FROST & SULLIVAN

ALETHEA COMMUNICATIONS TECHNOLOGIES RECEIVES THE 2023
CUSTOMER VALUE
LEADERSHIP AWARD

Identified as best in class in the global wi-fi testing and validation solutions 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. Alethea Communication Technologies excels in many of the criteria in the Wi-Fi testing and validation solutions space.

AWARD CRITERIA

Business Impact	Customer Impact
Financial Performance	Price/Performance Value
Customer Acquisition	Customer Purchase Experience
Operational Efficiency	Customer Ownership Experience
Growth Potential	Customer Service Experience
Human Capital	Brand Equity

Industry Challenges

The increasing adoption of digital solutions supported by modern technologies, such as the Internet of Things (IoT), virtual reality (VR), and augmented reality (AR), as well as the increasing use of remote working tools, real-time audio, video featuring solutions, and industrial automation, add pressure to wireless connectivity networks. Higher bandwidth, lower latency, extended device battery life, and a seamless, continuous wireless experience have become necessities.

As the world embraces 5G networks in full force, Wi-Fi technology has also progressed with the introduction of Wi-Fi 6/6E and Wi-Fi 7. The evolution of Wi-Fi networks has seen advancements in resource units, channel widths, modulation techniques, MU-MIMO, and multiple access point coordination. Efficiency and performance validation are the biggest changes since Wi-Fi's inception. The demand for affordability, high performance, and a great user experience drives Wi-Fi technology's growth and evolution. Indoor wireless networks account for almost 70% of global data consumption, and Wi-Fi supports more than half of the world's Internet traffic.

With the continuous evolution of cellular and Wi-Fi wireless networks, the convergence between these technologies enables new use-cases and opportunities in the IoT, connected ecosystem and also among enterprise networks. In the wireless testing space, it is essential to have both service- and product-based solutions that cater to 5G and Wi-Fi technologies to sustain in the market. While 5G will remain relevant for specific use-cases, such as factory automation and healthcare, where high latency is necessary, Wi-Fi will be more suitable for general applications that are not as latency-sensitive. However, as networks and

devices become more complex, ease of use for testing equipment has become a challenge. It is crucial for testing solution providers to ensure that their products are user-friendly. In addition, economic uncertainties have made it difficult for businesses to make investment decisions, including investments in testing infrastructure. Therefore, vendors must ensure that their test equipment provides optimal performance and efficiency at an affordable cost.

Pioneering Wi-Fi Testing with Innovative and Scalable Product Offerings for Superior Price/Performance Value

Founded in 2010 and headquartered in Bengaluru, India, Alethea Communication Technologies (Alethea) specializes in test and measurement solutions, primarily in wireless communication, particularly Wi-Fi. The company has about 160 employees and serves various verticals, including original equipment manufacturers and original design manufacturers (OEMs/ODMs), network operators, transportation companies, and enterprises. Alethea strives for deep and long-term customer collaborations to deliver products/tools that address the most compelling challenges for a Wi-Fi network, such as broadband product design, development, validation, and deployment. With the continuous innovation and evolution of Wi-Fi technologies and generations alongside the convergence of wireless cellular networks, Alethea is committed to staying abreast of this evolving industry through continuous product enhancements and customer collaborations. The company has a global customer base, with major customers in the United States, given the prominence of Wi-Fi technology companies there, and it also serves customers in several other notable countries, such as China, Europe, India, and Taiwan.

The company's offerings include WiCheck, a universal Wi-Fi infrastructure test solution; WiSure, a Wi-Fi client connectivity test solution; and services, including testing lab, automation, and visualization.

> *"The flexibility and robustness of Alethea's offerings and the company's deep technological expertise ensure best-in-class product quality and a full complement of features and functionality. Its Wi-Fi test systems have the lowest cost per client, the broadest range of user-experience-focused features, and the greatest scale among all similar products currently available in the market."*
>
> *- Navdeep Saboo*
> *Industry Analyst*

WiCheck enables network OEMs/ODMs to validate the performance of Wi-Fi access points, routers, and other related network infrastructure solutions with real-scale applications, multiple device emulations (2,500+), and field scenarios. WiSure, the company's relatively new product, validates the capability and compatibility of Wi-Fi-enabled devices, including IoT devices and smartphones, with 100s of tests specific to different conditions. The company's testing and test automation services offer multi-OS, state-of-the-art automated network test systems under the influence of 100s of real devices. Alethea's testing solutions offer one-click testing with multiple pre-built test cases for seamless and convenient testing solutions. Furthermore, customers can test according to their specific needs by creating custom test scenarios. Hence, the offerings give customers full control over network testing to ensure optimal performance under any use-case.

The company's comprehensive testing methodologies include:

Testing Methodology	Description
Performance Testing	Validation of signal strength, throughput, latency, jitter, packet loss, and coverage
Stress and Stability Testing	Testing the robustness of the network under heavy loads to determine its reliability
Security Testing	Validation of encryption, authentication, and hacking susceptibility of the network
Roaming Testing	Validation of seamless transitioning between access points in real-world roaming scenarios
Application Performance Testing	Testing Wi-Fi performance in diverse applications, such as video streaming and online gaming
Compliance Testing	Validating adherence to standards, regulations, and necessary benchmarks

Alethea views the fast pace of technology change as an opportunity, and its unique architecture offers modular upgrades and provides cost benefits for customers, making it easier for them to adapt to new technologies as they emerge. The company has a rich history of evolving its testing solutions to match the changing Wi-Fi technology landscape, including the recent launch of Wi-Fi 7 testing. In August 2023, the company announced the upgrade to its WiCheck solution with the Wi-Fi 7 Golden Client Module, which validates network performance with 16 to 128 Wi-Fi 7 clients and supports several features, including 320 MHz channel width and 4K QAM. The company's strength lies in the configurability of its solutions, which cater to a wide range of customer requirements and budgets. The products offer both synthetic traffic and real traffic testing, allowing customers to emulate specific applications accurately. The flexibility and robustness of Alethea's offerings and the company's deep technological expertise ensure best-in-class product quality and a full complement of features and functionality. Its Wi-Fi test systems have the broadest range of user-experience-focused features, and the greatest scale among all similar products currently available in the market.

Creating a Solid Business Impact with Enhanced Customer Experiences and a Strong Brand

Alethea has received notable feedback regarding the ease of use of its testing solutions. Customers appreciate the company's user-friendly and intuitive web-based interface, which allows test engineers to quickly become proficient without extensive training. Furthermore, customers appreciate the accessibility and modern design of the user interface. The company also stands out due to its strong customer support, focusing on proactive engagement and responsiveness. Alethea's approach to customer engagement, even on matters unrelated to its products, is seen as a partnership rather than just a transaction. This approach helps the company better understand customer needs and preferences and enables it to align its product roadmap accordingly. Overall, Alethea strives to provide a positive purchase and customer

experience, emphasizing customer satisfaction, ease of use, and proactive client engagement. Frost & Sullivan firmly believes that this kind of customer feedback mechanism and collaboration will ensure product development and innovation and match market and customer needs.

Moreover, the company will see high growth prospects in the coming years due to the developments in Wi-Fi 7 technology. Being a relatively new entrant and focusing solely on Wi-Fi technologies allows it to be more agile and enthusiastic when compared to the well-established participants. Alethea's marketing strategy involves promoting cutting-edge technology features and positioning itself as a technology pioneer. The company posts periodic blogs, website content, articles, and LinkedIn posts to educate existing and potential customers about new technologies in the Wi-Fi space. It also attends specific events and conferences globally, such as the Wi-Fi World Congress and the Wi-Fi Knowledge Summit, to promote its brand. Despite the challenges posed by the COVID-19 pandemic and rapid technology changes, Alethea has maintained profitability and anticipates further growth. Frost & Sullivan strongly believes that the accelerated advancements in wireless technology will present further growth potential for the company.

> *"Alethea's approach to customer engagement, even on matters unrelated to its products, is seen as a partnership rather than just a transaction. This approach helps the company better understand customer needs and preferences and enables it to align its product roadmap accordingly."*
>
> *- Navdeep Saboo*
> *Industry Analyst*

Alethea emphasizes a culture of commitment, trust, partnership, and collaboration with customers and among its employees, focusing on people and creating a nurturing and fun workplace where employees are encouraged to speak openly in a collaborative work environment. The company is a member of esteemed Wi-Fi-focused groups/organizations, such as Broadband Forum and the Wireless Broadband Alliance (WBA), which facilitates cooperation among service providers, technology firms, and enterprises to advance seamless, secure, and interoperable Wi-Fi services worldwide. In addition, it is committed to sustainability and the creation of a positive impact on society through numerous corporate social responsibility (CSR) activities on supporting the Indian blind cricket team, women empowerment, education for the underprivileged, and disaster management.

Conclusion

Alethea is an innovative and proactive participant in the wireless communication industry with a strong focus on Wi-Fi technology. The company's comprehensive range of Wi-Fi test and measurement solutions, including WiCheck and WiSure, underscores its dedication to ensuring optimal Wi-Fi network performance. It is committed to addressing Wi-Fi networks' evolving challenges, and its comprehensive range of test and measurement solutions, user-friendly interface, and excellent customer support make it a notable contender in the market. Moreover, Alethea's adaptability and modular approach to product development and the recent upgrade to support Wi-Fi 7 technology showcase its commitment to staying ahead in the industry.

With its strong overall performance, Alethea Communication Technologies earns Frost & Sullivan's 2023 global Customer Value Leadership Award in the Wi-Fi testing and validation solutions industry.

What You Need to Know about the Customer Value Leadership Recognition

Frost & Sullivan's Customer Value Leadership Award recognizes the company that offers products or services customers find superior for the overall price, performance, and quality.

Best Practices Award Analysis

For the Customer Value Leadership Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

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

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)