FROST & SULLIVAN

TATA COMMUNICATIONS

2022 TECHNOLOGY INNOVATION LEADER

GLOBAL
SESSION INITIATION PROTOCOL
CONNECT INDUSTRY

Best Practices Criteria for World-Class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. Tata Communications excels in many of the criteria in the session initiation protocol connect space.

AWARD CRITERIA	
Technology Leverage	Business Impact
Commitment to Innovation	Financial Performance
Commitment to Creativity	Customer Acquisition
Stage Gate Efficiency	Operational Efficiency
Commercialization Success	Growth Potential
Application Diversity	Human Capital

Tata Communications: Innovative, Agile, and Solution-focused

Founded in 1986 and headquartered in Mumbai, India, Tata Communications is an industry-leading digital ecosystem enabler that strengthens today's burgeoning digital economy. It empowers the digital

"Tata Communications' technology scales to harmonize with customer-specific needs. It offers flexibility, agility, and configurability to support timely decision-making and technology infrastructure, delivering the necessary tools and transforming the market. Frost & Sullivan acknowledges that with its customer-led strategy, the company consistently designs best-in-class solutions."

- Iqra Azam, Best Practices Research Analyst transformation of companies (300 of the Fortune 500) globally, carries about 30% of the world's internet routes, and connects businesses to 80% of the world's cloud giants and four out of five mobile subscribers globally, enabling continuous growth. Leveraging 36 years of expertise and commitment to innovation, the company maintains a robust global footprint with a presence in 190+ countries and offices in the Americas, the Asia-Pacific region, Europe, India, and the Middle East, serving over 7,000 customers globally. Tata Communications' remarkable capabilities serve multiple industries, including automotive, banking and financial,

manufacturing, retail, media and entertainment, and sports, signifying the scope and dynamism of its solutions.

The company's unparalleled offerings augment product innovation, optimize efficiency, enhance customer experience, build agility, and manage risk. Its solutions-orientated business strategy, recognized managed service capabilities, and state-of-the-art infrastructure empower innovation and intelligence galvanized by the Internet of Things (IoT), mobility, cloud, security, collaboration, and network services. Furthermore, Tata Communications bolsters its excellence and value through its global network, the world's largest wholly-owned subsea fiber backbone, and a Tier-1 internet protocol (IP) network. Listed on the National Stock Exchange and Bombay Stock Exchange, the company plays a significant role in advancing the internet in India and continues to facilitate exceptional, secure, and connected digital experiences. Tata Communications anticipates its IoT network in India to be "the world's largest network of its kind, spanning nearly 2,000 communities and touching over 400 million people."²

Technology Sparked by a Commitment to Make an Impact

Tata Communications recognizes industry challenges and unmet client needs. Thus, it develops solutions that address customers' requirements and market demands, offering innovative solutions that competitors cannot duplicate. Its orderly and systematic product development journey begins with extensive research and development conducted by subject matter experts. Then, Tata Communications capitalizes on this acquired knowledge to build innovative solutions that address market needs. Its Global Session Initiation Protocol (SIP) network helps users boost their business' unified communication strategy according to their needs. The company's outstanding Global SIP Connect service enables service providers to "serve customers even in markets not yet covered by their networks."

Additionally, the company equips customers with the most up-to-date and trailblazing solutions. Its Global SIP Connect supports the global integration of the world's largest voice networks with 1,600 carrier partners, 780 mobile providers, and 700 voice-over IP (VoIP) operators. Moreover, it offers worldwide country coverage for domestic and international calling: global coverage for voice termination services, local number service in over 65 countries and 300+ cities (covering 82% of the world gross domestic product [GDP]), international toll-free service in 110+ countries (covering 94% of world GDP), domestic toll-free in 22 countries (covering 65% of world GDP), complete public switched telephone network (PSTN) replacement in 31 countries (covering 51% of world GDP), and Universal International Freephone Number in over 45 countries.⁴

¹ https://www.tatacommunications.com/about/

² Ibid.

 $^{{\}tt 3\,https://www.tatacommunications.com/solutions/unified-communications/global-sip-trunking/}$

⁴ Courtesy of Tata Communications

In addition, Global SIP Connect entails pay-per-use, cloud-based, interactive voice response, and intelligent call routing. Users can conveniently make and receive net calls via unified communications clients while retaining original direct phone numbers with E.164 compliance. Tata Communications' cutting-edge offering achieves 99.99% reliability through centralized PSTN with minimized interconnects and end-to-end management of users' voice networks. Global SIP Connect also guarantees quality of service using voice prioritized network and offers volume-based discounting. Furthermore, it entails augmented call security and emergency handling by tracking hoax calls and masked IP addresses through its Fraud-Prevention-as-a-Service capability. The solution is compatible with all major cloud application service providers (CASPs), including Cisco, Microsoft, and Avaya, and integrates round-the-clock support.⁵

Tata Communications' technology scales to harmonize with customer-specific needs. It offers flexibility, agility, and configurability to support timely decision-making and technology infrastructure, delivering the necessary tools and transforming the market. Frost & Sullivan acknowledges that with its customer-led strategy, the company consistently designs best-in-class solutions. Its excellent SIP trunking solutions portfolio includes enterprise voice solutions, Bring Your Own Carrier (BYOC), and India voice service.

The enterprise voice solutions incorporate avant-garde managed VoIP, facilitating optimal connectivity and call quality through international internet calls, spurring borderless growth. In addition, these solutions cut off carrier-level redundancies. Maximizing Tata Communications' first-class internet bandwidth, network, and 14 voice points of presence in nine countries across four continents, its managed VoIP services harness the shortest and quickest route between the origin and the destination. As a part of its offering, the company supports several billing options and customized service configurations, giving every client their preferred solution. The key benefits of the company's enterprise voice solutions are high-quality voice calls, maximum efficiency, robust infrastructure, and monitoring and customer support.6 Tata Communications' BYOC solution enables users to centralize global voice and video communication, empowering their communications strategy. It also allows customers to collaborate with incomparable reliability, scalability, and cost-efficiency with a choice of CASP to power their unified communication, contact center, and collaboration strategy.

Furthermore, Tata Communications has a UL VNO license in India, helping the company deploy "domestic calling services with the same quality and flexibility that enterprises and CASP customers have come to expect internationally." This capability makes the company a partner of choice, delivering a one-stop-shop solution for unified communication and collaboration experiences in India and internationally. Its cloud communications services also allow users to manage customer experience and engagement and employee experience and cloud-based solutions, including unified communications as a service, Bring your own Platform (BYOP), DIGO, and InstaCC, accelerating customers' digital transformation. 9

⁵ https://www.tatacommunications.com/resource/products-solutions/unified-communications/global-sip-connect-for-global-systems-integrators/6 https://www.tatacommunications.com/solutions/unified-communications/global-sip-trunking/enterprise-voice-solutions/

⁷ https://www.tatacommunications.com/solutions/unified-communications/global-sip-trunking/bring-your-own-carrier/

⁸ https://www.tatacommunications.com/solutions/unified-communications/global-sip-trunking/india-voice-service/

⁹ https://www.tatacommunications.com/solutions/unified-communications/global-sip-trunking/india-voice-service/

Tata Communications' comprehensive Global SIP Connect fortifies unified communications and catalyzes improved customer experiences with condensed intricacies, global communication with no border restriction, and complete service. Frost & Sullivan identifies the company's solution as a groundbreaking, innovative technology and anticipates its rapid, widespread adoption. Its first-mover status strengthens its position on emerging opportunities. Tata Communications' solid customer testimonials prove its capabilities' superiority and significance.

"We have been using Tata Communications services for the past 10+ years and found them the best in the market. The service delivery is fast, responses from the team are very quick, fault in the connection is limited and above all we get proactive communication about any maintenance or shut down that helps us plan things better. We look forward to the same support in future."

- Piramanayagam S, NewAge Software & Solutions

"Inherent network security, along with the performance and resilience of the Tata Communications Global VPN, come as part of the package. That makes us supremely confident in the decision we took."

- Kiran Varma, Associate Director of IT Services, Dr. Reddy's Laboratories Limited

A Customer-centric Strategy Backed by Operational Efficiency

Tata Communications integrates customer feedback into its product roadmap to leverage short-term growth opportunities while prompting a path to future revenues. While progressing from a technology

"Emphasizing five core principles, daring, responsive, inclusivity, venturing, and ethical, Tata Communications stands out from competitors based on its commitment to innovation and creativity while keeping its clients and employees happy."

- Iqra Azam, Best Practices Research Analyst standpoint, the company never loses sight of its users' viewpoints. The company sustains its global presence while meeting client-specific needs. Frost & Sullivan opines that multiple aspects make a company successful and having a customer-centric strategy is critical. Yet, having and effectively executing an approach is not the same. Therefore, aligning the leadership and staff to operationalize a strategy cohesively is essential. Tata Communications' Customer Success Team encapsulates a dedicated and responsible team of experts who work closely with clients. Through reliable data, actionable insights, and tools, this team helps customers acquire

success through business development, profitability, and optimum performance.

Tata Communications works closely with customers during the pre- and post-purchase journey, offering support and guidance. The company attracts and interacts with many customers through word-of-mouth accolades and partner affiliations fueled by its exceptional operational strategies, customer-centric designs, and technological performance. Users can utilize its several customer portals (based on specific services) to manage their accounts, create and monitor tickets, generate reports, and review invoices. These portals include Tata Care/Customer Portal and CCA Webex Support Portal (for enterprise services), create a ticket request (international contact telephone numbers and online ticket request), and content delivery network services. Tata Communications' website also incorporates an online agent chat for instant support.

The company fosters a culture based on five basic principles, epitomized in a one-word philosophy, DRIVE: daring, responsive, inclusivity, venturing, and ethical. The company's core principles promote and deliver benefits to employees. Its fundamental values create a company culture where employees feel that Tata Communications' leaders care about their well-being and success. Its global offices have 8,500 employees representing 40 nationalities, and its broad expertise in the communications and technology sectors embodies the company's commitment to ethical and sustainable operations. Frost & Sullivan's research analysts find that Tata Communications' corporate framework supports employee happiness, and happy employees translate to satisfied customers, which facilitates the company's customer loyalty and revenue growth.

Conclusion

Technology is a critical success factor for the global session initiation protocol (SIP) connect industry. Yet, with many options available, market stakeholders need to leverage the most appropriate and best technology-based solutions to optimize their market impact. With its Global SIP Connect, Tata Communications network empowers customers to fortify their business' unified communication strategy according to their distinctive needs. It supports the global integration of the world's largest voice networks with 1,600 carrier partners, 780 mobile providers, and 700 voice-over internet protocol operators. The solution also incorporates worldwide coverage for domestic and international calling. Tata Communications' dynamic Global SIP Connect augments unified communications and galvanizes superior customer experiences with minimized difficulties, global communication with no border restriction, and complete service.

Moreover, the company promotes outstanding customer value by working closely with them, understanding their needs, and implementing solutions that address their requirements. Emphasizing five core principles, daring, responsive, inclusivity, venturing, and ethical, Tata Communications stands out from competitors based on its commitment to innovation and creativity while keeping its clients and employees happy.

With its strong overall performance, Tata Communications earns Frost & Sullivan's 2022 Global Technology Innovation Leadership Award in the session initiation protocol connect industry.

¹⁰ https://www.tatacommunications.com/about/culture-diversity/

What You Need to Know about the Technology Innovation Leadership Recognition

Frost & Sullivan's Technology Innovation Leadership Award recognizes the company that has introduced the best underlying technology for achieving remarkable product and customer success while driving future business value.

Best Practices Award Analysis

For the Technology Innovation Leadership Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

Technology Leverage

Commitment to Innovation: Continuous emerging technology adoption and creation enables new product development and enhances product performance

Commitment to Creativity: Company leverages technology advancements to push the limits of form and function in the pursuit of white space innovation

Stage Gate Efficiency: Technology adoption enhances the stage gate process for launching new products and solutions

Commercialization Success: Company displays a proven track record of taking new technologies to market with a high success rate

Application Diversity: Company develops and/or integrates technology that serves multiple applications and multiple environments

Business Impact

Financial Performance: Strong overall financial performance is achieved in terms of revenues, revenue growth, operating margin, and other key financial metrics

Customer Acquisition: Customer-facing processes support efficient and consistent new customer acquisition while enhancing customer retention

Operational Efficiency: Company staff performs assigned tasks productively, quickly, and to a high-quality standard

Growth Potential: Growth is fostered by a strong customer focus that strengthens the brand and reinforces customer loyalty

Human Capital: Commitment to quality and to customers characterize the company culture, which in turn enhances employee morale and retention

About Frost & Sullivan

Frost & Sullivan is the Growth Pipeline Company™. We power our clients to a future shaped by growth. Our Growth Pipeline as a Service™ provides the CEO and the CEO's growth team with a continuous and rigorous platform of growth opportunities, ensuring long-term success. To achieve positive outcomes, our team leverages over 60 years of experience, coaching organizations of all types and sizes across 6 continents with our proven best practices. To power your Growth Pipeline future, visit Frost & Sullivan at http://www.frost.com.

The Growth Pipeline Engine™

Frost & Sullivan's proprietary model to systematically create ongoing growth opportunities and strategies for our clients is fuelled by the Innovation Generator $^{\text{TM}}$.

Learn more.

Key Impacts:

- **Growth Pipeline:** Continuous Flow of Growth Opportunities
- Growth Strategies: Proven Best Practices
- Innovation Culture: Optimized Customer Experience
- ROI & Margin: Implementation Excellence
- Transformational Growth: Industry Leadership

OPPORTUNITY UNIVERSE Capture full range of growth opportunities and prioritize them based on key criteria OPPORTUNITY EVALUATION Adapt strategy to changing market dynamics and unearth new opportunities PLANNING & IMPLEMENTATION Execute strategic plan with milestones, targets, owners and deadlines OPPORTUNITY EVALUATION Conduct deep, 360-degree analysis opportunities opportunities FORTICE Translate strategic alternatives into a cogent strategy

The Innovation Generator™

Our 6 analytical perspectives are crucial in capturing the broadest range of innovative growth opportunities, most of which occur at the points of these perspectives.

Analytical Perspectives:

- Mega Trend (MT)
- Business Model (BM)
- Technology (TE)
- Industries (IN)
- Customer (CU)
- Geographies (GE)

