Ministry of Communications

2025 Year End Review for Department of Telecommunications

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DoT makes significant strides in strengthening the Indian telecom ecosystem

The National Broadband Mission (NBM) 2.0 launched on 17th January, 2025; Aims to propel India into a new era of digital transformation

5G services rolled out in all States/ UTs across the country and are available in 99.9% of the districts in the country with a population coverage of 85%

5.08 lakh 5G Base Transceiver Stations (BTSs) installed by Telecom Service Providers (TSPs) across the country

Optical Fiber Cable (OFC) length increased from 19.35 lakh route km (2019) to 42.36 lakh route km; A total of 2,14,843 GPs now endowed with broadband connectivity

Overall tele-density in India rose to 86.65% in September 2025, up from 75.23% in March 2014

Rural telephone connections grew 42.9%; nearly double of urban increase, rising from 377.78 million in March 2014 to 539.83 million in September 2025

Internet connections crossed the milestone of 100 crore to reach 100.29 crore, as against 25.15 crore in March 2014, registering growth of 298.77%

Broadband connections rose from 6.1 crore in March 2014 to 99.56 crore in 2025, growing by 1,532.13%

Average monthly data consumption per wireless data subscriber increased by 399 times to 24.01 GB in 2025, up from 61.66 MB in March 2014, one of the highest in the world

The median mobile broadband download speed witnessed a substantial increase, rising from 10.71 Mbps in 2019 to an impressive 131.47 Mbps in October 2025

India becomes only the 5th country in the world to develop its indigenous 4G stack, through collaboration among C-DOT, Tejas Networks and TCS and deployment by BSNL

DoT re-farmed 687 MHz of spectrum in various frequency bands viz. 6425-7025 MHz, 2500-2690 MHz and 1427-1518 MHz, for IMT based services

DoT in collaboration with COAI organised Asia's largest technology and innovation forum, the ninth edition of India Mobile Congress (IMC 2025)

Atmanirbhar Bharat- PLI records sale of Rs. 96,240 crore, exports of Rs. 19,240 crore and employment generation of around 30,000

DoT introduces "Financial Fraud Risk Indicator (FRI)" to strengthen Cyber Fraud Prevention; RBI mandates integration of FRI into banking systems; Generated alerts for more than 70 lakh fraudulent transactions, preventing financial loss of around ₹450 crore for citizens

Sanchar Saathi mobile app launched in Hindi, English and 21 regional languages; recorded more than 1.5 crore downloads since its launch; Sanchar Saathi portal records 22 crore visitors

26.35 lakhs lost/stolen handsets traced, 7.3 lakh handsets returned to rightful owners, 6.21 lakhs fraud-linked IMEIs blocked with the help of Sanchar Saathi initiative

DoT puts in place Device Setu – Indian Counterfeited Device Restriction (ICDR) system to allow manufacturers, brand owners, and importers to register and generate IMEI certificates free of charge

DoT guides pan-India Implementation of indigenous Cell Broadcasting for alerts dissemination

DoT ensures resilient telecom infrastructure and uninterrupted services during: Himachal pradesh, Uttarakhand, Punjab and Jammu & Kashmir floods, cloudbursts and landslides and Cyclones Montha and Ditwah, and during Operation Sindoor

Major strides achieved in advancing indigenous 6G research and development under the ambitious Bharat 6G Mission

DoT launches Sanchar Mitra 2.0, a youth-oriented initiative aimed at harnessing the energy and potential of young students to raise public awareness about mobile safety, telecom fraud prevention, and about government digital initiatives

The Department of Telecommunications (DoT) looks back on 2025 as a year of profound transformation, highlighted by major achievements in connectivity, digital infrastructure, citizen-centric governance, and technological self-reliance. This period witnessed unprecedented growth in telephone and internet penetration, alongside record-low data costs, powerfully reinforcing India's position as a global digital powerhouse. The rapid expansion of optical fibre and 5G infrastructure, coupled with decisive regulatory reforms under the Telecommunications Act, 2023, marked a pivotal moment for the sector.

A central theme of the year was the dramatic strengthening of the telecom ecosystem’s security and accountability, spearheaded by the success of the citizen-centric initiatives like Sanchar Saathi and FRI. In line with the *Atmanirbhar Bharat* vision, the large-scale rollout of home-grown network infrastructure also gained significant momentum. India became only the 5th country in the world to have its own 4G stack, upgradable to 5G, demonstrating India’s commitment to technological self-sufficiency. While it took decades to develop such technology in other parts of the world, it took just 2 years to develop such technology. Coupled with this, major strides were achieved in advancing indigenous 6G research and development under the ambitious *Bharat 6G Mission*.

India is emerging as a global leader in telecom—shaping global standards, contributing to international policy dialogues, and positioning itself at the forefront of the next generation of communication technologies. Guided by the vision of ‘Local for Global’ and a commitment to

strengthening the startup ecosystem and inclusive growth, the DoT has shaped its digital transformation strategy around the DSS approach— Design in India, Solve in India, Scale for the World.

A. **INDIAN TELECOM SCENARIO IN 2025**

i. **Telephone Subscriptions:**

- Total telephone connections in India grew from 933 million in March 2014 to 1228.94 million in September, 2025 posting a growth of 31.72%. The number of mobile telephone connections stood at 1182.32 million at the end of September, 2025. The overall tele-density in India was 75.23% in March 2014 which rose to 86.65% in September, 2025.
- Urban telephone connections rose to 689.11 million in September, 2025 as compared to 555.23 million in March 2014, growing by 24.11% while the growth in rural telephone connections was 42.9% which is nearly double of urban increase, rising from 377.78 million in March 2014 to 539.83 million in September, 2025.

ii. **Internet & Broadband Penetration:**

- Internet connections crossed the milestone of 1 billion to 100.29 crore in June, 2025 compared to 25.15 crore in March, 2014, registering a growth of 298.77%.
- Broadband connections rose from 6.1 crore in March, 2014 to 99.56 crore in September, 2025 growing by 1532.13%.
- Average monthly data consumption per wireless data subscriber increased by 399 times to 24.01 GB in June, 2025 from 61.66 MB in March, 2014.
- The median mobile broadband download speed witnessed a substantial increase, rising from 10.71 Mbps in 2019 to an impressive 131.47 Mbps in October 2025. Similarly, the median fixed broadband download speed increased from 29.25 Mbps in 2019 to 60.34 Mbps in October 2025, according to Ookla’s Speedtest Global Index.
- Optical Fiber Cable (OFC) length increased from 19.35 lakh route km (2019) to 42.36 lakh route km (as of Sep, 2025).

iii. **BTS and Towers:**

- The numbers of Mobile Base Transceiver Stations (BTS) are 31.44 lakh as on 31.10.2025.
- The numbers of mobile towers are 8.43 lakh as on 31.10.2025.

iv. **Inflow of FDI:**

- FDI (equity flow) in the telecommunication sector during 2024-25 was US $746 million.

v. **Data cost:**

- Average cost of 1 GB of mobile data is $0.10 as compared to $0.16 last year.

B. **TELECOM REFORMS**

i. **Telecommunication Act, 2023**

The Department is presently in the process of framing of rules under various sections of the Telecom Act, 2023. The Central Government, till date, has enforced 43 sections (out of 62 sections) and notified rules under 14 provisions of the Act.

Draft rules under provisions related to authorization, assignment/management of spectrum, regulatory sandbox, etc. are at various stages of drafting/public consultation.

ii. **Reforms related to Citizens Centric Services and prevention of misuse of Telecom resources for cyber-crime and financial frauds.**

a. **Sanchar Saathi Portal:** The citizen-centric Sanchar Saathi portal (*www.sancharsaathi.gov.in*), launched in 2023 is available in 21 languages and has recorded over 22 crore visits to date. On average, the portal receives around 2.4 lakh visitors per day, and in the current year, the daily visitor count has further increased to approximately 3.7 lakh users. A new module, Trusted Contact Details has been added on Sanchar Saathi portal in 2025. This module has contact details like toll-free numbers, emails, and genuine websites of banks, financial institutions, and government bodies.

b. **Sanchar Saathi Mobile App:** DoT launched Sanchar Saathi Mobile App on 17.01.2025 in order to provide the convenience of reporting fraudulent calls, blocking/unblocking of lost/stolen mobile handset, knowing mobile connections issued in citizens name etc. The newly launched Sanchar Saathi Mobile App is available for download on both the Google Play Store & Apple App Store and available in Hindi, English & 21 regional languages, ensuring its inclusivity and accessibility nationwide. Sanchar Saathi mobile app has recorded more than 1.5 crore downloads since its launch.

c. **Digital Intelligence Platform (DIP):** The Digital Intelligence Platform (DIP) was launched in 2024 for sharing of information related to misuse of telecom resources among the stakeholders for prevention of cyber-crime and financial frauds. At present over 850 organizations including Telecom Service Providers (TSPs), MHA, UIDAI, SEBI, FIU, NPCI, Central LEAs, 800+ banks and financial institutions, 35 States/UTs police, central agencies and other stakeholders have on-boarded this platform. This platform, inter-alia, hosts the list of disconnected mobile connections on near real time basis along with the reasons for disconnections enabling the stakeholders to take appropriate action including to disengage the associated services linked with these mobile numbers.

d. **Financial Fraud Risk indicator (FRI):** In a major step towards combating cybercrime and financial frauds based on pro-active intelligence, the DoT introduced Financial Fraud Risk Indicator (FRI) in May 2025. FRI categorizes mobile numbers based on their potential risk of involvement in financial fraud - medium, high or very high. It allows banks, financial institutions, NBFCs, and UPI service providers to identify threats early and take preventive action like generating alerts, warnings, transaction delays, declines or account restrictions. As reported by stakeholders, Banks/UPI platforms have declined transactions and generated alerts for more than 70 lakh fraudulent transactions, preventing a financial loss of around ₹450 crore for citizens.

e. RBI in collaboration with DoT has issued advisory on integration of the FRI into banking systems to enhance protection and prevention of suspicious transactions. PFDRA issued advisory to Pension Funds & Central Recordkeeping Agencies (CRAs) on adoption of FRI.

f. DoT and Financial Intelligence Unit (FIU)-IND have signed a Memorandum of Understanding (MoU) in September 2025 to strengthen efforts against telecom enabled cyber-crimes and financial frauds.

g. **International Incoming Spoofed Calls Prevention System:** The system was launched in October 2024 to identify and block incoming international calls spoofed with Indian mobile numbers. It has reduced such malicious call attempts to 1-2 lakh per day as on date. Even these call attempts are blocked at the International Long-Distance gateways itself.

h. Blocking of International Carriers/Aggregators: Analysis of crowd-sourced Chakshu data prompted the blocking of unused area/satellite codes and the blocking of over 309 international carriers/aggregators repeatedly sending spoofed call traffic to India.

a. Based on DoT instructions, major telecom service providers have implemented displaying "*International Call*" to subscribers in all incoming calls with international numbers to India so that citizens can take informed decision and prevented from being victim of cybercrime and financial frauds.

j. **Device Setu – Indian Counterfeited Device Restriction (ICDR) system:** The system is in place to allow manufacturers, brand owners, and importers to register and generate IMEI certificates free of charge. In 2025, over 48,000 certificates have been issued to local manufacturers and 27,000 to importers, covering ~29.43 crore devices till date.

k. DoT has disconnected approximately 2 lakh Direct Inward Dialing (DID)/landline telephone numbers that were found to be involved in unauthorized promotional activities and illegal activities.

l. In the backdrop of the Indian Telecommunications Act 2023, under Section 22(1) and (2), DoT notified the Telecommunications (Telecom Cyber Security) Rules, 2024 in year 2024. DoT has notified the Telecommunications (Telecom Cyber Security) Amendment Rules, 2025. These Rules aim to safeguard India's communication networks and services. These rules impose stringent obligations on operators from conducting regular security audits to reporting incidents, while prohibiting the tampering of IMEIs. These regulatory measures ensure that both service providers and device importers prioritize cybersecurity and subscriber protection.

m. DoT has partnered with the Railway Protection Force (RPF) to enhance the recovery process of stolen or lost mobile phones in trains through ‘Block your lost / stolen mobile handset’ or Central Equipment Identity Register (CEIR) facility of Sanchar Saathi portal.

n. Summary of Tangible Impact and Outcomes of DoT efforts: (Data till November, 2025)

Sr. No.	Heading	Count
1	Visitors on Sanchar Saathi portal (www.sancharsaathi.gov.in)	22 crore
2	Downloads of Sanchar Saathi mobile app	1.5 crore
3	Mobile number disconnections after re-verification failures based on ASTR analysis	86 lakh

4	Mobile number disconnections based on inputs of various stakeholders	97.5 lakh
5	Mobile number disconnections for exceeding individual connection limit	1.82 crore
6	Mobile number disconnections based on citizen feedback on Sanchar Saathi (Not My Number/Not Required)	1.94 crore
7	Lost/Stolen mobile handsets traced via CEIR	26.35 lakh
8	Lost/Stolen mobile handsets returned to rightful owners by police	7.3 lakh
9	IMEIs blocked (cyber-crime/financial-fraud involvement)	6.21 lakh
10	Point of Sale (SIM sellers) blacklisted	75,410
11	WhatsApp profiles/groups disengaged	28.89 lakh

iii. **Centralized Right of Way (RoW) Portal**

One of the salient features of the Telecommunications Act, 2023 is 'Digital by Design': The Act mandates that its implementation shall be digital by design. Accordingly, the Centralized RoW portal was upgraded as per RoW rules, 2024 from 01.01.2025. Later the portal was incorporated into the Unified Portal of DoT named as ‘Telecom eServices Portal’.

The portal has streamlined the process of granting permissions for Right of Way applications, reducing the approval time for application processing by ~13x from 448 days (2019) to approx. 34 days (as of Nov, 2025) and ~25% of applications are now being disposed of within 15 days. The portal has successfully streamlined approvals in a time-bound manner leading to a substantial increase in the approval of Towers and Optical Fiber Cable permissions (3.81 lakh applications disposed so far). This acceleration has enabled more mobile connections and improved service quality, effectively bridging the digital divide, especially in rural and remote areas.

iv. **Implementation of Right of Way (RoW) rules, 2024 across country**

The Government of India, Department of Telecom has notified the Telecommunications (Right of Way) Rules, 2024 on 17th September, 2024, which came into effect on the 1st day of January, 2025. It, inter-alia, aims to significantly streamline and mitigate several challenges faced in the rollout of telecom infrastructure:

a. **Single Window Approval System:** Establishment of a unified, single window system for telecom infrastructure approval. This reduces the delays that telecom companies previously faced when obtaining permissions from various local, state, and central authorities.
b. **Clear Timelines:** The new rules set strict timelines for granting approvals.
c. **Uniformity across States and Local Authorities:** The rules standardize the process for obtaining RoW permissions across different states and municipalities. This consistency helps telecom companies avoid navigating varying requirements in each region.
d. **Facilitating Efficient Use of Public Land/Building:** The public entity which is responsible for the infrastructure project or class of infrastructure projects, shall make available such common ducts or conduits or cable corridors for the installation of telecommunication network, on an open access basis, that is, non-discriminatory and non-exclusive, subject to prescribed conditions.
e. **Faster Dispute Resolution:** The rules introduce a dispute resolution mechanism, allowing telecom companies to resolve conflicts with local authorities or landowners faster than before.
f. **Encouraging Shared Infrastructure:** The rules also encourage infrastructure sharing between telecom providers, reducing the need for multiple towers or infrastructure in the same area.

v. **PM Gati Shakti National Master Plan (NMP) Platform**

Department of Telecommunications (DoT) has mapped ~13.5 Lakh Route Km of OFC of PSUs, ~43,000 km OFC of state governments, ~8.40 Lakh Telecom towers having ~31.31 lakh (Base Transceivers) BTSs, ~3.15 lakh PM- WANI Wi-Fi hotspots and planned mobile towers from various DBN (Digital Bharat Nidhi) projects on the PM Gati Shakti NMP platform.

The mapping of telecom assets has aided in planning new infrastructure projects and rolling out new technologies such as 5G. This comprehensive mapping has enhanced strategic decision-making, optimized resource allocation and accelerate the deployment of telecom infrastructure.

vi. **Reducing Compliance Burden**

a. With the objective of enhancing Ease of Living and Ease of Doing Business, the department has launched an ambitious initiative to reduce compliance burden by simplifying both Government-to-Citizen and Government-to-Business interfaces. In line with this initiative, the Department of Telecommunications (DoT) identified 114 compliances for removal or rationalization, of which 110 have already been addressed. Further, following consultations with service providers, the requirements for various periodical reports were reviewed, resulting in the discontinuation of several non-essential reports, increased periodicity for many others, and a transition from physical to digital submissions for multiple compliance requirements. This has significantly streamlined procedures and reduced operational burden on stakeholders.
b. The department has strengthened ease of doing business by extending the validity of Pro Tem Security Certification—from the earlier six months to two years—enabling smoother business continuity for telecom and ICT manufacturers. With 102 certificates

already issued, the longer validity will significantly reduce renewal pressures on industry. This move complements DoT's July 2025 reduction of up to 95% in security testing fees and simplification of processes for Highly Specialized Equipment and End-of-Sale/End-of-Life products, reaffirming the Government's commitment to supporting domestic and global OEMs under the ComSec scheme, aligned with India's broader MTCTE-based security certification framework. The DoT has also simplified the security testing and compliance process for Highly Specialized Equipment (HSE) and End-of-Sale/End-of-Life telecom products. These moves signal the government's resolve to enable ease of doing business for both domestic and international Original Equipment Manufacturers (OEMs) in the telecom/ICT sectors.

vii. **Disaster Management**

Department of Telecommunications (DoT) continued to strengthen its disaster preparedness and emergency communications framework under SOP-2020, ensuring resilient telecom infrastructure and uninterrupted services during natural disasters and evolving security situations. The Disaster Management (DM) Division coordinated closely with LSAs, Telecom Service Providers (TSPs), and Central and State agencies to ensure rapid restoration of telecom networks and effective communication support for emergency services and citizens.

a. **Response and Restoration during Natural Disasters (2025)**

- **Himachal Pradesh Floods & Landslides (August 2025):**

  Severe rainfall and landslides in Chamba, Kullu, and Lahaul-Spiti caused major disruptions. DoT enabled immediate ICR activation and Priority Call Routing (PCR). Teams, including those air-dropped in inaccessible regions with State support.

- **Jammu & Kashmir Cloudburst & Landslides (August 2025):**

  Heavy rainfall led to extensive fibre damages and BTS outages across Kishtwar, Doda, Ramban, Reasi, and Udhampur. A 24×7 control room was activated, and ICR remained operational from 26 August to 10 September. With special logistics support and coordination with NDMA, Army, and UT authorities, ~99% connectivity was restored within two weeks.

- **Uttarakhand Cloudbursts – Dharali & Tharali (August 2025):**

  Rapid activation of ICR, deployment of BTSs and small cells, and emergency fibre replacement (with Army support) enabled full restoration within 3–5 days.

- **Punjab Floods (August 2025):**

  Telecom backbone remained intact; BTSs in water-logged pockets were swiftly restored as the situation improved.

- **Cyclone Montha (October 2025):**

  In advance of landfall over coastal Andhra Pradesh and Odisha, DoT activated a 24×7 control room at Vijayawada and issued directions to all TSPs for ensuring uninterrupted network availability, adequate fuel reserves, and deployment of emergency field teams. ICR and Cell Broadcast testing were completed for all TSPs as per SOP-2020, with indigenous Cell Broadcast successfully tested with APSDMA and

subsequently utilised for sending early warning alerts. Necessary COWs and mobile BTS units were pre-positioned at vulnerable locations through coordinated planning with State authorities. There was no impact on network during the event and outages of few sites were mainly due to non-availability of power, which got restored immediately on resumption of power supply.

- **Cyclone Ditwah (November 2025):**

  For Cyclone Ditwah, DoT and TN LSA undertook advance preparedness based on IMD warnings by reviewing readiness with all TSPs, ensuring intra-circle roaming, fuel arrangements, identification of response teams, and positioning of critical resources such as mobile DG sets and Cells-on-Wheels; coordination meetings were held with the Tamil Nadu Government, Puducherry Administration and NDMA, network status was monitored twice daily through a dedicated Telecom Control Room, and DoT officers were deployed at the State Emergency Operations Centre—resulting in zero network outages in Tamil Nadu and Puducherry during the cyclone period.

b. **Strategic Preparedness & Resilience Measures during Operation Sindoor**

In May 2025, the Department of Telecommunications (DoT) issued a series of comprehensive directives and action plans to strengthen the resilience and continuity of telecom services across the country. The Continuity of Telecom Services Directive emphasized safeguarding networks in border and sensitive districts through adequate fuel stocking, crew mobility facilitation, infrastructure protection, and ICR readiness. Simultaneously, DoT released an Action Plan for Infrastructure Hardening and Cyber-Resilience, outlining measures such as GIS-based risk mapping of telecom assets, enhanced power redundancy, deployment of Quick Response Teams (QRTs), readiness of VSAT and Cell-on-Wheels (COW) systems, and round-the-clock Security Operations Centre (SOC) monitoring. Further, all Telecom Service Providers (TSPs) were mandated to establish National Level Control Centres (NLCCs) for real-time network monitoring and coordinated national response during emergencies. To enhance international connectivity resilience, the Submarine Cable Resilience Programme was implemented, under which all submarine cable operators submitted detailed plans ensuring network redundancy, geographically diverse routes, and readiness of SEAIOCMA repair ships with requisite MoD/MHA clearances.

c. **Pan-India Implementation of indigenous Cell Broadcasting for alerts dissemination**

To strengthen India’s national public warning infrastructure, a Memorandum of Understanding (MoU) was signed between the Centre for Development of Telematics (C-DOT) and the National Disaster Management Authority (NDMA) in February 2025 for the implementation of an indigenous Cell Broadcast (CB) system across all Indian telecom networks. The initiative, undertaken under the guidance of the Department of Telecommunications (DoT) and NDMA, aims to enable the dissemination of location-specific alerts to citizens through mobile networks during natural disasters and emergencies. Following the MoU, C-DOT successfully integrated its indigenously developed CB platform across all four major Telecom Service Providers (Airtel, BSNL, Jio, and Vi), achieving more than 95% pan-India network readiness.

During the year, significant milestones were achieved, including pilot testing of the CB system across all TSPs, nationwide integration testing under DoT and NDMA supervision, and live operational deployment during Cyclone Montha (October 2025) in Andhra Pradesh and Odisha. The alerts were disseminated in regional languages within 2–3 seconds, reaching affected populations effectively and demonstrating the reliability of India's indigenous CB technology for mass public alerting. The initiative represents a major step toward achieving the vision of an "Alert for All" system, ensuring rapid and reliable dissemination of disaster warnings across the nation.

C. **5G and 6G**

i. **Rollout of 5G services**

5G services have been rolled out in all States/ UTs across the country and it is available in 99.9% of the districts in the country with a population coverage of 85%. As on 31.10.2025, 5.08 lakh 5G Base Transceiver Stations (BTSs) have been installed by the Telecom Service Providers (TSPs) across the country.

To accelerate the deployment of 5G services and infrastructure across the country, Government has taken several initiatives, which, inter alia, include the following:

- Auction of spectrum for 5G mobile services
- Financial reforms to rationalize Adjusted Gross Revenue (AGR), Bank Guarantees (BGs) and interest rates.
- Removal of Spectrum Usage Charges for spectrum acquired in auction of 2022 and thereafter.
- Simplification of procedure for SACFA (Standing Advisory Committee on Radio Frequency Allocations) clearance.
- Launch of GatiShakti Sanchar portal and RoW (Right of Way) Rules to streamline RoW permissions and clearance of installation of telecom infrastructure.
- Time-bound permission for use of street furniture for installation of small cells and telecommunication line.

ii. **Implementation of 100 5G Labs Initiative**

In October 2023, the Hon'ble Prime Minister awarded 100 5G Use Case Labs. All the Labs have been set up, and operationalized since April 2025. A Gradation Framework has been developed to grade the lab's performance and create a heathy competition among the labs. Top three institutes were felicitated in India Mobile Congress-25. The high performing institutions are being engaged in sharing experience with other institutes to improve their performance.

A Competition Framework has been created, in the form 6-month long Hackathon, to create competition among students, faculty, researchers, and startups, and develop solutions for real world problems. This year's nation-wide Hackathon was conducted from April to September 25. Experts from Industry and ITU were engaged in mentoring the participants. The winners were awarded and facilitated to showcase their products in IMC-25.

Industry Leaders in telecommunication [Ericsson & Qualcomm] have been engaged in Capacity Building in Telecommunication.

iii. **Bharat 6G Vision and Bharat 6G Alliance**

The Hon'ble Prime Minister launched the Bharat 6G Vision in March 2023, positioning India as a global leader in designing, developing, and deploying 6G technology by 2030. The Bharat 6G Alliance (B6GA) is a collaborative platform bringing together academia, industry, and government to build a comprehensive 6G ecosystem in India. The alliance focuses on research, development, and standardization of 6G technology, with the goal of making India a global leader in the emerging 6G landscape. Bharat 6G Alliance has constituted seven Working Groups on different domains of 6G like Spectrum, Technology, Applications, Green and Sustainability and use cases.

In a step towards redefining the future of global communication, the Bharat 6G Alliance signed a Memorandum of Understanding (MoU) with leading research alliances for collaborative research and standardization. These MoUs with 6G research alliances will further enable development of secure and trusted telecommunication technology including resilient supply chains.

The Government has taken the following initiatives to facilitate the development of 6G technology in the country:

a. Funding two testbeds namely 6G THz Testbed & Advance Optical Communication Testbed to promote R&D and innovation in the country.
b. 100+ research proposals have been approved on 6G network ecosystems to promote research and innovation in line with global roadmap for 6G technology.

The Apex Council meeting of the Bharat 6G Mission on 10th December 2025, chaired by Union Minister Jyotiraditya M. Scindia, highlighted India's rapid progress toward emerging as a global 6G leader by 2030. The Council reviewed advances in indigenous 6G components, spectrum strategy, international standard-setting, and progress driven by the ₹1-lakh-crore RDI Fund. It also showcased achievements from the 5G Use Case Labs and honoured top-performing institutions. The Bharat 6G Alliance reported strong expansion to over 84 members and deepening global collaborations, reinforcing India's commitment to building a world-class, future-ready 6G ecosystem.

D. **PROJECTS & INITIATIVES**

i. **Digital Bharat Nidhi (DBN)**

Universal Service Obligation Fund (USOF), formed by an Act of Parliament, was established w.e.f. 01.04.2002 under the Indian Telegraph (Amendment) Act, 2003 (further amended in 2006), to provide financial support for the provision of telecom services in commercially unviable rural and remote areas of the country. The USOF was established with the fundamental objective of providing access to 'basic' telecom services to people in the rural and remote areas at affordable and reasonable prices.

As per the Telecommunication Act, 2023 (No.44 of 2023) and the subsequent notification of Telecommunications (Administration of Digital Bharat Nidhi) Rules 2024 dated 30.08.2024, the Universal Service Obligation Fund (USOF) has been renamed as "Digital Bharat Nidhi" (DBN). The Telecommunication Act, 2023 also expanded the scope of DBN to:

- support universal service through promoting access to and delivery of telecommunication services in underserved rural, remote and urban areas;

- support research and development of telecommunication services, technologies, and products;
- support pilot projects, consultancy assistance and advisory support towards provision of service under clause (a) of this section;
- support introduction of telecommunication services, technologies, and products.

a. **BharatNet**

BharatNet project is being implemented in a phased manner to provide broadband connectivity to all Gram Panchayats (GPs) and villages in the country. The Phase-I has been completed in December 2017 with the implementation of over 1 lakh GPs and the remaining GPs are being connected under various models of implementation, i.e. State-led Model, CPSU-led Model and Private Sector-led model, etc.

As on October 2025, 6,94,711 km of Optical Fibre Cable (OFC) has been laid and 2,09,809 GPs are Service Ready on OFC. In addition, 5,034 GPs have been connected over satellite media. Thus, a total 2,14,843 GPs are now endowed with broadband connectivity.

The Amended BharatNet project is being implemented in a phased manner to provide broadband connectivity to 2.65 lakhs Gram Panchayats (GPs) and Villages beyond GPs on demand basis across the country with outlay of ₹1.39 lakh crore. Assets created under BharatNet will be National Assets owned by Digital Bharat Nidhi (DBN) under Department of telecommunications (DoT) and accessible on a non-discriminatory basis to all service providers.

b. **Saturation of 4G mobile services**

The Union Cabinet on 27.07.2022 approved a project for saturation of 4G mobile services in uncovered villages across the country at a total cost of Rs. 26,316 Cr. The project aimed to provide 4G mobile services in 24,680 uncovered villages in remote and difficult areas. The project has a provision to include 20% additional villages on account of rehabilitation, new-settlements, withdrawal of services by existing operators etc. In addition, 6,279 villages having only 2G/3G connectivity shall be upgraded to 4G. Implementation work of the project is under progress and till October, 2025, 17,193 towers including upgradation of 648 towers have been planned out of which 13,142 towers have been made functional covering 19,465 villages.

ii. **Telecom Technology Development Fund (TTDF)**

The Telecom Technology Development Fund (TTDF) Scheme aims to fund research and development (R&D) in rural-specific communication technologies, fostering collaboration between academia, start-ups, research institutes, and industry to enhance the telecom ecosystem in India. The TTDF is aligned with the Hon'ble Prime Minister's vision of "Jai Anusandhan" and seeks to promote indigenous telecom solutions. Total 136 projects at cost of ₹ 550 Cr have been funded spanning across emerging telecom technologies viz. 5G/6G, AI, Quantum communications etc.

iii. **Production Linked Incentive Scheme for Telecom and Networking products**

The PLI Scheme for Telecom and Networking products, effective from April 2021 with a total outlay of Rs. 12,195 crore was launched by DoT to boost domestic manufacturing of telecom products by incentivising incremental investments and turnover. The scheme has helped in increasing the sales of domestically manufactured telecom products. The scheme registers an impressive performance with cumulative investment of more than Rs. 4,646 crore, total sales exceeding Rs. 96,240 crore including exports worth Rs. 19,240 crore and employment generation of (Nos) 29,574 as on 30.09.2025

iv. **National Broadband Mission 2.0 (2025-30)**

The Hon'ble Minister of Communications and Development of North Eastern Region Shri Jyotiraditya M. Scindia launched the National Broadband Mission (NBM) 2.0 on 17th January, 2025.

The NBM 2.0 aims to propel India into a new era of digital transformation. Aligning with the Hon'ble Prime Minister's vision of a Viksit Bharat by 2047, it envisions India as a global knowledge society by providing High-speed Broadband and Meaningful Connectivity for all. Building on the success of NBM 1.0. Following will be the key benefits of NBM 2.0:

a. Extending operational optical fiber cable (OFC) connectivity to 2.70 lakh villages by 2030 with 95% uptime
b. To provide broadband connectivity to 90% of anchor institutions like Schools, PHCs, Anganwadi Centre, and Panchayat offices by 2030.
c. Improve the Fixed broadband download Speeds- National Average to a minimum 100 Mbps by 2030.
d. To achieve 100% mapping of fiber networks owned by government PSUs by 2026 on PM GatiShakti National Master Plan Platform (PMGS) and use PMGS for planning of Additional Bharatnet project.
e. For Ease of Doing Business, reduce the Right of Way application average disposal time
f. Increase the number of rural internet subscribers per 100 population
g. Achieve the target of powering 30% of mobile towers with sustainable energy by 2030.
h. Collaborate with all stakeholders viz. Central Ministries and departments, States, UTs and municipalities to ensure the effective implementation of the Telecommunications (Right of Way) Rules, 2024, issued under the Telecommunications Act, 2023.

v. **Call Before u Dig (CBuD) Mobile App:**

Hon'ble Prime Minister launched the 'Call Before u Dig' (CBuD) Mobile Application on March 22, 2023, which provides an interface for excavating agencies/contractors to alert/inform owners of existing utility assets about their upcoming excavation route.

Over the past year, CBuD has witnessed a significant rise in usage, with monthly enquiries increased from 1,211 in November 2024 to 11,258 in October 2025 — usages jumped nine-fold (9X) year on year.

vi. **Sanchar Mitra**

The Sanchar Mitra Scheme of DoT, initially launched on a pilot basis, has now been revamped and rolled out as a regular initiative on 26.05.2025 as Sanchar Mitra 2.0. This youth-oriented initiative is aimed at harnessing the energy and potential of young students to

spread awareness about safe digital behaviour. Under this scheme, student volunteers, named as Sanchar Mitra, will raise public awareness about mobile safety, telecom fraud prevention, and about government digital initiatives. They will conduct outreach in communities, schools, and public spaces to educate citizens on responsible and secure use of telecom services.

a. Around 2,200 Sanchar Mitras have been selected by LSAs from nearly 230 reputed institutes across the country.
b. In a short span of time, Sanchar Mitras have conducted around 100 awareness sessions on key citizen-centric telecom initiatives such as Sanchar Saathi features and EMF radiation myths.
c. Citizens are being sensitized on:

- Protecting themselves from unsolicited commercial calls, spam calls, digital arrest scams, and other fraudulent communication.
- Identifying and reporting international scam calls using Indian numbers.
- Lodging complaints for lost/stolen mobile phones through CEIR.
- Verifying the genuineness of mobile handsets.
- EMF radiation myth busting

vii. **Auction of Spectrum**

a. **Policy Initiatives**

- **Re-farm of spectrum for IMT:** For India to take a lead in the development of 6G services, re-farming of spectrum for mobile communication services is a significant step. It underscores the government's commitment to optimize use of natural resources to enable cutting-edge mobile communication services across the nation. In this regard, the Government has re-farmed 687 MHz of spectrum in various frequency bands viz. 6425-7025 MHz, 2500-2690 MHz and 1427-1518 MHz for IMT based services. This initiative aims to bolster the reach, quality, and affordability of mobile networks, further accelerating the realization of a robust and inclusive Digital India. This move also lays a strong foundation for the advancement of next-generation technologies, including 6G.
- **Spectrum for Wi-Fi and Intelligent Transport System:** The DoT is taking important initiative to facilitate east of living for the common citizen, which include additional spectrum in the 6 GHz band for Wi-Fi, promoting next generation use cases such as Augmented Reality (AR)/ Virtual Reality (VR) and in the 70 GHz band for Intelligent Transport systems.
- **Revision of NFAP 2022:** The National Frequency Allocation Plan (NFAP) is an important document for managing India's radio spectrum, ensuring its efficient and effective use across various sectors. NFAP has been revised incorporating outcomes from the World Radiocommunication Conference 2023 and the updated ITU Radio Regulations 2024. The revision process involved consultations with various stakeholders including government agencies, private sector entities, industry associations, academic institutions, and startups to ensure that the updated NFAP addresses the evolving needs of all users. The revised NFAP aims to provide regulatory certainty, foster investment, and support the development of emerging technologies such as 5G, 6G, satellite communications etc.

b. **Process Simplification and moving the entire process to online portal**
c. has developed an online CRS module for simplification of process for issuing Community Radio Station (CRS) Licences. The Saral Sanchar portal of DoT and Broadcast Seva Portal of MIB, have been integrated for fetching of data/document from each other at different stage while processing the CRS cases.
d. **REVIVAL OF BSNL & MTNL:**

The Government has taken various steps for the revival of BSNL & MTNL by issuing Revival Packages in 2019, 2022 & 2023; under which several measures, including Voluntary Retirement Scheme (VRS), capital infusion through Capex support, spectrum allocation for 4G and 5G, debt restructuring, and asset monetization, have been implemented or currently in progress. As a result of the above-mentioned revival packages and efforts by GoI:

i. BSNL has sustained revenue increase and positive EBIDTA over the last 5 years.
ii. MTNL has also become EBITDA positive in last 4 years.
iii. For the first time since FY 2008-09, BSNL has achieved a net profit of Rs. 262 Cr. in Q3 and Rs. 280Cr. in Q4 of 2024-25.
iv. BSNL has accelerated Capex investment in the last 2 years to upgrade its network and telecom infra pan India. A massive investment has been done in transmission equipment & optical fiber cable (OFC) network.
v. This CAPEX is expected to put BSNL on a higher revenue growth trajectory in the future.
vi. In line with Atmanirbhar Bharat initiative, BSNL has placed purchase order for 1 Lakh indigenously developed 4G sites for pan India deployment. Supply of 4G equipment has started from September 2023 and as on 31.10.2025, total 97,068 4G sites have been installed and 93,511 sites are ON-Air. The equipment is upgradable to 5G.

F. **IMPORTANT EVENTS**

i. **India Mobile Congress, 2025**

The ninth edition of the India Mobile Congress (IMC 2025) was organized jointly by the Department of Telecommunications (DoT) and the Cellular Operators Association of India (COAI) from 8th to 11th October 2025 at Yashobhoomi, New Delhi. Recognized as Asia's largest technology and innovation forum, IMC 2025 carried forward its vision of promoting digital transformation and technological self-reliance under the theme "Innovate to Transform."

The event was inaugurated by the Hon'ble Prime Minister of India, Shri Narendra Modi, in the august presence of the Hon'ble Minister for Communications, Shri Jyotiraditya M. Scindia, the Hon'ble Minister of State for Communications, Dr. Chandra Sekhar Pemmasani, senior government officials, and captains of industry.

IMC 2025 served as a dynamic platform for global collaboration and technological innovation, bringing together leaders, innovators, policymakers, and researchers from 101 countries. The four-day event featured 860 exhibitors and partners, including leading telecom operators Airtel, Jio, and Vi, alongside major technology companies such as Ericsson, Nokia, TCS, Qualcomm, Intel, Tejas Networks, STL, VVDN, Tanla Platforms and many more.

The exhibition showcased over 1,500 cutting-edge technology use cases across diverse sectors, highlighting India's growing capabilities in AI, Deep Tech, Cybersecurity, Quantum Communication, Semiconductors, SATCOM, Digital Health, and Smart Mobility. The demonstrations reflected India's evolution from a technology adopter to a global innovation leader, capable of developing scalable, home grown solutions for both domestic and international markets.

Startups formed the backbone of this year's edition, with 465 Indian startups presenting breakthrough solutions in areas such as AI, optical communications, semiconductor applications, quantum networking, and fraud risk detection. Aspire, IMC's flagship startup program, exemplified the spirit of Atmanirbhar Bharat, underscoring the growing synergy between government, academia, and industry in nurturing indigenous innovation.

A key highlight of IMC 2025 was its comprehensive conference program, featuring 918 speakers across 113 sessions, including 52 keynote addresses, 12 roundtables, and 84 panel discussions. These sessions provided a global platform for exchange of ideas on the future of connectivity, digital trust, and next generation innovation. Discussions spanned themes such as 5G and 6G, AI, Cloud, Cybersecurity, Manufacturing, Satcom, Quantum Computing and many more.

IMC 2025 attracted an unprecedented footfall of over 1.4 lakh visitors, reflecting a year-on-year growth in international engagement and public participation. With its scale, diversity, and depth of discussion, the event reaffirmed India's growing influence as a hub for digital and telecom innovation.

By uniting government, industry, academia, startups, and investors on one platform, IMC 2025 advanced India's aspiration to emerge as a trusted global partner in digital transformation. The event embodied the Prime Minister's vision of "Harnessing Innovation to Power Bharat's Transformation," charting a course toward an inclusive, secure, and innovation-led digital future.

ii. **Rollout of Indigenous 4G stack**

The rollout of indigenous 4G network by Prime Minister Shri Narendra Modi on 27th September 2025 marked a transformative milestone in the country's telecom sector. The fully homegrown 4G technology stack—featuring a Radio Access Network (RAN) developed by Tejas Networks, a core network engineered by C-DOT, and system integration by TCS—has been deployed by BSNL as part of the Aatmanirbhar Bharat vision. This Swadeshi 4G network is entirely software-driven, cloud-based, and designed with future-ready architecture that enables a seamless upgrade to 5G, demonstrating India's commitment to technological self-sufficiency. Its deployment across nearly 98,000 towers reflects India's emergence as a global telecom equipment manufacturer, shifting from dependence on foreign technologies to becoming a creator and exporter of advanced telecom solutions. India has become 5th country in the world to have its own 4G stack. While it took decades to develop such technology in other parts of the world, it took just 2 years to develop the technology.

This indigenous rollout represents more than technological achievement—it symbolizes India's growing self-reliance and leadership in digital infrastructure. The network is already serving millions of customers nationwide, demonstrating both scalability and reliability. It enables robust connectivity across diverse terrains and communities, ensuring that no part of the country remains underserved. By developing and deploying this end-to-end Indian 4G ecosystem, the nation has proven its capability to innovate at scale, strengthen digital sovereignty, and position itself at the forefront of future telecom advancements.

G. **DoT'S INTERNATIONAL ENGAGEMENTS IN 2025**

i. **Asia Pacific Telecommunity Ministerial Meeting (APT-MM) from 30-31st May 2025:** A delegation headed by Secretary, DoT participated in the APT SOM and Ministerial Meeting from 29-31 May, 2025m in Tokyo, Japan. India actively engaged in the activities of APT and made a statement highlighting the leadership position of India in telecoms/ ICTs.

ii. **World Telecommunication Development Conference, 2025 (WTDC-25) in Baku, Azerbaijan from 17 to 28 November 2025:** India participated in WTDC-25 under the leadership of Dr. Pemmasani Chandra Sekhar, Hon'ble Minister of State for Communications and Rural Development (HMoSC), who delivered India's high-level policy statement on universal and meaningful connectivity, inclusive digital transformation and the role of emerging technologies. India held several key leadership positions during WTDC-25, served as Conference Vice-Chair, APT-WTDC-25 Coordination Chair and Chair of the Ad Hoc Group on Digital Transformation and Innovation. India also secured two Leadership positions (Vice-Chairs) for the ITU-D Study Groups for the 2026–29 cycle. Indian delegation played a major role in the adoption of more than 19 APT common proposals at the conference.

iii. **BRICS 2025 Communications Ministers' Meeting:** The 11th BRICS Ministers' of Communications Meeting was held on 2nd June 2025. Dr. Pemmasani Chandra Sekhar, Hon'ble Minister of State for Communications, Government of India led the Indian delegation. This was preceded by the regulated engagements such as the Working Group Meeting on Cooperation in ICTs, the Digital BRICS Task Force (DBTF), the BRICS Institute of Future Networks (BIFN), and a Business Dialogue, between 29 May 25 –30 May 25.

iv. **India-UK Connectivity and Innovation Centre:** India and the UK announced a landmark strategic partnership in the form of The India-UK Connectivity and Innovation Centre on 10th Oct 2025 to advance digital inclusion and shape the future of secure and innovative communications. The India-UK Connectivity and Innovation Centre will bring together complementary strengths in UK and Indian innovation in advanced connectivity – linking cutting-edge research at universities, with lab testing and field trials, through to market deployment. The initiative will create new commercial opportunities by enabling industry partners to innovate, test and scale products with a pathway to market adoption.

v. **MOU with GSMA:** Department of Telecommunications, signed an MOU with GSMA Global for capacity building in field of Telecommunications on 10th Oct, 2025.

vi. **India-Japan 8th ICT JWG:** The 8th meeting of the India-Japan ICT JWG led by Secretary, DoT, India and Vice Minister for International Affairs, Ministry of Internal Affairs and Communications, Japan was held on 10th October 2025 in New Delhi. The meeting spotlighted the two nations' joint commitment to drive the next wave of digital innovation through discussions involving the government as well as the private sector. From 5G/6G and AI to Open RAN and Quantum Security, both countries aim to shape a future-ready, resilient, and inclusive digital ecosystem through strategic ICT collaboration.

vii. **Signed 2 LoIs (Letter of Intents) with ITU:**

a. Driving innovation in advanced technologies like Digital Twin
b. Promoting research through academic dialogues with PhD scholars

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