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## Background

ith the telecom sector emerging as the backbone of India's digital transformation that is contributing significantly to enhancing the country's growing economy, there is an increasing need for structured platforms that foster dialogue between policymakers, regulators, industry leaders and global experts. The COAI Dialogues were conceptualized as a series of conversations designed not as oneoff conferences, but as continuous, cross-sectional engagements that build on previous deliberations and feed into future policymaking.

The Dialogues are a direct follow-up to the DIGICOM Summit held in January 2025, which examined the role of telecom in empowering Viksit Bharat. While the Summit provided a comprehensive 360-degree view of the sector's policy, regulatory and technology landscape, the COAI Dialogues aims to carry forward those deliberations in a more focused and sustained manner.

The inaugural edition earlier in 2025 set the tone by identifying critical grey areas in regulation, technology adoption and ecosystem collaboration. The second edition further deepened these conversations, bringing stakeholders together to address issues of policy evolution, technology transitions, financial sustainability and inclusive digital growth. Unlike traditional vertical-focused panels, the Dialogues are structured to break silos, encouraging holistic discussions across multiple domains and ensuring that deliberations translate into actionable insights and measures to be addressed that are essential for paving the path towards a Viksit Bharat 2047.

## Objectives of the Dialogues

- he objectives of the COAI Dialogues were to provide an inclusive platform that examines the telecom sector's role in shaping India's digital future. Specifically, the Dialogues aim to:
- Examine the evolving role of telecom as a horizontal enabler across sectors, rather than a standalone vertical.
- Discuss contextual policy and regulatory issues shaping the next decade of telecom reforms.
- Identify and debate the role of emerging technologies such as 5G c. Advanced, 6G, Al-driven services, satellite and Non Terrestrial Networks (NTN) based connectivity, and their contribution towards India's digital transformation.
- Foster dialogues between telecom service providers, OTT platforms, technology players, regulator and Government stakeholders to strengthen collaboration across the ecosystem.
- Anchor discussions in the realities of financial sustainability, e. inclusion and digital trust, ensuring that the sector remains both globally competitive and domestically inclusive.
- Early monetization of upcoming technologies in driving sustainable development in achieving the SDGs and empowering underserved regions.

## **Inaugural Session**



#### Welcome remarks by



Lt. Gen. Dr. S.P. Kochhar Director General, COAI

The Director General, COAI welcomed dignitaries, speakers, delegates, press members. He expressed gratitude to the Chief Guest, Shri Ritu Ranjan Mittar, Member, TRAI and extended a special welcome to the honourable dignitaries and sponsors.

Dr. Kochhar contextualized the Dialogues as the second tranche of the new DIGICOM series launched in early 2025, designed not as a traditional, one-off event but as continuously developing interactions, cross-sectional conversations bridging policy, regulation and technology. He noted that the new DIGICOM series event, held in January 2025, had identified several grey areas requiring deeper discussion and the COAI Dialogues platform is designed to build on those insights. He urged participants to engage actively, assuring that the discussions would provide valuable knowledge-sharing and industry benefits, ultimately strengthening telecom's role in achieving Viksit Bharat 2047.

#### Address by



Mr. Rahul Vatts
Vice Chairperson, COAI
and Chief Regulatory
Officer, Bharti Airtel

Mr. Rahul Vatts reflected on the telecom sector's three-decade transformation, which has enabled India to achieve the world's highest data consumption per user (25–28 GB) and roll out 5G nationwide in just one and a half year. He noted that these milestones were possible only through consistent collaboration between the Government both at the Centre and State levels, the Regulator and the industry.

At the same time, he cautioned that digital frauds and safety concerns are now systemic challenges and stressed that ensuring digital trust cannot rest solely on telecom companies and sector regulators, but would rather require shared commitment from all stakeholders across the ecosystem. He expressed confidence that COAI Dialogues would serve as a platform to debate holistic solutions, build consensus on industry-wide actions and unlock new opportunities for investment.

#### **Special Address by**



**Mr. Julian Gorman** Head – Asia Pacific GSMA

Mr. Gorman highlighted India's remarkable digital progress. He cited Japan's \$6.8 billion investment in semiconductors and AI as an indicator of growing global investor confidence in India's digital future. He announced that, for the first time, GSMA will release its flagship regional report in India, underscoring the country's recognition as an acknowledged digital powerhouse and leader in widely adopting digital services.

He added the Government's Viksit Bharat vision closely aligns with GSMA's five-pillar Digital Nation framework: infrastructure, innovation, data governance, security and empowerment. He noted that India's progress in building robust digital public infrastructure, advancing 6G research and pursuing ambitious Al goals, exemplifies the spirit of this vision.

Focusing on digital trust, he warned of rising scams, cyberattacks and breaches that threaten public confidence. He stressed that securing digital trust must be a shared mission of the Government, the industry and the ecosystem players, not just telecom operators. He further suggested that India is uniquely positioned to act as a global digital statesman by championing open standards like Open APIs, driving harmonization in cybersecurity and data governance, and sharing its digital public infrastructure model with other emerging economies.

He closed by reaffirming GSMA's commitment to supporting India in its pursuit of achieving universal, secure and sustainable connectivity, noting that India was honoured with prestigious Global Leadership Award at the 2023 Mobile World Congress for its pioneering efforts to the global digital ecosystem.

#### **Inaugural Address by Chief Guest**



Shri Ritu Ranjan Mittar Member **TRAI** 

Shri Mittar commended COAI for curating this timely and meaningful Dialogues. He shared an update on the significant provisions of the New Telecommunications Act, noting that its rules are nearly finalized and the draft National Telecom Policy has been released for stakeholder consultation, with feedback from industry shaping its final framework.

From TRAI's perspective, he outlined recent regulatory interventions to build trust in communications. These include amendments to the Telecom Commercial Communication Customer Preference Regulation (TCCCPR) that classify SMS into four clear categories — Government (G), Promotional (P), Transactional (D) and Service (S), and the allocation of a new calling number series (beginning with 1600 for banks) to enable subscribers to conveniently distinguish between spam and genuine calls, thereby enhancing measures for trusted communications.

He also addressed the pertinent challenges of digital inclusion, despite India's remarkable achievement of 1.2 billion mobile connections and the world's fastest 5G rollout. To improve affordability, he proposed structured schemes for distributing refurbished handsets and laptops to underprivileged citizens. Looking ahead, Shri Mittar emphasized the shift towards Al-enabled phones and voice-based applications, while cautioning about undermining public trust and security issues around AI in communications. He also noted TRAI's ongoing consultations on backhaul spectrum and interconnect regulations, with a formal consultation paper expected shortly.

#### **Inaugural Session Key Takeaways**

- Dialogue, not one-off event COAI Dialogues emphasize continuous engagement, building on past insights and bridging policy, regulation and technology.
- Policy momentum The new Telecom Act, draft National Telecom Policy and TRAI's upcoming consultations signal the next wave of reforms.
- Digital trust as foundation From SMS labelling and verified calling to fraud prevention, ensuring public trust is as important as universal connectivity.
- Technology imperatives Fiberization, Al in telecom, network-cloud integration and next-gen devices define the journey to 2030.
- Inclusive digital growth Affordable device schemes, extensive fiberization and integration of terrestrial and NTNs are vital to extending the benefits of digital services to all citizens.
- Global leadership role India can champion adoption of open standards based services, harmonization, and digital commons, emerging as both a significant provider of such services and a global digital statesman.



# Regulatory Issues: Building a Framework for Viksit Bharat 2047

Keynote Address by Mr. Sandeep Saxena, Head of Technology and Solutions Mobile Networks, Nokia

Mr. Sandeep Saxena opened the session by tracing India's telecom trajectory within the broader vision of Viksit Bharat 2047. He observed that while telecom policies are generally framed with a five-year horizon due to rapid technological shifts, they remain guided by long-term national ambitions.



He outlined four central priorities for future policies:

- Universal Meaningful Connectivity Ensuring every citizen has affordable access to 4G, 5G, 6G and beyond, including terrestrial and non-terrestrial networks as well as submarine cables.
- Secure and Trusted Networks Protecting citizens from frauds and scams, businesses from operational risks and the nation from external threats.
- Domestic Manufacturing and Innovation Reducing import dependence, boosting indigenous production and fostering skills and jobs.
- **Sustainability** Ensuring telecom growth is responsible, with minimized carbon footprint.

He emphasized that these pillars would remain the guiding compass for India's telecom policies as the country advances toward 2047.

#### **Panel Discussion: Regulatory Priorities for Viksit Bharat**

#### **Panelists:**

- Shri Sanjeev K. Sharma, DDG (Al and DIU), DoT
- Mr. Rahul Vatts, Chief Regulatory Officer, Bharti Airtel
- Dr. Ravi Gandhi, President and Chief Regulatory Officer, Reliance Retail and Reliance Jio
- Ms. Ambika Khurana, Chief Regulatory and Corporate Affairs Officer, Vodafone Idea
- Ms. Vibha Mehra, VP, Government Relations, APAC, Nokia India

**Moderator:** Mr. Debashish Chakraborty, Senior Director - Advisory and Industry engagement, GSMA



The session on regulatory issues focused on the reforms required to ensure that India's telecom sector continues to underpin the country's digital transformation. Panelists highlighted that the industry has transitioned from scarcity to abundance, with over 96% geographical coverage. While this strong foundation supports a vibrant digital economy, sustaining such progress requires bold regulatory interventions.

A recurring theme was the need to facilitate sustainable investment in networks. With technology lifecycles becoming shorter, policies must ensure adequate capital flow to support timely upgrades. Reforms in spectrum pricing and allocation, rationalization of wireline license fees, backhaul strengthening and an overhaul of interconnect regulations were identified as immediate priorities. Panelists emphasized that without these measures, the sector risks underinvestment just as demand for data and digital services continues to accelerate.

The panel also placed significant emphasis on trust and security. As frauds and scams increase, protecting consumers and enterprises has become as critical as expanding coverage. Panelists pointed to innovative efforts such as Sanchar Saathi and Al-based spam detection, which use behavioural analysis to block fraudulent calls and SMS at the source. Operators are complementing these measures with customer education campaigns and fraud risk indicators to build digital confidence. There was consensus that addressing security requirements cannot remain the sole responsibility of telcos; accountability must extend to digital platforms, financial institutions and regulators alike.

Another area of discussion was domestic innovation and global leadership. India, with its vast engineering talent, must become a creator of intellectual property and contribute significantly to making global standards. Building indigenous R&D capabilities in core and RAN technologies, while aligning with international frameworks such as Network Equipment Security Assurance Scheme (NESAS) and Common Criteria, were seen as essential to ensuring India's competitiveness and resilience.

Moreover, the panel underscored that achieving Viksit Bharat 2047 will require significantly more measure towards ease of doing business and affordability. Simplifying regulatory compliance procedures, rationalizing levies and adopting global best practices in public-private partnerships will enable universal broadband access. Speakers emphasized that digital inclusion for a billion citizens cannot be achieved by telcos alone, but demands collaboration across the ecosystem, from Government agencies and regulators to digital platforms and technology providers.

It was further highlighted that security must be addressed at multiple levels (user, device and network). Instead of fragmented national approaches, India should adopt globally harmonized frameworks. There should be a Common Criteria for IT and telecom product certification.

It was also highlighted that there is a need to build a strong talent pool through Government-Academia-Industry collaboration as developed nations have advanced by nurturing skills and fostering an innovation mindset.

Collectively, the session reflected a shared resolve that India's telecom sector must balance four imperatives — universal connectivity, sustainable investment, trust and security, and domestic innovation — to ensure that broadband connectivity remains the strongest pillar of India's digital journey.

- Regulatory reforms in spectrum, interconnect, licensing and backhaul are critical to sustain investment in networks.
- Public trust in digital services must be strengthened through initiatives such as Albased spam filters, fraud prevention at source and citizen engagement.
- Security responsibilities and costs must be shared across the entire digital ecosystem, not telcos alone.
- Indigenous R&D, IP creation and alignment with global standards will help India emerge as a technology leader.
- Rationalized levies, simplified processes and PPP models are needed to ensure affordable, universal broadband access.
- Building a strong talent pool through collaborative approaches based on nurturing skills and innovative mindset.

## **Technology Session: Powering the Next Phase** of Digital Transformation



Keynote Address by Shri Neeraj Verma, IAS, Secretary, Department of Justice, Ministry of Law & Justice, Gol (Former Administrator - Digital Bharat Nidhi, DoT)

Shri Neeraj Verma, opened the session by emphasizing that the true success of Digital Bharat Nidhi lies not in the number of towers or kilometres of fiber laid, but in the impact of their utilization. Drawing from his experience as former Administrator of Digital Bharat Nidhi, he highlighted how reforms in contract management, the development of MIS dashboards and active engagement with private TSPs helped scale mobile connectivity in remote regions from just 3,000 towers to more than 21,000.

He underlined that the future of connectivity must rest on resilient, evidence-based networks that bridge India's rural-urban digital divide. This will require the integration of satellite and fiber to ensure last-mile delivery in hard-to-reach areas. Citing initiatives such as BharatNet and Samridh Gram, he stressed that the goal is not partial coverage, but fail-safe, inclusive and meaningful connectivity that empowers every village, every industry and every citizen of India.

#### Panel Discussion: Powering the Next Phase of Digital Transformation



#### **Panelists:**

- Shri Randeep Sekhon, CTO, Bharti Airtel
- Shri Jagbir Singh, CTO, Vodafone Idea
- Shri Diqvijay Sharma, Senior Director, Ciena

Moderator: Shri Rajiv Makhni, Technology Journalist



The panel discussion explored the technology enablers that will power the next phase of India's digital journey. India has already emerged as one of the most advanced 5G markets globally, with rapid deployment and among the fastest user speeds worldwide. While fiber remains the most reliable technology for automation, 5G provides a valuable complement in scenarios requiring mobility and flexibility.

The session also addressed the gaps in Fiber to the Home (FTTH) connectivity, which remains limited in Tier-2 and Tier-3 cities. Here, Fixed Wireless Access (FWA) has proven to be a key solution, extending high-speed Wi-Fi to areas beyond the fiber footprint. The introduction of 5G network slicing was recognized as an important step in unlocking new monetization opportunities for operators.

Panelists further discussed the role of satellite connectivity, which, despite being more expensive than fixed-line alternatives, can extend coverage in regions where terrestrial mobility solutions are not feasible. Concerns were raised about frequent fiber cuts and fragmented deployments, which undermine network reliability. The need for streamlined and coordinated fiber rollout was emphasized to strengthen India's digital backbone.

Finally, the panel highlighted that the increasing adoption of Al will manifest in a massive surge in data traffic. To support these compute-intensive requirements, India must invest in clusters of data centers across the country, ensuring the scalability and resilience of networks as Al-driven applications proliferate across industries. It was also emphasised that adequate availability of affordable spectrum for further enhancements of the wireless networks is essential for meeting the rapidly increasing demand of data.

- The future of connectivity lies in utilization and impact, not just infrastructure rollout.
- FWA is bridging gaps in Tier-2 and Tier-3 cities where FTTH penetration remains low.
- 5G network slicing has been introduced, opening new avenues for services monetization.
- Satellite connectivity will be important for hard-to-reach regions but remains costlier and less reliable than fiber.
- Frequent fiber cuts and fragmented deployments call for streamlined, coordinated rollout strategies.
- Increasing Al adoption will dramatically increase demands for data traffic, requiring clusters of data centers and affordable spectrum in the mid band and sub 1 GHz bands to fulfil this requirement.



## Financial Models and Inclusive Growth in **Telecom**



Keynote Address by Shri Manish Sinha, Member (Finance), Department of Telecommunications

Opening the session, the Member (Finance), Shri Sinha underlined the sector's centrality to India's digital economy, noting that telecom has become both a growth engine and a public utility. He highlighted the Government's enabling measures, including 100% FDI, rationalized AGR structures and accelerated PLI disbursements which have already drawn investments of ₹4-5 lakh crore into critical infrastructure such as satellites, subsea cables and data centres.

He pointed out that India's unique achievement lies in offering the world's lowest tariffs alongside highest data consumption per user, a model that has not only unlocked inclusion but also strained operator revenues. Looking ahead, he stressed the importance of creating financially sustainable business models that balance affordability with sectoral viability, ensuring that telecom continues to contribute significantly to India's GDP.

#### Panel Discussion: Financial Models and Inclusive Growth in Telecom



#### **Panelists:**

- Shri D. Manoj, Principal Advisor, TRAI
- Shri Anil Kumar Bhardwaj, DDG (SE), DoT
- Mr. Rahul Vatts, Chief Regulatory Officer, Bharti Airtel
- Mr. U.K. Srivastava, President of Regulatory Policy, Reliance Jio

Moderator: Mr. Amitoj Arya, Partner, Ernst & Young

The panel explored the paradox of India's telecom sector, i.e., rapid demand growth coupled with low financial returns. While the country has achieved the world's fastest 5G rollout and is expected to see the telecom sector's contribution to GDP rise substantially, operators continue to face structural revenue challenges. Issues such as low termination rates, AGR disputes and losses from spam and fraudulent calls were cited as persistent bottlenecks.

Panellists agreed that while Government reforms have been instrumental in attracting capital, further simplification and predictability in the regulatory framework are essential to encourage continued investment. They emphasized the urgent need to revisit business models, moving beyond low-tariff structures to ensure long-term financial viability.

At the same time, the panel noted encouraging progress on energy efficiency and sustainability, with operators achieving up to 30% improvements in network efficiency through Al-driven data centers and sustainable technologies. These initiatives not only reduce costs but also align with India's decarbonization goals.

A recurring theme was the importance of trust-based engagement. Panelists observed that the historic perception of regulatory distrust must give way to a collaborative approach, where the industry and the Government work as partners in enabling inclusive growth. The Government's continued commitment, demonstrated through BharatNet Phase III, was seen as a positive signal in this direction.

- Government reforms 100% FDI, AGR rationalization and PLI schemes have attracted record investments into telecom.
- Low tariffs, termination rates and AGR disputes continue to pressure operator revenues.
- The sector must evolve new financial models to ensure long-term sustainability while retaining affordability.
- Suitable policy measures to facilitate and enhance the supply of renewable energy power in networks is required to help improve sustainability and reduce costs with the utilisation of AI driven efficencies.
- Building trust-based Government-industry collaboration is essential to secure inclusive telecom growth.



## Connectivity for All: The Road to Inclusive **Digital India**



#### **Panelists:**

- Shri Neeraj Kumar, DDG, Mission Director, National Broadband Mission
- Shri Dharmender Khajuria, Head Network Partner, Bharti Airtel
- Mr. Dinesh Shiv, Head of Compliance and Regulatory, Zoom Communications
- Shri Akshat Mohindra, Account Leader for Government and PSU Business, Ciena India

Moderator: Shri Brejesh Lall, Professor, IIT Delhi

#### **Panel Discussion**

The discussion stressed that connectivity must be treated as a basic utility, similar to power and water supply. Innovative deployment approaches such as leveraging electricity distribution companies, pipelines and hybrid solutions combining fiber, wireless and satellite technologies were identified as critical to extending last-mile access.

Panellists urged a shift in measurement from infrastructure metrics, like kilometres of fiber laid, to outcome-based indicators such as the number of telemedicine consultations, online classrooms or e-governance services delivered.

A recurring theme was the Right of Way (RoW) permission approval challenges. Many State Governments, Local Self-Governing Bodies continue to treat RoW as a source of revenue rather than an enabler of digital infrastructure. The panel called for uniform charges and frameworks to streamline access, alongside stronger coordination between Central, State Governments and local Municipal Bodies.

The issue of underutilized fiber assets — laid by utilities, telcos and state agencies — was also highlighted. Declaring fiber a national asset and establishing pooling mechanisms were recommended to reduce duplication, lower costs and maximize efficiency.

Energy being an important part of the overall Telecom operations, supporting the industry with facilitative tariffs, Green Energy availability, Ease of Billing and Payments, etc. also got mentioned.

The panel concluded that broadband's success must be measured not just by the spread of networks but by the services it enables. Real inclusivity will come only when digital infrastructure translates into accessible healthcare, education and governance for every citizen.

- Success must be measured by outcomes (telemedicine, digital classrooms, e-governance, financial transactions) rather than infrastructure alone.
- State Governments must treat RoW as nation-building infrastructure, not revenue.
- Declaring fiber a national asset and pooling resources across operators/utilities will unlock efficiency.
- Broadband must drive tangible use cases to generate demand and ensure inclusive
- Early launch of the Digital Connectivity Readiness Index (DCRI) of States as envisaged in the NBM 2.0.
- Supporting policies and facilitative mechanisms for Energy need to be prioritized.



## Key Learnings from the COAI Dialogues

#### 1. Trust and Security Are Cornerstones of Digital Growth

Building public confidence in digital services is as important as infrastructure rollout. Spam control, fraud prevention, verified communications and Al-based filters are essential to sustaining user trust. Importantly, responsibility for security must be shared across the digital ecosystem, not left to telcos alone.

#### 2. Reforms and Policy Momentum Will Shape the Next Wave

With the new Telecom Act, draft National Telecom Policy, TRAI's consultations and reforms like 100% FDI, AGR rationalization and PLI schemes, India's telecom sector stands at an inflection point. Rationalized levies, simplified processes, timely RoW permissions across the country and spectrum availability at affordable costs are critical to sustaining investments and enabling affordable growth.

#### 3. Technology and Infrastructure Must Be Future-Ready

Fiberization, AI in telecom, 5G network slicing, cloud-network integration and satellite/NTN connectivity are shaping the path to 2030. However, challenges like frequent fiber cuts, fragmented deployments and satellite services costs must be addressed through coordinated strategies, national fiber pooling and streamlined rollouts.

#### 4. Inclusivity and Impact Are the Real Measures of Success

Connectivity must go beyond coverage to tangible outcomes—telemedicine, e-governance, financial inclusion and digital classrooms. Affordable devices, FWA for Tier-2/3 cities and satellite links for remote areas must ensure no citizen is left behind.

#### 5. India Can Lead Globally Through Standards, R&D and Sustainability

By promoting open standards, indigenous R&D, IP creation and harmonization, India can emerge as both a provider of digital services and a digital statesman. Networks powered by renewable energy, Al-driven efficiencies and PPP models will help balance affordability, sustainability and global leadership.























COAI was constituted in 1995 as a registered, non-governmental society. The Association is dedicated to the advancement of modern communication through the establishment of world-class mobile infrastructure, products and services and to delivering the benefits of innovative and affordable mobile communication services to the people of India.

#### **Industry Policy**



COAI has emerged as the official voice of the Indian telecom industry that interacts directly with ministries, policy makers, regulators, financial institutions and technical bodies. It provides a forum for discussion and exchange of ideas between these bodies and the service providers, who share a common interest in the development of mobile telephony in the country.

#### **Telecom Issues**



COAI collaborates with other industry associations such as CII, FICCI, ASSOCHAM, GSMA, ISPAI, etc., with the objective of presenting an industry consensus to the Government on crucial issues related to the growth and development of the Indian telecom industry.

#### **New Technologies**



COAI is determined to encourage the confluence of technologies to facilitate the move towards complete convergence in communications as this could greatly help India mitigate the problems of low fixed line penetration and help realize the country's vision of becoming an Information Society.

#### **Thought Leadership**



COAI aims to dispense information and spread awareness among the national and international entities and consumers on issues pertaining to service quality and other value-added services provided by the operators to their subscribers.



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