

FROST & SULLIVAN

AVER INFORMATION INC.

2022
NEW
PRODUCT
INNOVATION

*NORTH AMERICAN
MEDICAL GRADE PTZ
CAMERAS 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. AVer Information Inc. excels in many of the criteria in the medical grade PTZ cameras space.

AWARD CRITERIA	
<i>New Product Attributes</i>	<i>Customer Impact</i>
Match to Needs	Price/Performance Value
Reliability	Customer Purchase Experience
Quality	Customer Ownership Experience
Positioning	Customer Service Experience
Design	Brand Equity

An Intelligently Designed Entrance in the Healthcare Space

With the rise of the COVID-19 pandemic, Frost & Sullivan analysts monitored how virtual care started gaining popularity as a significant growth opportunity across the healthcare space. One example is the intensive care unit (ICU) shortage, which paves the way for virtual critical care as an industry standard to ensure the best possible patient outcomes. Virtual care includes telehealth alongside various clinical processes which rely on efficient technology and novel communication systems.

With healthcare workforce shortages worsening, virtual care emerges as a solution to alleviate personnel workloads, address burnouts, and better manage hospital capacity.¹ For instance, monitoring devices allow physicians and nurses to observe multiple patients simultaneously - reducing hospital efforts. Frost & Sullivan anticipates the global virtual care market will reach nearly \$219 billion in 2025, with a compound annual growth rate of around 40.4% from 2019 to 2025.²

Within this framework, AVer Information Inc. (AVer) noticed that many healthcare clients were using its pan-tilt-zoom (PTZ) cameras as portable monitoring devices by installing them on patient carts. To address this need, AVer created a dual-purpose solution, a camera that remotely monitors patients and diagnoses via a remote physician: The MD330U series, which can be placed on the wall/ceiling or in the patient's cart.

¹ *Payment Reforms and Remote Care Delivery Technologies to Drive Future of the Hospital at Home Care Market* (Frost & Sullivan, March 2021)

² *COVID-19 Pandemic Ignites Enthusiasm for Virtual Care* (Frost & Sullivan, February 2021)

“AVer introduced the world's first medical-grade PTZ camera with a detachable head and integrated speakerphone. This ground-breaking innovation meets industry-specific needs and helps the company capitalize on new growth opportunities.”

**- Shah, Siddharth,
Senior Industry Analyst: Healthcare**

Learning from customer feedback, AVer introduced the world's first medical-grade PTZ camera with a detachable head and integrated speakerphone. Frost & Sullivan believes that this ground-breaking innovation clearly meets industry-specific needs and helps the company capitalize on new growth opportunities. By uniquely seizing its customer-focused approach, innovative edge, and technology expertise, AVer is gaining a solid position in the North American medical-grade PTZ cameras space.

In 2008, AVer Information Inc. spun off from AVerMedia to become an independent company. Today, AVer is a robust video solution provider in the education and corporation markets. The company leverages advanced production equipment, state-of-the-art testing facilities, and a world-class research and development team in both the digital and analog fields.

Addressing Needs with a High-quality and Reliable Solution

AVer's corporate culture revolves around driving innovation. Frost & Sullivan notes that the MD330U series nicely exemplifies this tenet by taking its capabilities further than any other competing solution:

Image

The product comes in two different types, an infrared version (to support night monitoring) and a light emitting diode (LED) lights version. One of the device's unique selling propositions is its detachable eight-megapixel camera head with 30X optical zoom and 4K output resolution. This feature allows doctors to examine closer by simply detaching the camera and taking it closer to patients. Additionally, nurses can perform the close-ups when the physician is in a remote location. The MD330U series also has universal-serial-bus/high-definition-multimedia-interface capabilities, meaning it can display the image on a monitor for educational purposes.



Courtesy of AVer

AVer MD330U



Courtesy of AVer

Sound

The device has an embedded all-in-one audio system with integrated speakerphone and microphone. Its noise reduction technology automatically lowers background sounds, resulting in a smooth face-to-face communication experience for both patients and doctors.

Software

The MD330U series has free value-added software for operating multiple cameras on personal computers and laptops. The AVer PTZ Management is a straightforward control system that lets the user pan, tilt, zoom, focus, set presets, switch tracking modes, and efficiently control each camera on the dashboard. Customers can upgrade firmware and retrieve the camera in seconds in case of a sudden shutdown. Combined with consoles, it empowers nurse stations to monitor over two hundred patient rooms simultaneously (among other use cases).

Artificial intelligence

Leveraging its expertise as one of the first companies to implement artificial intelligence (AI) auto-tracking, AVer incorporates unique computer vision capabilities for the camera. Some AI use cases in practice or development include automatically zooming in on the monitors showing patients' vital signs, monitoring and predicting patient fall, measuring intravenous (IV) drip bag levels, and detecting all facial aspects for precise zoom-ins on demand. The company builds all these AI models directly into the camera, eliminating the need for a separate, expensive computer or connectivity to a cloud-based solution to perform these tasks.

Above all, when the AI sensor triggers, the MD330U series sends alerts to its base station. Therefore, if the vital signs experience sudden changes, the patient falls, or the IV drip needs a replacement, nurses/physicians get an immediate warning. These functions drastically reduce hospitals' need for traditional monitoring and address a critical challenge: clinical staff burnout. AVer can integrate these capabilities into several telemedicine platforms.

Certifications

AVer is ISO 9001/14001 and OHSAS 18001 certified. It strives to control and improve its operation quality, minimizing waste and providing a safe work environment. The MD330U series is medical grade EN60601-1, Trade Agreements Act (TAA), and National Defense Authorization Act (NDAA)-compliant, thus ensuring its performance, reliability, and compatibility with medical electrical equipment/systems.

Frost & Sullivan appreciates how the company aims to innovate faster than its competitors. On top of everything else, the MD330U series catches the eye by combining several disrupting novelties into a single device. Furthermore, the camera effectively showcases AVer's focus on reliability, quality, and superior design.

A Customer-focused Approach

AVer uses customer feedback, market research, and stakeholder relationships to guide its product roadmap and continuously evolve its solutions. For example, it regularly tests the MD330U series in different associated hospital groups, harnessing testimonials from end users. It also collaborates with large platform providers to improve its software.

Above and beyond, the company leverages a commissioning program in which it sends an engineer to implement its solution and conducts monthly check-ins to gather feedback.

AVer serves clients across various industry verticals, including corporate businesses, higher education institutes, and hospitals. The company offers essential web-based resources, such as articles, user guides, manuals, software/firmware download centers, blogs, and frequently asked question portals. However, if clients need further support, there are many contact methods to get in touch with an AVer representative rapidly. All customer service employees serving customers in North America, are United-States-based and have specialized product training to address all possible situations adequately.

Roadmap to Success: Custom-made Customer Service

AVer supports its customers and partners from the beginning of the implementation process. At the presales stage, it offers virtual live demonstrations and meets with potential clients to discuss their specific demands.

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***- Alborno, Manuel,
Best Practices Research Analyst***

The company offers an evaluation program for clients to try the solution before purchasing it. AVer takes full charge of the shipping costs, only asking for testimonials to enhance the product. If needed, it also customizes the product to clients' requirements, such as creating MD330U series cameras with no detachable head. Post-deployment, AVer stays in touch with routine check-ins.

Regarding customer acquisition, by building the AI models into the device and partnering with various associates, the company has plans to commercialize an AI tracking license. This commercialization strategy means several platform providers can bundle the

camera within their solution and charge extra premium licenses for the AI features. This approach sustains revenues and delivers a clear path for customer retention by separating AVer from serving as only a hardware provider.

Passionately Driving Innovation

Without any adjustments, the infrared model has an average price of \$2,999.99, while the LED model is \$2,699.99.³ Frost & Sullivan agrees that AVer started on the right foot in the healthcare industry by getting

³ AVer USA’s interview with Frost & Sullivan, August 2022

first to market with the MD330U series; the absence of direct competitors, intensive customer feedback gathering, and customization approach all result in high customer satisfaction. Serving as a testament to its excellence, the company acquires many clients and partners through word-of-mouth accolades fueled by its exceptional customer-centric design.

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Skyrocketing to the Top

Regardless of its status as a novel player, AVer continues to grow with partnerships in the healthcare sector. This strategy fuels its associates' journeys while helping it to reach scale with few risks. Moreover, AI components in development can be licensed to these partners, generating additional revenue streams. The company collaborated with Lenovo, Yamaha, and Sennheiser on several of its products. On top of that, AVer has partnerships and certifications from Microsoft Teams, Zoom, Google, and Barco.

The company proves this roadmap's success with robust results. Between 2019 and 2021, AVer's total annual revenues grew from \$71 million to \$123 million, a 72% increase.⁴ Its impressive growth momentum evidences its customer-centric approach and revolutionary products. The company consistently earns its clients' trust, enabling it to capture even more market share.

Conclusion

A company must properly understand the relevant market needs and deliver a high-quality solution to create an original virtual care device. Frost & Sullivan finds that AVer USA (AVer) nicely embodies this concept. AVer uses customer feedback, market research, and stakeholder relationships to guide its product roadmap and continuously evolve its solutions. Its expert team simplifies implementation and helps to solve all issues throughout the process.

The company's MD330U series reduces employee burnout and addresses healthcare workforce shortages while seizing the virtual care segment's growth momentum. Its first-to-market detachable head with 4k resolution and a 30x zoom ensure high video fidelity for precise diagnosis. Its audio features ease communication between patients and doctors. Above all, AVer takes this invention further by integrating management software and AI detection/prediction capabilities.

With its strong overall performance, AVer Information Inc. earns the 2022 North American New Product Innovation Award in the medical grade ptz cameras.

⁴ AVer USA's webpage: *Investor relations (AVer USA, 2022)*

What You Need to Know about the New Product Innovation Recognition

Frost & Sullivan's New Product Innovation Award recognizes the company that offers a new product or solution that uniquely addresses key customer challenges.

Best Practices Award Analysis

For the New Product Innovation Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

New Product Attributes

Match to Needs: Customer needs directly influence and inspire product design and positioning

Reliability: Product consistently meets or exceeds customer performance expectations

Quality: Product offers best-in-class quality with a full complement of features and functionality

Positioning: Product serves a unique, unmet need that competitors cannot easily replicate

Design: Product features an innovative design that enhances both visual appeal and ease of use

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

