

# Edge Market Research from Stratus and Espalier Reveals Top Use Cases and Industries Driving Up to 46% Growth Through 2026

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Edge Computing is essential for business-critical data and processes in monitor and control, supply chain, manufacturing execution and batch management, asset performance management, and access control

MAYNARD, Mass. — July 13, 2022 — **Stratus Technologies**, a global leader in simplified, protected, and autonomous **Edge Computing** platforms, and **Espalier** a specialized strategy analytics consulting firm, today **shared market research** identifying key use cases and industries projected to drive Edge Computing adoption up to 46% through 2026. The findings project strong market demand for simple, protected, autonomous Edge Computing solutions as part of combined software and hardware architectures required for business-critical processes in monitor and control, supply chain, manufacturing execution systems (MES) and batch management, asset performance management (APM), and access control use cases.

In completing a comprehensive study of the global Edge Computing market, Espalier's global team of strategists and analysts applied advanced analytics to define markets and technology adoption. Incorporating primary and secondary research and proprietary analytics, the study projects growth of Edge Computing and related technologies across industries over a five-year period.

"For nearly 20 years, Espalier has studied the edge compute market worldwide, and there's no question edge is approaching a key inflexion point, post-pandemic. Enterprises across verticals are looking to complement prior cloud deployments by transforming how they collect data and manage critical processes at the edge with the highest levels of reliability," said Dr. Inder Thukral, CEO of Espalier.

“In that context, our collaboration with Stratus examined five-year market growth for edge, based on value of technology disruption, business-critical use cases, requirements for fault tolerance and reliability, market sizing by industry need, and regional variances. We believe Stratus’ Edge Computing platforms and services combined are well positioned to support the broad opportunity, estimated at up to 46% growth, for those industries pursuing digital transformation at the Edge.”

OT EDGE AUTOMATION TO LEAD  
EDGE COMPUTING GROWTH POST-  
COVID

The research assessed a range of Edge Computing uses cases for horizontal Industry 4.0 technologies such as IoT devices and platforms, artificial intelligence (AI) and analytics, cybersecurity, augmented reality (AR)/virtual reality (VR) as well as traditional enterprise software workloads in industrial and non-industrial verticals. Applications were grouped by operations technology (OT) and information technology (IT) and reveal growth for three segments:

- OT workloads – software running machine and equipment processes at edge locations in industrial environments governed by OT teams with a focus on PLCs and safe operations; projected to grow up to 46%
- Edge OT workloads – applications for monitor and control of machines and equipment focused on analytics, maintenance, and AR; projected to grow up to 13%
- Edge IT workloads – software running site-wide industrial applications such as distributed control systems (DCS), batch management, analytics and asset performance with significant oversight by IT; forecast to grow up to 28%

CRITICAL USE CASES AND  
INDUSTRIES TO BENEFIT FROM  
EDGE TRANSFORMATION

As organizations digitally transform, Edge Computing solutions are critical to ensuring uptime as well as providing key insights and visibility into daily processes at the location where products are being made and customers are being served. The most immediate Edge Computing use cases driving adoption include:

- Monitor and Control with HMI SCADA: Edge Computing platforms deliver the performance and fault tolerance required to run and scale HMI SCADA and historian applications reliably for critical equipment and processes. With compute capability at the Edge, organizations enable data acquisition, real-time processing and data storage for visibility, analysis, and decision making.

- Supply Chain Visibility and Automated Material Handling (AMH): Edge Computing provides the ideal combination of computing power, performance, and reliability to support warehouse automation and automated material handling, including tracking and tracing assets to avoid data blind spots in the supply chain and the elimination of system downtime to avoid revenue loss.
- Manufacturing Execution and Batch Management: Manufacturers run MES, Batch and Quality applications close to production lines and critical equipment for real-time data acquisition and control, supporting operational resiliency and driving manufacturing excellence while connecting the shop floor-to-top floor.
- Asset Performance Management (APM): Edge data from critical equipment and processes provides a foundation for APM solutions. Edge Computing enables the capture, organization and processing of data sets locally and then delivers data to the cloud for deeper analysis, while also providing remote operation and mobile access to data and performance.
- Access Control & Building Management: Edge Computing enables building management to consolidate systems, including security, access control, and utilities onto a single platform.

The research also identifies these use cases as being of high value in select industries, notably:

- Oil & Gas: Edge Computing meets key operations goals for remote operation, efficiency, and safety in Upstream and Midstream with the ability to develop smart, connected oilfield equipment, enable terminal automation, and pipeline assets.
- Digital Manufacturing for Discrete, and Complex Discrete Industries: Broadly, Edge Computing is a foundational technology for Industry 4.0 manufacturing initiatives in a range of manufacturing areas such as electronics, semiconductor, automotive, and consumer goods.
- Life Sciences and Pharmaceutical Manufacturing: Production execution, reliability, quality, and compliance are critical processes powered by Edge Computing to eliminate data loss and unplanned downtime for Life Sciences.
- Smart Infrastructure & Renewables: Edge Computing deployment is ideally suited for monitor and control and access control towards development of smart transportation systems, renewable power generation, building automation, and water and wastewater for smart cities.

EDUCATION WITH THE STRATUS  
EDGE COMPUTING EXPERIENCE

To illustrate the wide range of Edge Computing use cases and environments in industrial automation, Stratus developed the **Stratus Edge Computing Experience (ECX)** which provides end users, Solution Builders, OEMs, and SIs an immersive experience to explore edge automation.

To learn more about Stratus' Edge Computing platforms please visit [www.stratus.com](http://www.stratus.com).



## ADDITIONAL RESOURCES

- **Stratus and Espalier Edge Market Research**
- **Stratus ftServer**
- **Stratus ztC Edge**
- **Stratus ECX**
- **Stratus Authorized Partners**

## ABOUT ESPALIER

Espalier is a specialized strategy analytics consulting firm enabled by technology and was born out of the conviction that high stakes decision making requires expertise in both the strategy craft and AI technologies. Our tech-enabled service is built on a proprietary AI platform that collects, contextualizes, and analyzes multiple streams of data and signals – utilizing innovative taxonomies, ontologies, knowledge graphs, natural language processing, machine learning and graph analytics in support of the craft of strategy. Since 2011, we have advised several Fortune 1000 companies, investment banks, private equity firms to understand and exploit market opportunities. For more information, please visit us at <https://www.espalier.ai/>

## ABOUT STRATUS

For leaders digitally transforming their operations to drive predictable, peak performance with minimal risk, Stratus ensures the continuous availability of business-critical applications by delivering zero-touch Edge Computing platforms that are simple to deploy and maintain, protected from interruptions and threats, and autonomous. For 40 years, we have provided reliable and redundant zero-touch computing, enabling global Fortune 500 companies and small-to-medium sized businesses to securely and remotely turn data into actionable intelligence at the Edge, cloud and data center – driving uptime and efficiency. For more information, please visit [www.stratus.com](http://www.stratus.com) or follow on Twitter [@StratusAlwaysOn](https://twitter.com/StratusAlwaysOn) and LinkedIn [@StratusTechnologies](https://www.linkedin.com/company/stratus-technologies)

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