



सत्यमेव जयते

TELECOM REGULATORY AUTHORITY OF INDIANew Delhi, 24th July, 2020

(www.trai.gov.in)

**Highlights of Telecom Subscription Data as on 30th April, 2020**

Particulars	Wireless	Wireline	Total (Wireless+ Wireline)
Total Telephone Subscribers (Million)	1149.52	19.92	1169.44
Net Addition in April, 2020 (Million)	-8.23	-0.30	-8.53
Monthly Growth Rate	-0.71%	-1.48%	-0.72%
Urban Telephone Subscribers (Million)	629.44	17.76	647.19
Net Addition in April, 2020 (Million)	-9.05	-0.22	-9.27
Monthly Growth Rate	-1.42%	-1.21%	-1.41%
Rural Telephone Subscribers (Million)	520.08	2.16	522.24
Net Addition in April, 2020 (Million)	0.82	-0.08	0.74
Monthly Growth Rate	0.16%	-3.59%	0.14%
Overall Tele-density*(%)	85.18%	1.48%	86.66%
Urban Tele-density*(%)	136.22%	3.84%	140.06%
Rural Tele-density*(%)	58.61%	0.24%	58.85%
Share of Urban Subscribers	54.76%	89.14%	55.34%
Share of Rural Subscribers	45.24%	10.86%	44.66%
Broadband Subscribers (Million)	657.12	19.02	676.14

❖ In the month of April, 2020, 0.90 million subscribers submitted their requests for Mobile Number Portability (MNP). With this, the cumulative MNP requests increased from 487.33 million at the end of Mar-20 to 488.23 million at the end of Apr-20, since implementation of MNP.

❖ Number of active wireless subscribers (on the date of peak VLR[#]) in April, 2020 was 957.87 million.

Note:

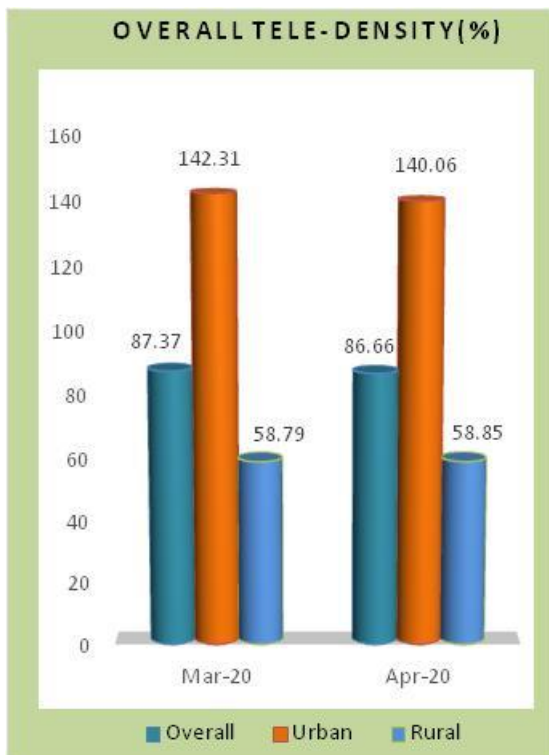
- Information in this Press Release is based on the data provided by the Service Providers

* Based on the data of Census of India 2011, Population Projections for India and States, 2011-2036.

VLR is acronym of Visitor Location Register. The dates of peak VLR for various TSPs are different in different service areas.

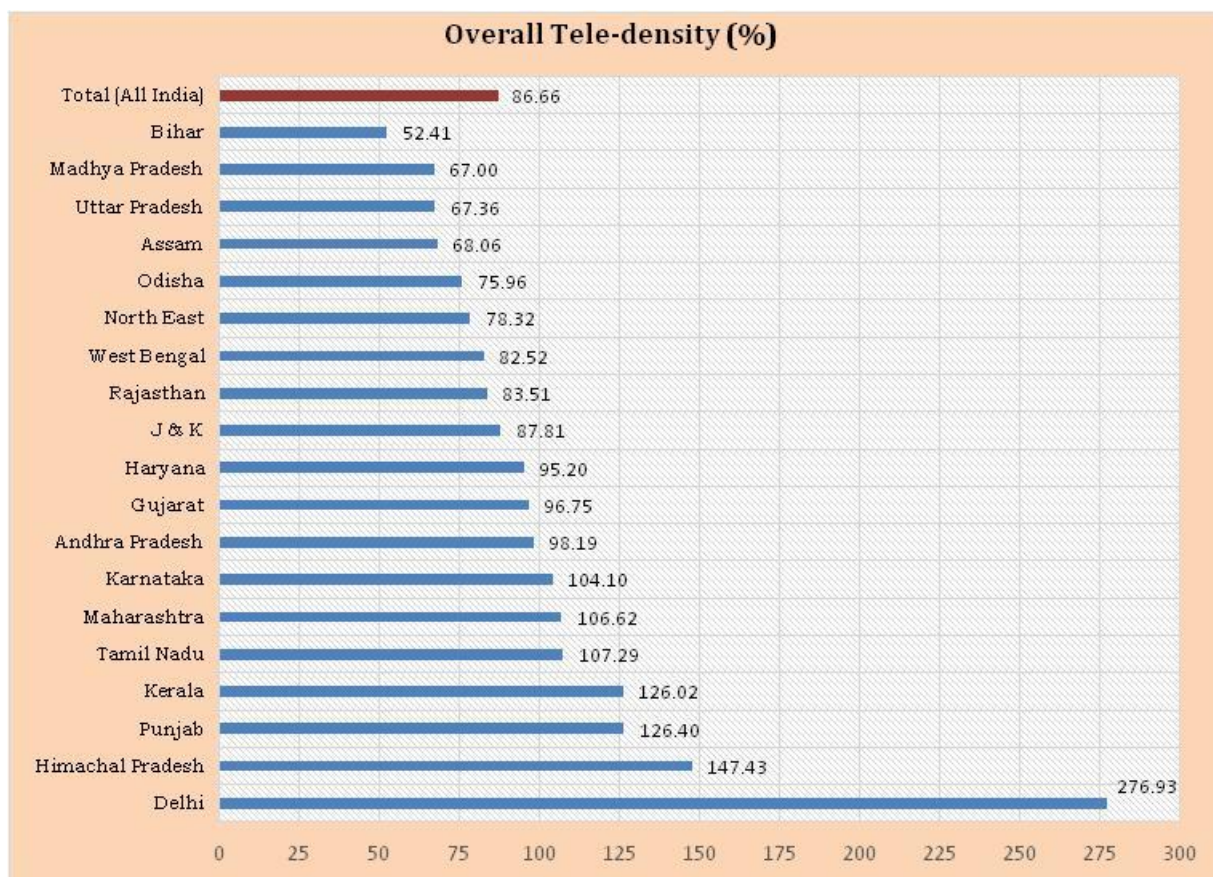
I. Total Telephone Subscribers

- The number of telephone subscribers in India decreased from 1,177.97 million at the end of Mar-20 to 1,169.44 million at the end of Apr-20, thereby showing a monthly decline rate of 0.72%. Urban telephone subscription decreased from 656.46 million at the end of Mar-20 to 647.19 million at the end of Apr-20, however the rural subscription increased from 521.51 million to 522.24 million during the same period. The monthly growth rates of urban and rural telephone subscription were -1.41% and 0.14% respectively during the month of Apr-20.



- The overall Tele-density in India decreased from 87.37 at the end of Mar-20 to 86.66 at the end of Apr-20. The Urban Tele-density declined from 142.31 at the end of Mar-20 to 140.06 at the end of Apr-20. Rural Tele-density increased from 58.79 at the end of Mar-20 to 58.85 at the end of Apr-20. The share of rural and urban subscribers in total number of telephone subscribers at the end of Apr-20 was 44.66% and 55.34% respectively.

Overall Tele-density (Circle/State Wise) – As on 30th April 2020



- 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 Apr-20. Delhi service area has maximum tele-density of 276.93 and the Bihar service area has minimum tele-density of 52.41 at the end of Apr-20.

Notes:

- Population data/projections are available state wise only.
- Tele-density figures are derived from the telephone subscriber data provided by the access service providers and the Projections of Population of the CENSUS OF INDIA 2011.
- 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).
- Data/information for West Bengal includes Kolkata, Maharashtra includes Mumbai, Tamil Nadu includes Chennai, Jammu & Kashmir includes Ladakh and Uttar Pradesh includes UPE & UPW service area(s).
- 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 April, 2020

Circle Category	Net additions in the month of April, 2020		Telephone Subscriber base as on 30 th April, 2020	
	Wireline segment	Wireless segment	Wireline segment	Wireless segment
Circle A	-1,06,731	-44,54,117	77,21,258	39,37,40,624
Circle B	-1,35,643	-9,53,149	44,30,691	46,53,07,877
Circle C	-754	-17,21,431	8,27,739	17,46,11,483
Metro	-55,353	-11,02,894	69,39,918	11,58,56,929
All India	-2,98,481	-82,31,591	1,99,19,606	1,14,95,16,913

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

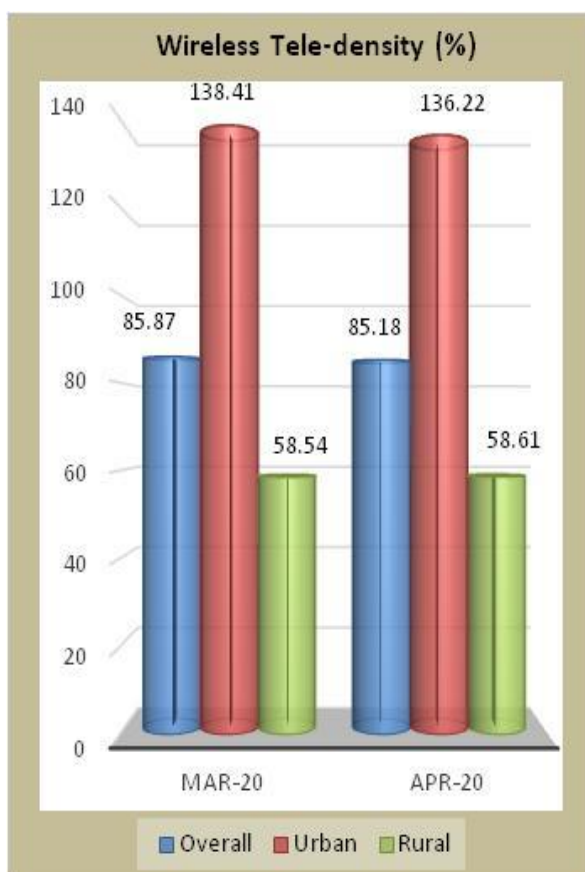
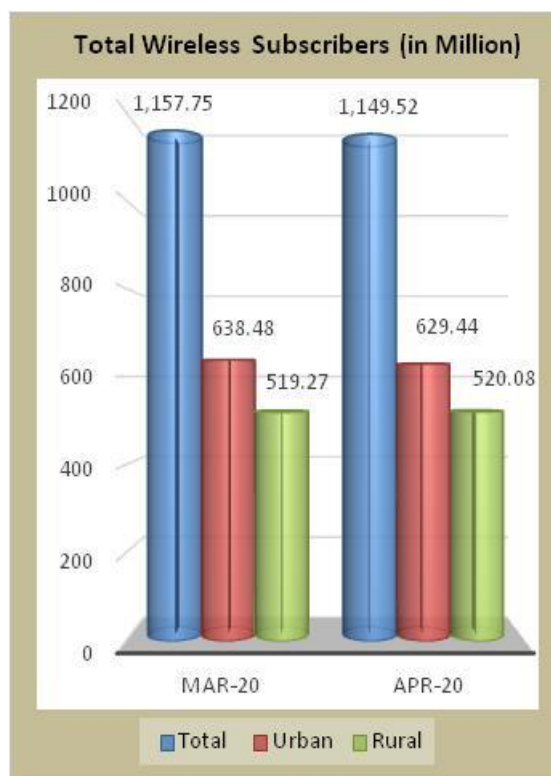
Circle Category	Monthly growth rate (%) (Mar-20 to Apr-20)		Yearly growth rate (%) (Apr-19 to Apr-20)	
	Wireline Segment	Wireless Segment	Wireline Segment	Wireless Segment
Circle A	-1.36%	-1.12%	-7.99%	-1.11%
Circle B	-2.97%	-0.20%	-16.45%	-1.52%
Circle C	-0.09%	-0.98%	-7.19%	-0.09%
Metro	-0.79%	-0.94%	0.79%	-0.86%
All India	-1.48%	-0.71%	-7.23%	-1.10%

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, on monthly and yearly basis, Circles of all Categories showed decline rate in their subscribers during the month of Apr-20.
- In Wireline segment, Circles of all Categories showed monthly decline rate in their subscribers during the month of Apr-20. On yearly basis, only Metro Circles showed growth in their number of wireline subscribers.

III. Wireless Subscribers

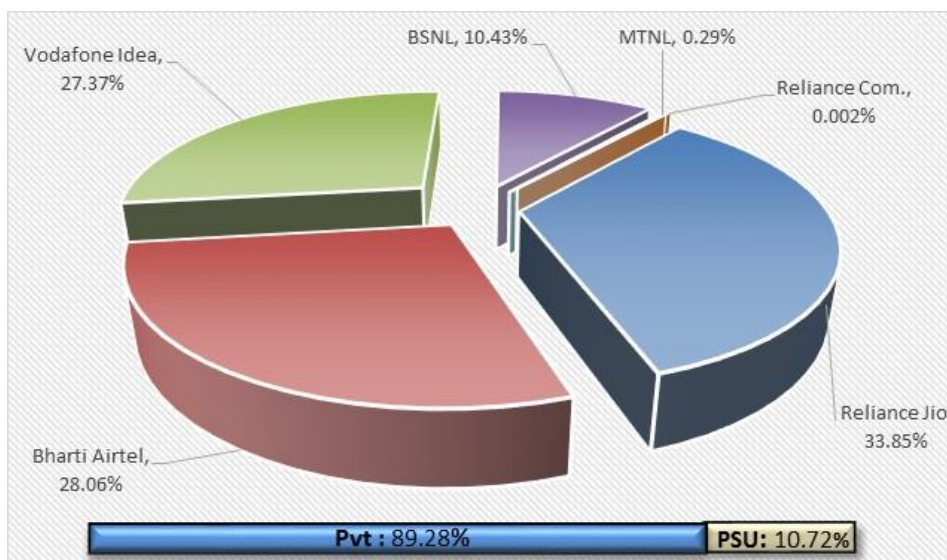
- Total wireless subscribers (2G, 3G & 4G) decreased from 1,157.75 million at the end of Mar-20 to 1,149.52 million at the end of Apr-20, thereby registering a monthly decline rate of 0.71%. Wireless subscription in urban areas decreased from 638.48 million at the end of Mar-20 to 629.44 million at the end of Apr-20 however wireless subscription in rural areas increased from 519.27 million at the end of Mar-20 to 520.08 million at the end of Apr-20. Monthly growth rates of urban and rural wireless subscription were -1.42% and 0.16% respectively.



- The Wireless Tele-density in India decreased from 85.87 at the end of Mar-20 to 85.18 at the end of Apr-20. The Urban Wireless Tele-density declined from 138.41 at the end of Mar-20 to 136.22 at the end of Apr-20, however, Rural Wireless Tele-density increased from 58.54 to 58.61 during the same period. The share of urban and rural wireless subscribers in total number of wireless subscribers was 54.76% and 45.24% respectively at the end of Apr-20. Detailed statistics of wireless subscriber base is available at **Annexure-I**.

- As on 30th April, 2020, the private access service providers held 89.28% market share of the wireless subscribers whereas BSNL and MTNL, the two PSU access service providers, had a market share of only 10.72%.
- 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 April, 2020



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

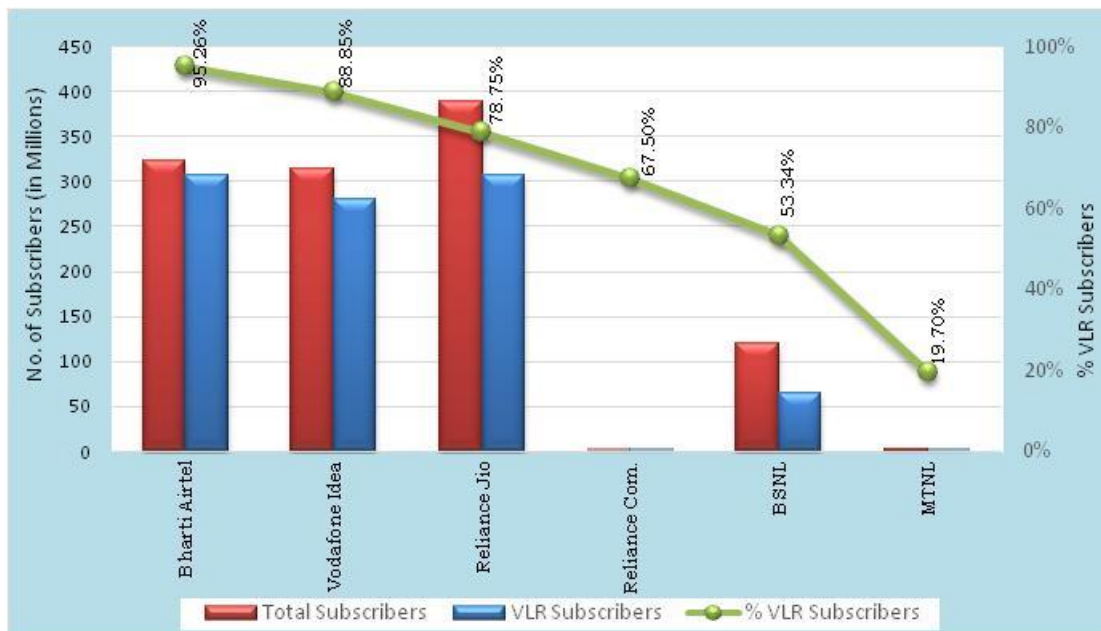


- Note:**
1. M/s Bharti Airtel Ltd has reported the wireless subscribers including the subscribers of M/s Tata Teleservices Ltd.
 2. Virtual Network Operator (VNO) of BSNL has started reporting of its subscribers from the month of October, 2018 and the same has been included in the subscriber base of BSNL.

IV. Active Wireless Subscribers (VLR Data)

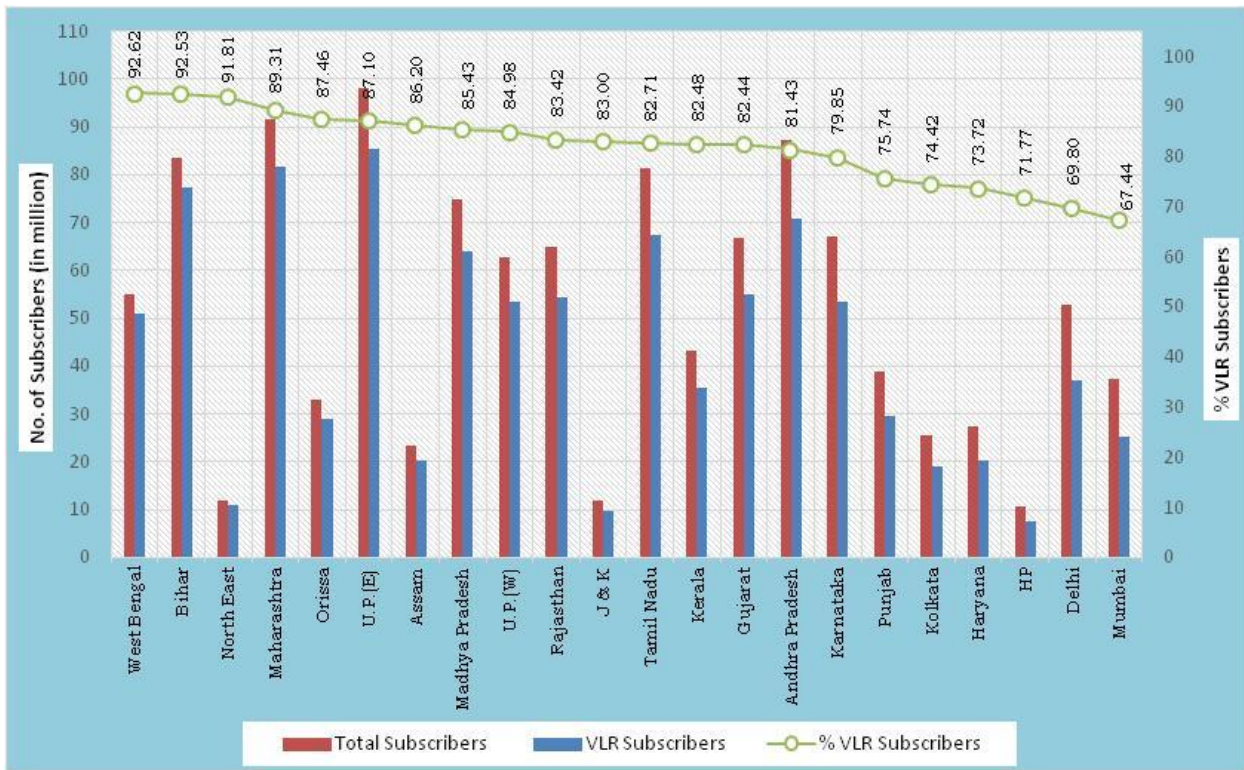
- Out of the total wireless subscribers (1,149.52 million), 957.87 million wireless subscribers were active on the date of peak VLR in the month of Apr-20. The proportion of active wireless subscribers was approximately 85.43% of the total wireless subscriber base.
- The detailed statistics on proportion of active wireless subscribers (also referred to as VLR subscribers) on the date of peak VLR in the month of Apr-20 is available at **Annexure-II** and the methodology used for reporting VLR subscribers is available at **Annexure-IV**.

Access Service Provider-wise Percentage of VLR Subscribers in the month of April, 2020



- Bharti Airtel has the maximum proportion (95.26%) of its active wireless subscribers (VLR) as against its total wireless subscribers (HLR) on the date of peak VLR in the month of Apr-20 and MTNL has the minimum proportion of VLR (19.70%) of its HLR during the same period.

Service Area wise percentage of VLR Subscribers in the Month of April, 2020



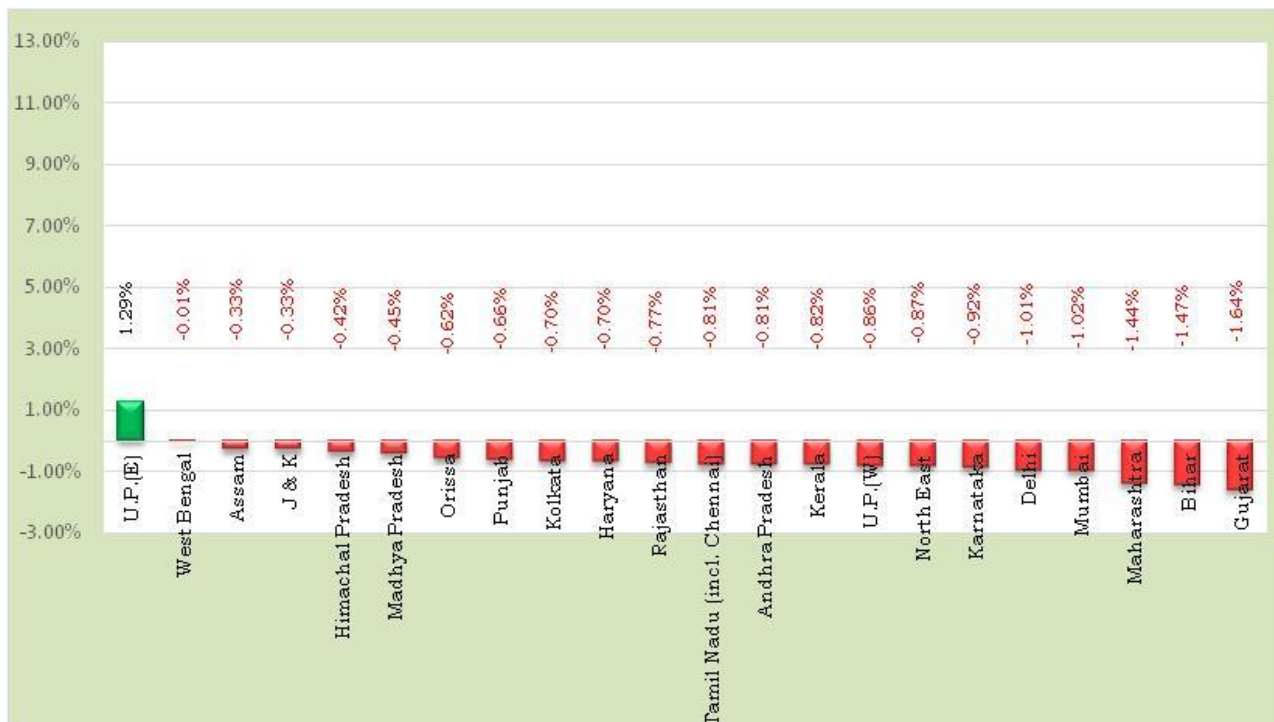
V. Growth in Wireless Subscribers

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



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

Service Area-wise Monthly Growth Rate of Wireless Subscribers in the month of April, 2020



- All service areas showed decline except Uttar Pradesh (E) in their wireless subscribers during the month of April-20. Uttar Pradesh

(E) service area showed maximum growth of 1.29% in their wireless subscriber during the month.

VI. Mobile Number Portability (MNP)

- Intra-service area Mobile number portability (MNP) was implemented first in Haryana service area w.e.f. 25.11.2010 and in the rest of the country w.e.f. 20.01.2011. Inter-Service 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 Apr-20, a total of 0.90 million requests were received for MNP. Out of total 0.90 million new requests, 0.44 million requests received from Zone-I and 0.46 million requests received from Zone-II. The cumulative MNP requests increased from 487.33 million at the end of Mar-20 to 488.23 million at the end of Mar-20, since the implementation of MNP.

- In MNP Zone-I (Northern and Western India), the highest number of requests till date have been received in Maharashtra (about 37.86 million) followed by Rajasthan (about 37.42 million) service area.

- In MNP Zone-II (Southern and Eastern India), the highest number of requests till date have been received in Karnataka (about 43.65 million) followed by Andhra Pradesh (about 40.85 million).

Service Area Wise MNP Status					
Zone - 1			Zone - 2		
Service Area	Number of Porting Requests (in Million)		Service Area	Number of Porting Requests (in Million)	
	Mar-20	Apr-20		Mar-20	Apr-20
Delhi	25.05	25.06	Andhra Pradesh	40.79	40.85
Gujarat	32.57	32.61	Assam	3.70	3.70
Haryana	17.49	17.53	Bihar	20.21	20.27
Himachal Pradesh	2.38	2.38	Karnataka	43.61	43.65
Jammu & Kashmir	1.18	1.18	Kerala	12.39	12.47
Maharashtra	37.79	37.86	Kolkata	11.40	11.41
Mumbai	24.05	24.05	Madhya Pradesh	32.61	32.67
Punjab	18.78	18.81	North East	1.44	1.44
Rajasthan	37.38	37.42	Orissa	9.68	9.71
U.P.(East)	28.12	28.22	Tamil Nadu	40.29	40.33
U.P.(West)	22.57	22.66	West Bengal	23.87	23.94
Total	247.35	247.79	Total	239.98	240.44
Total (Zone-1 + Zone-2)				487.33	488.23
Net Addition (April, 2020)			0.90 million		

VII. Wireline Subscribers

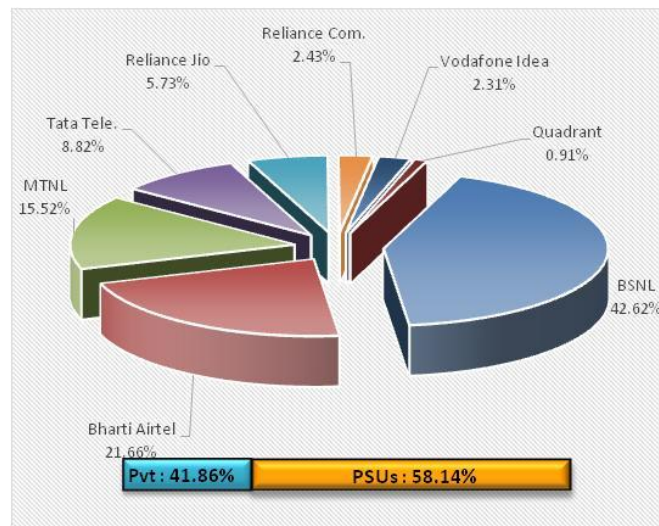
- Wireline subscribers decreased from 20.22 million at the end of Mar-20 to 19.92 million at the end of Apr-20. Net decline in the wireline subscriber base was 0.30 million with a monthly decline rate

of 1.48%. The share of urban and rural subscribers in total wireline subscribers were 89.14% and 10.86% respectively at the end of Apr-20.

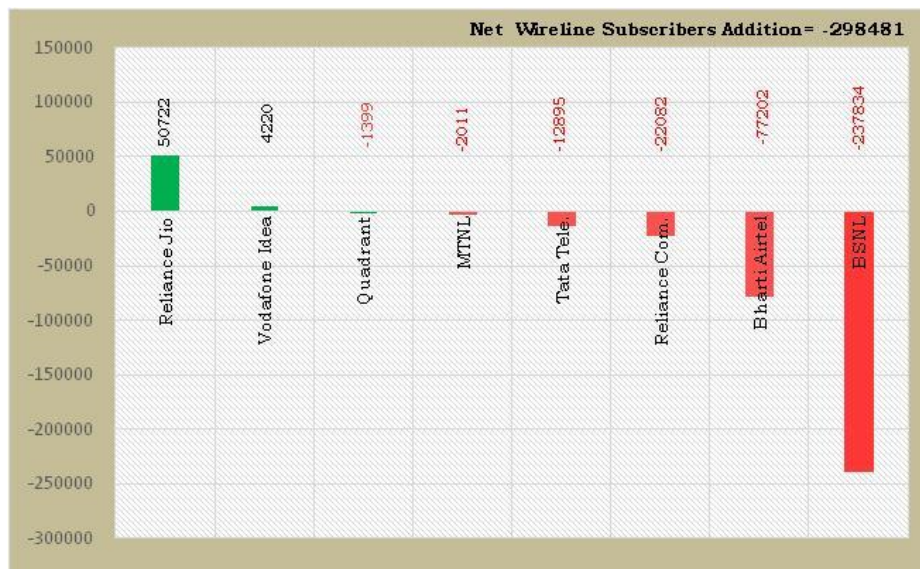
- The Overall Wireline Tele-density declined from 1.50 at the end of Mar-20 to 1.48 at the end of Apr-20. Urban and Rural Wireline Tele-density were 3.84 and 0.24 respectively during the same period.

- BSNL and MTNL, the two PSU access service providers, held 58.14% of the wireline market share as on 30th April, 2020. Detailed statistics of wireline subscriber base are available at **Annexure-III.**

Access Service Provider-wise Market Shares of Wireline Subscribers as on 30th April, 2020



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



VIII. Broadband (≥ 512 Kbps download)

- As per the reports received from 342 operators in the month of April, 2020, the number of broadband subscribers decreased from 687.44 million at the end of Mar-20 to 676.14 million at the end of Apr-20 with a monthly decline rate of 1.64%. Segment-wise broadband subscribers and their monthly growth rates are as below: -

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

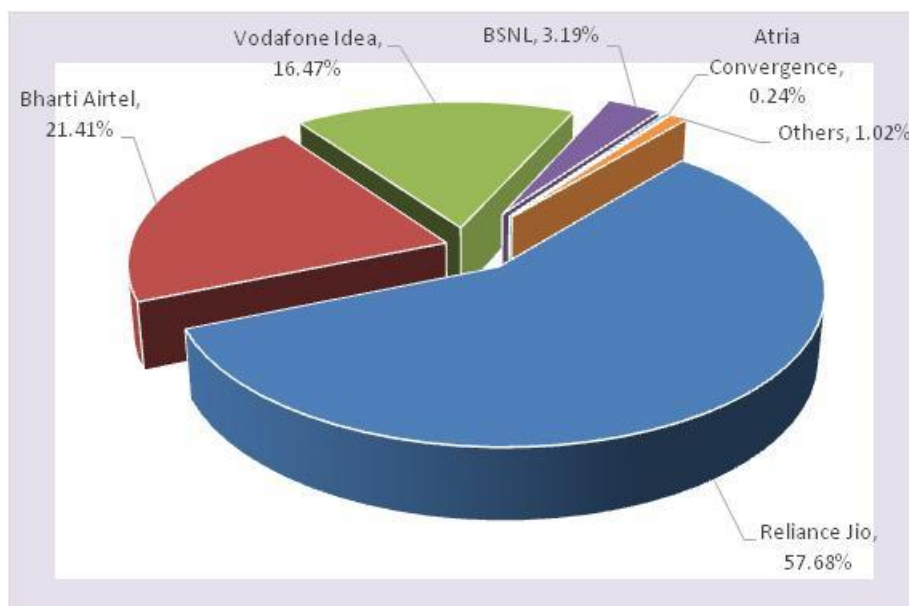
Segment	Broadband subscribers (in million)		Monthly growth rate in the month of Mar-20
	As on 31 st March, 2020	As on 30 th April, 2020	
Wired subscribers	19.18	19.02	-0.82%
Mobile devices users (Phones and dongles)	667.66	656.51	-1.67%
Fixed Wireless subscribers (Wi-Fi, Wi-Max, Point-to-Point Radio & VSAT)	0.60	0.61	2.15%
Total	687.44	676.14	-1.64%

- Top five service providers constituted 98.98% market share of the total broadband subscribers at the end of Apr-20. These service providers were Reliance Jio Infocomm Ltd (389.99 million), Bharti Airtel (144.76 million), Vodafone Idea (111.38 million), BSNL (21.54 million) and Atria Convergence (1.59 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 30.04.2020**



- As on 30th April, 2020, the top five Wired Broadband Service providers were BSNL (7.97 million), Bharti Airtel (2.44 million), Atria Convergence Technologies (1.59 million), Hathway Cable & Datacom (0.97 million) and Reliance Jio Infocomm Ltd (0.90 million).
- As on 30th April, 2020, the top five Wireless Broadband Service providers were Reliance Jio Infocom Ltd (389.09 million), Bharti Airtel (142.33 million), Vodafone Idea (111.36 million), BSNL (13.56 million) and MTNL (0.17 million).

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Pr. Advisor (F&EA)

Wireless Subscriber Base																	Annexure-I
Circle	Bharti Airtel (including Tata Tele.)		Reliance Com.		Vodafone Idea		BSNL		BSNL (VNO's)		MTNL		Reliance Jio		Total		Net Addition
	Mar-20	Apr-20	Mar-20	Apr-20	Mar-20	Apr-20	Mar-20	Apr-20	Mar-20	Apr-20	Mar-20	Apr-20	Mar-20	Apr-20	Mar-20	Apr-20	
Andhra Pradesh	29359105	28972986	2215	2212	18117771	17683144	9880476	9881535					30496220	30601661	87855787	87141538	-714249
Assam	8353872	8249311	0	0	4183200	4173958	2790779	2815919					8275824	8287547	23603675	23526735	-76940
Bihar	34977894	34585811	381	381	14591200	13528501	5628326	5640105					29526256	29721424	84724057	83476222	-1247835
Delhi	15622321	15392076	1789	1789	17332519	16982626	0	0		2181486	2181437		18259352	18302250	53397467	52860178	-537289
Gujarat	10993217	10311741	605	604	27072381	26575630	6111290	6104253					23755633	23824235	67933126	66816463	-1116663
Haryana	4537398	4482455	136	136	8785711	8646982	5003797	5001387					9347510	9348593	27674552	27479553	-194999
Himachal Pradesh	3328098	3278997	104	104	850315	837019	2991601	2992738					3620570	3637021	10790688	10745879	-44809
J & K	5928411	5870663	0	0	610483	619462	1257282	1252838					4064862	4079081	11861038	11822044	-38994
Karnataka	28721892	28258387	1540	1540	11268724	11030507	7318035	7274791					20318123	20441097	67628314	67006322	-621992
Kerala	5609440	5538046	634	633	17962231	17603735	10944293	10944266					8915611	8990383	43432209	43077063	-355146
Kolkata	6244080	6105132	36	36	7368356	7285432	2096657	2105043					10024019	10056731	25733148	25552374	-180774
Madhya Pradesh	14476869	14157984	750	750	23870180	23672162	6368950	6377687					30517136	30688624	75233885	74897207	-336678
Maharashtra	16099766	15759463	1050	1046	38126290	36994987	7051528	7057401					31518967	31647484	92797601	91460381	-1337220
Mumbai	9921502	9743289	2397	2386	12712857	12483442	0	0		1178701	1178618		14013751	14036642	37829208	37444377	-384831
North East	5232246	5152370	0	0	1721989	1706084	1422503	1400558					3645578	3658488	12022316	11917500	-104816
Orissa	11428399	11203486	364	364	3159284	3083567	6227956	6248099					12515137	12587587	33331140	33123103	-208037
Punjab	10288523	10116953	316	316	9328394	9180985	5779360	5782584					13777111	13834813	39173704	38915651	-258053
Rajasthan	21115780	20821142	368	368	13598361	13334087	6271217	6275568					24547174	24595250	65532900	65026415	-506485
Tamil Nadu (incl. Chennai)	25220269	24793264	3135	3130	20335566	20053473	12604529	12551745	92015	92052			23724399	23822256	81979913	81315920	-663993
U.P.(E)	30968581	30696400	866	862	25719403	27179466	11693544	11703589					28376042	28427340	96758436	98007657	1249221
U.P.(W)	13933712	13807864	301	300	23633309	23131097	5964689	5979790					19849305	19916026	63381316	62835077	-546239
West Bengal	15451606	15245279	809	811	18820090	18865402	2373296	2370159					18428223	18587603	55074024	55069254	-4770
Total	327812981	322543099	17796	17768	319168614	314651748	119780108	119760055	92015	92052	3360187	3360055	387516803	389092136	1157748504	1149516913	-8231591
Net Addition		-5269882		-28		-4516866		-20053		37		-132		1575333	0	-8231591	
<i>Rural Subscribers</i>	153181508	155785366	0		167016669	164400292	38085638	3,80,80,225	0	0	45593	45592	160935668	161769777	519265076	520081252	816176

Note: 1. The subscribers of M/s Bharti Airtel includes subscribers of M/s Tata Teleservices Ltd.

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

Proportion of VLR on the date of Peak VLR in the month of Apr-20 (%)							Annexure-II
Circle	Bharti	BSNL	Vodafone Idea	MTNL	Reliance Com.	Reliance Jio	Total
Andhra Pradesh	94.40	62.45	90.63		58.45	69.96	81.43
Assam	98.64	51.48	85.32		-	86.08	86.20
Bihar	96.01	49.23	91.57		98.60	97.13	92.53
Delhi	80.83		71.44	10.66	29.30	66.06	69.80
Gujarat	93.12	49.35	91.39		29.30	76.30	82.44
Haryana	103.34	37.04	90.39		52.94	63.73	73.72
Himachal Pradesh	100.95	38.21	91.08		33.65	68.64	71.77
J & K	94.89	57.51	80.81		-	74.05	83.00
Karnataka	91.08	55.42	87.59		88.25	68.86	79.85
Kerala	95.31	65.90	95.49		28.44	69.29	82.48
Kolkata	86.86	47.88	84.72		-	64.96	74.42
Madhya Pradesh	93.66	47.79	86.19		47.47	88.88	85.43
Maharashtra	100.73	56.16	93.66		49.43	85.93	89.31
Mumbai	69.66		71.74	36.43	127.37	64.67	67.44
North East	98.92	74.41	83.60		-	92.30	91.81
Orissa	101.20	64.83	85.58		13.46	86.92	87.46
Punjab	97.36	41.16	89.50		20.89	65.24	75.74
Rajasthan	97.46	46.53	92.36		36.14	76.09	83.42
Tamil Nadu (incl. Chennai)	94.04	64.22	90.90		72.36	73.84	82.71
U.P. (E)	101.91	38.68	90.76		38.17	87.55	87.10
U.P. (W)	105.50	43.44	90.17		11.67	77.20	84.98
West Bengal	98.62	80.37	90.68		26.88	91.24	92.62
Total	95.26	53.34	88.85	19.70	67.50	78.75	83.33

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	
Service Area	BSNL		MTNL		Bharti Airtel		Reliance Com.		Tata Tele.		Quadrant		Vodafone Idea		Reliance Jio		Total		Net Addition
	Mar-20	Apr-20	Mar-20	Apr-20	Mar-20	Apr-20	Mar-20	Apr-20	Mar-20	Apr-20	Mar-20	Apr-20	Mar-20	Apr-20	Mar-20	Apr-20	Mar-20	Apr-20	
Andhra Pradesh	754108	728414			213913	211116	29286	27999	166571	165717			51345	51345	100686	109350	1315909	1293941	-21968
Assam	95015	94874											3450	3450	12875	13314	111340	111638	298
Bihar	146322	145766					2056	1973	8402	8286			1980	2010	17614	18493	176374	176528	154
Delhi	0	0	1395358	1394251	1491730	1460886	67232	65012	147802	147080			78115	78575	87626	89953	3267863	3235757	-32106
Gujarat	643726	592781			99478	101465	9725	9279	85404	82561			32052	31082	130278	132586	1000663	949754	-50909
Haryana	175363	176915			22600	23080	1526	1487	38096	37813			360	360	26290	25178	264235	264833	598
Himachal Pradesh	94579	93617				0	1117	1045	1933	1917			60	60	795	840	98484	97479	-1005
J & K	120470	117176				1860	0	0	0	0			0	0	14337	15976	134807	135012	205
Karnataka	863720	849574			778931	772675	97249	94797	272504	270724			82947	82917	51624	55374	2146975	2126061	-20914
Kerala	1445592	1430506			62520	60588	10242	9957	19648	19577			5670	5670	14857	15507	1558529	1541805	-16724
Kolkata	389392	387892			135817	131191	33239	32915	48882	48752			11480	12480	36071	36583	654881	649813	-5068
Madhya Pradesh	358417	326644			240632	236269	4692	4588	13334	13078			2310	2310	50033	52074	669418	634963	-34455
Maharashtra	877812	887272			113704	112042	35947	34945	257716	256219			29723	29743	36781	37591	1351683	1357812	6129
Mumbai	0	0	1698442	1697538	398083	385451	137505	126539	538886	535719			85887	86637	213724	222464	3072527	3054348	-18179
North East	90954	89812											270	270	6265	6728	97489	96810	-679
Orissa	185731	185504					1651	1622	8697	8738			5760	5760	8160	8648	209999	210272	273
Punjab	314234	312625			139989	132774	9444	9267	12314	12112	182269	180870	3030	3030	37031	41187	698311	691865	-6446
Rajasthan	356233	352049			58468	56781	12659	12378	11599	11463			9960	9960	39655	40672	488574	483303	-5271
Tamil Nadu (incl. Chennai)	1165205	1146534			547423	540444	45557	43374	122719	122086			32545	35505	99310	105747	2012759	1993690	-19069
U.P.(E)	277783	217783			63353	62535	2745	2710	8308	8173			13330	13330	36200	39240	401719	343771	-57948
U.P.(W)	209990	197523			25940	26222	2118	2087	4820	4776			5550	5550	62279	64874	310697	301032	-9665
West Bengal	162457	156008					1615	1549	2473	2422			120	120	8186	9020	174851	169119	-5732
Total	8727103	8489269	3093800	3091789	4392581	4315379	505605	483523	1770108	1757213	182269	180870	455944	460164	1090677	1141399	20218087	19919606	-298481
Net Addition		-237834		-2011		-77202		-22082		-12895		-1399		4220		50722			-298481
Rural Subscribers	2158197	2077921	0	0	0	0	945	940	45723	45394	35478	35365	0	0	2838	3019	2243181	2162639	-80542

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.