FROST & SULLIVAN

CIRION TECHNOLOGIES

2022 COMPETITIVE STRATEGY LEADER

LATIN AMERICAN

DATA CENTER 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. Cirion Technologies excels in many of the criteria in the data center 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

Industry Challenges and Market Overview

Data Centers are the foundation for the digital economy and represent an essential part of an enterprise and government digital infrastructures. Frost & Sullivan's research finds that enterprises continue to

"Cirion Technologies' primary mission is to deliver the best customer experience possible. Continuous efforts on networking, Edge cloud, and security and collaboration solutions improve upon existing business applications and pave the company's enhanced data center services roadmap. Cirion Technologies commits to improving the customer experience by communicating and being responsive to customers, establishing trust, and offering seamless solutions."

- Steven Lopez, Best Practices Research Analyst outsource their data operations to third-party colocation service providers that specialize in data center operations. The growing need for hyperscale capacity from public cloud providers, over-the-top (OTT) content, and media segments play a significant role in the demand for data center colocation services during the digital transformation. The rising digital adoption from enterprises brought on by the COVID-19 pandemic created a higher demand for storage and compute capabilities in data centers. Ongoing research continues to support trends and growth opportunities in Latin America as the demand for new data center infrastructure increases.

1

¹ Global Data Center Colocation Trends and Growth Opportunities (Frost & Sullivan, April 2022)

² Ibid.

The focus on new architecture, e.g., Edge data centers, leads organizations to reshape their information technology (IT) infrastructure and shift from a centralized colocation data center (or the cloud) to a distributed Edge data center.

Companies seek reduced latency for certain applications and data centers on the Edge that will help

"Cirion Technologies' alignment of network and colocation services is mainly focused on the retail segment. Its emerging technology trends of Edge data centers create a strong value proposition. The company continues to expand across multiple markets in Latin America with growing success in digital content delivery and gaming segments."

- Kriti Yadav, Industry Analyst minimize latency. Other drivers include improvements to data center infrastructure, quality, availability, and compliance with security and storage industry policies. Frost & Sullivan recognizes the growing potential in the market globally and uncovers even greater opportunities in Latin America as countries experience rapid digital transformation across enterprises.

Continued Recognition of a Trailblazing Company

Cirion Technologies is a leading digital infrastructure and technology company backed by years of expertise, assets, and capabilities in the global telecommunications industry. After the sale of Lumen's Latin American business to Stonepeak, Cirion Technologies became an independent company within the Stonepeak portfolio, and continues to drive innovation and offer best-in-class unified communication solutions to the Latin American region. The company provides customers with robust infrastructure, network, and data center options that align with the trends in the market and establishes a solid presence across Latin America with telecommunications connectivity. In 2020, Frost & Sullivan recognized Cirion Technologies (previously Lumen's Latin American business, and now an independent company within the Stonepeak portfolio) globally in the holistic web protection market and in 2021 for its excellence in collaboration services. Based on continued research, Frost & Sullivan highlights Cirion Technologies' achievements and strategic approaches the company makes in the data center services market and remains impressed with its continued innovation and sustained leadership.

Success in Fast-growing Segments

Cirion Technologies' primary mission is to deliver the best customer experience possible and has the purpose of furthering progress in Latin America through technology. Continuous efforts on networking, Edge cloud, and security and collaboration solutions improve upon existing business applications and pave the company's enhanced data center services roadmap. Cirion Technologies commits to improving the customer experience by communicating and being responsive to customers, establishing trust, and offering seamless solutions. Frost & Sullivan notes that the company further strengthened its value proposition and commitment to offering customers a combination of network strength and data center footprint and managed services. These services bridge the cloud, IT infrastructure, and the Edge for workloads and applications, ultimately providing a complete end-to-end solution to perform optimally where digital interaction occurs.³ The company's strong value proposition helps it to address customer

_

³ Hyperscalers Driving Colocation Growth in Latin America (Frost & Sullivan, November 2021)

needs with data center and network offerings, more so, capacity across the region connected to the network. Two key aspects of this value proposition for colocation services include the first, communication capabilities. The Latin American region is fully connected through the network with access to global public cloud locations using private links. The second is its robust data center web that connects its data centers across the region that includes infrastructure, processes, and services certifications. Emphasizing its direct connectivity to the cloud, Cirion Technologies' interconnected four new cloud service provider (CSP) data centers enable access, from Latin America, to the main global CSPs. In Latin America, Cirion Technologies' strong presence consists of 18 data centers operating in countries like Argentina, Brazil, Chile, Colombia, Ecuador, Peru and Venezuela.⁴ Cirion Technologies is in line with certifications such as ISO 9001, 14001, 20000, 27001, 27017, 27018 and 45001, PCI-DSS, ISAE 3402 SOC 1 / SOC 2 and SOC 3, Tier III, and SAP Outsourcing Operation Partner. Throughout 2021, Cirion Technologies' regional data centers in Latin America completed four new certification processes that include ISO 22301 (São Paulo, Cotia, Brazil), ISO 27018 for Cloud Services (Santiago, Huechuraba, Chile), and ISAE3402 SOC 2 and ISAE3402 SOC 3 in Bogota, Colombia. These new certifications ensure the highest level of quality and compliance. Cirion Technologies taps into available growth opportunities by leveraging strong industry partnerships around data centers and the cloud globally.

By offering one of the most collaborative and interconnected fiber support, Cirion Technologies provides secure computing capabilities and low-latency access. Low-latency offered by its dynamic Cirion Technologies Network consists of approximately 86,000kms of fiber optic routes and over 11,700 on-net buildings that enable connection to thousands of technical facilities and global data centers with IT Infrastructure Library-based expertise in high-performance computation and multi-cloud management. In addition, the Cirion Technologies network connects to the leading private hyperscale cloud service providers such as Amazon Web Services, Microsoft Azure ExpressRoute and Azure Government, Google Cloud, IBM Cloud, and Oracle Cloud. The network connects to over 2,200 third-party data centers via fiber in Latin America, North America, Europe & Middle East, and the Asia Pacific region.⁶

Strategy Implementation

Cirion Technologies' go-to-market strategy 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 for supporting its customer's path toward success by understanding their business dynamic and objectives. Compared to competitors, Cirion Technologies builds its products and services by collaborating closely with a range of stakeholders and partners to evolve alongside market needs and trends. The closeness allows Cirion Technologies to obtain the necessary information to design, offer, implement, and support a suitable solution that allows customers to carry forward their business strategies.

To adapt to client needs during the digital transformation, Cirion Technologies understands that it must remain innovative. The company developed a flexible Edge computing solution over a global fiber network

⁴ https://news.Cirion Technologies.com/2020-10-08-Cirion Technologies-Expands-Colombia-XV-Data-Center-in-Bogota (Accessed July 2022)

⁵ Ibid

⁶ https://press.ciriontechnologies.com/en/2020-10-08-lumen-expands-colombia-xv-data-center-in-bogota/(Accessed July 2022)

in a range of facilities designed to support digital business interactions within five milliseconds of latency. In 2021, the company highlighted that it doubled the number of Latin American customers acquiring Edge computing. As an added initiative to the company's value proposition, Cirion Technologies commits to social responsibility by driving a more sustainable world. All of its data centers are designed, built, and operated with energy efficiency standards in place. For example, in Brazil, renewable resources supply the data center's electricity; Cirion Technologies purchased 100,000 renewable energy certificates from Elera Renewables and Brookfield Asset Management.

The company has a Voice of the Customer program designed to interact with customers and gather feedback using two surveys. The first is a business relationship survey used twice a year targeted toward decision-makers and customers across all business units of an enterprise. The second is an ongoing transactional survey that measures the customer's pain points: delivery, service assurance, and billing. Surveys are open seven days a week, 365 days a year, allowing customers to provide feedback in real time. Cirion Technologies commits to acting quickly on feedback and implements a continuous improvement process. The feedback system is integrated with alerts triggered anytime a customer scores lower than a specific parameter, allowing the company to react to customer complaints quickly.

Cirion Technologies also commits to improving the employee experience. Its Employee Experience program allows employees to share and gather feedback on areas surrounding customer surveys and how to maintain success both internally and externally. Cirion Technologies receives actionable feedback from more than a five thousand globally per year that allows the company to analyze any feedback, identify patterns, and make timely plans to solve any pain points. Given the company's focus on data analytics, Cirion Technologies creates real-time dashboards that enable stakeholders to make data-driven decisions. In addition, Cirion Technologies helps customers to access data from multiple sources, analyze the real-time patterns, and act on the digital interaction of data to deliver innovative products and services.

Cirion Technologies' seamless, data-driven approach and close relationships position it as a preferred vendor and partner of choice. To showcase a more dynamic customer experience, Cirion Technologies focuses on improving the digital experience by making improvements to its customer portal through seamless communication. The company's regional service management area helps support the customer throughout its ad-hoc service lifecycle and is responsible for improving customer satisfaction, onboarding tasks, and customer retention.

Continued Expansion and Growth Potential

Since its inception, Cirion Technologies' sterling reputation and customer-centric framework led to its coveted preferred partner status. Over the years, the company continues to capitalize on its growth fueled by its exceptional operational strategies surrounding quality infrastructure, reliable processes, and highly trained and experienced people, which Cirion Technologies builds its services upon. The company experiences fast expansion across multiple markets that include retail enterprises and media segments such as OTT content services and gaming companies that enter the region. To meet the global demand for broadcasters, OTT video streaming platforms, and gaming companies, Cirion Technologies began

⁷ https://www.prnewswire.com/news-releases/Cirion Technologies-taking-private-cloud-capabilities-to-the-edge-301358436.html (Accessed July 2022)

increasing its Content Delivery Network. In 2021, Cirion Technologies doubled its peering capacity, which allowed more than 17 terabytes per second (Tb/s). Cirion Technologies' alignment of network and colocation services is mainly focused on the retail segment. Its emerging technology trends of Edge data centers create a strong value proposition. The company continues to expand across multiple markets in Latin America with growing success in digital content delivery and gaming segments. It's focused sustainability initiatives and certified data centers give the company a strong competitive strategic position in the Latin American data center market.

The company notes that within the region, Brazil is witnessing a technology awakening and shows new opportunities for expansion. Cirion Technologies demonstrates alignment strategies to the emerging need for latency Edge data centers and began building outside of Rio de Janeiro. In Brazil, Cirion Technologies added more than 280 fiber route miles between São Paulo and Rio de Janeiro. In 2021, this expansion in regional data centers intensified to an approximate increase of 12% in installed capacity across the region. Moreover, the company also added Edge nodes to its network in 15 Latin American cities totaling a deployment of 878 kilometers of optical fiber and adding 10 Tb/s of its terrestrial optical networks. The company has various salesforces in the region to address all segments and takes a consulting approach to help define and design around their specific needs. Frost & Sullivan believes the company is well-positioned to drive the colocation data centers space into its next growth phase, capturing market share and sustaining its leadership in the coming years.

Conclusion

Frost & Sullivan believes that innovation and growth opportunities drive future success; many factors contribute, yet having a competitive strategy is critical. Cirion Technologies understands this core concept and is leading the data center services market with its focused presence across Latin America and ability to address customer needs with low latency Edge network offerings. Its strong presence in Latin America with telecommunications connectivity helps Cirion Technologies outpace competitors. In addition, the company's recent investments in new high-capacity data centers in the region showcase Cirion Technologies' expansion in Brazil, Colombia, and Peru. Overall, Cirion Technologies 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, Cirion Technologies earns Frost & Sullivan's 2022 Latin American Competitive Strategy Leadership Award in the data center industry.

⁸ https://ir.centurylink.com/news/news-details/2021/CirionTechnologies-quadrupled-network-capacity-throughout-latin-america-in-2020/default.aspx (Accessed June 2022)

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 $^{\text{TM}}$.

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

OPPORTUNITY UNIVERSE Capture full range of growth opportunities and prioritize them based on key criteria OPPORTUNITY EVALUATION Adapt strategy to changing market dynamics and unearth new opportunities OPPORTUNITY EVALUATION Conduct deep, 360-degree analysis of prioritized opportunities OPPORTUNITY EVALUATION Conduct deep, 360-degree analysis of prioritized opportunities OPPORTUNITY EVALUATION Conduct deep, 360-degree analysis of prioritized opportunities STRATEGY Translate strategic alternatives into a cogent strategy

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)

