

2023 Frost & Sullivan Competitive Strategy Leadership Award

The North American Dedicated Internet Access Industry
Excellence in Best Practices

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Congratulations!

Frost & Sullivan is proud to present Spectrum Enterprise with this year's Best Practices Competitive Strategy Leadership Award in the North American dedicated internet access 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 Spectrum Enterprise 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, Spectrum Enterprise'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. Spectrum Enterprise excels in many of the criteria in the dedicated internet access space.

AWARD CRITERIA	
Strategy Innovation	Customer Impact
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

Extensive Network Footprint and Diverse Technologies Helps Stay Ahead of the Competition

Charter Communications is one of the most prominent broadband connectivity companies and cable operators in the United States. The company earned close to \$54 billion in revenues in 2022, serving over

“Spectrum Enterprise holds a competitive position among network service providers in the United States, offering its FIA service at the same price for on-net and a large number of near-net buildings without charging any construction costs to enterprises. As evidence of its robust and reliable networks, Spectrum Enterprise’s fiber often serves as the underlying network of the largest US companies. The company serves over 80% of Fortune 500 companies, including telecom, carrier, large cloud service providers, and streaming companies.”

- Amrit Singh
Senior Industry Analyst

32 million customers with broadband, voice, video, and mobile services across 41 states. Spectrum Enterprise, part of Charter Communications, is a national provider of enterprise network services across business tiers. Spectrum Enterprise’s network services portfolio is powered by its extensive network footprint comprising 230,000+ fiber route miles and 279,000 fiber-lit buildings, with 110 carrier partners and 560 interconnects in the United States. Spectrum Enterprise’s extensive network footprint is a key differentiator that allows it to offer a gamut of network services to all sizes of businesses.

Leveraging its network footprint, Spectrum Enterprise delivers its fiber internet access (FIA) service, offering symmetrical speeds up to 100 Gbps, accommodating the increasing demand for high bandwidth connectivity of its

large customer base across business tiers. Spectrum Enterprise holds a competitive position among network service providers in the United States, offering its FIA service at the same price for on-net and a large number of near-net buildings without charging any construction costs to enterprises. As evidence of its robust and reliable networks, Spectrum Enterprise's fiber often serves as the underlying network of the largest US companies. The company serves over 80% of Fortune 500 companies, including telecom, carrier, large cloud service providers, and streaming companies.

Customer-centric Approach Delivers Superior Ownership Experience

Enterprises increasingly rely on cloud-based applications to simplify and enhance business processes. The ever-increasing reliance on the industrial internet of things (IIoT), cloud computing, and connected ecosystems emphasizes the need for high bandwidth connectivity. Enterprises prefer service providers that offer uninterrupted high bandwidth connectivity with low latency. Spectrum Enterprise's strong network performance and robust service level agreements (SLAs) attract enterprises to operate their entire business on its network. Spectrum Enterprise offers some of the industry's strongest SLAs, with 99.99% service availability (from the customer premises), less than 45 milliseconds of latency, and less than 2 milliseconds of jitter, and a 4 hour mean-time to restore target. The company's FIA service includes a scalable platform that supports customers' current and future bandwidth requirements and secure traffic routing over its Internet Protocol (IP) network. In addition, the company integrates a network interface device (NID) on customers' circuits to provide end-to-end service-level management and service performance visibility, all backed by a single point of contact for support and service.

Wireless internet can be critical for businesses looking for a redundant backup service for uninterrupted connectivity for their day-to-day operations. With its FIA service, Spectrum Enterprise offers an optional wireless internet service that includes a managed appliance at the customer site that monitors the network. The appliance automatically re-routes traffic over the wireless internet if connectivity is lost. Spectrum Enterprise's 4G long-term evolution (LTE)-based wireless modem supports automatic failover and fallback, delivering up to 10 Mbps of symmetrical bandwidth to run critical applications during interrupted connectivity. Moreover, all the services delivered with FIA come with 24-hour, US-based customer support to resolve any issues. Spectrum Enterprise stands out in the North American DIA services market, offering industry-leading SLAs and the ability to scale bandwidth through NID.

One-Stop Shop—Diversified Network Services Portfolio Enhances Customer Purchase Experience

Enterprises prefer network service providers that can address their varied connectivity and network infrastructure needs. Spectrum Enterprise makes it easy for customers to purchase and deploy its FIA service by offering flexibility and scale with symmetrical bandwidth tiers up to 100 Gbps across its network, which can be easily upgraded based on changing needs. To enhance the customer experience, the company also offers a range of managed services, such as security, routing, Wi-Fi, and unified communications, that are typically used along with internet services. Spectrum's Sales Engineers and Solution Architects design, deliver, and manage these services for the enterprise and provide them visibility through an online portal. In addition to offering FIA service, the company acts as a one-stop shop by offering a range of products and services so that customers benefit from a comprehensive service

experience. The company's portfolio includes managed software-defined wide area network (SD-WAN), Ethernet wide area network (WAN), managed router, cloud connect, managed security, distributed denial-of-service (DDoS) protection, unified communication, and video services.

Enterprises are increasingly investing in implementing hybrid and multi-cloud configurations as part of their distributed IT infrastructure. With that, robust connectivity to data centers has become a priority so

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that distributed users can seamlessly access cloud applications for efficient business operations. Spectrum Enterprise's Enterprise Network Edge (ENE) platform supports an ecosystem of services, including hybrid networks, network protection and threat mitigation, and advanced SD-WAN networking. Powered by Fortinet, ENE builds a secure network for distributed business locations and supports speeds up to 100 Gbps. ENE primarily caters to businesses with complex networking requirements and advanced threat protection needs. Furthermore, Spectrum Enterprise's Managed Network Edge (MNE) offering, based on Cisco Meraki, caters to all business sizes, providing

connectivity, routing, security, Wi-Fi, video surveillance, and SD-WAN in one easy-to-manage solution.

Security is the top priority for enterprises as they become increasingly distributed, with users accessing the network from various devices and locations, making them vulnerable to cyber threats. To address the growing concern of cybersecurity threats, in May 2023, Spectrum Enterprise collaborated with Cisco to introduce an additional security layer in the form of the Secure Access with Cisco Duo and Cloud Security with Cisco+ Secure Connect solutions, strengthening its cybersecurity portfolio. Both these solutions are integrated with its ENE and MNE products to provide extra security to businesses that rely heavily on cloud applications and have widely distributed branch locations.

With its solid network services portfolio, Spectrum Enterprise competes among the top network service providers in the United States. Spectrum Enterprise was ranked high on the Growth and Innovation indexes and positioned among the top 5 dedicated internet access (DIA) services players in the 2023 Frost Radar on North American DIA services.¹

Commitment to Community Service Strengthens Brand Equity

Charter Communications is committed to serving underprivileged communities in the states where it has a presence. Engagement programs include Spectrum Digital Education, Spectrum Community Center Assist, Spectrum Employee Community Grants, Spectrum Community Investment Loan Fund, and Spectrum Scholars. The company recognizes that due to a lack of awareness and training resources, underserved communities often don't have digital skills, which can be a severe handicap in today's technology-driven world. To address this issue, under Spectrum Digital Education, Charter engages with

¹ [Frost Radar™: Dedicated Internet Access in North America, 2023](#)

and offers grants to nonprofit organizations that help community members, including senior citizens, understand how broadband can improve their lives. Additionally, these nonprofit organizations educate and train underserved community members in developing digital skills and provide laptops and tablets when needed so that they can access education, healthcare, and employment-related resources via the internet. Over the past six years, Charter has partnered with over 100 nonprofit organizations, spending over \$9 million on Spectrum Digital Education. The company reports that this program has benefited over 100,000 underprivileged people in 22 states across the United States.

Conclusion

Frost & Sullivan recognizes Spectrum Enterprise's FIA service as one of the most competitive in North America. The company's services are delivered nationally backed by market-leading SLAs, 4G LTE-based wireless backup for automatic failover and failback, NID flexibility to upgrade speeds without hassle, and an easy-to-use customer portal. Spectrum Enterprise offers a diversified network services portfolio that leverages its extensive network footprint in 41 US states to deliver low-latency connectivity speeds of up to 100 Gbps. Spectrum Enterprise's fiber is often the underlying network of enterprises as it serves over 80% of Fortune 500 companies. The company positions itself as a one-stop shop offering one of the most diversified network services portfolios, comprising managed SD-WAN, Ethernet WAN, MNE, ENE, DDoS mitigation, cloud connect, managed security services, unified communications, and video services allowing its customers to choose from a varied range of network solutions.

For its remarkable performance, Spectrum Enterprise earns Frost & Sullivan's 2023 North America Competitive Strategy Leadership Award in the DIA industry.

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™.

[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

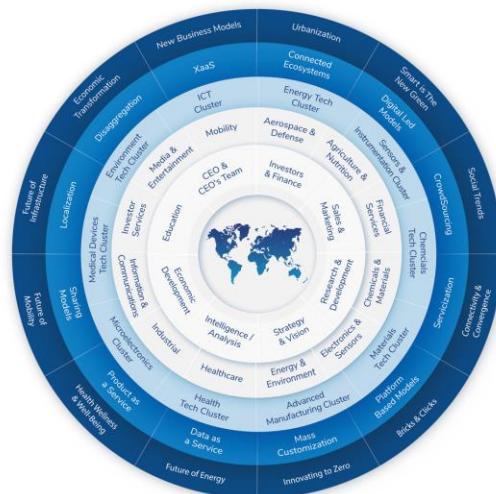


The Innovation Generator™

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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