

F R O S T & S U L L I V A N

2024 ENABLING TECHNOLOGY LEADER

*IN THE GLOBAL
HEALTHCARE IT
SOLUTIONS INDUSTRY*

VIVALINK

F R O S T & S U L L I V A N

BEST
2024 PRACTICES
AWARD

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. Vivalink excels in many of the criteria in the healthcare IT solutions space.

AWARD CRITERIA	
<i>Technology Leverage</i>	<i>Customer Impact</i>
Commitment to Innovation	Price/Performance Value
Commitment to Creativity	Customer Purchase Experience
Stage Gate Efficiency	Customer Ownership Experience
Commercialization Success	Customer Service Experience
Application Diversity	Brand Equity

Vivalink: A Digital Healthcare Trailblazer

Founded in 2014 and headquartered in California, United States, Vivalink is a pioneering digital medical technology provider transforming healthcare delivery by enhancing patient care and optimizing hospital efficiency. The company helps providers address growing challenges in the medical sector, such as staff shortages, limited resources, and rising costs while improving patient treatment to drive better outcomes. By leveraging intelligent medical-grade sensors, communication technologies, advanced algorithms, and clinical applications, Vivalink delivers innovative solutions and services that empower continuous remote patient monitoring (RPM), streamlining care delivery, enabling timely interventions, and optimizing resource allocation. It maintains a strong global presence across the Americas, Asia-Pacific, Europe, South Africa, and the Middle East.¹ With its exceptional technological capabilities, customer-oriented business strategy, and innovative solutions, the company is experiencing remarkable growth, particularly in the RPM space. Frost & Sullivan analysts believe that Vivalink’s advanced RPM technology, combined with the increasing shift towards an at-home healthcare delivery model, favors the company to scale up and capitalize on the growing healthcare information technology (IT) solutions opportunities in the coming years.

¹ <https://www.vivalink.com/about-vivalink>

Technological Prowess and Commitment to Innovation Enabling Unmatched Performance

“Frost & Sullivan commends Vivalink for its strategic focus on addressing critical unmet needs and limitations within traditional remote patient monitoring systems, thus accelerating its leadership in the increasingly competitive space. With its flexible, versatile, and scalable Biometrics Data Platform and unique business model, the company strategically positions its platform as a convenient, cost-effective, and advanced solution, helping Vivalink capture significant market share.”

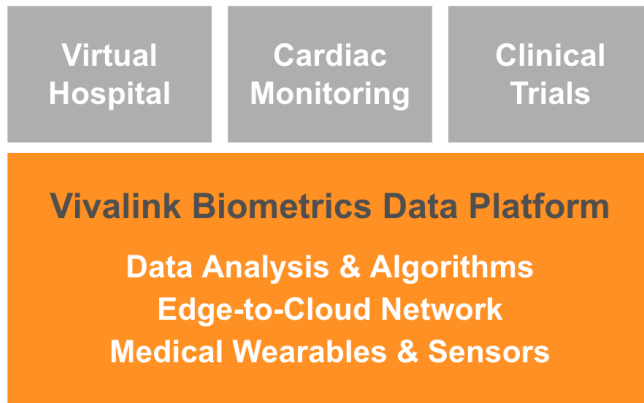
- Dr Rishi Pathak
Research Director

Vivalink offers capabilities that enable healthcare providers to deliver patient-centered care, including hospital-at-home and ambulatory cardiac monitoring. The company provides advanced functionalities beyond the standard RPM, specifically remote, continuous, real-time monitoring. Unlike traditional RPM solutions, which are limited to episodic or basic vitals (i.e., heart rate, respiratory rate) monitoring, Vivalink’s technology facilitates acute patient monitoring at home across various clinical conditions, including cardiology, oncology, neurology, and hypertension. Powered by a flexible data architecture, it supports complex cases like neutropenic event monitoring, which requires tracking and analyzing the correlation between multiple biometric data (body temperature, respiratory rate, and heart rate) to determine if intervention is needed. Vivalink’s state-of-the-art RPM

system facilitates early patient discharge, reduces hospital costs, reallocates resources to critical cases, and increases hospital patient capacity, all while ensuring the highest standard of care at home. Additionally, the solution supports chronic condition RPM, facilitating early interventions and reducing hospital visits due to its versatile applications. Furthermore, the technology enables specialized applications, such as remote cardiac rehab, weight management, and substance addiction recovery.

Vivalink’s solutions leverage advanced medical-grade sensors, wireless communication networks (Bluetooth Low Energy, Wi-Fi, and cellular), edge technologies, and cloud services. Integrated with its software and analytics platform, the Biometrics Data Platform (the core foundation in the company’s cutting-edge digital healthcare portfolio), these technologies enable continuous, remote data capture, delivery, and analysis in virtual patient care. Designed to be agnostic, modular, and horizontal, the platform facilitates seamless integration across components (i.e., hardware, software, and cloud services), compatibility with other healthcare systems and platforms, and cross-disciplinary applications. As a result, it facilitates enhanced, adaptable, scalable solutions, thus fostering wider adoption, encouraging partnerships with technology providers, and facilitating expansion into the broader healthcare landscape. The platform empowers the company to offer a highly flexible business model that allows digital healthcare partners to license components of its modular platform and seamlessly integrate them into their solutions. Its versatility also enables Vivalink to expand into new verticals and geographies, empowering the company to branch into the clinical trials space, all with the same platform.

Backed by subject matter experts (i.e., technologists, engineers, data scientists, healthcare experts, and specialist product managers), Vivalink maintains an unwavering focus on innovation, driving the development of state-of-the-art technologies and capabilities that consistently exceed industry standards.



For example, the company pioneered an ultra-compact, non-intrusive, and lightweight electrocardiogram (ECG) patch (which facilitates patients’ cardiac data capture), significantly reducing the size and weight compared to traditional devices. Facilitated by its patented eSkin technology featuring a breathable, thin film substrate with integrated circuits and sensors, the device is ideal for long-term wear, promoting mobility and life as usual while effectively capturing data.² Moreover, unlike

traditional Holter monitors and single-use telemetry devices, the patch is reusable and patient-serviceable, eliminating the need to return to the vendor for processing and enhancing its reusability and economic feasibility. To conduct a multi-year study involving more than 1,000 patients to detect biomarkers of early atrial transformation in atrial fibrillation, the University of California, San Francisco (UCSF) faced a challenge with single-use ECG devices, which would have driven up costs significantly. Without a long-term, continuous monitor, UCSF risked missing critical data during gaps in observation. With the Vivalink wearable ECG patch, the research university achieved significant cost savings, increased patient adherence, and enabled continuous, real-time ECG data collection, ensuring comprehensive monitoring and accurate findings.³

Notably, Vivalink developed a monitoring system that collects quantitative data on patients’ usage of its technology, providing visibility into usage patterns and patient compliance. With an operational dashboard, healthcare providers can gain insights into patient adherence and device usage, allowing them to manage care more effectively and ensure positive outcomes. Vivalink continues to advance its technological capabilities, reinforcing its leadership in digital healthcare solutions. Building on its strong track record of merging convenience with advanced features, the company continues to innovate its unified RPM platform for multiple applications. Additionally, Vivalink collaborates extensively with healthcare providers, leveraging their feedback to drive its innovation roadmap. With a vast network of global digital healthcare partnerships, the company gains valuable market intelligence to guide its product roadmap planning and strengthen its market position.

² Ibid.

³ Frost & Sullivan Interview with Vivalink (Frost & Sullivan, September 2024)

“Vivalink strongly emphasizes customer success, providing comprehensive support throughout the product development journey. From assigning dedicated, tailored support teams and offering advisory services to maintaining exceptional responsiveness to customer needs, Vivalink ensures product success at every stage.”

- Rubini Kamal
Best Practices Research Analyst

Vivalink prioritizes end-user security as a key strategic imperative. The company is committed to protecting patient privacy while leveraging advanced technology. Its sensors do not collect proprietary personal information, only gathering anonymous parameters, which are linked solely to a sensor ID. Patient identification occurs exclusively in the customer application, ensuring no private data is captured and transmitted by the sensors. Additionally, Vivalink partners with technology leaders like Amazon Web Services and adheres to the Health Insurance Portability and Accountability Act and General Data Protection Regulation to ensure the highest data security and privacy levels. Furthermore, for its European clients, Vivalink offers

jurisdictional data hosting, ensuring data remains within respective countries. The company also maintains comprehensive Service Organization Control compliance and implements robust encryption measures throughout its systems, demonstrating its dedication to safeguarding sensitive information while providing secure, reliable remote patient monitoring solutions.

With its unmatched products, unique business model, and customer-oriented strategy, Vivalink achieved a stellar year in 2023. The company reports 3X growth in commercial business, with customer numbers exceeding 300 across more than 50 countries. While business growth was initially largely partner-driven, Vivalink is now experiencing rapid expansion in direct dealings with healthcare providers. This shift, driven by its turnkey services offering, allows providers to focus on their core competencies while Vivalink handles system infrastructure, ensuring optimal performance and reliability. This cost-effective service, which minimizes IT expenditure, is expected to boost provider adoption further, positioning Vivalink as a preferred partner.

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Building Trust through a Customer-centric Approach

Vivalink strongly emphasizes customer success, providing comprehensive support throughout the customer implementation journey. From assigning dedicated, tailored support teams and offering advisory services to maintaining exceptional responsiveness to customer needs, Vivalink ensures customer success at every stage. As a best practice, the company encourages customers to maintain a narrow focus during the pilot phase, which allows them to thoroughly test protocols, resolve any issues, and cultivate a comfort level with the technology among its users (i.e., patients, doctors, and staff). This approach ensures the success of the technology in its application and facilitates effective scaling. Additionally, it accompanies the customer throughout the deployment, making changes based on new requirements discovered during implementation to ensure optimal application of the technology. Striving

to deliver best-in-class solutions, Vivalink adopts a non-adversarial approach to partnerships to set customers for success. For example, the company works with multiple sensor developers to ensure the best option for a client's application.

With its customer-centric corporate philosophy, Vivalink operates on the central tenet that its success depends on customer satisfaction. This philosophy permeates its daily practices. For example, the company emphasizes a quick-response protocol internally, ensuring customers receive top-tier customer support. Noted by customers for responsiveness, this approach helps Vivalink establish ongoing trust with customers for long-lasting partnerships. Additionally, Vivalink's account managers serve as customer advocates, actively gathering feedback and relaying the information to the team. This continuous interaction provides real-time insights into customer satisfaction and product performance to the product development team.

Besides maintaining ongoing dialogue through various engagement channels, including online meetings, emails, and face-to-face visits, Vivalink conducts extensive surveys, from customer satisfaction assessments to evaluations of specific applications and features, as well as broader market surveys to gauge product adoption and usage (e.g., analyzing the implementation of remote patient monitoring within cardiac rehabilitation settings). The findings from these surveys are integral to Vivalink's content marketing strategy, a targeted approach that it has invested in over the years to enhance brand awareness, educate customers, and establish itself as a thought leader in the industry. Vivalink's impressive growth momentum and trajectory, underscored by its customer-centric approach, revolutionary technology, and unwavering efforts to enhance RPM, positions the company to drive the healthcare IT solutions space into its next growth phase and sustain its innovative edge in the coming years.

Conclusion

Technology integration is a critical success factor for modern healthcare delivery. Yet, with many options available, healthcare providers need to leverage the most appropriate and best technology-based solutions to optimize patient care. Vivalink's remote patient monitoring technology enables providers to conduct continuous, real-time monitoring of acute patients, including live electrocardiogram (ECG) tracking. The company stands out from competitors based on its commitment to innovation, creativity, and ability to launch new solutions with far-reaching impact and application. From the world's smallest wearable ECG monitor to applications spanning multiple medical disciplines, including specialized fields like ambulatory cardiac monitoring, remote cardiac rehabilitation and neutropenic fever monitoring, Vivalink stands out for its advanced technological capabilities and versatility in solutions. The company pairs its technology focus with customer-centric values, thus earning a solid reputation in the healthcare IT solutions market.

Vivalink earns Frost & Sullivan's 2024 Global Enabling Technology Leadership Award for its strong overall performance in the healthcare IT solutions industry.

What You Need to Know about the Enabling Technology Leadership Recognition

Frost & Sullivan's Enabling Technology Leadership Award recognizes the company that applies its technology in new ways to improve existing products and services and elevate the customer experience.

Best Practices Award Analysis

For the Enabling Technology 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

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

