

2023 Frost & Sullivan Company of the Year Award

The Global Multi-Access Edge Computing Industry
Excellence in Best Practices

Congratulations!

Frost & Sullivan is proud to present Verizon with this year's Best Practices Company of the Year Award in the global multi-access edge computing industry.

Frost & Sullivan's global team of Growth Pipeline experts continually identifies and evaluates growth opportunities across multiple industries, technologies, and regions of the world. As part of this ongoing effort, we identify companies that consistently develop growth strategies based on a visionary understanding of the future and effectively address new challenges and opportunities. This approach involves the deployment of best practices and strategic analytics across a value chain. Against this backdrop, Frost & Sullivan recognizes Verizon for its valuable achievement.

Frost & Sullivan reserves this recognition for companies at the forefront of innovation and growth in their respective industries. These companies consolidate their leadership positions by innovating and creating new products, solutions, and services that meet ever-evolving customer needs. By strategically broadening their product portfolios, leading companies advance the overall market. Driving innovation and growth is a difficult task made even harder by the strategic imperatives forcing change today, such as disruptive technologies, value chain compression, industry convergence, and new business models. In this context, Verizon's recognition signifies an even greater accomplishment.

Moreover, this recognition is the result of many individuals (employees, customers, partners, and investors) making critical decisions every day to support the organization and contribute to its future. Frost & Sullivan enthusiastically acknowledges and celebrates their contributions.

Once again, congratulations on your accomplishments. We wish you great success!

Sincerely,



David Frigstad
Chairman
Frost & Sullivan

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. Verizon excels in many of the criteria in the multi-access edge computing space.

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

Exploring Growth Opportunities in the Global MEC Market

The global multi-access edge computing (MEC) market is growing as telecommunication operators and cloud providers launch commercial services and begin to scale. Edge computing involves relocating intelligence, data processing, analytics, and communication capabilities to the points where data originates, such as network gateways or endpoints. This technology brings computing closer to the data source, facilitating time-sensitive processing and enhancing business flexibility by offering improved management and quicker insight access. Moreover, MEC provides significant benefits, including low latency, improved user experience, enhanced privacy and security, scalability, and support for various applications. As data-driven companies and governments require a significant data stream for real-time analytics, the MEC adoption continues to grow. Frost & Sullivan's research finds that 5G and MEC technologies will drive innovation for consumers and businesses in the next ten years. Frost & Sullivan forecasts the total MEC market revenue will achieve \$16,282.2 million in 2025, expanding at an impressive compound annual growth rate of 115.9% from 2021 to 2025.¹

¹ Global Multi-Access Edge Computing Growth Opportunities (Frost & Sullivan, July 2022)

An Established Leader Driving Significant Outcomes

Founded in 2000 and headquartered in New York, United States (US), Verizon is a global information and communications technology company. With an extensive presence in 150+ countries, Verizon provides a range of technology and communications services. Verizon offers voice, data and video services and solutions on its award-winning networks and platforms, delivering on customer's demand for mobility, reliable network connectivity, security and control. The company has built robust brand equity by prioritizing innovation, dependability, and exceptional customer service. Its technology solutions notably cover 99% of Fortune 500 companies. Verizon's approach highlights its state-of-the-art technology and capacity to link individuals and enterprises globally. In 2022, Frost & Sullivan recognized Verizon for its leadership in the MEC market and remains impressed with the company's continuing innovation.

Verizon acknowledges the growing importance of low latency in the business landscape. Consumers and organizations anticipate real-time responses, answers, and experiences that align seamlessly with their

“With a deep-rooted history of purpose-fit innovation, Verizon shapes the industry's trends, impacting its role in the MEC market. The company's fundamental value proposition relies on enhancing customer experience and ensuring the availability of tools and deployment models that align with customer needs.”

- Renato Pasquini
Vice President Research

“as-it-happens” expectations. Frost & Sullivan highlights that by 2026, the forecast estimates there will be a total of 66 billion connected devices worldwide.² Thus, Verizon's public and private MEC portfolio marketed under the name Verizon 5G Edge, aims to enable the development of large-scale, latency-sensitive applications, reduce the jumps across network equipment and consolidate information, thereby cutting roundtrip latency, accelerating processing, and conserving bandwidth within an existing network.

With a deep-rooted history of purpose-fit innovation, Verizon shapes the industry's trends, impacting its role

in the MEC market. The company's fundamental value proposition relies on optimizing business outcomes, enhancing customer experience and ensuring the availability of tools and deployment models that align with customer needs. Mustering a seamless service integration, Verizon works closely with partners to provide reliable product delivery. Hence, partnerships are a core component of the company's strategy, fostering agility through network services, such as network slicing, which allows for the agile deployment of applications with precise quality-of-service policies. In partnership with Amazon Web Services (AWS), Verizon pioneered public MEC services launching Verizon 5G Edge with AWS Wavelength, with comprehensive coverage in 19 US metropolitan cities. The company's remarkable financial performance showcases successful investments and a strategic outlook that positions 5G as a pivotal driver for revenue growth in the forthcoming years. Furthermore, Verizon generated revenues of \$136.8 billion in 2022.³

² 2022 Update—Total Internet of Things (IoT) Device Forecast, 2018–2027 (Frost & Sullivan, October 2022)

³ <https://www.verizon.com/about/our-company/verizon-fact-sh>. Accessed November 2023.

Verizon MEC: Delivering Low-latency, Robustness, and Flexibility

Verizon recognizes that businesses prioritize connectivity, using it as a pathway to introduce computing and application mechanisms as they handle growing data that requires effective harnessing, consumption, and processing to facilitate intelligent decision-making. To effectively deploy a successful strategy, Verizon identifies three essential components. First, a robust technical connectivity platform capable of managing data with the necessary performance. Second, a complementary compute infrastructure that aligns with the connectivity setup, enabling scalable and real-time data processing for actionable insights. Third, the device ecosystem plays a crucial role in integrating into this interconnected platform alongside connectivity and computing. Verizon stands out in these three elements. Since its inception, it has built a solid infrastructure, partnerships with hyperscalers for computing, and a significant presence in the device market.

Verizon offers the most comprehensive solution portfolio in the market, spanning robust features and capabilities. Highlights include its availability to leverage localized data capabilities at its source, allowing improved performance for context-sensitive applications and fortified security measures. Moreover, MEC is critical in reducing energy consumption and the need for batteries in Internet of Things devices, enabling rapid and expansive scalability. Furthermore, Verizon's technology empowers clients to connect their applications to optimal service endpoints within their edge applications using the Edge Discovery Service Application Programming Interface. By evaluating the device's current location, internet protocol anchor location, and ongoing network traffic, the service determines the most suitable 5G edge platform for device connectivity.

With a consolidated public MEC, Verizon extended its capabilities by offering private MEC to clients with specific requirements such as increased security, data control, and sovereignty. Verizon's private MEC comprises a robust portfolio, enabling private connected devices and closed networks, ensuring extended coverage and reliability, particularly within large facilities. . Emphasizing neutral host and multi-operator carrier networks, the company focuses on reducing upfront, as well as evolutionary, costs and expanding services in collaboration with partners and cloud providers. In addition, Verizon launched a Network-as-a-Service trailer with 5G and MEC in September 2023 for faster and cheaper implementations of Private MEC. One key differentiator is its ability to simplify complex security policies, support various market strategies, and emphasize customer flexibility.

Overall, Verizon's 5G Edge offering aims to simplify the customer experience, enabling clients to adopt a scalable technology without commitment to major investments for future developments over the next five to ten years. For instance, by offering neutral host, in-building capabilities, and private networks within a unified architecture, Verizon ensures that clients' investments do not require additional spending for future expansions. Its solutions address unmet client needs, allowing them to operate mission-critical applications within wireless networks with ultra-low latency, almost in real-time. Verizon's capabilities empower data-driven companies to succeed in various applications, including cashierless checkout, crowd analytics, digital twins, quality assurance, computer vision, augmented, mixed, virtual reality, augmented manufacturing safety, manufacturing logistics, and machine analytics.

Frost & Sullivan applauds Verizon for implementing best practices that address unmet needs in the MEC space, delivering the most extensive coverage with a solid and flexible infrastructure.

Continuous Support and Innovation Ensures Client Satisfaction

Verizon maintains its leadership position by cultivating a robust brand reputation rooted in its dedication to innovation, reliability, and exceptional customer service. The company commits to delivering distinct business outcomes by simplifying clients' experience. Therefore, it built a customer portal, enabling users to manage connectivity and activate, monitor, and deactivate users and devices. This portal enables feature customization and prompts alerts for addressing emergent issues. Verizon's on-site network dashboard delivers an integrated user experience, encompassing device specifics, network details, infrastructure, and applications. The company's approach excels in serving customer needs, providing a comprehensive toolset, and delivering seamless experiences.

Verizon's MEC portfolio stands out for its flexibility and versatility. It adapts to various customer preferences, ranging from self-management using the customer portal and pre-configured network for an independent operation to dedicated network management services, especially for clients with

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- Valentina Barcia
Best Practices Research Analyst

application-centric requirements. The company serves multiple industry verticals, including manufacturing, healthcare, outdoor venues, events, transportation, logistics, finance, entertainment, and retail. By streamlining business processes through automation, Verizon leverages secure and reliable connectivity, reducing costs and boosting revenue streams significantly.

Prominent clients trust Verizon to embrace MEC's benefits to deliver an outstanding user experience. For instance, The Florida Panthers, a US team of the National Hockey League, partnered with Verizon to improve the user experience at Amerant Bank Arena. By applying Verizon 5G Edge, the client established a cashierless checkout platform, enabling clients to make frictionless purchases and quickly get back to their seats. From a business perspective, the client increased its sales and enhanced integration with the arena's inventory and point-of-sale systems, achieving more efficient record management and allocation of resources.

"Verizon has the resources at their fingertips to be able to throw a lot of firepower behind a project on a tight timeline. We got this turned around in a matter of weeks."

- Bryce Hollweg, Chief Operating Officer, Florida Panthers⁴

⁴ <https://www.verizon.com/business/resources/customer-success-stories/the-florida-panthers-deliver-an-all-star-fan-experience/>. Accessed November 2023.

Another significant case study highlights Verizon's support in implementing a private 5G solution for the Associated British Ports (ABP). The Port of Southampton in the United Kingdom receives nearly 600,000 vehicles annually and needs to gather real-time data from drones, cameras, and sensors. Leveraging Verizon's private 5G network, the client strategically installed eight access points across 200 to 230 acres within the port. This partnership delivered substantial outcomes, significantly reducing latency for ABP. As a result, the port authority streamlined its network infrastructure and communication processes for employees and customers, enhancing overall security measures.

"The network delivers low latency, which really helps us to give better service, better reliability and more consistency to our customers."

- Beatriz Moore, Head of IT Strategy & Architecture at ABP⁵

Verizon uses client feedback and industry trend monitoring to guide its product roadmap and continuously evolve its solutions to maintain its competitive edge. Moreover, the company developed a 5G Innovation Hub Program to connect Verizon's solutions with clients to foster collaboration and innovation. The initiative provides access to cutting-edge 5G technology, enabling partners to explore, test, and develop innovative solutions. This program testifies to Verizon's constant endeavor to upgrade its solutions. It facilitates partnerships, offers resources, and supports the development of transformative ideas. Frost & Sullivan acknowledges that Verizon's integrated approach and close relationships position it as a preferred vendor.

Conclusion

As businesses and customer expectations evolve towards real-time responses, answers, and experiences, the multi-access edge computing market grows, driving its adoption. With consolidated brand recognition, Verizon adopts a strategic vision emphasizing connectivity to allow ultra-low latency in critical applications while delivering business outcomes and improving user experience. Frost & Sullivan believes Verizon is a disruptor in the MEC industry with a strong leadership focus that incorporates customer-centric strategies and exemplifies best practice implementation. Its ability to provide flexible and value-added services sets Verizon apart from competitors. The company remains a trusted partner, earning a reputation for offering the overall best.

With its strong overall performance, Verizon earns Frost & Sullivan's 2023 Global Company of the Year Award in the multi-access edge computing industry.

⁵ <https://www.verizon.com/business/resources/casestudies/associated-british-ports.pdf>. Accessed November 2023.

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

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™.

[Learn more.](#)

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

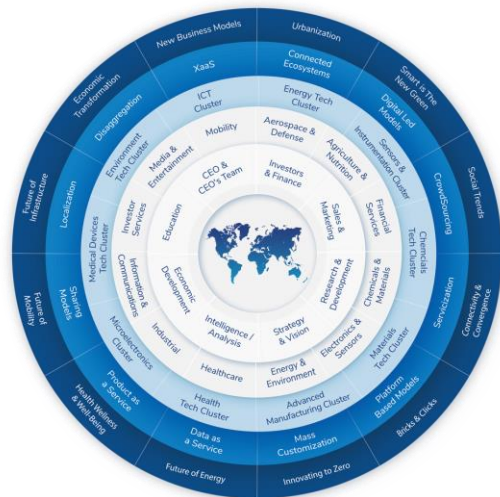


The Innovation Generator™

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)



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