

RAPID DATA CENTER DEPLOYMENT: BUSINESS & TECHNICAL IMPERATIVES

Increasing demand for cloud services and growing adoption of artificial intelligence and other advanced technologies are driving the rapid growth of the hyperscale data center market. However, data center operators face a number of challenges, including continued supply chain delays and rising energy costs. Operators are looking for ways to streamline projects, meet sustainability objectives and simplify product sourcing across global footprints.

ProSys helps organizations expand their global data center presence while managing their supply chains, maintaining engineering standards, anticipating capacity requirements, and streamlining small to large scale repeatable rack deployments. We take on these responsibilities so that customers can focus on their core competencies and better meet their business objectives.

70% of data center professionals say rack density has increased in the past three years, with 21% reporting significant increases.¹

2% of total U.S. electricity is consumed by data center facilities, which use 10 to 50 times as much electricity per square foot as an office building.⁴

75% of all data will be processed at the network edge by 2025, up from 10 percent in 2018.²

50% energy reduction across all facilities is the goal of almost half of data center decision-makers, with an average target date of 2024.⁵

30% increase in chip purchases by hyperscale data centers in 2021, with demand expected to remain well above historical trends.³

78% of data center decision-makers plan to implement or mature sustainability initiatives in the next 12 months, their second-highest business priority.⁶

314
new hyperscale data center projects are in the pipeline, with the number expected to exceed 1,000 by 2025.⁷

8.4kW
average density of data center racks in 2020, up from 5.6kW in 2017, with average density expected to reach 15kW to 20kW by 2025.⁸

10 to 20 weeks
anticipated lead time for semiconductors in 2023, down from 20 to 52 weeks in mid-2021.⁹

1 AFCCOM 5, 6 Forrester Consulting
2 Gartner 7 Synergy Research
3 Deloitte 8 Uptime Institute
4 US Department of Energy 9 Deloitte

HYPERSCALE DATA CENTER GROWTH INHIBITORS



SUPPLY CHAIN PRESSURES

Long lead times for IT products are delaying hyperscale data center projects, resulting in lower-than-anticipated revenue and loss of competitive advantages.



RISING ENERGY COSTS

Operational overhead is skyrocketing due to high energy costs as the density and geographic footprint of data centers continue to increase.



VENDOR MANAGEMENT HEADACHES

As organizations add data centers at the network edge, managing multiple partners, suppliers, standards and process workstreams requires significant staff resources.



OVERALLOCATION OF RESOURCES

Data center operators lack the planning, forecasting, inventory control and automation to properly allocate resources to meet anticipated customer demand.

KEY FACTORS IN HYPERSCALE DATA CENTER OPTIMIZATION

PLANNING AND PRE-PLANNING CAPABILITIES



Improved product lifecycle planning ensures that projects are completed on time, reducing capital costs, accelerating time to market and increasing competitive advantages.

EFFECTIVE RESOURCE UTILIZATION

Predictable and consistent expansion enables data center operators to better allocate resources, cutting costs while meeting customer demands.



NEGATIVE CARBON FOOTPRINT



Reducing environmental impacts delivers real-world benefits, including lower costs and a positive perception among customers.

ENHANCED VENDOR MANAGEMENT

Simplification of procurement and vendor management processes reduces costs and helps keep projects on schedule.



STRATEGIC IMPROVEMENT IN EDGE ENVIRONMENTS



Fully integrating edge data centers and incorporating common standards enables operators to bring edge sites online faster and capture more market share.

Want to learn more?

Please contact your ProSys team to discuss how we may better support your hybrid and multi-cloud networking environment.