FROST & SULLIVAN

VI™ business

2022
COMPANY OF THE YEAR

Indian Cellular IoT Connectivity Service Industry

Congratulations!

Frost & Sullivan is proud to present Vi Business, the enterprise arm of Vodafone Idea Ltd, with this year's Best Practices Company of the Year Award in the India cellular IoT connectivity services market.

Frost & Sullivan's global team of Growth Pipeline experts continually identifies and evaluates growth opportunities across multiple industries, technologies, and regions of the world. As part of this ongoing effort, we identify companies that consistently develop growth strategies based on a visionary understanding of the future and effectively address new challenges and opportunities. This approach involves the deployment of best practices and strategic analytics across a value chain. Against this backdrop, Frost & Sullivan recognizes Vodafone Idea for its valuable achievement.

Frost & Sullivan reserves this recognition for companies at the forefront of innovation and growth in their respective industries. These companies consolidate their leadership positions by innovating and creating new products, solutions, and services that meet ever-evolving customer needs. By strategically broadening their product portfolios, leading companies advance the overall market. Driving innovation and growth is a difficult task made even harder by the strategic imperatives forcing change today, such as disruptive technologies, value chain compression, industry convergence, and new business models. In this context, Vodafone Idea's recognition signifies an even greater accomplishment.

Moreover, this recognition is the result of many individuals (employees, customers, partners, and investors) making critical decisions every day to support the organization and contribute to its future. Frost & Sullivan enthusiastically acknowledges and celebrates their contributions.

Once again, congratulations on your accomplishments. We wish you great success!

Sincerely,

Darrell Huntsman
Chief Executive Officer
Frost & Sullivan

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. Vodafone Idea excels in many of the criteria in the cellular IoT connectivity services space.

AWARD CRITERIA

Visionary Innovation & Performance	Customer Impact
Addressing Unmet Needs	Price/Performance Value
Visionary Scenarios Through Mega Trends	Customer Purchase Experience
Implementation of Best Practices	Customer Ownership Experience
Leadership Focus	Customer Service Experience
Financial Performance	Brand Equity

The Indian Cellular IoT Market Presents a Hotbed of Opportunities for Innovative Solutions

Due to the steady adoption and implementation of cellular Internet of Things (IoT) connectivity solutions in India across diverse industry verticals, from mobility to energy and utilities, the market recorded a 14.3% compound annual growth rate (CAGR) from 2017 to 2020. In 2020, Frost & Sullivan analysts estimated the total Indian IoT market revenue at $5,406.6 million, with cellular IoT revenue approaching $988.1 million. With the pandemic accelerating digital transformation, enterprises are more open to deploying IoT solutions, acquiring capabilities such as remote monitoring, predictive maintenance, and automation to reduce human intervention and implement business resiliency. Specifically, India's advanced cellular connectivity landscape stands out for its massive smartphone user base, best-in-class connectivity infrastructure, and widespread availability of high-speed Internet bandwidth. Hence, Frost & Sullivan analysts expect the cellular IoT market in this region to continue expanding at a CAGR of 13.2% up to 2025, backed by a surge in smart applications adoption, new business models, and government initiatives such as smart city projects (e.g., smart meters, surveillance cameras, and the tracking of public infrastructure), which presents a hotbed of opportunities for IoT solutions.[1]

In particular, the rise in mobile-centric apps, e-commerce, various ePayment modes, and increased adoption of IoT connectivity provides massive momentum in the enterprise mobile services space.

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[1] *Indian Internet of Things (IoT) Growth Opportunities: Data-driven Intelligence and Connected Ecosystems Accelerate Transformational Growth of IoT in Enterprises* (Frost & Sullivan, September 2021)

Telecommunication companies (telcos) are pivotal in today's advanced cellular connectivity landscape. Because businesses can improve efficiency and enhance productivity by connecting devices, gadgets, machinery, and vehicles with employees on a single platform or system, telcos sprint in the race to meet the accelerating demand for IoT products and services. Also, the adoption of fifth-generation (5G) technology will enable mobile operators to monetize a more extensive service suite that reaches beyond the delivery of connectivity. Within this context, Frost & Sullivan makes the following recommendations:

▪ IoT providers must carry out considerable research and development (R&D) investments for technological innovation in IoT solutions for a competitive edge. Businesses increasingly consider interoperability and the ease of integrating applications with data from different IoT devices, including legacy hardware and robust application programming interfaces.

▪ Providers should focus on connected factories and Industry 4.0 as India becomes a preferred manufacturing destination globally. The expected expansion of micro, small, and medium enterprises in the manufacturing sector will substantiate this growth trajectory.

▪ Establishing strong thought leadership in enterprises will help a better understanding of IoT solutions and their associated benefits. Peer-learning sessions for organizations will enable them to grasp how they can use IoT and experience return on investment (ROI).

▪ Fast time-to-market and cost advantages are vital competitive differentiators in the Indian market; enterprises expect end-to-end solutions with a lower total cost of ownership. As innovation is the cornerstone of success for IoT solutions, vendors, including telcos, should collaborate with innovative technology start-ups, cloud providers, and top-notch technical institutes to develop groundbreaking IoT platforms.

▪ The focus on artificial intelligence (AI) and IoT will give rich dividends in the near future. The AI-IoT convergence is nascent but has remarkable growth potential in emerging ecosystems.

Visionary Innovation and Performance of Vodafone Idea

Founded in 2018 by the merger of two brands within the Aditya Birla Group-Vodafone Group partnership, Vodafone Idea Limited (Vi) is a leading telecommunications (telecom) service provider in India. In 2020, Vi unveiled its new logo, combining the two brands, "Vodafone" and "Idea," into one unified identity, reflecting the notion of integration. The initials of the two companies, Vi, (i.e., pronounced as 'We'), also represent the Indian society's collective nature. Headquartered in Mumbai, the company offers 2G, 3G, 4G, 4G+, VoLTE, and VoWiFi services. This pan-India operator is committed to addressing the growing demand in voice and data and focuses on developing infrastructure to launch new technologies and services. Furthermore, it invests substantially in R&D, as well as training and support, to guide organizations on the digital transformation journey. In particular, Vi Business', the enterprise arm of Vodafone Idea Ltd, comprehensive IoT-based solution portfolio (including connectivity and managed connectivity solutions, along with integrated offerings of hardware, networks, applications, analytics, security, and cloud services) helps enterprises across diverse verticals maximize the benefits of the IoT-enabled Industry 4.0 revolution. Listed on both the National Stock Exchange (NSE) and the Bombay Stock Exchange (BSE) in India, Vi aspires to capitalize on growth opportunities,

accelerated by government initiatives (such as 'Smart Cities' and 'Digital India') to build a more connected future.

Competitive Differentiation: Business Case Development Drives Vi's Commercial Strategy

Vi Business tracks IoT adoption in specific segments (i.e., smart mobility, smart infrastructure, and smart utilities) and targets most of its investments across these three focus areas, incorporating all value chain elements. Principally, the company's executive leadership team designed a strategy (i.e., specifically its R&D activities and product development initiatives) around the challenges in these areas, allocating capacity to mobility (24%), manufacturing (18%), and utilities (25%) respectively. Without a certifying industry body in India, there are no uniform security standards, making it complicated for businesses to choose a partner. Also, the complexity of scaling IoT deployments and the lack of proven use cases impede fast adoption. Vi Business addresses these challenges by offering interoperable end-to-end solutions through an ecosystem that leverages prime partnerships. Hence, Vi Business's solutions portfolio cuts across industries to deliver tailored offerings that integrate devices, chipsets, networks, applications, and managed services.

> *"As the only integrated IoT player amongst telcos in India, Vi Business provides certified solutions (i.e., the company puts together hardware, software, and cloud application connectivity) after testing and validation in its innovation lab, performed by its professional IoT team equipped with multi-industry knowledge and strengthened by its in-house certification program."*
>
> *- Riana Barnard,*
> *Best Practice Research Analyst*

Furthermore, the company's commercial strategy department helps customers build valid business cases. Typically, numerous business entities participate in the buying decision; therefore, customers often look at a use case from different perspectives, such as the procurement angle, requirements specified by the user department, and the digital expert's view. Hence, Vi Business differentiates itself by specializing in business case development (instead of its competitors' standard business development practice). As the only integrated IoT player amongst telcos in India, Vi Business provides certified solutions (i.e., the company puts together hardware, software, and cloud application connectivity) after testing and validation in its innovation lab, performed by its professional IoT team equipped with multi-industry knowledge and strengthened by its in-house certification program. Moreover, Vi Business's solutions comply with the country's regulatory laws, and it has a high impact (i.e., faster time-to-market that results in cost benefits). Vi Business's one-stop approach also provides flexibility and scalability together with these efficiencies.

A Customer-First Approach Brings Rich Dividends for the Industry

While running trials with leading customers (e.g., applications in the survey, drone, and healthcare markets), the learning experience enabled Vi Business to develop a sales scan tool. Customers often have limited resources and many questions: Where do I start? Which department should get involved? Which problem do I tackle first? Before building a business case, Vi Business created an objective framework of qualitative questions that helps assess the customer's maturity curve. The company uses a scale (from one to five) and addresses various parameters to leverage open discussions in a

collaborative workshop environment, delivering massive added value. Because Vi Business is familiar with the benefits of IoT, the company's commitment is to present an accurate and appropriate solution to every customer. Hence, its IoT innovation hub functions as a consulting practice, prototyping the solutions. Although Vi Business 's Lab-as-a-Service includes end-to-end customer lifecycle management, its integrated IoT solutions follow a modular approach. Customers sign up for the complete solution that provides full support or opt fora specific part of the package (e.g., Vi hands over the design if the customer prefers to implement it themselves or through a system integrator).

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Frost & Sullivan commends Vi Business for helping customers embark on their digital transformation journey, supporting them in their learning experience. If companies had to start this challenging process from scratch, it could take years and slow down the adoption pace, negatively impacting the industry. Vi Business stands out with its industry-first initiative of launching Integrated IoT, along with implementation of best practices like Vi IoT Self Scan, IoT consultation, eSIM, connectivity management platform and catering to diverse set of use cases. In the second phase of Vi Business's investment in its innovation lab, the company will release a device management platform, most likely within FY 2022.

The Power of Innovation: Always One Step Ahead

Previously recognized by Frost & Sullivan in 2020 for its embedded IoT eSIM solution, Vi Business was the first telco with a commercially launched GSMA certified eUICC SIM platform. Its embedded hardware with pre-configured profile slots provides secure connectivity, and the consolidation of network profiles (i.e., automatically switching to network profiles/operators without changing the SIM card) enhances simplicity and ease of use while reducing costs. Access to reliable, real-time data across the deployed IoT value chain, coupled with interoperability (i.e., remotely switching the mobile network operator of IoT devices without changing the SIM card), enables customers to make more accurate decisions faster. Furthermore, Vi Business guarantees product performance in harsh weather conditions and a long product life of up to 17 years. Also, the company's IoT Lab-as-a-Service ensures seamless deployments (due to its powerful testing capabilities that include 40+ test scenarios, 1,000+ field-testing hours, 20+ modules, and 25+ certified devices). Lastly, Vi IoT eSIM solution brings convenience for customers by allowing consolidated payments across multiple networks.

Conclusion

India's advanced cellular connectivity landscape stands out for its massive smartphone user base, best-in-class connectivity infrastructure, and widespread availability of high-speed Internet bandwidth. Due to the COVID-19 crisis, enterprises are now more open to deploying IoT solutions acquiring capabilities such as remote monitoring, predictive maintenance, and automation to reduce human intervention and implement business resiliency. Vi Business' comprehensive IoT-based solution portfolio (including connectivity and managed connectivity solutions, along with integrated offerings of hardware, networks, applications, analytics, security, and cloud services) helps enterprises across diverse verticals maximize the benefits of the IoT-enabled Industry 4.0 revolution. Supported by its innovation hub (i.e., Lab-as-a-Service that functions as a consulting practice and prototypes the solutions), the company commits itself to present an accurate and appropriate solution to every customer. Vi Business was the first to commercially launch a GSMA-certified eUICC SIM platform with an embedded IoT eSIM solution, providing secure connectivity and the consolidation of network profiles that enhances simplicity while reducing costs. Furthermore, the company's commercial strategy department helps customers build valid business cases.

With its visionary innovation, supported by cutting-edge technology, best-in-class implementation, and customer-first approach, Vi Business earns Frost & Sullivan's Indian Company of the Year Award in the cellular IoT connectivity services market.

What You Need to Know about the Company of the Year Recognition

Frost & Sullivan's Company of the Year Award is its top honor and recognizes the market participant that exemplifies visionary innovation, market-leading performance, and unmatched customer care.

Best Practices Award Analysis

For the Company of the Year Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

Visionary Innovation & Performance

Addressing Unmet Needs: Customers' unmet or under-served needs are unearthed and addressed by a robust solution development process

Visionary Scenarios Through Mega Trends: Long-range, macro-level scenarios are incorporated into the innovation strategy through the use of Mega Trends, thereby enabling first-to-market solutions and new growth opportunities

Leadership Focus: Company focuses on building a leadership position in core markets and on creating stiff barriers to entry for new competitors

Best Practices Implementation: Best-in-class implementation is characterized by processes, tools, or activities that generate a consistent and repeatable level of success

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

Customer Impact

Price/Performance Value: Products or services provide the best value for the price compared to similar market offerings

Customer Purchase Experience: Quality of the purchase experience assures customers that they are buying the optimal solution for addressing their unique needs and constraints

Customer Ownership Experience: Customers proudly own the company's product or service and have a positive experience throughout the life of the product or service

Customer Service Experience: Customer service is accessible, fast, stress-free, and high quality

Brand Equity: Customers perceive the brand positively and exhibit high brand loyalty

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™.

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

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)