



सत्यमेव जयते

Department of Telecommunications
Ministry of Communications
Government of India
New Delhi

Quarterly Newsletter

(April – June 2018)

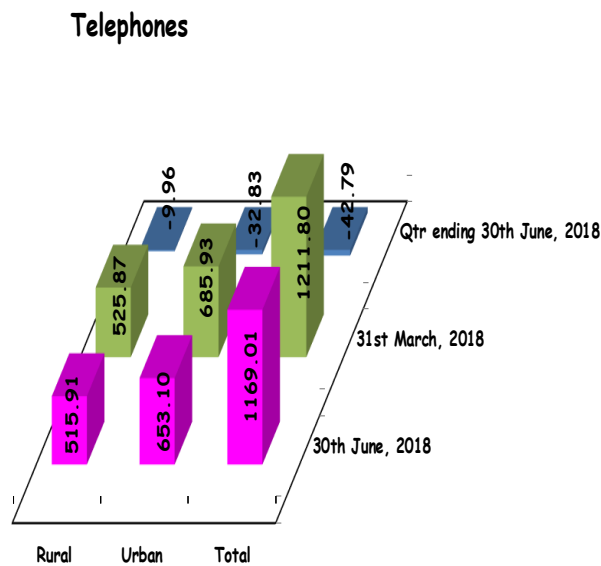


Highlights of major developments in the Telecom sector as well as initiatives by the DoT, during the quarter ending **June, 2018**, are given in the following sections.

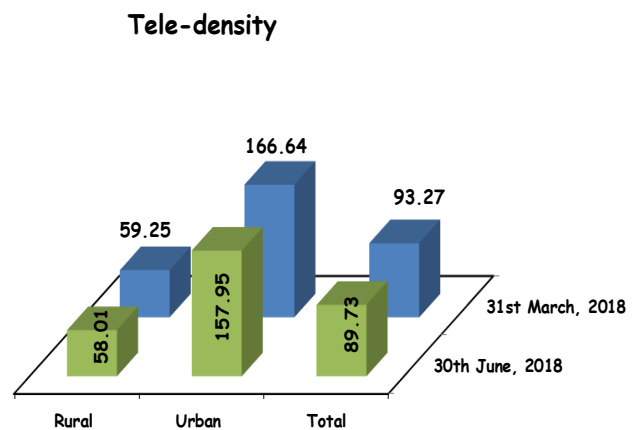
I. TELEPHONE CONNECTIONS AND TELEDENSITY

(i) Indian Telecom Scenario

The number of telephones stood at 1169.01 million as on 30th June, 2018 as compared to 1211.80 million at the end of March, 2018. This implies a decrease of 42.79 million connections during the period, attributed mainly to a decrease in number of telephones in the private sector by 43.09 million during the period.



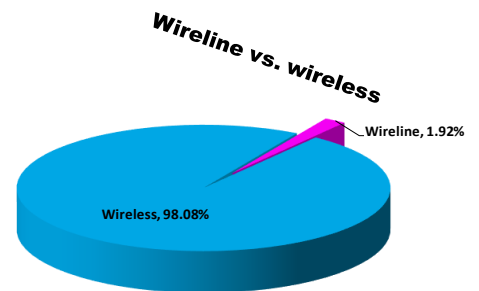
The tele-density, which was 93.27% in the beginning of the quarter (March'18) came down accordingly 89.73% by the end of the June 2018.



(ii) Compositional Changes

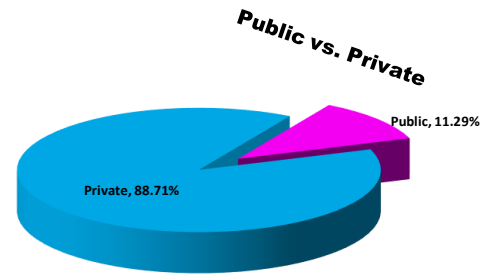
Wire line & Wireless

The preference for use of wireless is reflected in the share of wireless phones, which reached 98.08% (1146.61 million) as on 30th June, 2018. On the other hand, the share of wire line was 1.92% (22.40 million) as on 30th June, 2018.



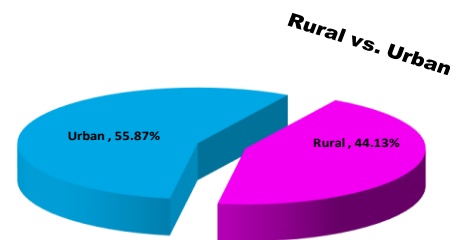
Public & Private

In public sector, there was a slight rise of 0.30 million phones during the quarter ending June, 2018. The public sector had 131.96 million (11.29%) phones as against 1037.05 million (88.71%) phones of the private sector as on 30th June, 2018.



Rural Vs. Urban

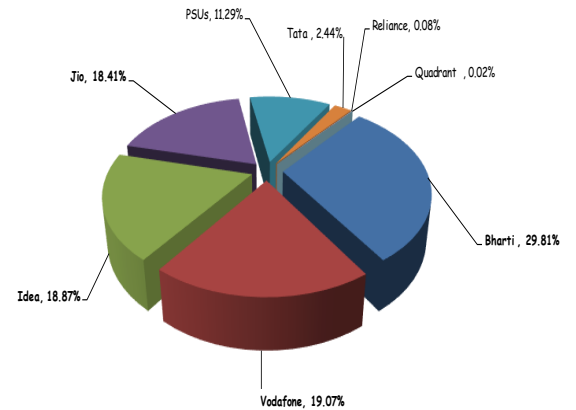
As on 30th June, 2018, the share of urban connections was 55.87% (653.10 million) compared to 44.13% (515.91 million) in the rural areas.



The rural tele-density stood at 58.01% as compared to the urban tele-density of 157.95% as on 30th June, 2018.

Operator wise performance

PSUs' had a large share of 67.88% of all wire line connections while its share in wireless segment was 10.18%. Private operators, on the other hand, accounted for 89.82% of all subscriptions in the wireless segment and 32.12% in wireline segment. Bharti Airtel had the highest share of 29.81% in the total telephones, followed by Vodafone (19.07%), Idea (18.87%) and Reliance Jio (18.41%).



Operator wise detail

Internet Penetration

Internet usage in the country is on a steady growth path. The number of Internet subscribers (both broadband and narrowband put together) which was 422.18 million at the end of March'17 jumped to 493.95 million by the end of March, 2018, registering a quarterly growth of 10.76%.

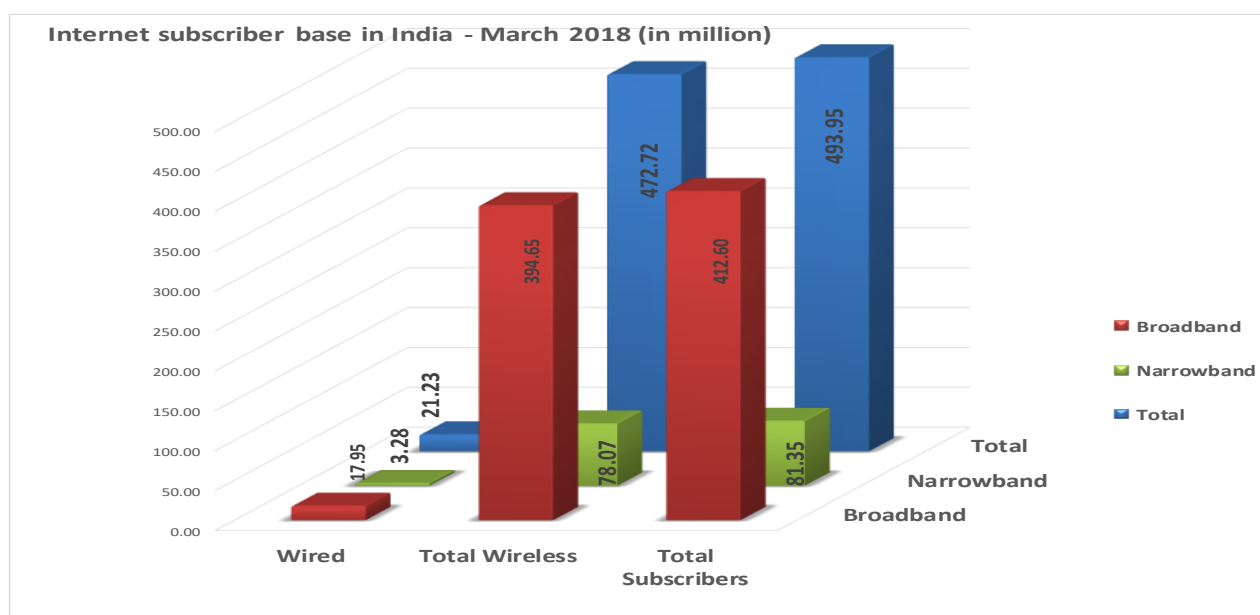
| Trends of Internet Subscribers (in million) | | | | | |
|---|----------|---------|--------------|-------------|----------|
| Total Internet Subscribers (Includes wired, fixed Wireless and Mobile Wireless) | March'17 | June'17 | September'17 | December'17 | March'18 |
| | | 422.18 | 431.21 | 429.25 | 445.96 |
| Quarterly Growth (in %age) | 7.84 | 2.14 | -0.45 | 3.89 | 10.76 |

The number of subscribers accessing internet via wireless phones etc. was 472.72 million and there were 21.23 million wireline internet subscribers at the end of March, 2018. Wireless internet subscribers constituted 95.70% of the total internet subscribers.

| Internet Subscriber Base in India - at the end of March, 2018 * (in million) | | | |
|--|-------|----------------|-------------------|
| Segment | Wired | Total Wireless | Total Subscribers |
| Broadband | 17.95 | 394.65 | 412.60 |
| Narrowband | 3.28 | 78.07 | 81.35 |
| Total | 21.23 | 472.72 | 493.95 |

* As per the TRAI input

The number of Broadband subscribers, which was 412.60 million at the end of 31st March 2018 increased to 447.12 million as on 30th June '18 with an increase of 34.52 million.



(iii) Foreign Direct Investment (FDI) Inflows

During the period April -June 2018, Telecommunications Sector attracted FDI Equity inflows of US\$ 1593 million (Rs. 10,681crore) accounting for 12.49% of total FDI Equity inflows of US\$ 12,752 million (Rs. 85,180crore).

II. Training Activities of NTIPRIT (April - June, 2018)

- ✓ **Interaction meeting of ITS-2016 & P&T BWS-2016 batch, Officer Trainees with Hon'ble Minister of State for Communications (MOS C (I/C)), Govt. of India at Sanchar Bhawan, New Delhi.**

As part of Induction Training, an interaction session of Officer Trainees of ITS-2016 & P&T BWS-2016 batch with Hon'ble Minister of State for Communications (MOS C (I/C)) was organized, at Sanchar Bhawan, New Delhi on 8th May, 2018. Hon'ble Minister addressed the Officer Trainees where he exhorted the Officer Trainees to develop capabilities in telecommunications sector to bring India at par with developed countries in the area of latest technologies, especially in 5G. Hon'ble Minister also suggested to include the topics on Emerging Technologies in ICT domain in Induction Training curriculum of ITS probationers. Sh. Deepak Sinha, Member (S); Sh. Prabhash Singh, Member (T); Sh. Sunil Kumar, DG (Telecom); Sh. Debatosh Manna, Advisor (NTIPRIT); Sh. Rajesh Sharma, DDG (Training) DOT; Sh. H. S. Jakhar, DDG (Training) NTIPRIT; Sh. Subhash Chand, Director (Training) NTIPRIT were also present during the deliberations.



Group Photograph with Hon'ble Minister (Group-1)



Group Photograph with Hon'ble Minister (Group-2)

✓ **Course on Cyber Security for ITS-2016 Batch (04-06-2018 to 22-06-2018)**

A three-week classroom training on Cyber Security was conducted at NTIPRIT. During the course, the experts from government and private organizations in the domain of Cyber Security were invited to deliver the lectures and share the experiences in the cyber security domain. The Law Enforcement Agencies aspects were also explored to the trainees during the course.

Officers were also deputed to C-DAC, Noida for two days training on latest trends in Cyber Security form 18-06-2018 to 19-06-2018.



Training on Latest Trends in Cyber Security at C-DAC, Noida



Validictory Program of Training at C-DAC, Noida

✓ **Induction Training of the following batches of Officer Trainees of ITS / BWS and JTO probationers were conducted during the period:**

- ITS-2015 batch (34 officers)
- ITS-2016 batch (34 officers)
- BWS-2015 batch (1 officer)
- BWS-2016 batch (3 officers)
- JTO-2016 Batch (2 officers)

Various training programs like technical modules and DoT attachment, TEC attachment, BSNL / MTNL attachment and Field Attachment (Stage –II) for ITS / BWS batches and field attachment with LSAs for JTO batch, were conducted during this period as per respective training calendar.

✓ **In-service training courses for DoT Officers were conducted at NTIPRIT on the following topics:**

- Training course on “Deployment issues in NGN”, (09-10 May, 2018) [10 Participants]
- Training course on “Vigilance & Disciplinary Proceedings”, (04-07 June, 2018) [8 Participant]

III. BharatNet

BharatNet project is being implemented in a phased manner for providing Broadband connectivity to all Gram Panchayats (GPs) (approx. 2,50,000) in the country. Phase I of BharatNet for connecting 1 lakh GPs was completed in December 2017. The remaining GPs are targeted to be implemented by March 2019 under Phase II.

As part of BharatNet project, the last mile connectivity, through Wi-Fi or any other suitable broadband technology is being provided at all the GPs in the country. At each GP, on an average, five Access Points (APs) are to be provided, three APs for Government institutions and two APs for public places.

As on 1st July 2018 1,17,836 Gram Panchayats had been connected on Optical Fibre Cable(OFC) by laying 2,82,060 Km of OFC with 1,12,644 service ready GPs.

IV. Public Grievances

The status of grievances during the period **April 2018 to June 2018** is as under:

| Duration/Period | Opening Balance of complaints | No. of complaints received | Total | No. of complaints Disposed Off | Pending |
|-------------------------|-------------------------------|----------------------------|-------|--------------------------------|---------|
| April 2018 to June 2018 | 3163 | 16012 | 19175 | 16323 | 2852 |

V. Activities Relating to TRAI during the Quarter

Under the TRAI Act, 1997, TRAI is mandated, inter-alia, to ensure compliance of the terms and conditions of license, lay down the standards of quality of service to be provided by the service providers and ensure the quality of service, specify tariff policy and recommend conditions for entry of new service providers as well as terms and conditions of license to a service provider. TRAI's scope of work also includes consideration and decisions on issues relating to monitoring of tariff policy, commercial and technical aspects of interconnection, principles of call routing and call handover, free choice and equal ease of access for the public to different service providers, resolution of conflicts that may arise due to market developments and diverse network structures for various telecom services, need for up-gradation of the existing network and systems, and development of forums for interaction amongst service providers and interaction of the Authority with consumer organizations.

During the first quarter of financial year 2018-19 i.e. April – June 2018, TRAI made Recommendations, Directions and initiated policy initiatives to protect the interests of the consumers which are as follows:

A. Recommendations

- ✓ **TRAI's Response dated 5th June 2018 to DoT's back-reference on Recommendations on "In-Flight Connectivity" dated 18th January 2018**

The Department of Telecommunications (DoT), through its reference dated 10th August 2017, had requested TRAI to furnish its recommendations on licensing terms and conditions for

provision of In-Flight connectivity (IFC) for voice, data and video services and associated issues such as entry fee, licence fee, spectrum related issues including usage charges & method of allocation and other conditions as per clause 11(1) (a) of TRAI Act 1997 as amended. TRAI initiated consultation process by publishing a Consultation Paper on the subject on 29th September 2017. Based on the inputs received from various stakeholders and its own analysis, the Authority issued recommendations on In-Flight Connectivity (IFC) on 18th January 2018.

The Recommendations have been considered by the Government. On some of the issues, it was felt necessary by the Government to seek clarifications/reconsidered recommendation under Section 11 of the TRAI Act 1997. Therefore, through its letter dated 15th May 2018, some of the recommendations have been referred back to the Authority for clarifications/reconsideration. TRAI have given a response to DoT reiterating the recommendations.

✓ **Recommendations dated 4th June 2018 on "Next Generation Public Protection and Disaster Relief (PPDR) communication networks"**

TRAI on 4th June 2018 forwarded to DoT its recommendations on "Next Generation Public Protection and Disaster Relief (PPDR) communication networks". Public Protection and Disaster Relief (PPDR) communication supports a wide range of services related to day to day life of public such as maintenance of law and order, protection of life and property, disaster relief and emergency responses. The Authority formulated its recommendations based on inputs received from the stakeholders, views expressed during the OHD and its own internal analysis.

The salient features of the recommendations are:

- (a) Government to set up pan-India integrated Broadband PPDR (BB-PPDR) Communication Network (to be called "National BB-PPDR Network") based on 3GPP PS-LTE technology.
- (b) A hybrid model of BB-PPDR network in India should be put in place in which dedicated network for BB-PPDR communication funded by government be created in metro cities, border districts, disaster prone areas (identified by NDMA) and sensitive areas like J&K and North East by PSU like BSNL, MTNL and existing commercial network can be leveraged in other regions through any TSP.
- (c) Stringent SLAs to be put in place and operators should be mandated to provide mobile BTS and backpack devices in case terrestrial network gets destroyed in order to communication facilities for PPDR agencies. of disaster when make available.

- (d) Setting up a Special Purpose Vehicle (SPV) under Ministry of Home Affairs (MHA) to plan, coordinate and steer the nationwide BB-PPDR communication network implementation and its subsequent operation.
- (e) An advisory committee should be constituted that includes representatives from all disciplines of public safety, state government, central government and Ministry of Communications to provide domain specific advice to the SPY.
- (f) DoT should study the feasibility to do away with CMRTS license for PPDR agencies in a phased manner.
- (g) Spy shall be the nodal agency to coordinate with DoT for allocation of spectrum and other issues. The PPDR agencies and details of equipment deployed by them can be registered with DoT through SPY.
- (h) DoT should work out timelines to Phase out existing analog networks in PPDR in a phased manner. New spectrum assignments may be done only for deploying digital equipment.
- (i) Carrying out pilot testing of BB-PPDR dedicated network (dedicated spectrum and network) to be implemented through BSNL, MTNL, funded by the central government, at five zones identified as disaster prone 1sensitive areas to evaluate the efficacy of the proposed network.
- j) Testing the efficacy of PPDR trunking service roaming on public telecom networks during pilot testing, and if found feasible, it should be implemented on pan-India basis.
- (k) 2x10 MHz of dedicated spectrum should be allocated nationwide to the Spy on no-cost basis for LTE based broadband PPDR networks.
- (l) 814-824/859-869 MHz should be assigned for nationwide BB-PPDR services as per APT Frequency Arrangement Number G 3-1-4.
- (m) 20 MHz of spectrum in the frequency range 440-470 MHz (preferably 450-470 MHz) should be allocated for future evolution of broadband PPDR.

B. Directions

➤ Direction dated 13th June 2018 issued to all access service providers regarding submission of periodical reports on revenue & usage and tariff plans

The Authority, on reviewing the periodic reports furnished by the TSPs in compliance with the Direction, directed all the TSPs to:

- (a) submit the report on Revenue & Usage to the Authority on quarter basis within forty-five days from the date of respective quarter ending except fourth quarter of

the financial year for which the report shall be submitted within sixty days from the date of quarter ending in prescribed Format-A (for wire-line services), Format-B (for limited mobility services) and Format-C (for full mobility services). The reports may also be sent electronically to e-mail ID assteco2@tra.gov.in or may be uploaded on TRAI's web portal;

- (b) submit the report on Tariff Plans for wireline and wireless services separately to the Authority on quarterly basis within twenty one days from the date of respective quarter ending in the format annexed as Annexure-I (Prepaid) and Annexure-II (Post-paid) electronically to email ID assteco2@tra.gov.in;
- (c) submit the performance reports for basic services, cellular mobile services, internet services, PMRTS services and VSAT services to the Authority on quarterly basis within thirty days from the date of respective quarter ending.
- (d) Ensure the submission of correct and complete information within the prescribed timeline.

➤ **Direction dated 23rd May 2018 issued to all access service providers regarding online filling of tariff offers**

To protect the interest of the consumers of telecom sector, the Authority vide direction dated 23rd May 2018, directed all the Access Service Providers to report to the Authority with effect from the 30th June 2018, through XML API web-service, all the tariffs offered to the consumers, in addition to the existing Tariff Reporting requirements.

➤ **Direction dated 23rd April 2018 issued to M/s Aircel Group regarding refund of unspent balance and security deposit**

The Authority on 23rd April 2018 issued a direction to M/s Aircel Group regarding refund of unspent balance and security deposit. In exercise of the powers conferred upon it under section 13, read with sub-clause (i) and (v) of clause (b) of sub-section (1) of section (11) of TRAI Act, 1997 (24 of 1997) and regulation 18 of the Mobile Number Portability Regulations, 2009 (8 of 2009), the Authority, in order to protect the interest of the telecom subscribers, directed (a) Aircel Group to: -

- (i) process, in case of postpaid mobile subscribers the refund of the security deposits of all the post-paid subscribers and submit to the Authority the licensed service area wise compliance by 10th May, 2018, mentioning the number of subscribers whose security

deposit have been successfully refunded and number of subscribers along with details of the amount of security deposits unclaimed/ undelivered;'

- (ii) prepare a password protected list of all the pre-paid subscribers parted out during the period from the 1st December, 2017 to 10th March, 2018, recipient operator wise indicating against each subscriber the unspent balance in their account at the time of porting and transfer such unspent amount to the recipient operator along with the list and the password and furnish to the Authority the details of refund made as per the schedule below: -

| LSA | List of MSISDN (Mobile Number) ported month-wise during | Compliance to be submitted to the Authority by date |
|-----|---|---|
| | 1st to 31st December, 2017 | 10th May 2018 |
| | 1st to 31st January, 2018 | |
| | 1st to 28th February ,2018 | |
| | 1st to 10th March 2018 | |

- (iii) Process refund to the prepaid mobile subscribers who have not been able to port out by 10th March, 2018
- (iv) Submit the following information to the Authority by 10th May, 2018 Mobile Post-paid Amount Date of Medium of refund viz. number pre-paid refunded refund NEFT/RTGS/Cheque
- (v) furnish compliance report of this direction to the Authority by 10th May, 2018, together with the unspent prepaid balance amount along with number of subscribers available with Aircel Group to whom refund could not be provided and reasons thereof of such failure;
- (b) All access service providers: - (i) as recipient operator, for the ported subscribers, to credit the refund amount received from Aircel Group to individual accounts of the subscribers and intimate the same to such subscribers through SMS; and (ii) submit compliance to the Authority within two days of receipt of such details from Aircel Group.

➤ **Direction dated 23rd April 2018 issued to M/s Aircel Group regarding refund of unspent balance and security deposit**

TRAI on 23rd April 2018 issued direction to M/s Aircel Group regarding extension of validity of UPCs generated pursuant to direction dated 27th February, 2018 to facilitate Mobile Number Portability (MNP) for the subscribers of M/s Aircel Ltd. and M/s Dishnet Wireless Ltd. (together as M/s Aircel Group) in the licensed services areas of Andhra Pradesh, Assam,

Bihar, Delhi, Jammu & Kashmir, Karnataka, Kerala, Kolkata, Mumbai, North East, Odisha, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh (East) and West Bengal.

C. Consumer Protection and Empowerment

Given the importance of reaching out to consumers all over the country, TRAI has a public interface with telecom subscribers through its website and through Consumer Outreach Programmes conducted across the country. TRAI has instituted a system for registration of consumer organizations as Consumer Advocacy Groups (CAGs). They act as interlocutors between consumers, Telecom Service Providers & TRAI and assist TRAI in consumer education. TRAI is also constantly working for enhancing consumer awareness about their rights and service related issues through educational/publicity material including media campaigns in the print and electronic media.

✓ **Media Campaigns:**

TRAI has undertaken media campaigns on several important issues of consumer interest for creating awareness among the consumers. Taking forward its media campaign, advertisements have been published on issues like 'DND 2.0 App', 'Tower Fraud' and 'Myspeed App' in leading newspapers in different languages across the Country. This apart, Radio spots/Jingles on "MyCall App" has been aired on FM Radio in several cities in different regional languages.

✓ **Registration of Consumer Advocacy Groups:**

Consumer advocacy Groups (CAGs) registered with TRAI co-ordinate and articulate consumer responses to TRAI's activities to assist TRAI in consumer education and to work for protection and propagation of the interests of the consumers. Regional Offices of TRAI are interacting with the CAGs, coordinating their activities and helping them to sort out consumer related issues with the Service Providers. CAGs are actively participating in the CoPs and workshops organized in their respective areas. As on June 2018, 55 CAGs are registered with TRAI.

VI. Other Activities in DoT

(i) **One-day seminar on "5G Technology-Evolution, Standards & Regulatory Perspective"**

A seminar was organised by DoT at Sanchar Bhawan on "5G Technology-Evolution, Standards & Regulatory Perspective". Senior officials from DoT, TRAI, IIT Hyderabad and representatives from COAI, Nokia, Ericsson, Samsung participated in the event.



(ii) **Signing of MoU between CDOT India with three Institutions.**

CDOT signed MOUs with three Institutions, namely 5G Innovation Centre of Surrey University UK, Kings College London and University of Bristol, UK on 5G cooperation in presence of Hon'ble Minister of Communications Shri. Manoj Sinha, High Commissioner of India Mr.Y.K.Sinha, and National Technology Advisor, Mr. Liam Maxwell on 20th Jun 2018 in Indian High Commission in London.

India signed three memoranda of understanding with three top UK academic institutions to facilitate meaningful exploration and early adoption of 5G technology. The MOUs were signed between representatives of King's College, University of Surrey, University of Bristol and Vipin Tyagi, Executive Director of C-DOT, a government-owned body engaged in research and development in the field of telecommunications in India.

The agreements were signed at the India House in presence of India's minister of state for communications Manoj Sinha and High Commissioner to the UK Y K Sinha.

The focus of the engagement between C-DOT and the universities will be to set up use-case labs to explore new scenarios for 5G, promote awareness and understanding of 5G, support the creation of 5G test beds, conduct field trials and evolve solutions for the Indian context. 5G is the next step from the currently deployed 4G telecom technologies in the world. In addition to drastically improving speeds for broadband users, it is expected to have a significant impact on new verticals such as transport, smart cities, health, manufacturing, railways, public safety and power, an official release said.

Key technologies such as Massive MIMO, millimetre Wave (mmWave), Narrowband IoT, Cloud-RAN are expected to improve speeds more than ten-folds, along with providing for centralization of key resources to reduce cost and improve ease of operations. Application of innovation such as Machine Learning (ML), Artificial Intelligence (AI) and deployment of Mobile Edge Computing (MEC) will change the nature of telecom networks by allowing for a much larger number of devices to be connected and managed in a 5G network.

With the MOUs signed, C-DOT will get access to leading experts and labs associated technologies in the UK universities. The UK universities will be able to participate in the on-going establishment of 5G test beds in India which can inter-work with the test-beds in the UK.

(iii) Promoting Innovation and Harnessing the Potential of Internet of Things (IoT) imperative for India

Secretary (T) inaugurated a seminar on IoT organised by Department of Telecommunications in collaboration with GSMA, New Delhi. Secretary(T) also underlined the need to work across silos in technology, policy, regulation, licenses, and use cases. There should be a drive to spread awareness and initiate capacity building across several key ministries like health, agriculture, transport, urban development and energy as use cases will be initiated from these ministries.

The seminar is the first among series of capacity building programmes planned with the support of GSMA as per the bilateral agreement between DoT and GSMA during Mobile World Congress 2018 at Barcelona. Technology considerations for IoT, including the spectrum allocation, business models for IoT, and policy considerations were discussed during the seminar.

IoT deployment has been included as one of the important focus technology area in the draft National Digital Communication Policy 2018 released recently. Evolving IoT ecosystem in India is likely to accelerate the IoT deployment leading to socio economic development. As per recent estimates, IoT market in India stands at \$5.6 billion with 200 million connected units in 2016. This is expected to grow to \$15 billion with 2.7 billion units by 2020. Globally, the number of IoT devices

is estimated to have increased 31% year-over-year to 8.4 billion in 2017. It is projected that there will be 30 billion devices by 2020. The global market value of IoT is projected to reach \$7.1 trillion by 2020.

Mr Prabhash Singh, Member (Services/Technology), DoT, Ms Emanuela Lecchi, Head Public Policy – APAC, Govt and Regulatory Affairs, GSMA, Mr Rajiv Sinha DDG NT, DoT, Mr Vikram Rawal, Senior Policy Director, Govt and Regulatory Affairs, GSMA, and Dr Rajesh Sharma, DDG(Trg), DoT led the sessions.

(iv) Mobile Congress-2018

The India Mobile Congress (IMC) finalised the details including exhibitors, sponsors, programmes and activities planned for the annual mobile industry event. Under the theme “NEW DIGITAL HORIZONS: Connect. Create. Innovate.”, India Mobile Congress will be held from 25th to 27th October 2018, at Aerocity, New Delhi, with a slew of parallel events taking place at the same venue. The IMC expects that more than 200,000 professionals from the Telecom industry, encompassing the 5G, start-up ecosystem, Internet of Things (IoT), Big Data, Artificial Intelligence (AI), Smart Cities, and allied industry sectors will attend India Mobile Congress 2018.

India Mobile Congress 2018 will bring together the leading players from across the mobile ecosystem, as well as adjacent industry sectors such as automotive and consumer electronics, showcasing the innovative products, services and technologies that are shaping digital world today. More than 1,300 exhibitor’s companies will participate in the exhibition at the event.

Ms. Aruna Sundararajan, Chairperson, Telecom Commission & Secretary, Department of Telecommunications, announced the theme of the programme at an event on April 13,2018.

(v) Excursion /trekking trips organised under the aegis of the Telecom Staff Welfare Board.

DoT(Hqrs.) conducted the excursion/trekking trips for the employees stationed at Sanchar Bhawan/MTNL Bldg., Minto Road. A total of 133 employees of the department went for the various trips which are as under: -

- ✓ Nainital (02 trips)
- ✓ Chopta/Tungnath (02 trips)
- ✓ Macloedganj/Triund (01 trip)



The overall response of all the trips was excellent. This was for the first time that so many trips were undertaken simultaneously. The employees were especially excited for the trekking trips.



All the participants were apprised of the trips well in advance by their respective group coordinators. All of them were given a list of "Things to carry" for the trips and were mentally prepared for the last few kms. of climbing which was really steep at times. The trips were 70 % sponsored by the Telecom Staff Welfare Board with the remaining 30% were paid by the employees. The hotel stay was comfortable along with camping at the trekking points. All the buses were air conditioned for comfortable travel for the employees. Overall the excursion/trekking trips were a fine experience for all the employees of the department.

जारीकर्ता: सांख्यिकीअनुभाग, दूरसंचारविभाग

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