FROST & SULLIVAN

STTelemedia
Global Data Centres

STT GDC
RECEIVES THE 2023
COMPETITIVE STRATEGY
LEADERSHIP AWARD

Identified as best in class in the Southeast Asian data center services 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. STT GDC excels in many of the criteria in the data center services 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

Strengthening Position in Southeast Asia

Founded in 2014 and headquartered in Singapore, ST Telemedia Global Data Centres (STT GDC) Group offers end-to-end colocation data center solutions in key economic hubs, including India, China, Singapore, Thailand, and the United Kingdom. Since its inception, the company has rapidly expanded to become one of Southeast Asia (SEA)'s largest data center colocation services providers. Recent expansions include a data center campus in Bekasi, Indonesia (through a joint venture with Singapore-based global investment company Temasek Group and Indonesian conglomerate Triputra Group) that supports up to 72-megawatt (MW) information technology (IT) load.[1]

> *"STT GDC's continued investments to expand its data center presence and footprint in SEA, backed by significant growth, have strengthened its regional market position."*
>
> *- Nishchal Khorana,*
> *Vice President & Global Program Leader-ICT*

In 2022, the company entered the Philippines through a $350 million joint venture with telecommunications service provider Globe Telecom and Philippine conglomerate Ayala Corporation. Through the partnership, STT GDC will operate five data centers and develop a new data centre campus with the potential to expand beyond 100MW in IT load capacity. After its latest additions in Singapore (the Loyang facility and the recent expansion of its Defu

---

[1] https://www.sttelemediagdc.com/newsroom/st-telemedia-global-data-centres-expands-into-Indonesia

data center campus), STT GDC is actively exploring new markets to support its customers' growth due to capacity constraints in the country.

STT GDC's continued investments to expand its data center presence and footprint in SEA, backed by significant growth, have strengthened its regional market position. To expedite and accelerate expansion, offer competitive solutions, and provide seamless service, the company established a blueprint that codifies best practices distilled from the STT GDC Group's collective insights and experiences over the years. It employs the blueprint as a guide to optimize operations, manage the supply chain, and plan and execute data center design. Frost & Sullivan believes STT GDC is uniquely prepared for today's demands and exceptionally positioned for tomorrow's needs. The company's clear strategic vision and execution underpin its strong position in SEA and sustainable growth for years to come.

Towards A Carbon-Neutral Future

STT GDC has demonstrated a strong focus on sustainability as a strategic imperative. Besides addressing the high energy consumption of data centers and their environmental impact as part of its responsibility, the company's sustainability efforts also align with its customers' carbon pledges. When Singapore announced a moratorium on data center expansion and new builds in 2019 to curb the sector's contribution to global warming, STT GDC pledged the following year to become carbon-neutral by 2030.[2] The company plans to decarbonize its data center operations by leveraging carbon-free energy, ensuring new builds adhere to global green building certifications, and optimizing energy and water consumption. In its 2021 Environmental, Social, and Governance progress report, the company reported a 12% carbon intensity improvement, 4% power usage effectiveness (PUE) improvement, 18% water usage effectiveness improvement, and 44% renewable energy usage across the group.[3] The company's foresight and quick internal mobilization to address data centers' high-energy consumption has served STT GDC well. In 2022, Singapore lifted the moratorium and issued new regulations stipulating that data centers must adhere to energy efficiency guidelines (e.g., maintaining a certain PUE and demonstrating energy-efficient measures) and new facilities must focus on resource efficiency. STT GDC is well prepared to meet the new requirements and continue to provide its customers with frictionless service.

Further aligning with Singapore's efforts to adopt low-carbon alternatives, STT GDC is intensively exploring clean hydrogen as an alternative energy source for data centers in the country. The company is collaborating with Linde (a global industrial gases and engineering company) and energy companies YTL PowerSeraya and YTL Data Center (part of the YTL group of companies) on a pilot study.[4] STT GDC is also working with Bloom Energy to assess fuel cell energy-powered servers that use solid oxide fuel cell technology to convert natural gas or hydrogen into electricity without combustion, thus reducing carbon emissions.[5] The unique modular architecture of the servers also enables continuous power generation (i.e., 24 hours, seven days a week, and 365 days a year), removing the need for backup power generators. In Thailand, the company is similarly embarking on innovative green solutions. In 2022, it partnered with

---

2 https://www.sttelemediagdc.com/newsroom/st-telemedia-global-data-centres-launches-group-ESG-plan
3 https://www.sttelemediagdc.com/about-us/our-esg-progress
4 https://www.sttelemediagdc.com/newsroom/linde-st-telemedia-global-data-centres-ytl-powerseraya-and-ytl-data-center-to-explore-feasibility-of-using-hydrogen-generated-power-in-Singapore
5 https://www.linkedin.com/sttgdc_sttgdc-enablingourdigitalfuture-activity-6990876138289991680-4DnH

PTT Digital to conduct a feasibility study on cold energy released from the regasification of liquefied natural gas as an alternative cooling water and energy source.[6]

Roadmap to Success: Proactive and Continuous Innovation

STT GDC's continuous focus on leveraging emerging technologies across multiple aspects of data center operations enhances its existing customer offerings and paves its services roadmap. In 2022, the company strengthened its customer value proposition by exploring and implementing several innovative solutions aligned with its commitment to delivery and operational excellence. Its research and development team actively analyzed emerging technologies to optimize operations, reduce costs, and progress toward its carbon-neutral goal. STT GDC collaborated with industrial technology giant ABB Group on an artificial intelligence (AI)-based cooling system proof-of-concept to manage energy consumption.[7] With the cooling system responsible for significant energy consumption (after IT equipment) in a data center, the company aimed for at least 10% energy savings, improved PUE, and reduced carbon footprint (an estimated 1,100 tons of carbon for every 10 MW IT load utilized). The pilot project included developing AI neural-network models for the entire data center's cooling systems (to help optimize performance and efficiency) and deploying AI control logic (algorithm and protocols to govern the AI system's behavior) in a live data center environment. STT GDC foresees other data center processes (e.g., predictive maintenance, capacity planning, and risk mitigation) will benefit from AI-generated insights in the future.

> *"STT GDC has demonstrated a strong focus on sustainability as a strategic imperative. Besides addressing the high energy consumption of data centers and their environmental impact as part of its responsibility, the company's sustainability efforts also align with its customers' carbon pledges."*
>
> *- Rubini Kamal,*
> *Best Practices Research Analyst*

Further, the company launched an immersion liquid cooling pilot with Schneider Electric and Iceotope.[8] The project explores chassis-level precision immersion technology, which uses liquid (as opposed to air) as a cooling medium, enabling higher heat transfer capacity. Besides providing better cooling performance and improved water and energy efficiency, the technology reduces the need for traditional energy-consuming cooling equipment like computer room air-conditioning units and chillers.

With its steadfast pursuit of excellence and inclination to push boundaries, Frost & Sullivan believes STT GDC will pave the way for next-generation data centers.

---

6 https://www.sttelemediagdc.com/th-en/newsroom/ptt-digital-signs-mou-with-stt-gdc-thailand-for-feasibility-study-to-utilise-cold-energy-from-LNG-regasification-process-and-explore-alternative-energy-sources
7 https://www.sttelemediagdc.com/newsroom/st-telemedia-global-data-centres-collaborates-with-ABB-for-artificial-intelligence-energy-optimisation-pilot
8 https://www.sttelemediagdc.com/newsroom/st-telemedia-global-data-centres-partners-schneider-electric-and-iceotope-deliver-innovative

FROST & SULLIVAN

Conclusion

Frost & Sullivan believes that STT GDC has a strong competitive strategy for regional growth, helping it strengthen its position. Driven by customer demand, the company accelerates its expansion into new markets through strategic partnerships. STT GDC regards sustainability as a strategic imperative to future-proof data centers and continuously invests in emerging technology to make way for next-generation data centers. Guided by a single blueprint of best practices, including repeatable and reusable processes, management tools, business models, and strategies, STT GDC offers customers competitive solutions, faster time-to-market, and seamless experience. Overall, STT GDC develops and implements its strategy with its customers in mind, securing its position as a strong regional service provider. With its strong overall performance, STT GDC earns Frost & Sullivan's 2023 Southeast Asian Competitive Strategy Leadership Award in the data center services 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)