

FROST & SULLIVAN

DELTA CONTROLS

2022
COMPETITIVE
STRATEGY
LEADER

*GLOBAL IoT-ENABLED SMART
BUILDING 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. Delta Controls excels in many of the criteria in the IoT-enabled smart building solutions space.

AWARD CRITERIA	
<i>Strategy Innovation</i>	<i>Customer Impact</i>
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

Delta Controls: Process-driven, Innovation-led, and Trusted Provider

Established in 1982 and headquartered in Surrey, British Columbia, Canada, Delta Controls is an industry-leading manufacturer and provider of trailblazing building automation systems (BAS). Leveraging 40 years of expertise and a global partner network in over 80 countries, the company facilitates reliable and user-friendly control solutions for commercial, healthcare, hospitality, education, and leisure buildings. Delta Controls considers its network of distributors a family of companies united under one guiding philosophy, do it right. Its commitment to excellence is a core value that pilots all company decisions. Through long-term support, Delta Controls provides its partners with all repairs, technical support, production, warranty, software, and firmware services, all performed at its North American facility.¹

Delta Controls mainly serves the original equipment manufacturer, original brand manufacturer, and original design manufacturer markets. More than 400 Delta Controls Global Systems Integrators act as customers' local service and support centers. It is process-driven and identifies and addresses customers' requirements to build solid, strategic partnerships. Users can directly access the company's Professional Development Services team for tailored solutions.

¹ <https://deltacontrols.com/about/>

In addition to building and industrial automation, Delta Electronics (their parent company) delivers telecommunication power systems, passive and magnetic components, networking products, visual displays, data center infrastructure, renewable energy and energy storage, and electric vehicle charging infrastructure. Amongst other features, Delta Controls' offerings integrate heating, ventilation, and air conditioning controls, occupant controls, energy management systems, lighting controls, and access control. Its O3 Sensor Hub, Wi-Fi thermostat, and mobile application (app) give users full charge over customization and activity-based controls. Customers also maximize connectivity with EnOcean, Modbus, Mbus, Wi-Fi, and Bluetooth for added sensing technology and equipment and user connection. Delta Controls has also equipped its technology with Power over Ethernet (for integration opportunities and

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Best Practices Research Analyst**

lower installation costs) and BACnet Openness for connecting site systems and equipment.² The company sustains its robust market position with its dedicated client management team, professional development services, global footprint, standardized pricing, procurement options, technical support, and supply chain transparency. Delta Controls also offers classroom courses and comprehensive electronic learning through George University throughout the year. Furthermore, it supports a training program to

teach technicians how to become Delta Controls Experts and offers virtual training options. So far, the company has certified more than 15,000 technicians.

Delta Controls implements a consultative approach, offering value-added brainstorming discussions for seamless execution and empowering customers to augment their businesses through innovation, integration, and technology. The company removes the risk from product integration through its efficient business framework. Its unique approach establishes ongoing trust with customers for long-lasting relationships extending throughout the product lifecycle.

The company's state-of-the-art and easy-to-install O3 Sensor Hub offers a top-down view from the center of the room and accurately detects light, humidity, motion, temperature, and sound. It supports users' BAS with the data required to make cost-effective and occupant-friendly decisions through a complete sensor package. O3's Sensor Fusion technology allows users to communicate with occupants through a red, blue, and green light ring and an integrated speaker. Moreover, it measures surface temperatures precisely with infrared sensors. "O3 Sensor Hub replaces multiple room sensors with a one-per-room cost-competitive solution when installed together with an O3 room controller."³

As a part of its O3 products portfolio, Delta Controls offers two cutting-edge Internet of Things (IoT)-enabled products: the O3 Sense and Edge. The O3 creates a new touchless world and integrates with the touchless apps occupants already use. O3 products wirelessly connect with customers' phones without requiring internet. The O3 mainly improves the environment for customers and their staff with advanced temperature sensing. This technology utilizes Sensor Fusion to amplify occupancy detection and

² <https://deltacontrols.com/oem-solutions/>

³ <https://deltacontrols.com/products/o3-sensor-hub/>

temperature reading with seven different sensors. Additionally, the O3 responds fast when occupants leave the room. It turns off lights, lowers heating and ventilation, and saves money.⁴

O3 Edge (Edge Controller) and O3 Sense (Edge Sensor) are standalone, multisensor, open-platform IoT devices that can integrate with almost any system. With support for BACnet, MQTT, EnOcean (O3-EDGE-02-E8 and O3-EDGE-02-E9 models only), and BLE protocols, O3 Edge employs industry-leading sensor fusion technology and machine learning to present the most accurate view of the interior space. The O3 is easy-to-install and allows for configuration out of the box using just a smartphone. The product also includes two universal input/output (I/O) points that help control and accept inputs from nearby devices. This capability is optimum for controlling light ballasts and chilled-beam ceiling valves.

O3 Edge supports up to 32 EnOcean wireless devices (O3-EDGE-02-E8 and O3-EDGE-02-E9 models only) and incorporates Bluetooth Low Energy application programming interfaces (APIs) for developing custom apps. It also has a Dual Ethernet connection (high-speed data transfer) for daisy chaining in large spaces and offers pass-through communication even during power outages.⁵ The O3 Edge also uses a programming tool, Node-RED, that works very well in wiring together hardware devices, APIs, and online services. With almost similar features as O3 Edge, O3 Sense is different in terms of application as it does not include EnOcean and I/O points and is not programmable.

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Earning Clients' Trust and Loyalty through Customer-centric Practices

Delta Controls' approach goes beyond its extensive expertise and best-in-class capabilities, with customer value as a strategic imperative. Through the years, the company has earned a sterling reputation supporting customers' path towards innovation and development. Unlike competitors, Delta Controls builds its technology, collaborating closely with partners to evolve alongside market needs and trends. In May 2021, the company published a whitepaper demonstrating the flexibility and easy integration of the O3 Edge to Microsoft Azure IoT by applying a more concise and economic architecture to collect and store data for enterprise environments. The paper also covers instructions and code examples on configuring and setting up an O3 Edge to send data using the AMQP protocol over the internet to applications in the Microsoft Azure cloud.⁶

Since its inception, Delta Controls' sterling reputation and customer-centric framework led to its coveted preferred partner status. Over the years, it added a range of new partners and case studies to its established base. For example, in May 2021, the company announced that Forest Rock, the United Kingdom and Ireland-based leading IoT, technology, and smart building solutions provider and a renowned cybersecurity company, added Delta Controls' O3 to its outstanding portfolio of product offerings.

⁴ <https://deltacontrols.com/products/o3/>

⁵ *O3_Edge_Catalog_Sheet* (Delta Controls, 2021)

⁶ <https://deltacontrols.com/news-and-events/measuring-occupancy-part-2-connecting-a-delta-controls-o3-edge-to-azure-iot/>

“We see the O3 Sensor Hub as an exciting new edition to our range of IoT products, and we are delighted to be partnering with Delta Controls to promote this to the UK & Ireland market.”

- Nick Cooper, Director of Sales and Marketing, Forest Rock

Case Studies for O3 Sense and Edge

In South Florida, the founders of a large church wanted to ensure the well-being, comfort, and health of their members and staff and incorporate new technology into their existing building management system (BMS) to improve their occupant’s experience. In the sanctuary, there are 17 air conditioning units; some have traditional wall thermostats and the others use return air sensors for temperature control. The challenge was that the wall thermostats were too far away from the controlled zone, and there was zone

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overlap from the thermostats’ location, leading to excessive energy usage to get to the desired temperature. Moreover, this overcooled the space, and the sound level in some areas of the sanctuary was not optimum. The church members had difficulty hearing worship owing to the social distancing mandate during the COVID-19 pandemic. The facility staff did not have a way to measure sound in different areas properly. Delta Controls addressed this issue by installing three O3 Sense units in the sanctuary’s open space and two units over two balcony areas, delivering the best vantage point for enhanced sensing and accurate control of the environment. With all O3 Sense

units monitoring the sound decibel level, the facility staff could make better decisions on where they needed to make the sound upgrades. Delta Controls’ O3 Sense made it easy for the customer to control and maintain the ideal temperature in the sanctuary, enriching occupants’ comfort and facilitating energy savings.⁷

A university wanted to augment its existing BMS with advanced technology and maintain the comfort and well-being of students while condensing energy consumption and protecting the room equipment. In the students’ housing dorm rooms, the customer wanted to increase sanitation, decrease vandalism on thermometer wall stats, and save energy when the occupants were not using the space and when their windows were open. To meet these requirements, Delta Controls removed and replaced the existing thermometer wall stats and installed ceiling-mounted O3 Edge Hubs. The placement of the O3 Edge eliminated the need to sanitize wall stats and lowered vandalism and overrides. Since the O3 Edge has a better vantage point for occupancy, sensing motion, sound, and thermal load monitoring for occupancy, air conditioning shuts down automatically if no one uses the space or has their window open. The company set up a pilot to compare the O3 Edge temperature to the existing smart thermostat. The O3 temperature readings were far more linear and consistent. The comparisons showed the ways to secure

⁷ Sanctuary O3 Case Study (Delta Controls)

energy savings. Furthermore, the vantage point of the ceiling mount O3 offered better accuracy on temperature sensing, prompting a quicker response to the controller.⁸

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Conclusion

Frost & Sullivan believes that innovation and growth opportunities drive present and future success; many factors play a role, yet having a competitive strategy is significant. Delta Controls understands this core concept and is leading the Internet of Things-enabled smart building solutions market with its focused strategy, helping it to outpace competitors. It is process-driven and addresses customers' needs to build and sustain strategic partnerships. Harnessing 40 years of knowledge and a global partner network in 80+ countries, Delta Controls delivers dependable and comprehensible control solutions for commercial, healthcare, hospitality, education, and leisure buildings. Its state-of-the-art, innovative, and customer-centric O3 Sense and Edge products help save energy, effort, and time. Overall, Delta Controls develops and implements its strategies with its customers in mind, securing its position as a trusted partner and market leader.

With its strong overall performance, Delta Controls earns Frost & Sullivan's 2022 Global Competitive Strategy Leadership Award in the IoT-enabled smart building solutions industry.

⁸ *University O3 Case Study* (Delta Controls)

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

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™.

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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)**

