

F R O S T & S U L L I V A N

2024 COMPANY OF THE YEAR

*IN THE JAPANESE
DATA CENTER SERVICES
INDUSTRY*

F R O S T & S U L L I V A N

BEST
2024 PRACTICES
AWARD

MC DIGITAL REALTY™
A Mitsubishi Corporation and Digital Realty JV

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. MC Digital Realty excels in many of the criteria in the data center services 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

Data Centers for AI Workloads: Navigating Key Challenges and Opportunities

The data center services market is rapidly evolving due to the increasing adoption of artificial intelligence (AI) across various industries. This trend, accelerated by generative AI, reshapes how businesses create and deliver value, necessitating unique digital infrastructure to support AI workloads. Data center service providers face intense competition, particularly in the colocation segment, to offer processing and storage facilities tailored to the unique requirements of AI workloads.

The AI revolution is creating challenges and opportunities for data centers. Traditional infrastructure often struggles to meet the demands of AI workloads, necessitating innovative solutions and modernization. This situation also presents a substantial opportunity for data center service providers to differentiate themselves strategically and tap into new revenue streams by developing infrastructure tailored to AI requirements. Such infrastructure must offer adequate space and power and align with growth strategies and the latest technologies.

To meet the needs of AI architectures, data centers must provide flexible and customized facilities that can handle intensive model training and real-time inferencing. As AI and machine learning adoption continue to rise, the demand for colocation services is expected to increase significantly, driven by the hyperscale segment of public cloud service providers and the enterprise retail segment. These workloads require substantial computational processing power and storage capacity, pushing enterprises across various sectors to seek additional colocation information technology (IT) load capacity. Furthermore, the

need for real-time inferencing prompts the demand for colocation facilities at edge locations closer to the end-users.

However, the growth of the data center services market faces several constraints. Limited availability of land and power in strategic locations poses significant challenges to building new data center facilities. Furthermore, increasing competition within the data center ecosystem challenges growth and service providers to create stronger value propositions and strategic differentiation.

MC Digital Realty (MCDR) uniquely leverages its technology and services to meet its customers' needs for colocation services. It is strategically positioned to seize new growth opportunities, expertly addressing the changing market needs and strengthening its position in the Japanese data center services market.

Strategic Investments in Building New, Sustainable Data Center Facilities in Japan

Founded in 2017 and headquartered in Tokyo, Japan, MCDR is a 50/50 joint venture between Mitsubishi Corporation and Digital Realty. The company provides the full spectrum of data center services in Japan, including colocation and interconnection solutions. MCDR leverages Mitsubishi Corporation's customer network and expertise in real estate and infrastructure investment and Digital Realty's leading global data center platform, PlatformDIGITAL[®], which serves over 5,000 customers across more than 300 data centers on six continents.

The company boasts a robust portfolio of eight data centers strategically located across Japan, focusing on Tokyo and Osaka. Beginning in Osaka with the pioneering KIX10 data center in 2017, MCDR has expanded its presence, featuring four buildings on the KIX campus, including the recent addition of the 21-megawatt (MW) KIX13 facility in 2023.

In Tokyo, MCDR entered the market with the 39-megawatt NRT10 data center in 2021. In 2024, the company launched NRT12, its second facility in the Inzai area, adding 34 MWs to its capacity. Positioned about 30 kilometers east of central Tokyo, these suburban data centers cater predominantly to cloud service providers and hyperscalers due to larger MW capacities meeting the needs of its substantial clientele.

MCDR's colocation services offer access to hyperscale data centers utilized by major IT companies, providing scalability, robust power supply capacity, and connectivity options. It provides single racks to customizable designs like 1/4 rack, 1/2 rack, and cages.

Furthermore, the company enhances its value proposition by addressing sustainability. In collaboration with Mitsubishi Corporation, MCDR matches the electricity usage in the colocation service data hall at its NRT10 and KIX11 data centers with 100% carbon-free and renewable energy by purchasing FIT non-fossil certificates from MC Retail Energy.¹ This commitment to renewable energy demonstrates sustainability prioritization and aligns with the growing demand for sustainable practices among customers.

AI Adoption Focus Bolsters Customer-centric End-to-end Offerings

MCDR's end-to-end offerings meet diverse customer needs across large-scale data centers,

¹ Digital Realty, "Digital Realty Announces Sustainability Initiatives in Asia Pacific," PR Newswire, April 18, 2023, <https://www.prnewswire.com/apac/news-releases/digital-realty-announces-sustainability-initiatives-in-asia-pacific-301797413.html>.

interconnection solutions, and advanced connectivity platforms. The hyperscale solutions provide robust data center infrastructure with modular, customizable options, powered shell facilities, and 24/7 monitoring. Interconnection services, facilitated by the PlatformDIGITAL data center platform, deliver seamless connectivity across data center campuses, urban centers, and international locations, offering versatile networking options. ServiceFabric™ enhances global connectivity with instant access to new

“The company demonstrates a strong focus on the Japanese market through continued investments. Strategic partnerships and initiatives aligning with transforming customer expectations enable the service provider to achieve success in the country.”

- Nishchal Khorana
Global Vice President, ICT

services, secure data transmission, on-demand scalability, and multi-cloud integration, ensuring efficient IT infrastructure management and business continuity.

MCDR underscores its value proposition of robust and highly reliable data center facilities and management services tailored for general companies seeking dependable data solutions. Adhering to rigorous certifications and compliance standards equivalent to those of large-scale cloud operators, the company’s service focuses on exceptional security and operational reliability.

Additionally, with Remote Hands service, MCDR’s on-site operators respond immediately to emergencies and manage customer equipment, allowing uninterrupted operations and rapid issue resolution. With on-site operators available 24/7, 365 days a year, customers benefit from expert management and troubleshooting support, ensuring seamless and secure on-site equipment operation without immediate customer intervention. This multilingual support enhances accessibility and fosters secure on-site equipment operation, eliminating the need for on-site customer visits.

AI Readiness and Strategic Partnerships

MCDR is strategically enhancing its infrastructure in Japan to meet the growing demands of AI, highlighting high-density rack consolidation, advanced cooling solutions, and readiness for high-performance AI workloads. By consolidating into high-density racks, the company enables customers to optimize space utilization and reduce costs associated with rack space, network equipment, and cabling. These high-density racks are ideal for power-intensive applications, such as supercomputing and high-performance computing, offering minimized points of failure and enhanced operational management efficiency.

To support the high power and cooling demands of AI workloads, MCDR is developing liquid cooling solutions in several data centers. It is expanding its portfolio to incorporate more facilities equipped with liquid cooling to handle high-density AI workloads. This preparation ensures that MCDR’s infrastructure can support the intensive thermal management needs of AI applications.

Moreover, the strategic site selection, innovative design, and commitment to sustainability bring added value. The company addresses Japan’s critical seismic activity concerns by locating data centers in areas with low disaster risk and employing state-of-the-art seismic isolation technology. This added investment in build quality ensures that even the most sophisticated customers can rely on the resilience and stability of MCDR’s infrastructure.

Furthermore, NVIDIA's partnership with MCDR exemplifies a dedication to advancing AI capabilities through robust infrastructure and innovative solutions. KIX13, NRT10, and NRT12 have achieved NVIDIA DGX-ready certification, demonstrating its capacity to support intensive computing systems at scale. The fourth-generation NVIDIA DGX H100, integral to the DGX SuperPOD™, provides the computational power

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- Ojaswi Rana
Best Practices Research Analyst

required for advanced AI model training and deployment. This collaboration allows enterprise customers to develop full-stack AI solutions, ensuring data localization while meeting global connectivity and capacity needs. The partnership is pivotal in driving digital transformation, enabling businesses to overcome data gravity barriers and accelerate innovation.

MCDR plans to develop additional land, with ongoing projects like NRT14, MCDR is on track to continue its growth trajectory. The company demonstrates a strong focus on the Japanese market through continued investments. Strategic partnerships and initiatives aligning with transforming customer expectations enable the service provider to achieve success in the country.

Conclusion

The rapid evolution of the data center services market, driven by the increasing adoption of artificial intelligence (AI), creates a pressing need for innovative infrastructure capable of supporting AI workloads effectively. With traditional infrastructure often falling short, there is an opportunity for data center providers to differentiate themselves by developing tailored solutions that offer ample space, power, and cutting-edge technologies to meet the demands of AI architectures.

MC Digital Realty (MCDR) exemplifies market investments by strategically enhancing its infrastructure in Japan to meet the growing demands of AI. By consolidating into high-density racks, the company enables customers to optimize space utilization and reduce costs associated with rack space, network equipment, and cabling. Additionally, MCDR has implemented advanced liquid cooling solutions across several data centers, preparing its portfolio to handle the high-density demands of AI workloads. With the recent NVIDIA DGX-ready certification for its KIX13, NRT10, and NRT12 data centers, the company showcases its commitment to supporting intensive AI computing systems, positioning itself to drive digital transformation and innovation for its customers.

Overall, MCDR effectively tackles these unmet needs through a leadership approach that emphasizes client-centric strategies and exemplifies the implementation of best practices. It focuses on state-of-the-art seismic isolation technology in data center construction to address Japan's seismic concerns. Additionally, the company's collaboration with Mitsubishi Corporation to match electricity usage with 100% renewable energy at its data centers demonstrates a solid commitment to sustainability and

customer-centric values. Moreover, its impressive financial performance and promising growth plans underscore its potential for future success.

With its strong overall performance, MCDR earns Frost & Sullivan's 2024 Japan Company of the Year Award in the data center services industry.

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

