



Stratus Technologies Recognized as the

2021

Company of the Year

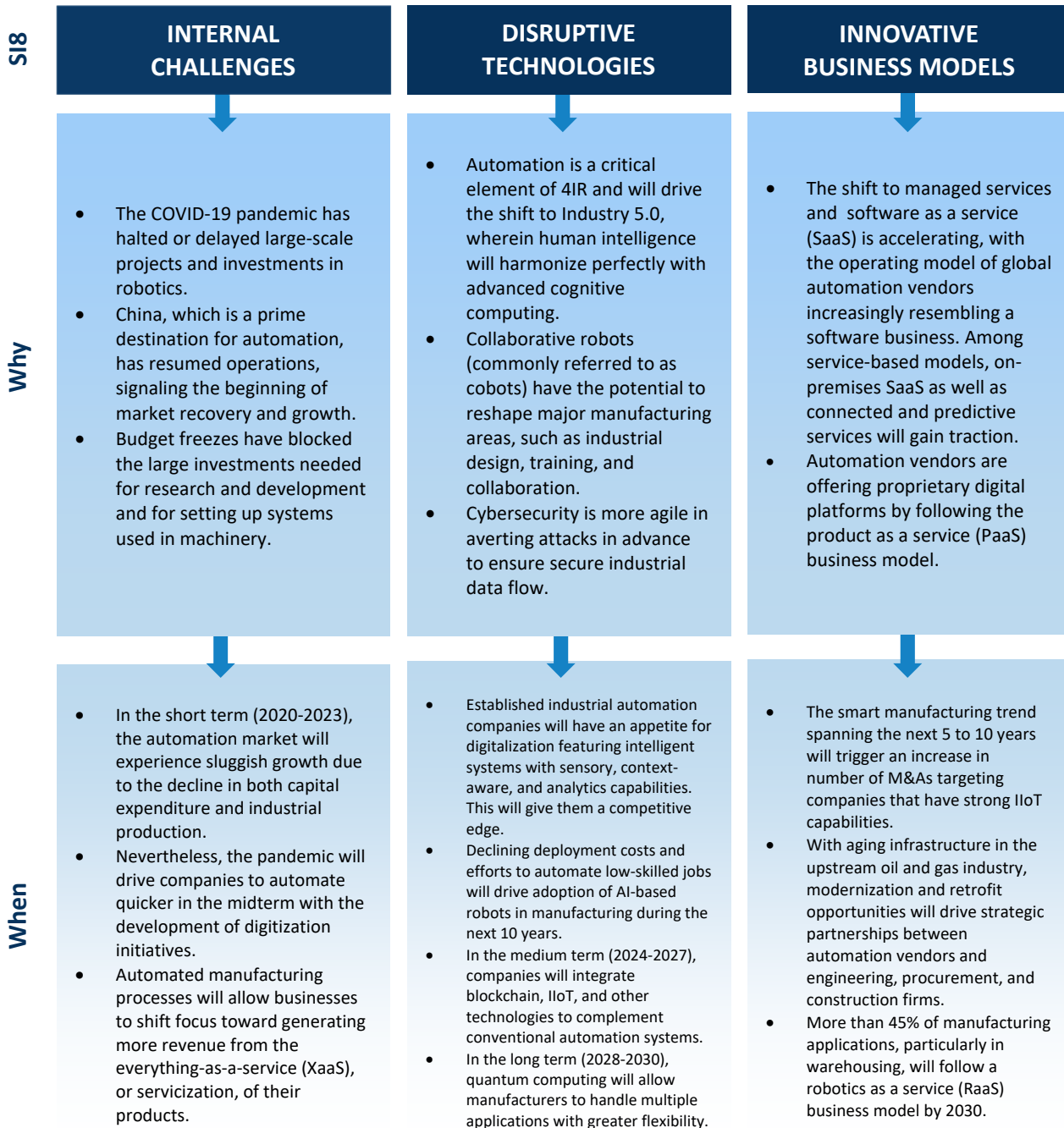
North American

Edge Infrastructure Industry

Excellence in Best Practices

Strategic Imperatives

Frost & Sullivan identifies three key strategic imperatives that impact the automation industry: internal challenges, disruptive technologies, and innovative business models. Every company that is competing in the automation space is obligated to address these imperatives proactively; failing to do so will almost certainly lead to stagnation or decline. Successful companies overcome the challenges posed by these imperatives and leverage them to drive innovation and growth. Frost & Sullivan’s recognition of Stratus Technologies is a reflection of how well it is performing against the backdrop of these imperatives.



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. Stratus Technologies excels in many of the criteria in the edge infrastructure market.

AWARD CRITERIA	
<i>Visionary Innovation & Performance</i>	<i>Customer Impact</i>
Addressing Unmet Needs	Price/Performance Value
Visionary Scenarios Through Mega Trends	Customer Purchase Experience
Implementation of Best Practices	Customer Ownership Experience
Leadership Focus	Customer Service Experience
Financial Performance	Brand Equity

Driving Edge Technology Forward

Frost & Sullivan research finds that the need to co-relate data with context at-source currently drives the market for edge technology. In manufacturing, factories depend on uptime to predict machine maintenance needs. Moreover, those enterprises looking for edge solutions often require a small and rugged form factor with the necessary computation features, high reliability and availability. Considering this, Maynard, Massachusetts-headquartered Stratus Technologies (Stratus) introduced in 2018 the Stratus ztC™ Edge, which stands for “zero-touch computing.” The company conducted comprehensive beta testing with its customers to design an infrastructure-based solution to eliminate costly downtime associated with low-performing applications. The result was a custom system purpose-build for industrial edge environments. Stratus designed the ztC Edge to look like an industrial appliance, creating a thinner, shorter, more lightweight, and taller form factor than the standard competing rack servers such as an assembly line, factory floor, or wastewater treatment plant.

Frost & Sullivan finds Stratus strikes a balance between ztC Edge's rugged hardware and high-performance software. Due to the extreme environments and temperatures that company's customers operate in, Stratus designed the ztC Edge to withstand harsh temperatures and poor air quality. Additionally, the server is mountable for tables, walls, and other surfaces, and it withstands heavy

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machinery vibration and shock up to 50 peak acceleration, and three root-mean-square acceleration at 5 to 500 hertz. During the initial testing with customers, Stratus noted significant performance metrics due to the ztC Edge's ease-of-use, built-in redundancy, and virtualization, which are key technology drivers for industrial deployments. As a result, Stratus' technology achieves deployment in under 30 minutes with constant around-the-clock monitoring, which translates to increased operational efficiency,

reduced operational technology (OT) and information technology (IT) burdens, as well as lowered downtime risks.

Stratus' ztC Edge overtakes the competition in various ways, particularly through its purpose-built features. Much of the competition approaches the market with off-the-shelf communication technology that is traditionally server-based and struggles from interference and proper sequencing issues. Although these vendors add robustness through software interface capabilities, it is still an adaptation. Stratus understands that this type of technology is not a one-size-fits-all. As a result, it builds the solutions bottom-up to ensure it addresses the customer's relevant needs. For example, several Stratus customers requested a guest-monitoring feature to enable operators to monitor virtual machine applications running through the managerial user interface on the ztC Edge. It also creates parameters and thresholds that alert the administrator should an internal application reach its limit. The software powering ztC Edge is a proprietary system that does not exist anywhere else in the market. More importantly, Frost & Sullivan finds Stratus differentiates itself through its operational simplicity and its "always on" technology. Traditional servers and high-availability clusters leverage multiple servers for recovery should a server in the cluster fail; Stratus built these features into its fault-tolerant software. The company designed and purpose-built its technology to address the primary downtime and data loss causes, such as hardware failover, human error, and component and software revision incompatibilities.

Transforming the Future

The increasing hype surrounding edge computing currently drives technology vendors to reposition their portfolios to reflect “edge” and “cloud.” Moreover, the continued IT and OT convergence has several enterprises rushing solutions to unify these teams into a hybrid environment. Stratus supersedes many of its competitors as the ztC Edge is the only purpose-built edge solution that enables simple and always available virtualization for critical IT and OT operations.

- **Industrial Interoperability:** Stratus’ ztC Edge supports common industrial protocols, such as Open Platform Communications Unified Architecture and Simple Network Management Protocol. This simplifies integration and operation with existing industrial environments, enabling operators to request, trap, monitor, visualize, and notify systems and users. Moreover, a Representational State Transfer application performance interface enables users to retrieve and deliver system health and performance data to third-party system management tools and dashboards. Stratus also offers a simple yet comprehensive web-based systems management solution with centralized at-a-glance views of system health, resource usage, and software versioning called ztC Advisor, which is noted below.
- **Simplified Security:** Stratus prioritizes cybersecurity by integrating several features into its ztC Edge, assisting users with little to no security experience to secure their edge computing systems. For example, a host-based firewall empowers users with blacklist- and whitelist-specific internet protocol addresses, domain names, or ports. All data sent between ztC Edge nodes is through secure, encrypted channels, as is communication to and from Stratus. These features make the ztC Edge inherently secure.
- **OT Manageability:** ztC Edge features the integrated Edge Console, which facilitates and supports remote monitoring and management. This simplifies system and software management saves time and money, particularly for those customers that contract out or incur a charge for system administrative services.
- **Rugged, Hot-swappable Nodes:** The compact, rugged designed ztC Edge installs in a variety of industrial settings and locations, providing robust flexibility. The hot-swappable design empowers plant operators and technicians to repair the system when necessary without requiring trained IT intervention.
- **Scalable System Replication:** The ztC Edge platform templates are multi-purpose, enabling operators to use them for backing-up system preferences and restoring single platforms, as well as provisioning multiple platforms, resulting in critical savings in time and costs. Automating repeatable processes results in reduced user errors and scalable system replication, increasing the accuracy and efficiency in commissioning multiple systems.

Stratus continues to alter and adapt its technology to growing concerns such as security. With its June 2020 update, Stratus introduced a new cloud-based file repository, called the Stratus Cloud. Within this cloud, partners and customers transmit, store, and retrieve their ztC Edge system preference templates safely. The Stratus Cloud differs from other third-party cloud vendors. It authenticates users and groups, leveraging the same credentials as their Stratus Customer Service Portal account, saving them time and effort. Moreover, key word and metadata fields within the ztC Edge Console enable unique template descriptions, and encrypted channels to prevent tampering, ensuring integrity.

Simplifying and Protecting Data

A pioneer in fault-tolerant servers and systems, Stratus leveraged this credibility to establish an identity as a vendor in the industrial edge computing space. Moreover, it expands its availability, particularly by achieving Amazon Web Services (AWS) Internet of Things (IoT) Core cloud platform certification and Microsoft Azure-certified for IoT certifications. These certifications simplify the pairing of market availability IoT solutions with ztC Edge, enabling Stratus' platform to collect data and analytics easily, simplifying and streamlining delivery to the AWS or Microsoft cloud through one connection. This certification enables Stratus to focus on being simple-to-use and secure, as the Stratus ztC Edge easily integrates into AWS or Microsoft-based cloud environments and ensures edge data stores seamlessly with advanced analytics on AWS and Microsoft, which offers increased efficiency and system management.

Additionally, Stratus's leadership identified potential penetration in the pharmaceutical and life science markets, as the company's always-on technology and significantly short downtime directly address critical needs in these markets. Stratus provides the continuous availability that life science companies require to run systems such as electronic batch records, and manufacturing integration and intelligence. The ability to ensure batch quality and enable researchers to identify abnormalities in real-time is game-changing, as it translates to high cost-efficiency and less waste. Stratus secured relationships with many of the top pharmaceutical companies in areas including manufacturing process control and monitoring as a result.

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Additionally, in service of its commitment to simplicity, in December 2020, the company announced a new management solution for the ztC Edge infrastructure. The ztC Advisor is a secure web portal that empowers operations or IT personnel with keen visibility into ztC Edge health and utilization, translating into issue improvements, enhanced productivity, and mitigated risk. Similar to the ztC Edge, ztC Advisor is simple-to-use, meaning operators do not require advanced knowledge to use it. Additional features include end-to-end comprehensive asset management, centralized dashboard, user-defined groups, secure-push technology, and integration with Stratus Service Portal and ztC Edge platforms.

Seamless, Secure Technology

Through market feedback, Stratus discovered a key challenge regarding the Industrial IoT is the large investments required to achieve full effectiveness. In response, Stratus designs its technology to maximize value, quality, safety, and profitability through predictive, reliable, and affordable maintenance. A significant point of differentiation for Stratus' ztC Edge is the investment costs. The system costs \$5,000 to \$15,000, depending on single or dual node deployment, which is 30% lower than offerings from high-end edge computing technologies. By alleviating the pricing concerns, Stratus further its position as one of the key vendors in the edge computing market, as it disproves the common belief that a digital technology required significant investment and large fault-tolerant equipment to reap the benefits from edge technology.

Stratus further strengthened its ztC Edge with the June 2020 announcement of the platform update. When designing the update and these features, Stratus focused on improving deployment and provisioning, further quickening and simplifying the installation of the platform in multiple locations. Moreover, Stratus built out the ztC Edge's manageability, security, and enhancements. These additions aid partners and customers by further reducing operations and maintenance costs, minimizing data loss risks and ensuring high availability of all critical processes. For example, Stratus made management improvements by enabling users to store system settings and preferences on local drives or the Stratus Cloud. The company also simplifies backup and restoration through automated processes, reducing errors and varying template creation and archival for different user cases, workloads, or locations, rendering system commissioning more efficient and accurate.

The ztC Edge is Microsoft Azure-certified for IoT, translating to seamless interoperability throughout a plant floor and beyond. IoT projects' complexity often results in long implementation times, which means lost revenue due to downtime. By selecting a Microsoft Azure-certified partner, customers save time and effort on projects. Considering this, Stratus' certification translates to faster time-to-value for customers than the competitors who do not possess this certification.

Moreover, Stratus expanded the ztC Edge 110i memory capacity to 64 gigabytes supporting a broader range of memory-intensive industrial workloads. This expanded memory offers significant flexibility for customers that must consolidate multiple applications, such as supervisory acquisition and data acquisition systems, on one machine. Not only does this save costs, but it increases agility as well. Additionally, the ztC Edge 110i platform now possesses Class I Division 2 certification, which makes it safe for deployment in hazardous locations, enabling the technology to operate effectively in a wide variety of industrial settings with more significant environmental variability.

Foundational Customer Support and Service

Stratus finds customer success is a critical factor in overall market positioning, and as such, it maintains a customer focus before, during, and after purchase. Reflecting its commitment to simplicity and efficiency, Stratus created One-Click Licensing, which only requires a customer to click a button. From there, the system automatically downloads the license and installs it to the system, eliminating the additional steps and setup requirements that accompany the competition. The company builds on its commitment to customer success by ensuring client satisfaction through customer service and support.

For example, ztC Edge offers two types of around-the-clock managed support services: Service Support and System Health. Both services provide and maintain edge workload availability and virtualized computing environments:

- Service Support offers technical support via a web browser or phone, with a 30-minute critical response service level agreement for rugged hardware, virtualization software, and availability layer. This package also offers additional services such as advanced parts repair and exchange, root cause identification with Stratus experts, and secure online self-service support services. This service package also features advanced parts repair and exchange.
- System Health further extends customer protection through proactive around-the-clock ztC Edge platform monitoring, alert triage, log file review, predictive failure analysis, and media retention. As a result, System Health proactively identifies and addresses issues before they grow in severity, guaranteeing business uptime and empowering operators to focus on other issues.

Frost & Sullivan finds Stratus's commitment to customer value combined with its leading technology provides a robust value proposition that delivers ongoing satisfaction for its customers, translating to high loyalty and well-positioning the company for future growth.

Conclusion

Despite the ongoing push toward edge computing, several manufacturing enterprises still resist due to preconceived notions regarding investment and integration costs. Stratus firmly differentiated itself in 2018 with the launch of its ztC Edge platform that simplifies, automates, and secures industrial data at the edge. Since then, the company continues to add incremental value to the edge platform market, by delivering industry-leading deployment times under 30 minutes, features such as guest-monitoring and virtualization, as well as through groundbreaking proprietary software that does not exist elsewhere on the market. Stratus Technologies pairs this technological excellence with keen customer focus, including comprehensive service options, a simplified one-click purchase process, and other customer support service programs. As a result, Stratus well-positions itself as a holistic partner, one that helps guide customers on their digitalization journey and discover the benefits of edge computing.

For its technological excellence, differentiated technology, well-structured customer support, and strong overall performance, Stratus Technologies earns Frost & Sullivan's 2021 North America Company of the Year Award in the edge infrastructure market.

What You Need to Know about the Company of the Year Recognition

Frost & Sullivan's Company of the Year Award is its top honor and recognizes the market participant that exemplifies visionary innovation, market-leading performance, and unmatched customer care.

Best Practices Award Analysis

For the Company of the Year Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

Visionary Innovation & Performance

Addressing Unmet Needs: Customers' unmet or under-served needs are unearthed and addressed by a robust solution development process

Visionary Scenarios Through Mega Trends:

Long-range, macro-level scenarios are incorporated into the innovation strategy through the use of Mega Trends, thereby enabling first to market solutions and new growth opportunities

Leadership Focus: Company focuses on building a leadership position in core markets and on creating stiff barriers to entry for new competitors

Best Practices Implementation: Best-in-class implementation is characterized by processes, tools, or activities that generate a consistent and repeatable level of success

Financial Performance: Strong overall business performance is achieved in terms of revenue, revenue growth, operating margin, and other key financial metrics

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

