



14th Annual Conference on

TELECOM INFRASTRUCTURE IN INDIA

Networks of Tomorrow: Potential and Challenges

April 27-28, 2020, The Leela Ambience, Gurugram

Organisers:

tele.net

**Indian
Infrastructure**

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TELECOM INFRASTRUCTURE IN INDIA

Mission

- Consumer-driven data demand, the increasing count of IoT devices, the IP-fication of networks and the launch of 5G services are likely to be among the biggest telecom trends of 2020. The industry will witness a significant amount of data being generated and stored at the Edge. Automation, cloud and AI/ML will be leveraged in the telecom networks of tomorrow and will serve as the building blocks of India's vision to become a \$1 trillion digital economy by 2025. All this would require aggressive telecom infrastructure support, increasing the relevance of IP-1s in the digital value chain.
- Towercos are already taking up a bigger and significant role in the creation of next-generation digital infrastructure across the country. They have moved beyond their traditional offerings to explore new competencies that complement their core expertise. These include data-led business streams such as fibre, small cells, Wi-Fi, IoT and data centres.
- On the non-core side, IP-1s are innovating with tower functionalities for monetisation. Telecom towers are being developed to host several digital components such as smart LED lights, Wi-Fi access points, cameras for surveillance, active geo-location transponders for location-based services, sensors for air quality monitoring, electric vehicle (EV) charging points, advertisement billboards, and traditional mobile equipment. This has helped towercos emerge as important stakeholders in the government's Smart City Mission.
- New business models are also evolving on the infrastructure sharing front. The industry is keen to replicate the success of its passive infrastructure sharing model for active infrastructure components such as fibre, antennae and Wi-Fi. The industry is also warming up to the concept of outsourcing sharing functions to neutral third-party hosts, which will result in towercos evolving into netcos in the future.
- 5G is no longer a hyped technology. It is being rolled out across the world, and will soon come to India too. The introduction of 5G services in India will impact the telecom infrastructure space in a big way as they will require massive network densification, more towers at short distances, small cell deployment and exhaustive site fiberisation.
- It is important for the central government to collaborate with and incentivise the state governments to facilitate fibre deployment in their territories. To this end, the development of the Broadband Readiness Index is a good step forward. At the policy level, the expeditious and effective implementation of the NDCP 2018 will be extremely crucial. The policy includes some game-changing practices such as the Fibre First initiative, and broadening of the IP-1s' scope, but its tardy implementation has been a cause for concern. Further, addressing long-standing issues such as the patchy implementation of the RoW Rules, illegal sealing of towers, restriction on new tower installations and lack of reliable grid power should be a key priority.
- In the coming years, the telecom infrastructure industry is expected to helm India's massive digital transformation. For this, the industry will have to make investments in several technology-based solutions to match indoor and outdoor connectivity demands. Smart solutions will have to be explored to reduce power consumption and fuel pilferage. However, the adoption of new technologies and the explosion of IoT and mobile end-points will also necessitate the implementation of advanced security measures.
- **The mission of this conference is to highlight critical telecom infrastructure-related issues, assess new and upcoming opportunities, and discuss initiatives required to achieve India's ambitious broadband targets. It will also provide industry stakeholders a platform for sharing experiences and showcasing the latest innovations and technologies.**

Target Audience

The conference is targeted at:

- | | | |
|---|--|---------------------------------------|
| - Telecom operators | - Telecom tower manufacturers | - 5G technology providers |
| - Energy efficient technology providers | - Broadband service providers | - Supporting infrastructure companies |
| - Financial institutions | - Wireless internet service providers | - Other investors |
| - Policymakers and regulators | - Infrastructure equipment manufacturers | - Technology providers |
| - Energy management consultants | - Civil contractors | - Renewable energy companies |
| - OFC manufacturers | - 4G service/solution providers | - Power solution providers |
| - Infrastructure service providers | - Legal and management consultants | - Engineering design consultants |
| - Industry analysts | - Infrastructure developers | - Telecom equipment manufacturers |

Organisers

The conference is being organised by **India Infrastructure Publishing**, the leading provider of information on the infrastructure sectors through magazines, newsletters, reports and conferences. The company publishes **tele.net**, **Indian Infrastructure**, and **Renewable Watch** magazines. In addition, it publishes **Telecom News** (a weekly newsletter), and the **Telecom Directory and Yearbook**. The group also operates www.tele.net.in, India's most comprehensive telecom website.

AGENDA/STRUCTURE

KEY TRENDS AND MARKET OUTLOOK

- ❖ What are the emerging trends in the telecom infrastructure (tower and fibre) space? What are the key metrics?
- ❖ What are the new opportunities for industry players?
- ❖ What are the key challenges?

KEYNOTE SESSION: TOWERCO PERSPECTIVE - EXPLORING NEW GROWTH FRONTIERS

- ❖ What are the tower industry's key focus areas?
- ❖ What are the key challenges in the tower industry? How can these be addressed?
- ❖ How are towercos shaping sustainable business models for data-intensive services such as IoT and smart cities?

TELCO PERSPECTIVE: OBTAINING ROI FROM NETWORK EXPANSION AND NEXT GENERATION 5G NETWORKS

- ❖ What are operators' telecom infrastructure initiatives? What is the 4G roll-out update?
- ❖ What are the challenges faced while making investment decisions for 5G roll-out?
- ❖ What is the role of next-generation backhaul technologies in improving business cases?
- ❖ What are the emerging policy needs? What is the sector outlook?

EMERGING POLICY AND REGULATORY SCENARIO

- ❖ What are the key regulatory challenges in the Indian telecom infrastructure space?
- ❖ What have been the key initiatives in this regard?
- ❖ What are the key regulatory priorities for the sector, going forward?

SITE FIBERISATION

- ❖ What is the current status of tower fiberisation in the country? What are the key drivers?
- ❖ What are the ongoing initiatives? What are the cost implications?
- ❖ What are the key challenges? What is the future outlook?

RIGHT OF WAY: CURRENT STATUS AND THE WAY FORWARD

- ❖ To what extent has the RoW issue been resolved? What has been the policy implementation experience?
- ❖ How can the telecom industry work in collaboration with various departments to resolve the issues?

NON-TELECOM OPPORTUNITIES

- ❖ What are some of the non-core opportunities such as smart poles, EV charging points and surveillance being explored by the industry?
- ❖ What are the key issues and challenges in implementing these solutions?
- ❖ What is the market outlook?

FOCUS ON INDOOR CONNECTIVITY

- ❖ What is the current status of small cell, microsite and IBS roll-outs?
- ❖ What are the key issues and challenges in implementing these solutions?
- ❖ What is the market outlook?

FUNDING TELECOM INFRASTRUCTURE INVESTMENTS

- ❖ What are the investment requirements for 4G and 5G network roll-outs?
- ❖ What is the current investor perception of the telecom sector?
- ❖ What are the key risks perceived by financiers? How can these be addressed?

GOVERNMENT PERSPECTIVE ON POLICIES AND PROGRAMMES

- ❖ What is the government's perspective on the progress of telecom infrastructure roll-out?
- ❖ What are the various programmes and initiatives to encourage telecom infrastructure roll-out?
- ❖ What has been the progress under BharatNet? What has been the implementation experience of Phase II?
- ❖ What opportunities does BharatNet offer to operators, infrastructure providers and other entities?

OPTIMISING ENERGY REQUIREMENT AND CONSUMPTION

- ❖ What are the current energy cost trends in the telecom infrastructure space?
- ❖ What are the current practices adopted by towercos to ensure energy efficiency?
- ❖ What is the current level of adoption of renewable energy solutions? What is the business case?
- ❖ How has been the uptake of energy storage solutions?

COMMUNICATION INFRASTRUCTURE REQUIREMENTS FOR SMART CITIES

- ❖ What has been the experience of towercos under the government's Smart Cities Mission?
- ❖ What are the various opportunities for telecom players?
- ❖ What are the key challenges?

PREPARING FOR 5G: ARCHITECTURE AND APPLICATIONS

- ❖ What is the industry readiness for 5G roll-out? What are the realistic timeline and investment needs?
- ❖ Which 5G applications are likely to gain momentum in initial years?
- ❖ What does it imply in terms of data speeds and consumption patterns?

ACTIVE INFRASTRUCTURE SHARING

- ❖ What are the resolved and unresolved challenges related to active infrastructure sharing?
- ❖ What is the cost economics of active infrastructure sharing? What has been the industry experience?
- ❖ Is the regulatory environment conducive for such sharing in India?

WI-FI: OPPORTUNITIES AND BUSINESS MODELS

- ❖ What is the market potential for Wi-Fi solutions in India?
- ❖ What have been the key initiatives in this regard?
- ❖ What are the emerging business models?
- ❖ What are the major challenges?

GROWING PLAY FOR DATA ANALYTICS

- ❖ What is the role of data analytics in improving telecom infrastructure services?
- ❖ What is the current level of adoption of analytics services by telecom infrastructure providers?
- ❖ What are the emerging trends globally?
- ❖ What is the future outlook?

TOWER DESIGN AND STRUCTURES

- ❖ What are the emerging tower design and material trends?
- ❖ What are the cost implications of new designs?
- ❖ What are the key issues and challenges?

TELECOM INFRASTRUCTURE IN INDIA

Previous speakers:



Bimal Dayal
Chief Executive Officer, Indus Towers



Shubha N. Bhambhani
Principal General Manager (C&M), BSNL



U.K. Srivastava
Principal Advisor, Telecom Regulatory Authority of India



Ajit Shankar
Managing Director and CEO, Ardom Telecom



N.K. Panda
Head, Convergence Business, Sterlite Power



Rajesh Bansal
Vice-President and National Head-Energy, Indus Towers



Jitendra Garg
Director, DoT, Ministry of Communications



Vishal Jain
Partner, Deloitte



Amit Sharma
Executive Vice-President and President, Asia, ATC India



Alka Selot Asthana
Chief Technology Officer, Bharti Infratel



Umang Das
Vice Chairman, TAIPA



Vijay Jain
Chief Operating Officer, Tower Vision



Deepak Sanghi
Senior Vice-President, Bharti Airtel



Sachin Gupta
Head, Energy, ATC India



T.R. Dua
Director General, TAIPA



Pankaj Agrawal
Director, Capitel Partners

Previous Participants

The participants at the conference on "Telecom Infrastructure in India" included: Aceline Infosolutions, ACME Cleantech Solutions, AKSH Optifiber, Amara Raja Batteries, Analysys Mason, Apar Industries, Applied Solar Technologies, Ardom Telecom, Arvind, Ascend Telecom Infrastructure, ATC India Towers, B4S Solutions, BBNL, Bharat Sanchar Nigam Limited, Bharti Infratel, Black & Veatch, BMR Advisors, Capitel Partners, Care Rating, CESC, China Telecom, COAI, Copius Capital Advisors LLP, Corning Technologies India, Coslight India Telecom, CRISIL, Customized Energy Solutions, Cyient, Delta India Electronics, DSM India, Edotco Group, Emerson Network, Enersys India Batteries, Enterprise Ireland, Ernst & Young LLP, Essential Energy India, Evalueserve, Exide, GAIA Smart Cities, GE Grid Solutions, GTL Infrastructure, HBL Power, Huawei, ICICI Bank, Idea Cellular, IDFC Alternatives, IDFC Bank, IIFCL, Indus Tower, Infokool, Infozech, Intelligent Energy, Invendis Technologies India, Karam Industries, Keith Electronics, Khika, Kirloskar Oil Engines, Kotkar Energy Dynamics, KPMG, L&T Construction, MACOM Technology Solutions, Mahindra & Mahindra, Manifold, Microtex Energy, Morrison Hershfield Corp, Motilal Oswal, MTNL, NEC Technologies India, Nokia Networks, OMC Power, Owens Corning, Panasonic India, Paramount Communication, Polycab, PowerGrid, Pratap Technocrats, Protiviti, PRS Permacel, Quality Austria Central Asia, Ramboll, RBC Capital Markets, Reliance Jio Infocomm, Rosenberger Electronic Co., RV Solutions, SBI Capital Markets, Secure meters, Sify, Spectranet, Speedon Networks, Sterlite FTTH, Sterlite Technologies, Suyog Telematics, Svarn Group, Synergy Telecom (P), Tafe Motors, TAIPA, Tarantula, Tata Communication, Techlineage, Technica Associates, Tek Components, Telecom Network Solutions, TelEnergy Technologies, Tirumala Seven Hills, TAIPA, Tower Vision, Trading Engineers (International), Ubico Networks, Vanu India, Vertiv, Videocon Telecom Tower, Viom Networks, etc.

SNAPSHOTS FROM THE PREVIOUS YEAR



Sponsorship Opportunities:

Lead sponsors (up to two):

- Two speaker slots
- Prominent logo presence at the conference under the lead sponsor category
- 6 delegate registrations (from the sponsoring company)
- Stall space 4x3 meters with seating space inside for meetings
- Corporate film (3-4 mins) to be featured during networking breaks
- 5 social media posts
- Electronic Direct Mailer (EDM) campaign with sponsor logo to master database
- Hyperlink of sponsor website on the event website page
- Mention on all conference promotional material (mailings, ads, etc.)
- Distribution of sponsor promotional material to each participant

Co-sponsors:

- 4 delegate registrations (from the sponsoring company)
- Stall space 3x3 meters
- Electronic Direct Mailer (EDM) campaign with sponsor logo to master database
- Hyperlink of sponsor website on the event website page
- Mention on all conference promotional material (mailings, ads, etc.)
- Distribution of sponsor promotional material to each participant
- Logo presence at the conference (backdrop, vertical panel, jacket cover, e-brochure, etc.)
- List of participants to be shared post-conference

For sponsorship opportunities, contact: Nishpreet Bhasin, Tel: +91-11-43520056, 9953452964

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Registration Form

I would like to register for the conference. I am enclosing Rs _____ vide cheque/demand draft no. _____ drawn on _____ dated _____ Company GST No. _____ in favour of **India Infrastructure Publishing Pvt. Ltd.** payable at New Delhi.

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Delegates	Discounted fee (before April 7, 2020)				Fee (post April 7, 2020)			
	INR	GST@18%	Total INR	Total USD	INR	GST@18%	Total INR	Total USD
1	20,000	3,600	23,600	393	25,000	4,500	29,500	492
2	32,000	5,760	37,760	629	40,000	7,200	47,200	787
3	44,000	7,920	51,920	865	55,000	9,900	64,900	1,082
4	56,000	10,080	66,080	1,101	70,000	12,600	82,600	1,377

- There is a 20 per cent "early bird" discount for those registering before April 7, 2020
- Registration will be confirmed on receipt of the payment
- To register online, please log on to <http://indiainfrastructure.com/conf.html>

Payment Policy:

- Full payment must be received prior to the conference.
- Summit fees cannot be substituted for any other product or service being extended by India Infrastructure Publishing Pvt. Ltd.
- Conference fee includes lunch, tea/coffee and conference materials.
- Payments for "early bird" registrations should come in before the last date of discount.
- Discount offers cannot be combined with any other offer.

For sponsorship opportunities, please contact:

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