

Telecommunication has emerged as a key driver of economic and social development in an era of increasingly knowledge intensive global scenario. India is currently the world's second-largest telecommunications market and has a strong telecommunication infrastructure. The country ranks ahead of its peers in the West and Asia in terms of telecommunication ratings and has registered strong growth in the past decade and half. The growth in the Indian telecom industry is dominated by availability of affordable smart-phones and lower call & data rates. The proactive steps and prudent regulatory support from the government has also helped to transform the country into a global telecommunication hub. The government designed National Telecom Policy 2012 which aims at a 'One Nation-One license' regime, with no roaming charges and nationwide number portability. The policy aims to increase rural tele-density to 70 by the year 2017 and 100 by the year 2020. It also aspires to achieve 175 million broadband connections by the year 2017 and 600 million by the year 2020 at minimum 2 Mbps download speed and making available higher speeds of at least 100 Mbps on demand. Telecommunications is no longer limited to voice. The Indian mobile economy is growing rapidly and will contribute substantially to India's Gross Domestic Product (GDP). In order to encourage cash economy, Indian government has announced that it will provide free Wi-Fi to more than 1,000 gram panchayats.

India is becoming a major market for telecom services. The telecom operators have outsourced functions such as network maintenance, IT operations & customer service, as part of the recent outsourcing trend. The most significant recent developments in wireless communication include BWA technologies such as WiMAX and LTE. The low switching cost and price sensitivity are increasing competition among players. There are around 6 to 7 players in each region, leading to intense competition. The net addition in telephone subscribers is 14.38 million in QE Sep-16 as against the net addition of 1.01 million in QE Jun-16. The monthly average revenue per user (ARPU) for GSM service declined by 4.02% from Rs 126 in QE Jun-16 to Rs 121 in QE Sep-16. Prepaid ARPU for GSM service per month declined from Rs 108 in QE Jun-16 to Rs 103 in QE Sep-16, and Postpaid ARPU per month declined from Rs 495 in QE Jun-16 to Rs 485 in QE Sep-16. The monthly ARPU for CDMA full mobility service increased by 56.38% from Rs 98.51 in QE Jun-16 compared to Rs 154.05 in QE Sep-16.

Total Telephone Subscribers

The number of telephone subscribers in India increased from 1,123.96 million at the end of November-16 to 1,151.78 million at the end of December-16, thereby showing a monthly growth rate of 2.48%. The urban subscription increased from 659.03 million at the end of November-16 to 683.14 million at the end of December-16, the rural subscription also increased from 464.93 million to 468.64 million during the same period. The monthly growth rates of urban and rural subscription were 3.66% and 0.80% respectively during the month of December-16.

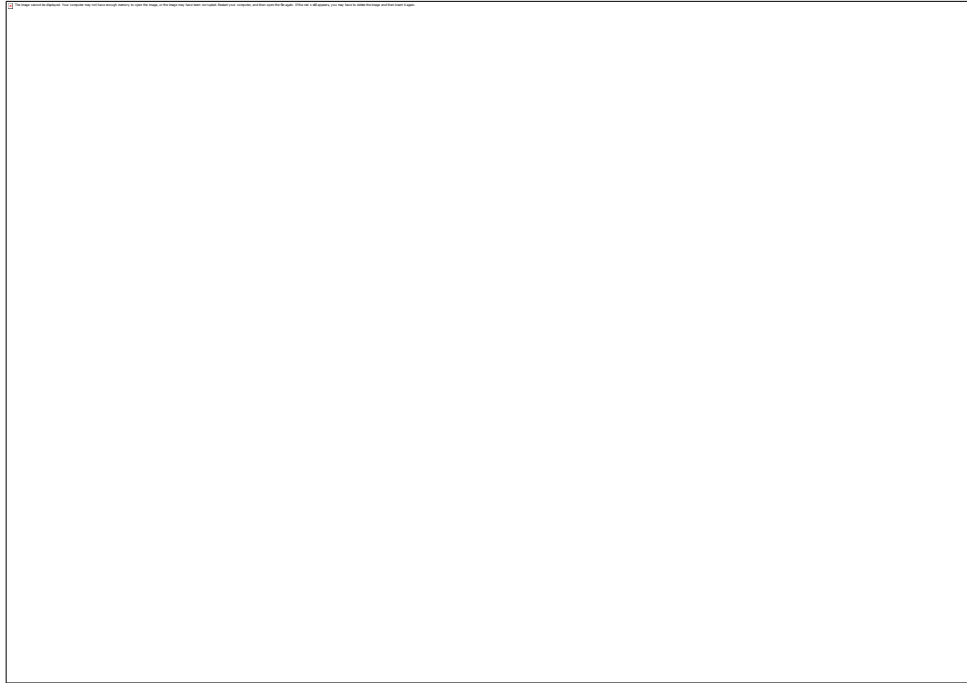


The subscription in urban areas increased from 609.45 million at the end of June 2016 to 624.38 million at the end of September 2016, and the urban Tele-density also increased from 153.22 to 156.24 during the quarter. On the other hand the rural subscription declined from 450.41 million to 449.86 million and the rural Tele-density also declined from 51.40 to 51.24 during the quarter.



The overall Tele-density in India increased from 87.81 at the end of November-16 to 89.90 at the end of December-16. The Urban Tele-density increased from 164.40 at the end of November-16 to 170.15 at the end of December-16, and the Rural Tele-density also increased from 52.89 at the end of November-16 to 53.27 at the end of December-16. The share of urban subscribers and

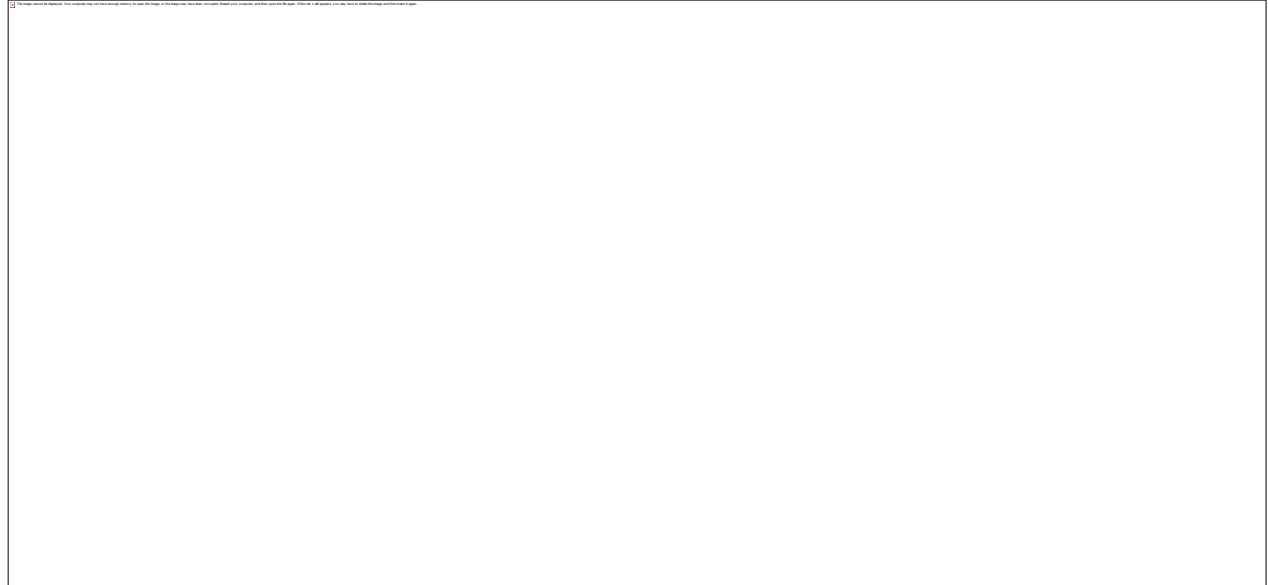
rural subscribers in total number of telephone subscribers at the end of December-16 was 59.31% and 40.69% respectively.



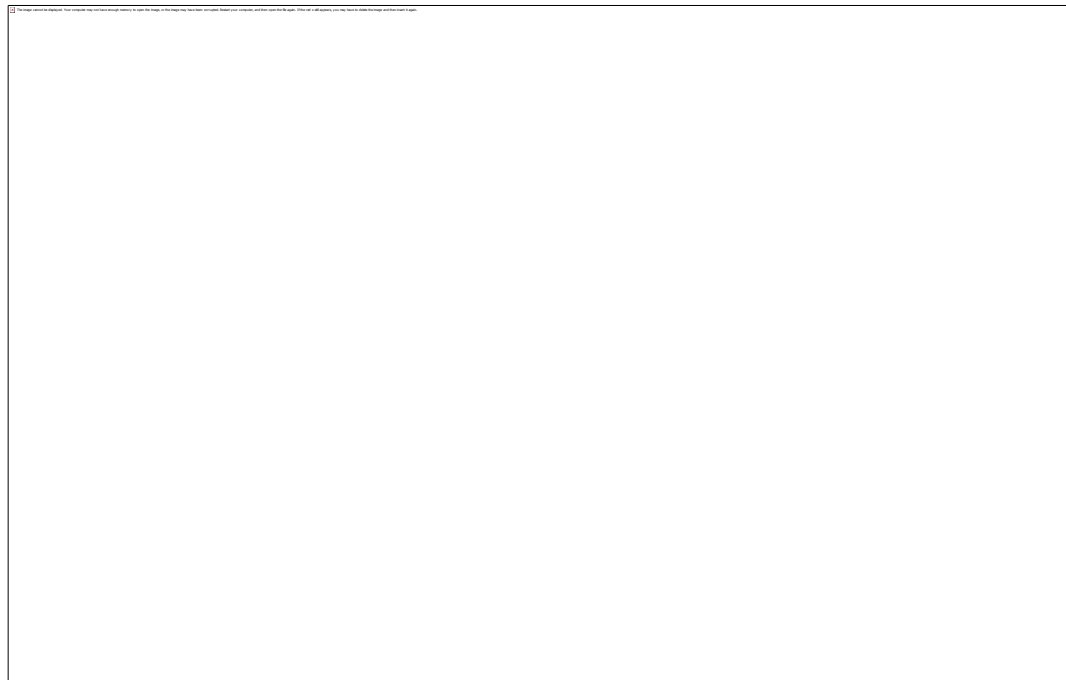
Wireless Subscribers

Total wireless subscriber base increased from 1,099.51 million at the end of November 16 to 1,127.37 million at the end of December 16, thereby registering a monthly growth rate of 2.53%. The Wireless subscription in urban areas increased from 638.46 million at the end of November 16 to 662.60 million at the end of December 16, and wireless subscription in rural areas also increased from 461.05 million to 464.78 million during the same period. The monthly growth rates of urban and rural wireless subscription were 3.78% and 0.81% respectively.

Out of the total wireless subscriber base (1,127.37 million), 988.14 million wireless subscribers were active on the date of peak Visitor Location Register (VLR) in the month of December 16. The proportion of active wireless subscribers was approximately 87.65% of the total wireless subscriber base.

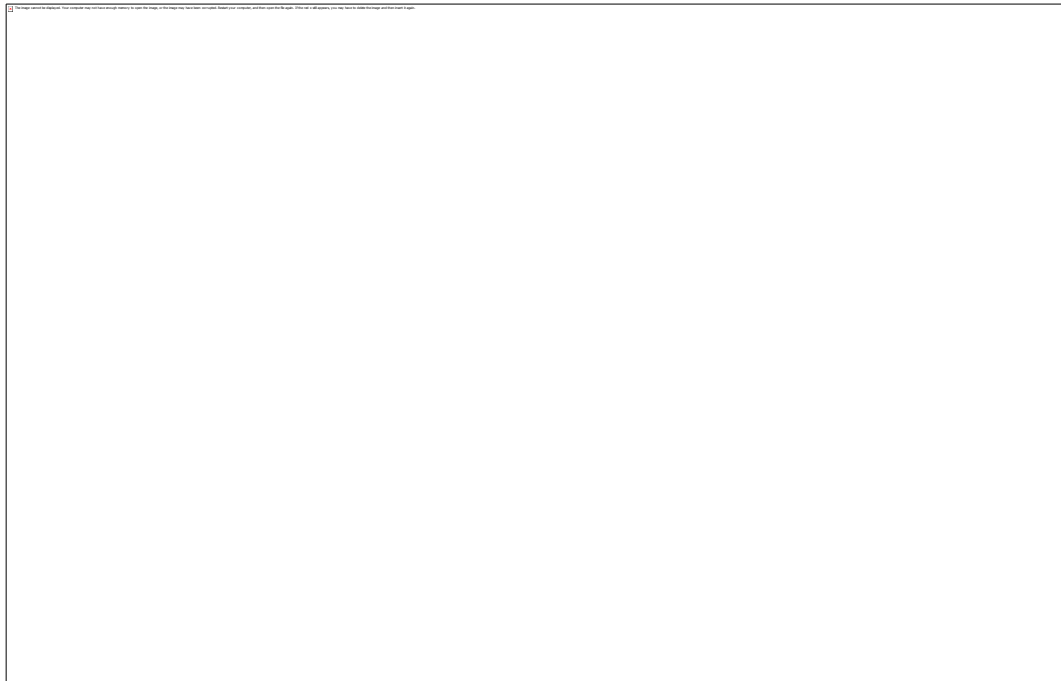


The Wireless Tele-density in India increased from 85.90 at the end of November 2016 to 88.00 at the end of December 2016. The Urban Wireless Tele-density increased from 159.27 at the end of November 2016 to 165.04 at the end of December 2016, and Rural Wireless Tele-density also increased from 52.45 to 52.84 during the same period. The share of urban and rural wireless subscribers in total number of wireless subscribers was 58.77% and 41.23% respectively at the end of December 2016. As on December 31, 2016, the private access service providers held 91.09% market share of the wireless subscribers whereas BSNL and MTNL, the two PSU access service providers, had a market share of only 8.91%.



Wireline Subscribers

Wireline subscriber base declined from 24.44 million at the end of November 16 to 24.40 million at the end of December 16. Net decline in the wireline subscriber base was 0.04 million with a monthly decline rate of 0.16%. The share of urban and rural subscribers in total wireline subscribers were 84.19% and 15.81% respectively at the end of December 16. The Overall Wireline Tele-density declined from 1.91 at the end of November 16 to 1.90 at the end of December 16. The Urban and Rural Wireline Tele-density were 5.12 and 0.44 respectively during the same period. BSNL and MTNL, the two PSU access service providers, held 70.54% of the wireline market share.



Mobile Number Portability (MNP)

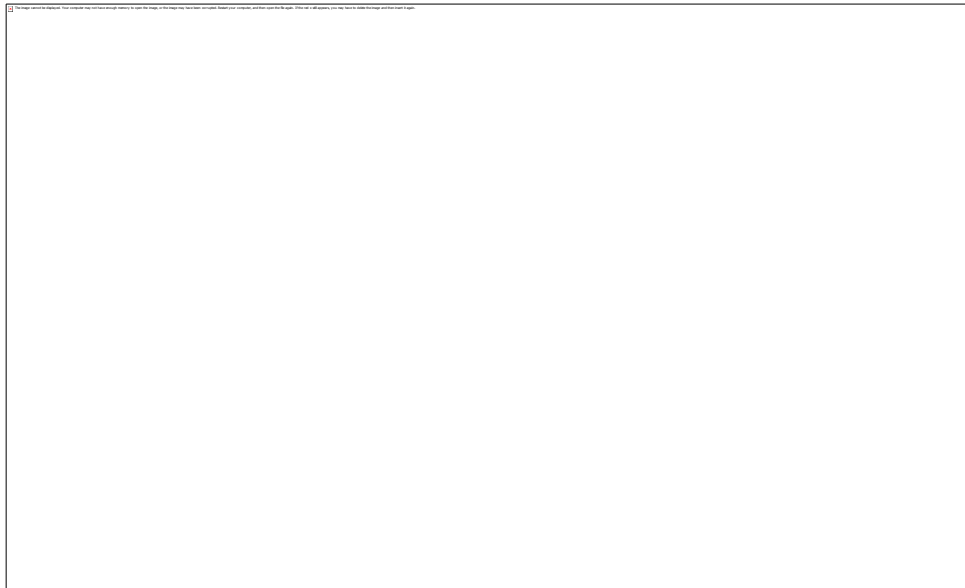
During the month of December 16, a total of 5.67 million requests were received for MNP. With this, the cumulative MNP requests increased from 249.15 million at the end of November 16 to 254.82 million at the end of December 16, since the implementation of MNP. In MNP Zone-I (Northern and Western India), the highest number of requests were received in Rajasthan (about 21.59 million) followed by Gujarat (about 18.58 million). In MNP Zone-II (Southern and Eastern India), the highest number of requests were received in Karnataka (about 28.33 million) followed by Andhra Pradesh (about 23.38 million).

Broadband

The number of broadband subscribers increased from 218.27 million at the end of November 2016 to 236.09 million at the end of December 2016 with a monthly growth rate of 8.17%. Top five service providers constituted 83.93% market share of the total broadband subscribers at the end of December 2016. These service providers were Reliance Jio Infocom Ltd (72.16 million),

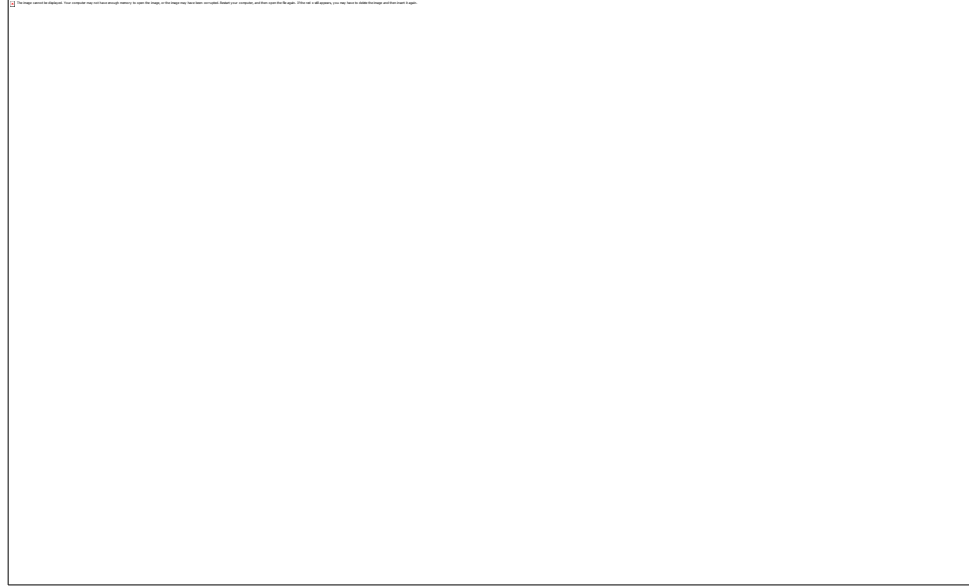
Bharti Airtel (43.56 million), Vodafone (35.02 million), Idea Cellular (27.04 million) and BSNL (20.36 million).

As on December 31, 2016, the top five Wired Broadband Service providers were BSNL (9.95 million), Bharti Airtel (2.04 million), Atria Convergence Technologies (1.12 million), MTNL (1.04 million) and YOU Broadband (0.60 million). As on December 31, 2016, the top five Wireless Broadband Service providers were Reliance Jio Infocomm Ltd (72.16 million), Bharti Airtel (41.53 million), Vodafone (35.01 million), Idea Cellular (27.04 million) and Reliance Communications (16.08 million).



FDI Equity inflows

There is a need for significant investment in telecom infrastructure on account of surge in the subscriber base which in-turn has necessitated network expansion covering a wider area. The industry has attracted huge amount of Foreign Direct Investments (FDI) as there have been a lot of investments and developments in the sector. The total FDI equity inflows from April 2000 to September 2016 stood at around \$21,169.09 million. The government has also fast-tracked reforms in the telecom sector and continues to be proactive in providing room for growth for telecom companies.



Government Initiatives

The government is set to go for 5G spectrum auction this year - making an early move to initiate rollout of latest communications technologies. The government will also go for a fresh auction in 700 MHz band, which drew a blank last year as companies complained of high reserve price. 5G spectrum will be sold in bands such as 3,300 MHz and 3,400 MHz and the government expects that these will be put up for use of a host of new-age initiatives and services, including internet of things (IoT), machine-to-machine communications, instant high-definition video transfer and downloads, and connected smart cities.

The Telecom Regulatory Authority of India (TRAI) is trying to identify the obstacles that create difficulties to perform telecom business with ease in India. TRAI plans to review its existing processes of licence acquisition, spectrum allotment and mergers in order to simplify them to the extent possible to economize on efforts on part of the Telecom Service Providers (TSPs) as well as the government. The procedures related to unified licence, acquisition of licence, compliance with commercial, financial, technical conditions, and compliance with roll-out obligations, payment of licence fee, financial bank guarantee and performance bank guarantee, adding and surrendering authorizations under the licence, are expected to be reviewed as a part of the process.

Recent Developments

Vodafone India will merge with Idea Cellular within two years, making the merged entity the largest telecom operator in India with 400 million customer base and 35% market share. Vodafone will own 45.1% of the merged entity after a consideration of \$592.15 million is paid in cash for transferring about 4.9% to promoters of Idea or its affiliates. The companies expect cost and capex synergies to yield \$10 billion in present value terms post integration costs and payments towards spectrum. Prior to the merger, Idea Cellular provided 4G services in 20 circles

and 3G coverage in 15 circles, while Vodafone's services for 3G and 4G are in 16 and 17 circles respectively.

' Bharti Airtel completed the secondary sale of over 190 million shares of its subsidiary Bharti Infratel (representing 10.3%), to a consortium of funds advised by KKR and Canada Pension Plan Investment Board (CPPIB) for a total consideration of over Rs 6193.9 crore (approx \$ 951.6 million), executed at a price of Rs 325 per share. The company will primarily use the proceeds from this sale to reduce its debt. Bharti Airtel's equity holding in Bharti Infratel now stands at 61.7% and that of KKR and CPPIB at 10.3%. Separately, Bharti Airtel has entered into a definitive agreement with Tikona Digital Networks (Tikona) to acquire Tikona's 4G Business including the Broadband Wireless Access (BWA) spectrum and 350 sites, in five telecom circles.

Outlook

India will emerge as a leading player in the virtual world as it is expected to have almost one billion unique mobile subscribers by 2020. The Indian telecommunication sector is expected to witness fast growth in the next few years on back of government's regulation policies and proactive steps. A young, growing population is aiding this trend (especially demand for smart phones). Incomes have risen at a brisk pace in India and will continue rising given the country's strong economic growth prospects. With 70% of the population staying in rural areas, the rural market would be a key growth driver in the coming years. The reduction in license fee and relaxed FDI norms will encourage operators to expand to rural areas. The government of India has introduced Digital India program under which all the sectors such as healthcare, retail, etc. will be connected through internet. This digital push will drive the growth as the government has set a target of achieving 25 billion digital transactions for banks with the help of PoS machines, transactions enabled & merchants.

Companies Financial Data In Industry

Company Name	CMP	MCAP	BOOK VALUE	DIV. YEILD %	TTM EPS	TTM PE
Tata Communications Ltd.	712.25	20299.13	375.25	0.60	64.87	10.98
Bharti Airtel Ltd.	340.55	136131.46	180.44	0.40	16.95	20.09
Bharti Infratel Ltd.	354.90	65642.60	100.65	0.85	14.88	23.86
Idea Cellular Ltd.	86.10	31041.88	67.01	0.70	0.23	378.94

Sorted with TTM EPS (High to Low)

Source – Ace Equity

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