

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

2024 CUSTOMER VALUE LEADER

*IN THE NORTH
AMERICAN BUILDING
AUTOMATION SYSTEMS
INDUSTRY*

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

BEST
2024 PRACTICES
AWARD



Delta Intelligent Building Technologies

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. Delta Intelligent Building Technologies excels in many of the criteria in the integrated smart building 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

Rising Demand for Smart Buildings: Growth and Market Trends

The buildings industry is undergoing a massive transformation, driven by a growing emphasis on energy efficiency, sustainability, and advanced operational needs. In response, building technology companies are increasingly adopting integrated smart building solutions to enable remote management and improve efficiency. Building Automation Systems (BAS) pioneered this revolution, leveraging the Internet of Things (IoT), artificial intelligence (AI), and machine learning to provide real-time monitoring, predictive maintenance, and automated fault detection. Frost & Sullivan appreciates how these technologies drive operational efficiencies and support strong cybersecurity standards.

The global BAS market is projected to grow strongly, reaching \$7.9 billion by 2028 with a compound annual growth rate of 6.6%.¹ Europe leads in BAS adoption, followed closely by North America, while the Asia-Pacific region is expanding due to rising urbanization and smart city initiatives. Meanwhile, the Middle East, Africa, and Latin America are emerging markets that demonstrate promising growth potential due to new regulations targeting energy efficiency and sustainability.

The industry has shifted from capital expenditure to an operational expenditure model, highlighting a stronger focus on service-oriented business approaches. Frost & Sullivan points out that this transition underscores the value of partnerships and collaborations for meeting skill demands and driving product and service innovation.

¹ Frost Radar™: Global IoT and AI based Building Automation Market (Frost & Sullivan, May 2023)

Delta Intelligent Building Technologies: Pioneering Innovation in Smart Building Solutions

Founded in 1980 and headquartered in Vancouver, Canada, Delta Intelligent Building Technologies is a global leader in integrated smart building solutions, providing advanced technology that sets new

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benchmarks in flexibility, security, and interoperability. The company addresses industry-wide challenges proactively, including the shortage of skilled engineers and rising labor costs, by exploring AI solutions. AI streamlines product development, installation processes, and facility management, offering efficiencies across Delta Intelligent Building Technologies’ operations. By leveraging AI, the company enhances its product offerings and prepares customers and partners for the next evolution in building automation, aligning with industry trends toward improved efficiency.

The company’s Red5 product line, a next generation Building Automation and Control Network (BACnet) controller series, offers secure and scalable IoT

connectivity designed to meet modern building automation demands. The series features enhanced processing speed, greater memory, and increased modularity of inputs/outputs, enabling clients to deploy future-ready systems that fit seamlessly within existing infrastructures.

Additionally, Red5 allows users to integrate new components into existing infrastructures, minimizing costly overhauls. By incorporating Node-RED and Python programming, it enables highly customizable applications for various use cases, from heating, ventilation, and air conditioning control to advanced data center management. This technological flexibility is complemented further by Delta Intelligent Building Technologies’ pioneering role in the development of BACnet Secure Connect (BACnet/SC), an industry-leading communication protocol that ensures 128-bit encryption across all system levels. As the first company to implement BACnet/SC across its architecture, Frost & Sullivan notes that Delta Intelligent Building Technologies clearly addresses the critical need for robust cybersecurity in interconnected environments.² This innovation solidifies the company’s role as an industry innovator that prioritizes resilience and customer trust through secure and flexible technology.

In addition to its cybersecurity efforts, Delta Intelligent Building Technologies emphasizes interoperability by offering products compatible with multiple open protocols (including BACnet Ethernet/IP, Modbus, LINKnet, and Red5BUS). This cross-protocol flexibility ensures seamless integration of new components within existing infrastructures, eliminating compatibility barriers that frequently hinder system upgrades. Its technological adaptability, paired with secure open standards, reflects the company’s proactive approach to industry needs, empowering clients to integrate versatile, secure solutions that maximize

² Frost & Sullivan’s Interview with Delta Intelligent Building Technologies (October 2023)

their return on investment. The company's dedication to consistent, high-performance innovation establishes it as a trusted leader in the smart building industry.

Delta Intelligent Building Technologies' dedication to research and development (R&D) continues to drive its success. Through innovations such as the O3 Sensor Hub, which uses infrared technology for precise temperature sensing, the company showcases its attention to high-stakes applications like healthcare, where environmental control is essential for patient safety and regulatory compliance. In 2025, Delta Intelligent Building Technologies plans to launch the O5 thermostat, a wall-mounted device that stands out as the only thermostat on the market capable of measuring temperature from across the room.³ Furthermore, the Red5 series' open protocol integration and BACnet/SC compatibility also highlight its commitment to future-ready systems, enabling clients to integrate various technologies and data sources into a unified network.

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Tailored for Excellence: Delta Intelligent Building Technologies' Flexible Smart Building Solutions

Delta Intelligent Building Technologies secures a leading position in the smart building sector by offering flexible solutions for diverse applications across industries, including healthcare, data centers, and life sciences. These sectors demand high-performance systems that can manage complex operations while adhering to strict standards. The company's solutions comply with industry regulations such as ASHRAE (American Society of Heating, Refrigerating, and Air-Conditioning Engineers) Guideline 36 for healthcare, ensuring precise environmental control and cybersecurity measures for critical infrastructure.

The Red5 product line offers unparalleled flexibility to meet these industry requirements, with specific models like Red5-EDGE, which features enhanced processing power and security measures, and Red5-FIELD, a retrofit solution designed for easy integration with existing infrastructures. Red5-FIELD includes increased GCL+ programming space and a USB port for future enhancements, making it an ideal upgrade for complex automation environments that demand secure and reliable functionality.⁴

To support the need for data integrity and secure communication, Delta Intelligent Building Technologies integrates BACnet/SC, which authenticates and encrypts each device on a network, closing longstanding security gaps in building automation and simplifying system integrators' workflows. This protocol's one-click encryption management minimizes the need for specialized training, ensuring secure network communication without open firewall ports, meeting critical compliance requirements in industries like healthcare and life sciences.

³ Ibid.

⁴ <https://deltacontrols.com/products/red5/>

This compatibility with open protocols allows users to integrate Delta Intelligent Building Technologies' systems seamlessly into various spaces. For example, in healthcare, Red5 controllers offer advanced processing power and enhanced security to meet stringent requirements. This flexibility extends to life sciences, with laboratory environments demanding high precision, and to data centers, where operational continuity and system redundancy ensure reliability.

Delta Intelligent Building Technologies also responds to the evolving needs of the commercial real estate sector, where developers are increasingly integrating smart building technologies to enhance property appeal. The company is well-positioned to lead this transformation, offering seamless solutions that allow clients to retrofit existing buildings with minimal disruption. This approach greatly enhances operational efficiency and tenant experience, while empowering clients across industries to expand their systems with future-ready technologies.

Frost & Sullivan applauds Delta Intelligent Building Technologies' regulatory alignment and industry-specific innovations, affirming its leadership in transforming smart building technologies across sectors. By addressing the precise needs of various industries, the company sustains a cross-sector impact,

positioning it as a critical player in the evolution of smart building technologies.

"Frost & Sullivan commends Delta Intelligent Building Technologies' approach to strategic growth, recognizing its localized production and focus on market-specific demands. By combining agility with impactful partnerships, the company secures a robust framework for sustained market leadership globally, ensuring that its solutions remain relevant to evolving client needs."

- Ain Sarah Aishah
Best Practices Research Analyst

Customer-centric Approach: Driving Long-term Value

Delta Intelligent Building Technologies' customer-centric approach prioritizes seamless experience at every stage, from installation through long-term system management. Its Proviso provisioning application streamlines installation and reduces costs by enhancing workflows and minimizing the time required for setup.⁵ The Red5 series' backward compatibility demonstrates this focus further, enabling clients to upgrade individual components

without a full system replacement, which maximizes the lifespan of existing investments. This solution underscores the company's commitment to operational efficiency, facilitating a seamless transition to advanced automation.

Delta Intelligent Building Technologies properly understands that building automation solutions extends beyond technology, requiring expertise and a dedicated team to deliver and support these systems effectively. As a result, it emphasizes close collaboration with its system integrators, equipping them to provide exceptional service and support to end-users. The company also actively engages with customers through advisory boards and direct feedback channels, incorporating end-user insights into product development to ensure relevance and flexibility.

⁵ Ibid.

In response to the growing demand for direct manufacturer-client relationships, Delta Intelligent Building Technologies has developed a corporate account program, strengthening ties with large customers seeking uniformity across regions. Combining the company's technology and the local expertise of systems integrators, this program creates a hybrid model that appeals to customers looking for technical and logistical support. This approach allows Delta Intelligent Building Technologies to retain a competitive edge in a market where direct client relationships increasingly influence purchase decisions.

By prioritizing minimal disruption, cost-effective upgrades, and user-driven innovation, Delta Intelligent Building Technologies creates tangible long-term value for its clients. It fosters a customer-centric approach that builds trust and loyalty through sustainable and flexible system investments. Frost & Sullivan acknowledges the company as a proactive leader, setting new standards in customer-focused solutions that anticipate and adapt to evolving needs.

Strategic Growth and Global Reach

Delta Intelligent Building Technologies drives its expansion across key global markets, notably in North America, Europe, and fast-developing regions like China and India. In Canada, the company has achieved 15% growth, exceeding the market rate. Meanwhile, the United States remains a core revenue driver, contributing nearly 50% of Delta Intelligent Building Technologies' global sales. To strengthen its growth in China, the company implemented a "China for China" strategy, manufacturing building controllers domestically to meet local market demands.⁶

The company also invests in long-term regional initiatives that align with evolving geopolitical dynamics. Recently, Delta Intelligent Building Technologies expanded its team in Hong Kong and built partnerships in India to cater to high-growth markets. Backed by Delta Electronics, its parent company, the company benefits from the infrastructure needed for rapid scaling, reflecting its commitment to localized production and efficient international growth.

Additionally, Delta Intelligent Building Technologies' strong focus on price-performance value strengthens its market position. During the global supply chain disruption where prices surged, the company absorbed a portion of increased costs rather than passing them entirely onto customers, prioritizing long-term customer relationships and price stability. This decision led to one of its most profitable years since the COVID-19 pandemic, underscoring the company's commitment to delivering high-performance, cost-effective solutions. By balancing affordability with advanced functionality, Delta Intelligent Building Technologies solidifies itself as a reliable partner for clients across sectors, providing cost-efficient and reliable systems.

Strategic partnerships play an essential role in Delta Intelligent Building Technologies' growth. Collaborating closely with system integrators allows the company to tailor solutions to regional needs and broaden its international footprint. These partnerships increase growth opportunities in recession-resistant sectors (e.g., healthcare and data centers), while supporting expansion into emerging areas (e.g., commercial real estate and smart city solutions). In data centers, Delta Intelligent Building Technologies

⁶ Frost & Sullivan's Interview with Delta Intelligent Building Technologies (October 2023)

collaborates with tech giants like Google on initiatives such as building operating systems, underscoring its role in advancing secure and innovative solutions across major sectors.

Frost & Sullivan commends Delta Intelligent Building Technologies' approach to strategic growth, recognizing its localized production and focus on market-specific demands. By combining agility with impactful partnerships, the company secures a robust framework for sustained market leadership globally, ensuring that its solutions remain relevant to evolving client needs.

Conclusion

Frost & Sullivan applauds the way that Delta Intelligent Building Technologies exemplifies impressive leadership in the integrated smart building solutions market through its pioneering technology and commitment to customer-centric innovation. By advancing secure and flexible solutions, the company addresses current and future industry demands, demonstrating an exceptional understanding of sector-specific needs across healthcare, data centers, and life sciences. Strategic partnerships and localized production enhance its global reach, enabling Delta Intelligent Building Technologies to adapt swiftly to market dynamics and geopolitical shifts.

The company's dedication to research and development and pioneering contributions to open protocols distinguish it as a proactive innovator, fostering customer loyalty through cost-effective and resilient solutions. Through these efforts, Delta Intelligent Building Technologies sustains its position as a trusted partner, empowering clients to achieve long-term value and operational efficiency with future-ready systems. As the industry evolves, the company's comprehensive approach solidifies its role in shaping the future of smart building technology globally.

With its strong overall performance, Delta Intelligent Building Technologies earns the 2024 Frost & Sullivan Global Enabling Technology Leadership Award in the integrated smart building 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

