

**Department
of
Telecommunications**

Achievements during 2016-17

Department of Telecommunications

Achievements of Telecom sector in financial year 2016-17

(i) Telephone and Internet connections

- The total number of telephone connections increased from 1059.33 million at the beginning of the financial year to 1175.23 million at the end of January, 2017, thereby showing a net addition of 115.90 million.
- Mobile telephony posted a growth of 116.78 million telephone connections during the period from April, 2016 to January, 2017. It was 1034.11 million on 1st April, 2016 and 1150.89 on 31st January, 2017.
- Rural telephone connections have increased by 46.07 million during the period from April, 2016 to January, 2017. It increased from 447.77 million as on 1st April, 2016 to 493.84 million as on 31st January, 2017.
- The overall teledensity has increased from 83.40% as on 1st April, 2016 to 91.64% as on 31st January, 2017. The rural teledensity increased from 51.26% as on 1st April, 2016 to 56.15% as on 31st January, 2017. The urban teledensity increased from 154.18% as on 1st April, 2016 to 169.13% as on 31st January, 2017.
- There was a net increase of 86.34 million in Broadband connections during the period from April, 2016 to December, 2016. It increased from 149.75 million as on 1st April, 2016 to 236.09 million as on 31st December, 2016.
- Internet connections added during 2 April, 2016 to September, 2016 is 48.85 million. Total internet connections was 342.65 million as on 1st April, 2016 and 391.50 million as on 31st December, 2016.
- FDI equity inflow in telecom sector from April, 2016 to December, 2016 has reached to US \$ 5539 million.
- The Mobile number portability (MNP) of BSNL became positive during the period of April, 2016 to January, 2017. The number of connections ported in is 0.74 million more than the number of connections ported out during April, 2016-January, 2017.

(ii) Spectrum Auction

In October 2016 mega auction of spectrum in 700, 800, 900, 1800, 2100, 2300 & 2500 MHz bands was concluded which fetched a total amount of Rs. 66,000 crore, and the highest ever upfront payment of Rs. 33,000 crore since 2012.

(iii) Spectrum Sharing

Spectrum sharing among operators was allowed for the first time in India on 21st April, 2016 to increase spectrum efficiency. As on today, spectrum is being shared by two service providers in 21 out of 22 service areas.

(iv) Spectrum Trading

The government permitted trading of Spectrum by allowing an Access Service Provider (Seller) to transfer spectrum usage rights and obligations to another Access Service Provider (Buyer) to facilitate optimisation of resources. The first such trade took place on 17th May, 2016 and this facility has thereafter been utilized 17 times by a number of telecom service providers.

(v) Spectrum Harmonisation

Harmonization of spectrum helps improve quality of service by making fragmented frequency spots contiguous for efficient utilisation by service providers. The harmonisation of spectrum in 800 MHz and 1800 MHz bands was carried out from April to September, 2016 resulting in rationalisation of spectrum holdings of telecom service providers, and transferring defence holdings to the defence bands. Consequentially, about 197 MHz of additional spectrum was recovered from its erstwhile use as guard and separation bands and was put to October, 2016.

(vi) BharatNet

For deeper digital penetration in rural areas, the Government has taken up BharatNet, in mission mode to link each of the 2.5 lakh Gram Panchayats of India through Broadband optical fibre network.

The Optical fibre has reached 90027 Gram Panchayats with the laying of 202675 km. of optical fibre cable.

The progress BharatNet during 2016-17 is in the following table:

S.N.	Description of Work	As on 25-04-2016	As on 02-04-2017
1.	OFC Pipe laid	1,38,465 kms (60,412 GPs)	2,24,340 Kms (100,934 GPs)
2.	Optical Fibre laid	1,10,431 kms (48,199 GPs)	2,02,675 Kms (90,027 GPs)

(vii) Right of Way (RoW) Rules

The Indian Telegraph Right of Way Rules, 2016 was notified to regulate underground infrastructure (optical fibre) and overground infrastructure (mobile towers). This rule is applicable to all telecom service providers holding a licence issued under sub-section (1) of section 4 of the Indian Telegraph Act, 1885. These rules have simplified the grant of right of way permissions for creation of telecom infrastructure by making it transparent and time-bound.

(viii) Aadhaar Based e-KYC for New Subscribers

Towards realising the goal of 'green telecom', the Government has prescribed an 'Aadhaar based E-KYC services' for issuing mobile connections from September, 2016. Under this, a subscriber can self authenticate using his/her biometrics at the point of sale and obtain a new activated sim-card in 30 minutes. In addition to simplifying the process this also ensures security assurance.

(ix) Abolition of Wireless Operating License for Telecom Service Providers

To facilitate the ease of doing business, Department of Telecom has abolished the wireless operating licence for telecom providers from 2nd November, 2016. This obviates the need for about 250,000 endorsements to be done by Department of Telecom. This would prevent the delay in utilisation of scarce infrastructure as radio transmission can be started immediately on installation of base stations without waiting for obtaining clearance from Department of Telecom.

(x) Virtual Network Operators(VNO)

The Government has issued guidelines on 31st March 2016 for VNO (Virtual Network Operator) allowing Telecom Service Providers to utilise their

networks and spectrum efficiently by sharing active and passive infrastructure. Till date 55 licenses have been granted for VNOs.

(xi) Active Infrastructure Sharing

The Government issued notification on February 11, 2016 permitting sharing of active infrastructure amongst service providers based on mutual agreements. The active sharing will be limited to antenna, feeder cable, Node B, Radio Access network (RAN) and transmission systems. This measure would help in provision of better and speedy services to the consumers while alleviating the cost burden incurred by the operators for laying telecom infrastructure.

(xii) All new mobiles to have panic button from 2017

The Government has mandated that mobile phones sold in India will come with a dedicated 'panic button' that can be used to send out a signal in case of distress. The Department has notified the Panic button and Global Positioning System facility in all Mobile Phone Handsets Rules, 2016, in April 2016 aimed at improving the safety of women and ensuring a quick response from security agencies. The notification stipulates that no handset shall be sold in India from January 1, 2017, without a panic button and all handsets must also have GPS from January 1, 2018. In the case of imported handset the deadline for including a panic button was 28th February 2017. As on date, all handsets have to comply with this requirement.

(xiv) Mann Ki Baat

The department has issued short code '1922' for Mann Ki Baat for both voice and SMS so that people can send their suggestions and public grievances to Prime Minister's office directly through this short code.

(xv) Mid-Day Meal

The department has issued toll free short code '15544' HELPLINE for Mid-Day Meal scheme for voice and SMS gateway.

(xvi) Cash Mukh Bharat

Short code '1444' has been issued as **Cash Mukh Bharat** Helpline with an aim to bolster Government's the move towards cashless economy.

(xvii) Cable TV network for providing Broadband services

It is estimated that there are about 100 million Cable TV subscribers in the country, out of which only 1.06 million receive broadband services through

cable network. To incorporate enabling provisions in the current regulatory framework so that existing infrastructure including Cable TV networks are optimally utilised for extending high quality broadband services in rural areas also, an Inter-Ministerial Committee under the Chairmanship of Cabinet Secretary has been constituted to take a view on convergence of Cable TV network for providing broadband services.

(xviii) Reduction in Call drops

Call drops in wireless networks happen due to various reasons including poor radio coverage, radio interference, loading of available spectrum, change in pattern of traffic, shutdown of sites due to power failures etc. However, both Government and TRAI are taking all possible steps and pursuing with the TSPs to address the problem of call drop and bring it down within the permissible limit.

In order to obtain direct feedback from subscribers, DoT had launched an Integrated Voice Response System (IVRS) system in Delhi, Mumbai, UP, Uttarakhand, Maharashtra and Goa on 23rd December 2016, which was extended to other states on 12th January 2017 except in Punjab and Manipur. IVRS system was launched in Punjab and Manipur on 16th March 2017. Through this system random calls are generated from short code 1955 to receive feedback from subscribers about the extent of call drop. The subscribers are asked three questions on the call drop problem. They can also send a toll-free SMS to the same short code 1955, containing the name of city/town/village, where they face frequent call drops.

The three questions asked are as under:

- *Did you experience frequent call drop in last one month while talking on phone? If yes please press 1, if no please press 2.*
- *If the problem of call drop is more severe inside the house, please press 1, if within the city, please press 2 and if everywhere, please press 3.*
- *Please send the name of your city, town or village, where you experience frequent call drop by sms to tollfree number 1955.*

Till 28.02.2017, over 16.61 lakh subscribers have been called, of which 2.2 lakh subscribers have participated in the survey. Out of these, 1.38 lakh subscribers have reported call drop. After getting the feedback, around 9,328 cases have been resolved on cumulative basis through optimisation, rectifying

hardware/power problems etc. and, 603 new sites/boosters have been planned for installation in due course.

(xix) Wi Fi Hot Spots

The Department decided, in April 2016, that Outdoor Public Wi-Fi Access Points (OPAP), for last mile connectivity are to be provisioned in the BharatNet to provide discernible value addition in the BharatNet for citizens. Community Service Centre (CSC) of DEITY has developed a model of 'Wi-Fi Choupal' to develop rural Wi-Fi infrastructure and host of suitable applications enabling and empowering towards a 'Smart Village'. Accordingly, the Department has now approved a proposal to setup 25,000 Public Wi-Fi Hotspots using the block-level infrastructure of BSNL Telephone Exchanges in rural areas, at an estimated cost of Rs. 789.22 crore to be funded from USOF. Another proposal for setting up of 2045 Wi-Fi Chaupals at Gram Panchayat levels in 14 States by CSC-SPV, at an estimated cost of 40.90 crore, to be funded from USOF, has also been approved.

The Department has also approved the following projects to be implemented on a pilot basis:

- BSNL is to provide last mile connectivity to provide broadband services through Wi-Fi in 200 Gram Panchayats (GPs)
- RailTel is to setup Wi-Fi hotspot at 200 rural railway stations
- IIT Bombay is to setup pilot Wi-Fi hotspots in 50 GPs leveraging BharatNet connectivity to provide broadband services to the villages and assess the feasibility aspects of scaling such deployment in all GPs to be covered by BharatNet.

(xx) Network of Andaman & Nicobar Inland

The Cabinet approved on 21.09.2016 the project for Submarine OFC connectivity between Mainland India (Chennai) & five other Islands Car Nicobar, Little Andaman, Havelock, Kamorta and Great Nicobar Island in single phase. CAPEX of Rs. 880.03 Crore will be funded by USO Fund and OPEX of Rs. 44.47 Crore per annum initially for five years will be funded by Andaman & Nicobar UT Administration/ MHA. The Project is targeted to be completed by December 2018.

(xxi) Network for Lakshdeep Island

The Government has drawn up a Comprehensive Telecom Development plan for Lakshdeep Islands which include the following:

(a) Satellite Bandwidth Augmentation for Lakshadweep Islands:

- Enhancement of satellite bandwidth from 102 Mbps to 318 Mbps
- CAPEX: Rs. 46.53 Crore to be funded by USO Fund and OPEX/ transponder charges to be funded by Lakshadweep UT Administration/ MHA

(b) Augmentation of 2G Mobile Coverage with Edge Technology in Lakshadweep Islands:

The Project targeted to be completed by June 2017

(c)Submarine OFC Connectivity between Mainland India (Kochi) and Lakshadweep Islands:

Proposal for Submarine OFC connectivity between Kochi/Cochin and Kavaratti & five other major islands, namely, Agatti, Androth, Kalpini, Amini and Minicoy. A total of 936 Km cable will be laid with an estimated expenditure of Rs 468 Crore. Project targeted to be completed by December 2019.
