FROST & SULLIVAN

VICONE RECEIVES THE 2023 COMPETITIVE STRATEGY LEADERSHIP AWARD

Identified as best in class in the Japan automotive cybersecurity 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. VicOne excels in many of the criteria in the automotive cybersecurity space.

AWARD CRITERIA	
Strategy Innovation	Customer Impact
Strategy Effectiveness	Price/Performance Value
Strategy Execution	Customer Purchase Experience
Competitive Differentiation	Customer Ownership Experience
Executive Team Alignment	Customer Service Experience
Stakeholder Integration	Brand Equity

Industry Challenges

Integration of advanced technologies is giving rise to vehicles with increased connectivity and autonomy, including onboard systems, vehicle software, and third-party applications. However, the interconnectivity of modern vehicles poses new cybersecurity concerns due to the expanded attack surface. The introduction of more digital features and use of software to control automobiles put users' physical safety and personal information at risk. As a result, the automotive industry has become a prime target for cybercriminals.

Rising supply chain attacks can severely impact automotive supply chains and manufacturers. In February 2022, Japanese multinational OEM Toyota shut down its Japanese plants after a severe cyberattack at a supplier. The incident affected 28 production lines across 14 plants in Japan, leading to a 5% drop in Toyota's monthly production or output of about 13,000 vehicles.

There is a pressing need for automotive industry stakeholders to impose robust cybersecurity measures to prevent unauthorized remote access to vehicle networks that enable criminals to steal car users' personal data and compromise vehicles' critical safety systems. Cybersecurity is no longer an afterthought, but necessary to ensure vehicle safety and reliability.

Strategy Effectiveness

Founded in 2022, VicOne, a Trend Micro subsidiary, possesses a solid cybersecurity foundation, leveraging its parent company's more than 30 years of experience in the cybersecurity industry. By tapping into Trend

Micro's industry expertise, VicOne delivers unparalleled automotive protection and deep security insights, allowing customers to build more secure and smarter vehicles. VicOne capitalizes on Trend Micro's global threat intelligence and automotive expertise to introduce automotive attack mapping capabilities inspired by MITRE ATT&CK[®]. By highlighting the tactics and techniques of attackers to target connected cars, VicOne positions itself as a trusted partner to help car manufacturers gain a clear perspective of the attack flow, evaluate the effectiveness of their cybersecurity investments, and implement necessary remediation

"VicOne's Smart Cockpit Protection provides multi-layered cybersecurity features to protect IVI systems and applications. The solutions reflect VicOne's vision of securing the vehicles of tomorrow and aligning its product roadmap with ongoing technology strategies of automotive stakeholders, enabling the company to stay ahead."

– Vivien Pua Senior Industry Analyst or improvement plans. VicOne stands out from the competition as it is one of few automotive security companies with automotive attack mapping capabilities that reveal the life cycle of a cyberattack targeting connected cars, strengthening its reputation as a reliable partner for automotive OEMs.

Cybersecurity risks on modern vehicles will escalate as vehicle attack surfaces expand from the rising digitization and internet connectivity. Recognizing this risk, VicOne continues expanding its product portfolio to support automotive stakeholders' evolving cybersecurity demands. For example, VicOne introduced Smart Cockpit

Protection solutions in January 2023, acknowledging that smart cockpits will become the next frontier for automotive manufacturers. As the industry moves toward adding more functions and connecting applications to vehicles through in-vehicle infotainment (IVI) systems for a personalized user experience, the company foresees that hackers will exploit these systems as an entry point to launch attacks. This could have devastating consequences on autonomous vehicles as attackers will have access to control the systems and disrupt operations. VicOne's Smart Cockpit Protection provides multi-layered cybersecurity features to protect IVI systems and applications. The solutions reflect VicOne's vision of securing the vehicles of tomorrow and aligning its product roadmap with ongoing technology strategies of automotive stakeholders, enabling the company to stay ahead.

Strategy Execution and Competitive Differentiation

VicOne actively engages with J-Auto-ISAC (Japan Automotive Information Sharing and Analysis Center) to stay informed of the latest automotive industry trends and maintain its competitiveness. Its strategic participation in J-Auto-SAC enables VicOne to collaborate with other automotive supply chain stakeholders to co-create automotive solutions with embedded security and align its go-to-market strategy with Japan's automotive industry requirements.

It is involved in industry ventures such as the Mobility in Harmony (MIH) Consortium and has partnerships with Tier 1 automotive suppliers, including Panasonic Automotive Systems, Hitachi Astemo, TIER IV, and NXP Semiconductors. For example, the company's collaboration with Panasonic Automotive focuses on co-creating solutions to tackle software vulnerabilities in modern electronic control units. Both companies jointly developed a robust security system for the virtualization platform that enables VicOne solutions to monitor communication data on this platform and protect modern cockpit systems and software-defined vehicles (SDVs) from cyberattacks targeting software or application vulnerabilities. Frost & Sullivan

attributes VicOne's rapid expansion in the Japanese automotive market to its efforts in continuously driving innovation to identify and resolve industry pain points. Despite being a recent industry entrant and a newly founded subsidiary under Trend Micro, VicOne demonstrates tremendous potential in forging strategic alliances and collaborative projects in the automotive cybersecurity industry.

The company benefits from Trend Micro's strong brand reputation in Japan, which gives it a significant advantage over other local players. As eight of the top 10 automotive companies use Trend Micro's cybersecurity solutions, VicOne can tap into this critical customer base to co-create automotive solutions for a better, more secure automotive environment.

Price/Performance Value and Customer Ownership Experience

As automotive cybersecurity is an emerging market, stakeholders need a reliable cybersecurity partner that can help them implement, embed, and integrate automotive cybersecurity into their solutions. VicOne's modular automotive cybersecurity solutions enable customers to purchase what they need at each stage without sacrificing their existing cybersecurity infrastructure. Customers can choose solutions according to the complexity of their system and cybersecurity maturity level instead of buying a complete system from the start.

VicOne's pricing is flexible to suit customers' size, system complexity, cybersecurity maturity, and number of vehicles required for monitoring. Backed by an adept understanding of industry requirements, VicOne can deliver customized solutions and services that best align with customer needs. The modular design of its offerings and third-party integration support allow customers to purchase the required product according to their current needs without compromising their existing cybersecurity investment. For instance, if a customer has security information and event management (SIEM) in its system, it can opt to buy only VicOne's analysis engine instead of the entire vehicle security operations center platform. In this

"Despite being a recent industry entrant and a newly founded subsidiary under Trend Micro, VicOne demonstrates tremendous potential in forging strategic alliances and collaborative projects in the automotive cybersecurity industry."

– Vivien Pua Senior Industry Analyst scenario, customers can provide output to third-party systems or receive external output by integrating with VicOne's solutions. The flexibility of its offerings enables the company to secure a growing number of automotive customers.

Customers trust the accuracy and reliability of VicOne's intensive threat assessment capabilities, supported by its parent company's deep expertise in threat intelligence, more than 450 professional threat researchers and data scientists from 100 countries, to collect global vulnerabilities

24/7. The company's close collaboration with government and law enforcement agencies, including Interpol, the United Nations, the Federal Bureau of Investigation, and the United States Department of Homeland Security, strengthens its ability to obtain real-time threat feeds and enhance its detection accuracy. VicOne's solutions demonstrate this robust threat intelligence capability and vulnerability discover capability with a stellar track record of successfully blocking over 9.4 billion threats in 2021 with Trend Micro, cementing its reputation as a formidable force in Japan's automotive cybersecurity industry.

Brand Equity

VicOne is building brand equity through differentiated automotive cybersecurity offerings. For example, VicOne is now collaborating with Hitachi Astemo, a leading mobility solutions provider, to embed invehicle security solutions that detect and mitigate cyberattacks targeting connected cars.

Under the joint development with Hitachi Astemo, which began in October 2021, VicOne will commercialize the cybersecurity solution to secure IVI systems in connected cars from vulnerability exploitation. Frost & Sullivan applauds VicOne's relentless focus on forging relationships with new and existing customers to bolster its reputation and branding in Japan's automotive cybersecurity market.

Conclusion

VicOne stands out in the Japanese automotive cybersecurity industry because of its in-depth expertise, robust product expansion efforts, strategic partnerships, flexible pricing approach, and highly skilled threat intelligence and customer support teams. This winning combination has enabled the company to achieve a competitive edge and strengthen its brand positioning in the automotive cybersecurity market.

With its strong overall performance, VicOne earns Frost & Sullivan's 2023 Competitive Strategy Leadership Award in the Japanese automotive cybersecurity industry.

What You Need to Know about the Competitive Strategy Leadership Recognition

Frost & Sullivan's Competitive Strategy Leadership Award recognizes the company with a stand-out approach to achieving top-line growth and a superior customer experience.

Best Practices Award Analysis

For the Competitive Strategy Leadership Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

Strategy Innovation

Strategy Effectiveness: Effective strategy balances short-term performance needs with long-term aspirations and overall company vision

Strategy Execution: Company strategy utilizes Best Practices to support consistent and efficient processes

Competitive Differentiation: Solutions or products articulate and display unique competitive advantages

Executive Team Alignment: Executive team focuses on staying ahead of key competitors via a unified execution of its organization's mission, vision, and strategy

Stakeholder Integration: Company strategy reflects the needs or circumstances of all industry stakeholders, including competitors, customers, investors, and employees

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

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



