

Modular Data Center Market Set to Surpass USD 128 Billion by 2035, Driven by Sustainability, and Rapid Deployment Needs

Global industry leaders & emerging players alike are investing in scalable, energy-efficient solution as businesses demand more flexible digital infrastructure.

NEWARK, DE, UNITED STATES,
September 1, 2025 /EINPresswire.com/
-- The global Modular Data Center
(MDC) market is on a steep growth
trajectory, projected to expand from
USD 29.3 billion in 2025 to USD 128
billion by 2035, reflecting a strong
CAGR of 13.8%. This surge highlights



Modular Data Center Market

the critical role modular data centers play as enterprises accelerate digital transformation, adopt hybrid cloud strategies, and brace for rising cybersecurity and compliance demands.

Why Modular Data Centers Are in Demand

As industries such as BFSI, healthcare, and IT become increasingly reliant on digital platforms, the volume of sensitive data being processed has grown exponentially. At the same time, strict compliance regulations—such as GDPR in Europe and CCPA in California—are mandating organizations to prioritize data protection and operational transparency.

Unlike traditional facilities, modular data centers provide pre-fabricated, scalable solutions that can be rapidly deployed, tailored for local needs, and upgraded with advanced compliance management tools. This flexibility makes them an essential choice for businesses navigating fast-changing regulations and rising cybersecurity risks.

"Organizations can no longer afford years-long construction timelines for traditional data centers," said a senior analyst at Future Insights. "They need secure, modular, and energy-efficient deployments that can adapt to regulatory changes, manage vendor risks, and deliver near real-time performance."

Key Market Trends

Sustainability in focus: New MDC architectures such as MODRIC are designed for energy efficiency, leveraging renewable energy and advanced cooling systems. Platforms like SkyBox align workloads with real-time green energy availability, reducing carbon footprints.

Edge computing on the rise: With 5G networks, IoT devices, and autonomous systems multiplying, modular edge data centers are becoming the go-to choice for low-latency and high-performance computing.

Services in demand: The services segment is expected to grow at a 15.2% CAGR from 2025 to 2035, reflecting organizations' growing reliance on professional expertise for deployment, monitoring, and compliance management.

Financial sector dominance: Finance is set to capture 22.3% of the global market in 2025, driven by digital banking, high-frequency trading, and regulatory scrutiny.

Regional Growth Hotspots

North America remains the largest market, benefiting from robust hyperscale investments and strict cybersecurity rules. The U.S. will account for nearly 76.6% of regional share in 2025, as hyperscale operators and cloud providers increasingly turn to prefabricated MDCs.

India is emerging as the fastest-growing market with a CAGR of 16.8%, boosted by the Digital India Initiative, government policies for energy-efficient infrastructure, and over 900 million internet users driving demand.

China is expected to grow at a CAGR of 15.2%, fueled by massive 5G base station rollouts and the need for decentralized, low-latency data processing.

Europe is advancing under the EU Energy Efficiency Directive (EED), requiring MDC operators to disclose sustainability metrics, effectively reshaping the competitive landscape with mandatory transparency.

Industry Developments and Deals

Established vendors and ambitious new entrants are shaping the market with innovative contracts and technology rollouts:

Schneider Electric secured a USD 45 million contract in June 2024 from a cloud service provider to deploy scalable, energy-efficient MDCs with rapid rollout timelines.

Huawei Technologies partnered with a telecom operator in November 2024 to build MDCs in emerging markets, focusing on low-latency digital services.

Vertiv launched the MegaMod CoolChip in July 2024, a liquid-cooled, prefabricated MDC designed to halve deployment time for global AI workloads.

Eaton introduced the SmartRack modular systems in March 2024, targeting AI, machine learning, and edge computing workloads with flexible, cost-efficient infrastructure.

GE Energy signed an agreement with Amazon Web Services (AWS) in March 2025 to power and decarbonize AWS's expanding global data center network.

These contracts highlight how Tier 1 vendors such as Dell, HPE, IBM, Huawei, Vertiv, Schneider Electric, and Eaton continue to dominate with global deployments, while Tier 2 players like Rittal, Delta Electronics, STULZ, and Johnson Controls capture regional niches with specialized solutions. At the same time, Tier 3 vendors are gaining traction by offering tailored, localized solutions that address customer-specific pain points.

Opportunities and Challenges

Opportunities:

Rising global cloud computing spend (set to exceed USD 1 trillion by 2026) is fueling demand for MDCs.

Governments worldwide are incentivizing green data centers with subsidies and policies favoring energy-efficient builds.

Telecom companies deploying 5G are installing modular solutions near base stations to manage traffic and deliver ultra-low latency.

Challenges:

Legacy IT systems remain a barrier, as outdated hardware and rigid architectures complicate MDC integration.

Frequent technology refresh cycles, while improving performance, are contributing to a rise in e-waste, highlighting the need for lifecycle management and recycling solutions.

Request Modular Data Center Market Draft Report - https://www.futuremarketinsights.com/reports/sample/rep-gb-3302

For more on their methodology and market coverage, visit

https://www.futuremarketinsights.com/about-us.

Looking Ahead

The next decade of growth in the modular data center market will be defined by the intersection of sustainability, compliance, and scalability. Businesses are demanding flexible infrastructure to keep pace with innovation in AI, digital payments, IoT, and next-generation networks.

For new entrants, the focus lies in innovation and regional adaptability, while established giants are doubling down on end-to-end global deployments. Together, they are reshaping how the world builds and manages digital infrastructure—faster, greener, and more secure.

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