12th Annual Conference on

TELECOM INFRASTRUCTURE IN INDIA

New Paradigms, New Challenges and New Opportunities
April 23-24, 2018, The Leela Ambience, Gurugram

Organisers:

tele**.net**   Indian Infrastructure

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TELECOM INFRASTRUCTURE IN INDIA

Mission

- For most of the mobile operators in India, growth is either declining or flatlining, making return on network investments more critical, even as the demand for capacity accelerates. The pressure is being felt across the value chain including telecom infrastructure providers.

- Driven by hyper-consolidation in the operator space and changing market dynamics, the telecom tower industry is in a phase of consolidation and transition. The industry now comprises fewer but much larger tower companies, but tenancy correction (with fewer operators) has adversely impacted their revenues. Having already foreseen this phase, tower companies ventured beyond their traditional offerings by tapping new segments such as in-building solutions, small cells and Wi-Fi, but success so far has been limited.

- For the telecom infrastructure segment, both tower and fibre players, the next growth impetus will come through exploding data usage, roll-out of next generation data networks and the increased proliferation of smartphones.

- While 4G has been driven by device proliferation and broader connectivity, 5G will mostly be driven by IoT. With the content delivery shifting to 5G-powered wireless devices, it will be imperative for operators to upgrade their network to be able to handle the massive growth in traffic and deliver content and services with low latency.

- This is where infrastructure companies will need to step in by setting up a significant number of additional data sites, backed by high-bandwidth fibre-backhaul over the next few years. This not only calls for higher investments but has generated a need to assess new business models and technologies to adapt to the next wave of growth that will be characterised by greater adoption of technologies such as virtualisation, big data, M2M learning and artificial intelligence.

- Meanwhile, the ongoing Smart Cities Mission, Digital India initiative and BharatNet programme have led to the creation of a new customer segment, that is, the Government, offering a gamut of opportunities for telecom infrastructure companies.

- However, the aforementioned opportunities come with their own set of challenges. For instance, the deployment of smart ultra-light sites across cities, in tie-up with municipal corporations and civic bodies, will be the key to achieving street-level coverage under the various government programmes. But the lack of cooperation among government departments remains the biggest hurdle in doing so.

- The industry is also plagued by issues such as the lack of enforcement of RoW rules across the country. On the operational side, illegal sealing of towers, restriction on new tower installations, and unreliable grid power continue to impact growth. The upcoming National Telecom Policy, 2018, is likely to address some of these issues.

- As far as the challenge pertaining to high energy costs is concerned, the industry seems to be on the right track as it is working towards minimising diesel consumption by exploring alternative and cost-efficient technologies such as solar and biomass-based power and adopting high-efficiency storage solutions. Tower companies are also partnering with specialised O&M and data analytics companies to manage their energy requirements and consumption.

- **The mission of this conference is to examine the key market and technology trends; study the impact of recent policy, regulatory and other developments; discuss the new opportunities and challenges; bring out the expectations and key concerns of the telecom infrastructure industry; and propose solutions. The conference will also provide industry stakeholders a platform for sharing experiences and showcasing the latest innovations and the most promising technologies.**

Target Audience

The conference is targeted at:

- Telecom operators
- Broadband service providers
- Supporting infrastructure companies
- Energy-efficient technology providers
- Wireless internet service providers
- Financial institutions and other investors
- Infrastructure equipment manufacturers

- Technology providers
- Policymakers and regulators
- Civil contractors
- Renewable energy companies
- Energy management consultants
- 3G service/solution providers
- Power solution providers

- OFC manufacturers
- Legal and management consultants
- Telecom tower manufacturers
- Infrastructure service providers
- Infrastructure developers
- Telecom equipment manufacturers
- Industry analysts, etc

Previous Participants

*The companies that participated in our previous conferences on **"Telecom Infrastructure in India"** include: Aceline Infosolutions Pvt Ltd, ACME Cleantech Solutions Pvt. Ltd, AKSH Optifiber Limited, Amara Raja Batteries Limited, Analysys Mason Limited, Apar Industries Ltd, Applied Solar Technologies India Pvt. Ltd, Ardom Telecom Pvt. Ltd, Arvind Limited, Ascend Telecom Infrastructure Pvt. Ltd., ATC India Tower Corporation Pvt Ltd, B4S Solutions Pvt. Ltd, Bharat Sanchar Nigam Limited, Bharti Infratel Ltd, Black & Veatch Private Limited, CESC Limited, Corning Technologies India Pvt. Ltd, Coslight India Telecom Pvt. Limited, Cyient, Delta Power Solutions India Pvt .Ltd, DSM India Private Limited, Emerson Network Power(India) Private Limited, Enersys India Batteries Private Limited, Enterprise Ireland, Ernst & Young LLP, Essential Energy India Pvt. Ltd, Evalue Serve, Exide Industries Limited, GE, GTL Infrastructure Limited, Huawei Telecommunications(India) Co. Pvt. Ltd, India Infrastructure Finance Company Limited, Indus Towers Limited, Infozech Software Private Limited, Karam Industries, Keith Electronics Pvt. Ltd, Khika, Kotkar Energy Dynamics Pvt. Ltd, Mahindra & Mahindra Ltd, Manifold E-connect Ltd, Microtex Energy P Limited, Ministry of Communications & IT Department of Telecommunications Govt of India, NEC Technologies India Private Limited, Nokia, Panasonic India Pvt. Ltd, Paramount Communication Ltd, Polycab Wires Pvt. Ltd, Power Grid Corporation of India Limited, Protiviti, Quality Austria Central Asia Pvt. Ltd, Ramboll India Pvt Ltd, Rosenberger Electronic Co. (India) Pvt. Ltd, RV Solutions Pvt. Ltd, SBI Capital Markets Limited, Speedon Networks Limited, Sterlite Technologies Limited, Suyog Telematics Limited, Svarn Infratel Pvt. Ltd, Svarn Telecom Limited, Tarantula, Tata Communication Transformation Services Ltd, Tecnica Associates, Telecom Network Solutions Pvt. Ltd, Tower and Infrastructure Providers Association, Tower Vision India Private Limited, Viom Networks Limited, etc.*

AGENDA/STRUCTURE

KEY TRENDS AND OUTLOOK
- ❖ What are the emerging trends and key metrics in the telecom tower and fibre space?
- ❖ How is the operator consolidation impacting the tower industry?
- ❖ What are likely to be the future growth strategies/business models for tower companies?

OPERATORS' PERSPECTIVE
- ❖ What are the challenges faced by operators while making major investment decisions?
- ❖ What are the expectations from telecom infrastructure companies?
- ❖ What are the future growth drivers? What are the emerging policy needs?

INFRASTRUCTURE PROVIDERS' PERSPECTIVE
- ❖ What has been the impact of changing operator market dynamics?
- ❖ How are infrastructure providers addressing the growing data demand?
- ❖ What are the new areas of opportunities? What are the key roadblocks in tapping these?

CONVERGENCE AND EVOLUTION: CREATING 5G MOBILE NETWORKS
- ❖ What is the global update on 5G network roll-out?
- ❖ How will 5G network roll-out be different from 4G? What are the incremental investments?
- ❖ What are the likely challenges in the convergence of 5G with existing networks?

THE 4G EXPERIENCE
- ❖ What has been the sector's experience in transitioning to 4G services?
- ❖ What are the emerging trends? How are the network requirements changing?
- ❖ What are the global best practices? What is the 4G demand outlook?

TELECOM ENERGY MANAGEMENT I: COST TRENDS AND CURRENT PRACTICES
- ❖ What are the current energy cost trends in the telecom infrastructure space?
- ❖ What are the current practices adopted by tower companies to ensure energy efficiency?
- ❖ What is the cost outlook? What are the emerging solutions?

TELECOM ENERGY MANAGEMENT II: FOCUS ON RENEWABLE SOLUTIONS
- ❖ What is the current level of adoption of renewable energy solutions in the sector?
- ❖ What are the emerging business models and cost trends? Which technologies are better?
- ❖ What are the key issues pertaining to the use of renewables? What is the future outlook?

BHARATNET: LESSONS LEARNED AND THE WAY FORWARD
- ❖ What has been the implementation experience of Phase I? What are the key learnings?
- ❖ What is the implementation strategy for Phase II? What are the timelines?
- ❖ What opportunities does BharatNet offer to operators, infrastructure providers, etc.?

POLICY AND REGULATORY NEEDS: FOCUS ON NTP 2018
- ❖ How has the policy and regulatory scenario of the sector evolved so far?
- ❖ What are the key policy issues pertaining to the telecom infrastructure segment?
- ❖ What is expected from NTP 2018?

RIGHT OF WAY: SPOTLIGHT ON STATE POLICIES
- ❖ What are the key highlights of RoW policies across states?
- ❖ Which areas need more clarity?
- ❖ What is the policy implementation experience?

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? How will it impact future fund raising?
- ❖ What are the key risks perceived by financiers investing in telecom sector? How can these be addressed?

COMMUNICATION REQUIREMENTS FOR SMART CITIES
- ❖ What are the communication needs and requirements under the Smart Cities Mission?
- ❖ What are the opportunities for telecom infrastructure providers?
- ❖ What are the likely challenges? How can these be addressed?

LOOKING BEYOND TENANCIES: SMALL CELLS, IBS AND Wi-Fi
- ❖ What is the market size of small cells in India? What are the future demand drivers and prospects?
- ❖ What is the outlook for solutions such as IBS and Wi-Fi? What is the experience so far?
- ❖ What are the challenges in deploying these technologies? How can these be addressed?

MEETING HIGH BANDWIDTH DEMAND: FOCUS ON FIBRE
- ❖ What is the business case for merging tower and fibre operations? What is the current practice in this regard?
- ❖ What are the tower companies' plans to invest in fibre infrastructure?
- ❖ What are the key issues and challenges? What is the outlook?

QoS: CHALLENGES AND SOLUTIONS
- ❖ What are the key concerns regarding telecom QoS, given the growing data needs?
- ❖ What initiatives has the industry taken to arrest the increasing instances of call drops?
- ❖ What measures are being taken to dispel concerns about EMF radiations?

GROWING PLAY FOR DATA ANALYTICS
- ❖ What is the role of data analytics in improving telecom infrastructure services?
- ❖ What is the current state of adoption of analytics 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 the new designs?
- ❖ What are the key issues and challenges?

Key speakers in previous years

- **Shashi Ranjan Kumar,** Joint Secretary, Department of Telecommunications
- **Bimal Dayal,** Chief Executive Officer, Indus Towers
- **Amit Sharma,** Executive Vice President and President, Asia, ATC India
- **Devender Singh Rawat,** Chief Executive Officer, BhartiInfratel

- **Umang Das,** Vice Chairman, TAIPA
- **Ajit Shankar,** Managing Director & CEO, Ardom Telecom
- **Ranjan Ghosh,** Principal General Manager, NOFN, BSNL
- **Rajan Mathews,** Director General, COAI

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Delegates	Fee			
	INR	GST @ 18%	Total INR	Total USD
One delegate	22,500	4,050	26,550	418
Two delegates	37,500	6,750	44,250	732
Three delegates	52,500	9,450	61,950	1,045
Four delegates	67,500	12,150	79,650	1,359

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- Conference fee includes lunch, tea/coffee and conference materials.
- Discount offers cannot be combined with any other offer.

Organisers

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