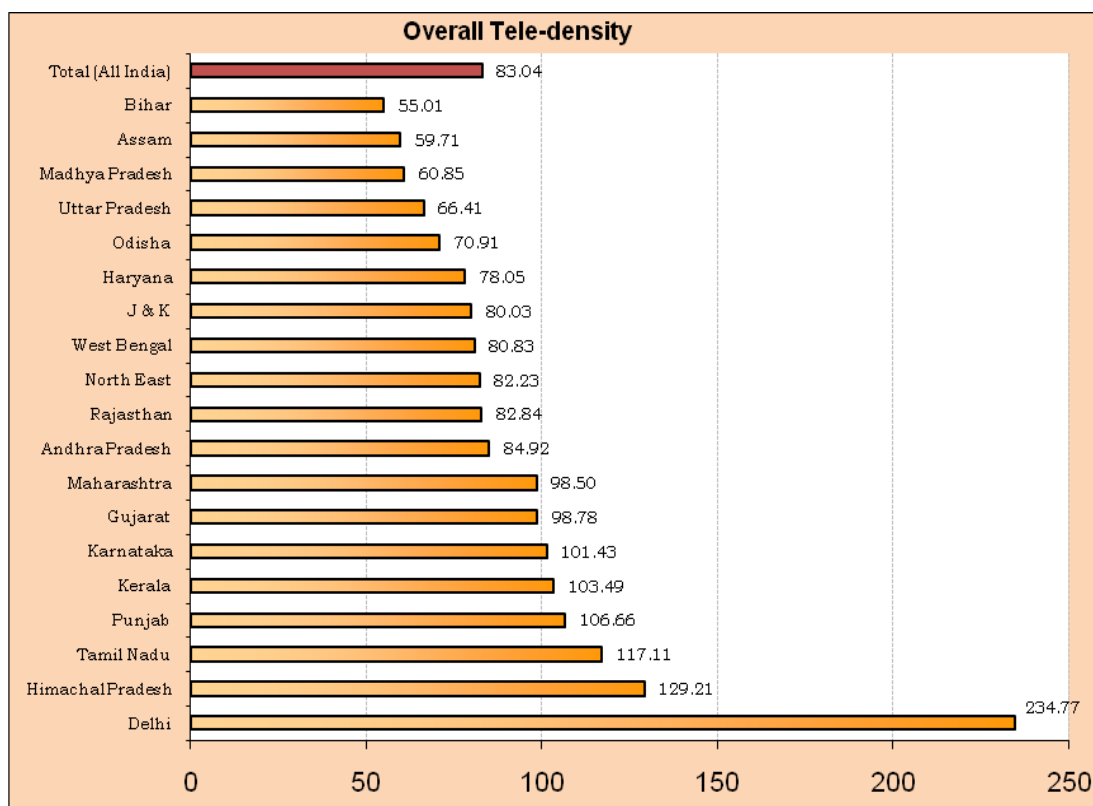
I. Total Telephone Subscribers

- The number of telephone subscribers in India declined from 1,059.86 million at the end of Jun-16 to 1,058.85 million at the end of Jul-16, thereby showing a monthly growth rate of -0.10%. The urban subscription increased from 609.45 million at the end of Jun-16 to 610.22 million at the end of Jul-16 whereas the rural subscription declined from 450.41 million to 448.63 million during the same period. The monthly growth rates of urban and rural subscription were 0.13% and -0.40% respectively during the month of Jul-16.



- The overall Tele-density in India declined from 83.20 at the end of Jun-16 to 83.04 at the end of Jul-16. The Urban Tele-density declined from 153.22 at the end of Jun-16 to 153.18 at the end of Jul-16, and the Rural Tele-density also declined from 51.41 at the end of Jun-16 to 51.17 at the end of Jul-16. The share of urban subscribers and rural subscribers in total number of telephone subscribers at the end of Jul-16 was 57.63% and 42.37% respectively.

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

Circle Category	Net additions in the month of July, 2016		Telephone Subscriber base as on 31 st July, 2016	
	Wireline segment	Wireless segment	Wireline segment	Wireless segment
Circle A	-59,973	-646,676	9,700,318	361,748,662
Circle B	-63,506	-300,543	6,638,685	412,875,752
Circle C	-186	-180,501	1,190,302	155,218,491
Metro	-2,752	243,817	7,088,726	104,389,182
All India	-126,417	-883,903	24,618,031	1,034,232,087

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

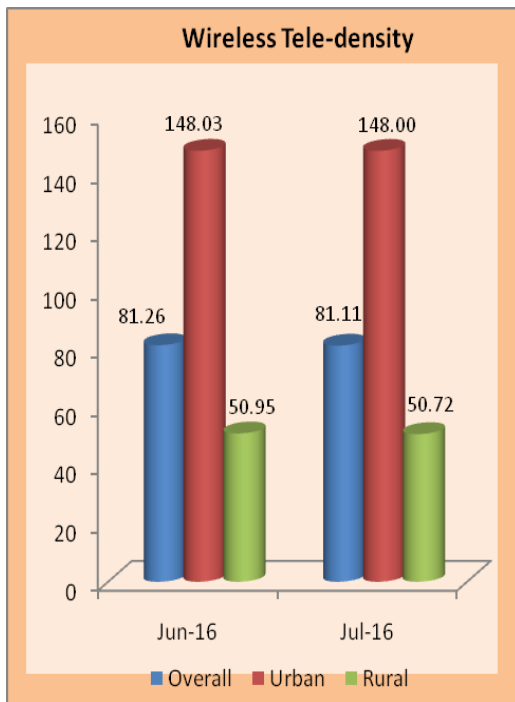
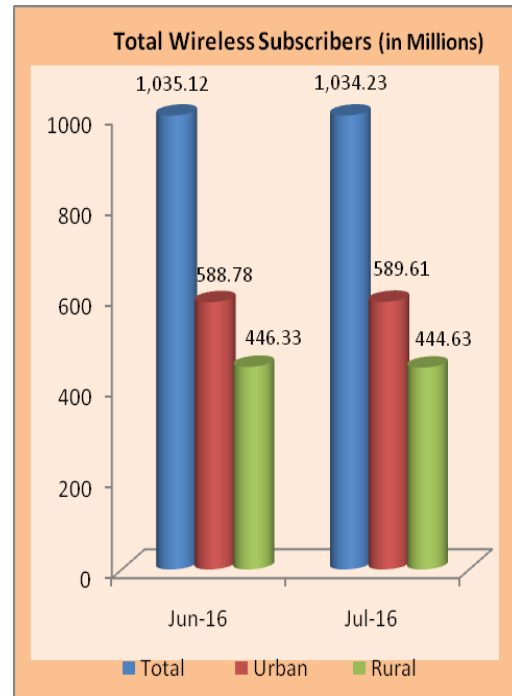
Circle Category	Monthly growth rate (%) (Jun-16 to Jul-16)		Yearly growth rate (%) (Jul-15 to Jul-16)	
	Wireline Segment	Wireless Segment	Wireline Segment	Wireless Segment
Circle A	-0.61	-0.18	-6.61	4.42
Circle B	-0.95	-0.07	-8.54	6.16
Circle C	-0.02	-0.12	-7.61	5.22
Metro	-0.04	0.23	-1.15	4.07
All India	-0.51	-0.09	-5.69	5.19

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, the Metro Circles showed the net addition and positive monthly growth rate. All other categories showed the net decline in their wireless subscriber base during the month of Jul-16.
- In Wireline segment, Circles of Category-B showed the highest net decline and highest monthly decline rate in subscriber base during the month of Jul-16.

III. Wireless Subscribers

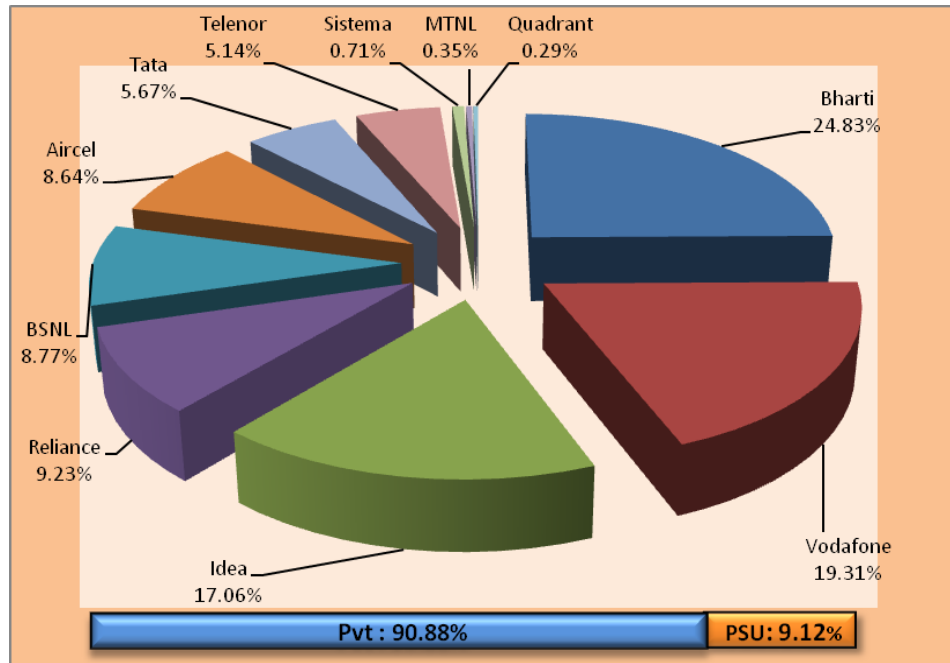
- Total wireless subscriber base declined from 1,035.12 million at the end of Jun-16 to 1,034.23 million at the end of Jul-16, thereby registering a monthly growth rate of -0.09%. The Wireless subscription in urban areas increased from 588.78 million at the end of Jun-16 to 589.61 million at the end of Jul-16, whereas wireless subscription in rural areas declined from 446.33 million to 444.63 million during the same period. The monthly growth rates of urban and rural wireless subscription were 0.14% and -0.38% respectively.



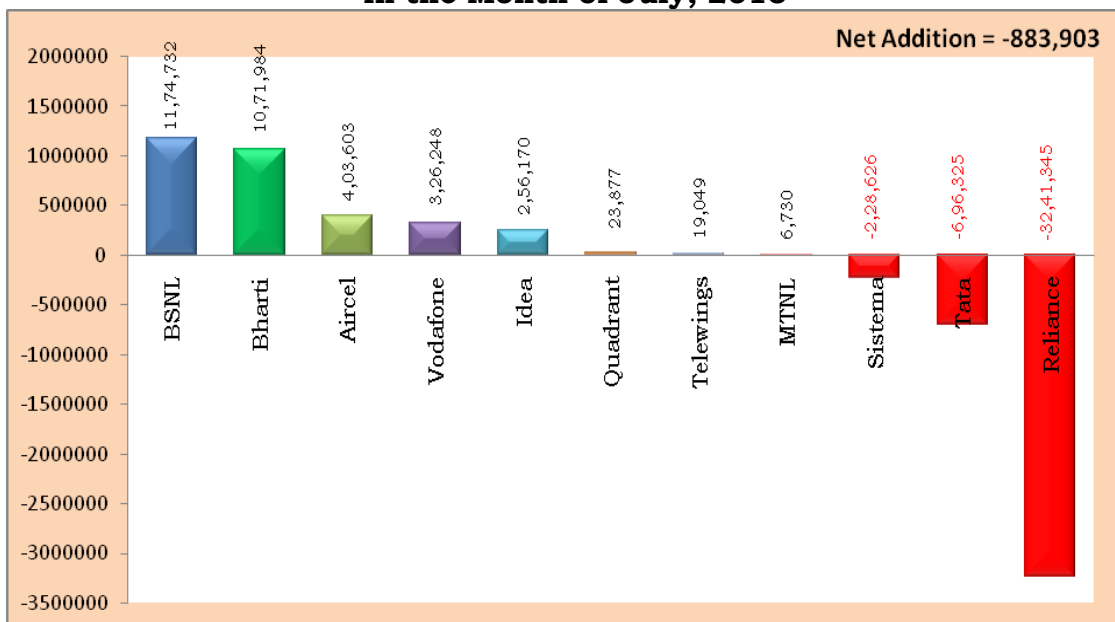
- The Wireless Tele-density in India declined from 81.26 at the end of Jun-16 to 81.11 at the end of Jul-16. The Urban Wireless Tele-density slightly declined from 148.03 at the end of Jun-16 to 148.00 at the end of Jul-16, and Rural Wireless Tele-density also declined from 50.95 to 50.72 during the same period. The share of urban and rural wireless subscribers in total number of wireless subscribers was 57.01% and 42.99% respectively at the end of Jul-16. Detailed statistics of wireless subscriber base is available at **Annexure-I**.

- As on 31st July, 2016, the private access service providers held 90.88% market share of the wireless subscribers whereas BSNL and MTNL, the two PSU access service providers, had a market share of only 9.12%. 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 July, 2016



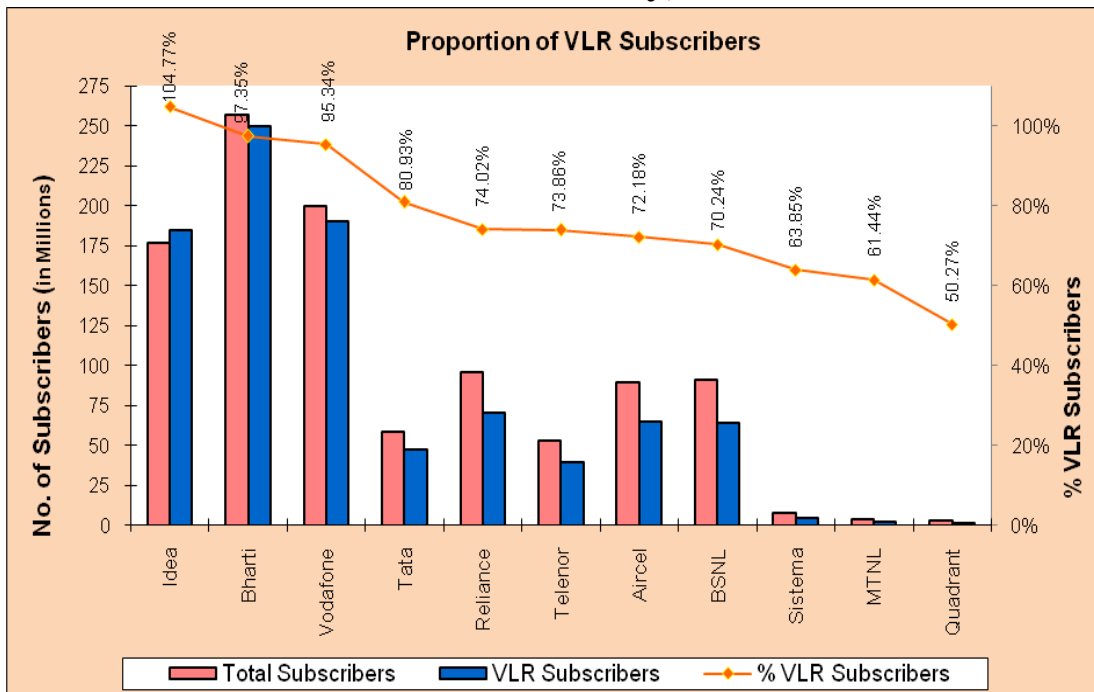
Net Additions in Wireless Subscriber Bases of Access Service Providers in the Month of July, 2016



IV. Active Wireless Subscribers (VLR Data)

- Out of the total wireless subscriber base (1,034.23 million), 919.28 million wireless subscribers were active on the date of peak VLR in the month of Jul-16. The proportion of active wireless subscribers was approximately 88.88% 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 Jul-16 is available at **Annexure-II** and the methodology used for reporting VLR subscribers is available at **Annexure-IV**.

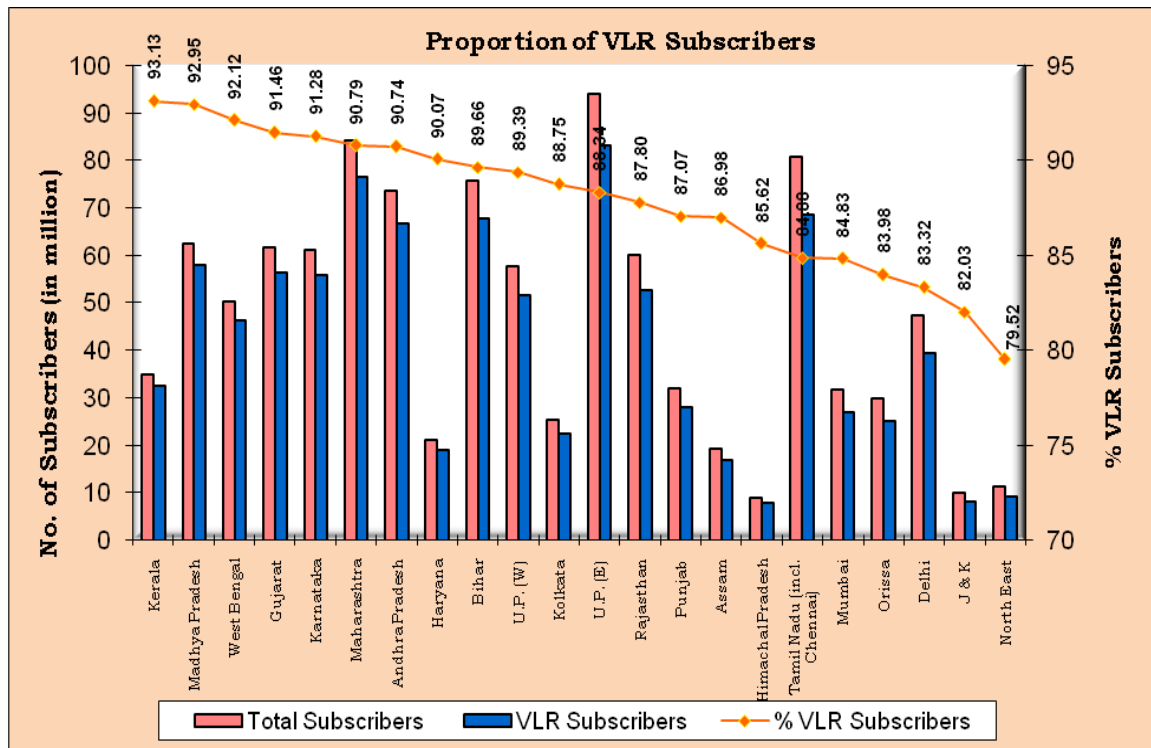
Access Service Provider-wise Proportion of VLR Subscribers in the Month of July, 2016



Note-

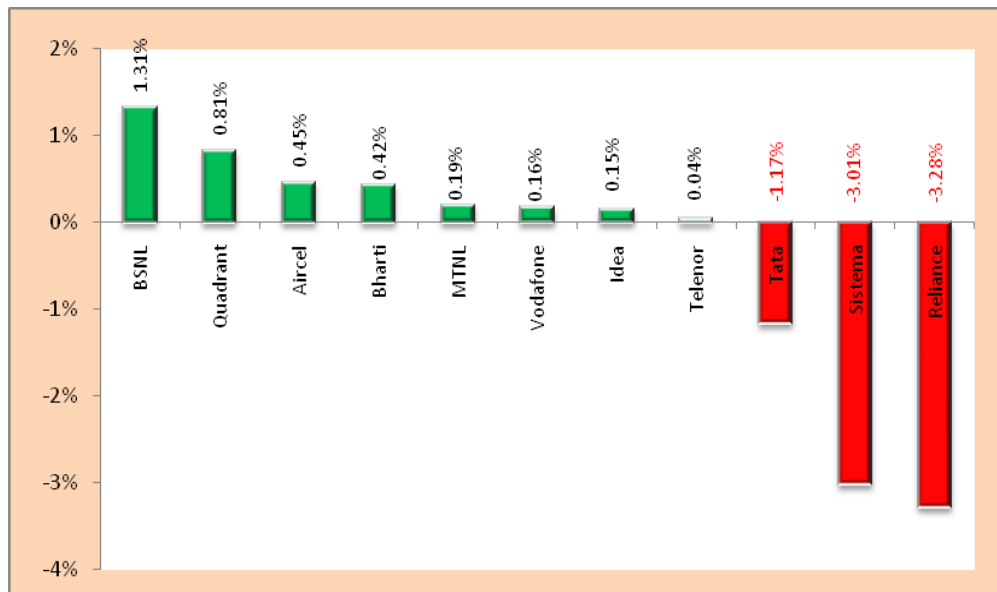
1. Number of VLR subscribers of Idea Cellular was more than its subscriber base due to a large number of inroamers in its network.

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



V. Growth in Wireless Subscribers

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



Service Area-wise Monthly Growth Rate of Wireless Subscriber base in the Month of July, 2016



- Punjab service area recorded the highest growth rate in wireless subscribers during the month of Jul-16, whereas J&K 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 Jul-16, a total of 4.91 million requests were received for MNP. With this, the cumulative MNP requests increased from 224.43 million at the end of Jun-16 to 229.34 million at the end of Jul-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 19.48 million) followed by Gujarat (about 17.15 million).

- In MNP Zone-II (Southern and Eastern India), the highest number of requests till date have been received in Karnataka (about 25.28 million) followed by Andhra Pradesh (about 21.42 million).

Service Area Wise MNP Status at the end of July, 2016			
Zone -I		Zone - II	
Service Area	Number of Porting Requests	Service Area	Number of Porting Requests
Delhi	9220156	Andhra Pradesh	21415894
Gujarat	17154412	Assam	1124028
Haryana	8882673	Bihar	8725021
Himachal Pradesh	813187	Karnataka	25276696
Jammu & Kashmir	88157	Kerala	6821294
Maharashtra	15876345	Kolkata	5025570
Mumbai	12616674	Madhya Pradesh	15825203
Punjab	8153905	North East	450828
Rajasthan	19480280	Orissa	4727207
Uttar Pradesh - East	10864033	Tamil Nadu	14418085
Uttar Pradesh - West	10386918	West Bengal	11992879
Total	113,536,740	Total	115,802,705
Total (Zone-I + Zone-II)			229,339,445
Net Addition (in July, 2016)			4,911,766

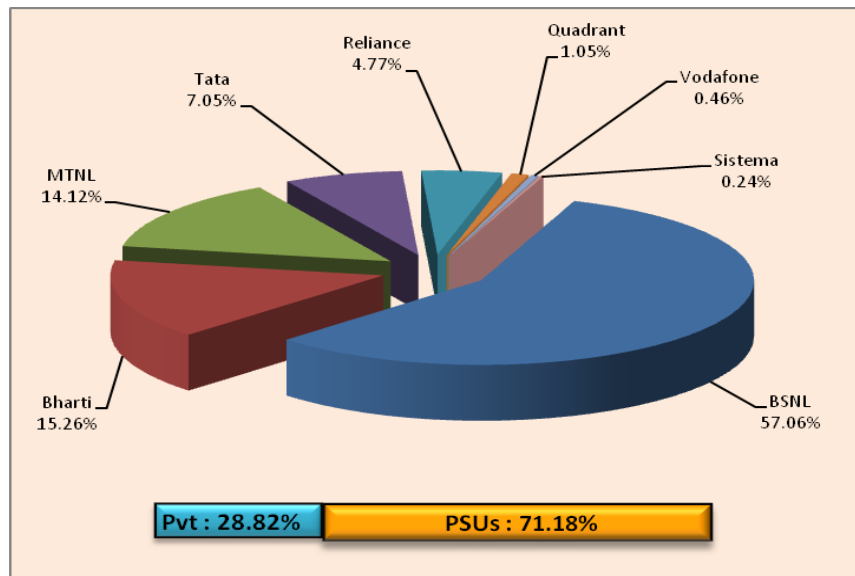
Note: For Zone-II, available MNP data for July, 2016 are provisional.

VII. Wireline Subscribers

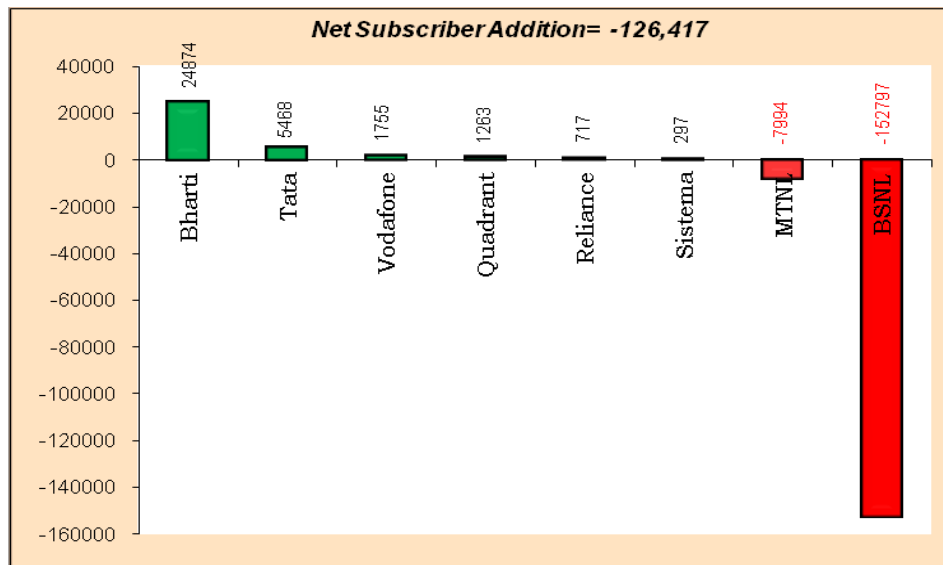
- Wireline subscriber base declined from 24.74 million at the end of Jun-16 to 24.62 million at the end of Jul-16. Net decline in the wireline subscriber base was 0.13 million with a monthly decline rate of 0.51%. The shares of urban and rural subscribers in total wireline subscribers were 83.74% and 16.26% respectively at the end of Jul-16.
- The Overall Wireline Tele-density declined from 1.94 at the end of Jun-16 to 1.93 at the end of Jul-16. Urban Wireline Tele-density and Rural Wireline Tele-density were workout as 5.17 and 0.46 respectively.

- BSNL and MTNL, the two PSU access service providers, held 71.18% 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 Jul-16 are given below:

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



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



VIII. Broadband (\geq 512 Kbps download)

- As per the reports received from the service providers, the number of broadband subscribers increased from 159.80 Million at the end of Jun-16 to 166.96 million at the end of Jul-16 with a monthly growth rate of 4.48%. 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 July, 2016

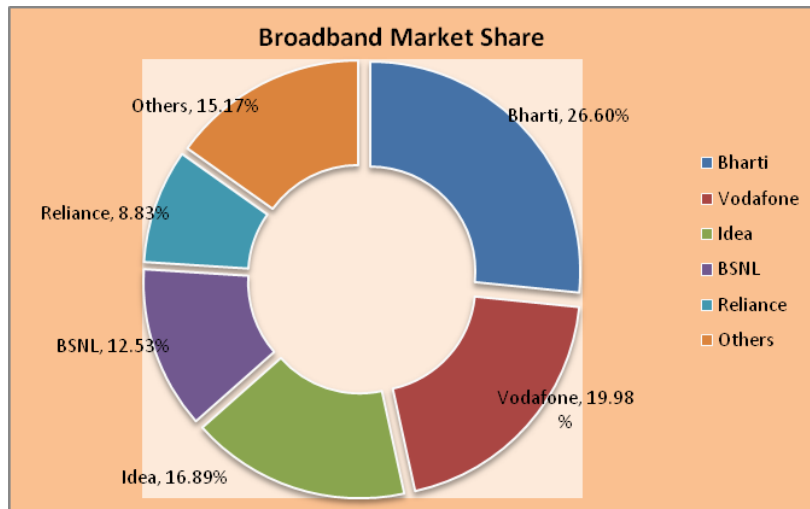
Segment	Broadband subscribers (in million)		Monthly growth rate in the month of Jul-16
	As on 30 th June, 2016	As on 31 st July, 2016	
Wired subscribers	17.32	17.49	1.02%
Mobile devices users (Phones and dongles)	141.94	148.93	4.92%
Fixed Wireless subscribers (Wi-Fi, Wi-Max, Point-to-Point Radio & VSAT)	0.55	0.54	-1.06%
Total	159.80	159.80	4.48%

- Top five service providers constituted 84.83% market share of the total broadband subscribers at the end of Jul-16. These service providers were Bharti Airtel (44.41 million), Vodafone (33.36 million), Idea Cellular (28.19 million), BSNL (20.92 million) and Reliance Communications Group (14.74 million).

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

- The graphical representation of the service provider-wise market share of broadband services is given below:

**Service Provider-wise Market Share of Broadband
(wired+wireless) Services as on 31.07.2016**



- As on 31st July, 2016, the top five Wired Broadband Service providers were BSNL (9.86 million), Bharti Airtel (1.88 million), MTNL (1.08 million), Atria Convergence Technologies (1.05 million) and YOU Broadband (0.57 million).
- As on 31st July, 2016, the top five Wireless Broadband Service providers were Bharti Airtel (42.53 million), Vodafone (33.36 million), Idea Cellular (28.19 million), Reliance Communications Group (14.63 million) and BSNL (11.07 million).

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Authorized to issue:

(Vinod Kotwal)
Advisor (F&EA)

Wireless Subscriber Base

Annexure-I

Circle	Group											
	Bharti		Reliance		Vodafone		Tata		Idea		Aircel	
	Jun-16	Jul-16	Jun-16	Jul-16	Jun-16	Jul-16	Jun-16	Jul-16	Jun-16	Jul-16	Jun-16	Jul-16
Andhra Pradesh	23949999	24155714	4395890	4365123	6894398	6915119	4617561	4549564	15661659	15771048	2701875	2558752
Assam	6106187	6130263	1417819	1387226	3767696	3802782			1145170	1145245	5432338	5494490
Bihar	29003028	29015941	4426592	4287389	9496221	9350006	1683460	1661391	11001449	10921767	7249253	7285922
Delhi	11307411	11347967	7796699	7871060	10202478	10261081	2074731	1999736	6143964	6153618	6458607	6528812
Gujarat	8600721	8624110	6229699	6128929	19372544	19468939	2934926	2923117	12072340	12085087	17063	17063
Haryana	3248189	3256498	1626025	1588005	5536474	5536706	2997079	2951090	4810980	4786690	3092	3092
Himachal Pradesh	2886253	2886707	1615994	1580063	736466	738522	66034	64758	813623	808547	1106961	1109565
J & K	3363404	3297984	973220	936523	1056570	986900			664262	603451	2633105	2673069
Karnataka	21047626	21252139	5901513	5228605	7679607	7737923	7253077	7166268	8510255	8572991	3191048	3228366
Kerala	4396649	4410132	2180340	1676850	7548548	7603067	1552363	1541148	10559627	10940786	321701	343317
Kolkata	4702043	4756286	4768741	4713041	5460570	5511471	2788784	2775546	2087940	2101661	4163448	4190123
Madhya Pradesh	13161158	13167350	11126401	10880742	7014078	6915435	5188372	5105712	21902610	21824953	20694	20694
Maharashtra	13483912	13465482	5276913	5212833	18505027	18576601	6347548	6327559	23774648	23672908	2656480	2667542
Mumbai	5863284	5901183	5568930	5536742	8727088	8795190	3133163	3032934	4161802	4158027	2899955	2947094
North East	3925056	3952201	412385	380801	1578990	1596240			495176	501315	3335036	3359472
Orissa	10645162	10672418	2014356	1988078	4161934	4149994	2203407	2182016	1761959	1756655	4672837	4688700
Punjab	8037799	8080854	1613559	1619082	5147562	5160489	2728206	2710718	6485668	6480725	1105683	1120948
Rajasthan	19643122	19650609	6788415	6237454	12027918	11932709	1521215	1530909	7570599	7463937	6524060	6569311
Tamil Nadu (incl. Chennai)	17579650	17721709	6566492	5725663	15624762	15695190	4515852	4453033	5823707	6020780	21749425	21747149
U.P.(E)	21380650	21513837	9321489	9331738	19427245	19397997	3935817	3913903	10795912	10678160	7042456	7078854
U.P.(W)	8389295	8396686	5677586	5786358	11432149	11420206	3401996	3368797	14525071	14588360	731978	747219
West Bengal	15014052	15150564	3010597	3006005	17985187	18157193	430787	419854	5465731	5453611	4917094	4958238
Total	255734650	256806634	98709655	95468310	199383512	199709760	59374378	58678053	176234152	176490322	88934189	89337792
Net Addition		1071984		-3241345		326248		-696325		256170		403603

Wireless Subscriber Base

Annexure-I (contd.)

Circle	Group												Net Addition
	BSNL		MTNL		Telenor		Sistema		Quadrant		Total		
	Jun-16	Jul-16	Jun-16	Jul-16	Jun-16	Jul-16	Jun-16	Jul-16	Jun-16	Jul-16	Jun-16	Jul-16	
Andhra Pradesh	9595521	9755416			5510192	5544449					73327095	73615185	288090
Assam	1337098	1346488									19206308	19306494	100186
Bihar	3517361	3602857			9564596	9577703					75941960	75702976	-238984
Delhi			2319473	2319421			925438	897854			47228801	47379549	150748
Gujarat	3818449	3893247			8417351	8411103	208084	200971			61671177	61752566	81389
Haryana	3087176	3095274									21309015	21217355	-91660
Himachal Pradesh	1810061	1850631									9035392	9038793	3401
J & K	1334011	1355374									10024572	9853301	-171271
Karnataka	7025276	7014429					1109823	1054981			61718225	61255702	-462523
Kerala	7911502	8062726					334215	322200			34804945	34900226	95281
Kolkata	792179	793502					527667	519081			25291372	25360711	69339
Madhya Pradesh	4546131	4544318									62959444	62459204	-500240
Maharashtra	6050558	6109273			8203761	8225145					84298847	84257343	-41504
Mumbai			1270970	1277752							31625192	31648922	23730
North East	1584435	1599386									11331078	11389415	58337
Orissa	4400027	4489651									29859682	29927512	67830
Punjab	3811093	3931434							2933294	2957171	31862864	32061421	198557
Rajasthan	4390551	4521306					2125520	2093440			60591400	59999675	-591725
Tamil Nadu (incl. Chennai)	8782953	8796582					737153	707760			81379994	80867866	-512128
U.P.(E)	9492188	9570382			12595116	12648317					93990873	94133188	142315
U.P.(W)	4567723	4679393			8799952	8703300	149871	138715			57675621	57829034	153413
West Bengal	1688223	1705579					1470462	1424605			49982133	50275649	293516
Total	89542516	90717248	3590443	3597173	53090968	53110017	7588233	7359607	2933294	2957171	1035115990	1034232087	-883903
Net Addition		1174732		6730		19049		-228626		23877		-883903	

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

Annexure-II

Circle	Aircel	Bharti	BSNL	Quadrant	Idea	MTNL	Reliance	Sistema	Tata	Telenor	Vodafone	Total
Andhra Pradesh	62.83	99.02	73.26		104.22		80.78		88.72	76.98	84.69	90.74
Assam	86.86	95.04	80.91		96.97		4.63				103.35	86.98
Bihar	92.21	98.09	70.51		105.33		8.61		72.81	73.20	107.60	89.66
Delhi	62.88	92.70			95.16	55.49	67.04	50.45	57.66		105.53	83.32
Gujarat	2989.50	96.37	73.21		106.95		87.32	53.72	74.73	70.82	93.92	91.46
Haryana	0.49	94.62	59.91		103.14		98.67		81.62		95.02	90.07
Himachal Pradesh	52.76	93.82	70.25		110.29		98.73		39.12		90.55	85.62
J & K	85.30	84.24	73.80		108.07		51.91				89.79	82.03
Karnataka	61.26	100.90	63.14		105.89		87.90	71.89	90.25		92.57	91.28
Kerala	75.19	96.15	79.55		106.94		78.69	67.72	86.66		92.31	93.13
Kolkata	72.23	98.60	89.73		93.50		84.45	92.55	83.10		97.02	88.75
Madhya Pradesh	0.97	95.35	74.98		107.70		85.80		76.56		77.26	92.95
Maharashtra	57.55	95.04	75.04		105.19		72.53		79.79	73.69	95.77	90.79
Mumbai	55.26	96.57			92.46	72.24	80.50		82.63		88.55	84.83
North East	65.83	95.35	67.88		99.77		4.91				92.28	79.52
Orissa	64.99	96.96	75.01		101.92		11.80		81.43		110.08	83.98
Punjab	62.69	98.23	69.84	50.27	104.60		98.53		74.99		89.85	87.07
Rajasthan	53.89	94.81	75.07		104.79		89.72	59.44	110.58		90.19	87.80
Tamil Nadu (incl. Chennai)	71.31	99.28	66.73		97.02		82.90	55.33	80.72		96.18	84.88
U.P. (E)	76.71	101.66	58.57		112.00		80.06		74.81	74.54	95.17	88.34
U.P. (W)	102.87	95.49	60.85		102.10		86.74	62.52	78.21	74.71	95.64	89.39
West Bengal	86.20	97.65	86.39		110.22		10.37	67.29	57.23		100.51	92.12
Total	72.18	97.35	70.24	50.27	104.77	61.44	74.02	63.85	80.93	73.86	95.34	88.88

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

Circle	Group																Net Addition		
	BSNL		MTNL		Bharti		Reliance		Tata		Quadrant		Sistema		Vodafone			Total	
	Jun-16	Jul-16	Jun-16	Jul-16	Jun-16	Jul-16	Jun-16	Jul-16	Jun-16	Jul-16	Jun-16	Jul-16	Jun-16	Jul-16	Jun-16	Jul-16		Jun-16	Jul-16
Andhra Pradesh	1266334	1245824			150408	151961	75875	75871	169040	173237					10,530	10,740	1672187	1657633	-14554
Assam	156019	155938													1,890	1,890	157909	157828	-81
Bihar	305941	303514					6,824	6,540	13,190	13,267					1110	1110	327065	324431	-2634
Delhi			1615253	1613927	1239478	1245036	174616	174556	132550	133797					22,290	22,350	3184187	3189666	5479
Gujarat	1117336	1110773			75381	75571	74575	74252	86541	86692					5,280	5,220	1359113	1352508	-6605
Haryana	2,94,316	2,92,591			21820	22105	4397	4397	36746	37066					30	30	357309	356189	-1120
Himachal Pradesh	1,54,863	1,51,802					4126	4066	2677	2643					30	30	161696	158541	-3155
J & K	1,28,187	1,27,977															128187	127977	-210
Karnataka	1260874	1247499			603903	608262	151836	152815	208818	208179					17,880	18,030	2243311	2234785	-8526
Kerala	2112431	2080918			57004	57087	33187	33276	18636	18673					1530	1590	2222788	2191544	-31244
Kolkata	641246	637073			117877	118272	69160	69156	48422	48615					4860	5070	881565	878186	-3379
Madhya Pradesh	726579	724367			267937	270875	19736	19725	16732	16422					390	390	1031374	1031779	405
Maharashtra	1459104	1447592			75345	75849	82730	82670	285088	285300					12,120	12,240	1914387	1903651	-10736
Mumbai			1868635	1861967	351227	351477	253122	253940	534595	534428					18147	19062	3025726	3020874	-4852
North East	122922	129906													150	150	123072	130056	6984
Orissa	280002	278978					3290	3293	8277	8208					990	990	292559	291469	-1090
Punjab	635124	625250			113381	114979	21284	21284	16890	16979	256881	258144			930	930	1044490	1037566	-6924
Rajasthan	635392	629885			47239	47983	20734	20524	11826	11815			58115	58412	1,890	1,920	775196	770539	-4657
Tamil Nadu (incl. Chennai)	1793697	1768204			524915	530857	134173	134137	109958	109873					8550	8670	2571293	2551741	-19552
U.P.(E)	387814	385183			62930	63220	35081	34931	15202	15246					1,200	1,170	502227	499750	-2477
U.P.(W)	376586	372894			22622	22807	7105	7105	10043	10189					480	450	416836	413445	-3391
West Bengal	346084	331886					1934	1964	3893	3963					60	60	351971	337873	-14098
Total	14200851	14048054	3483888	3475894	3731467	3756341	1173785	1174502	1729124	1734592	256881	258144	58115	58412	110337	112092	24744448	24618031	-126417
Net Addition		-152797		-7994		24874		717		5468		1263		297		1755		-126417	

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.