

FALL 2025 | STEER PARTNERS

Picks & Shovels: Data Center Products & Services



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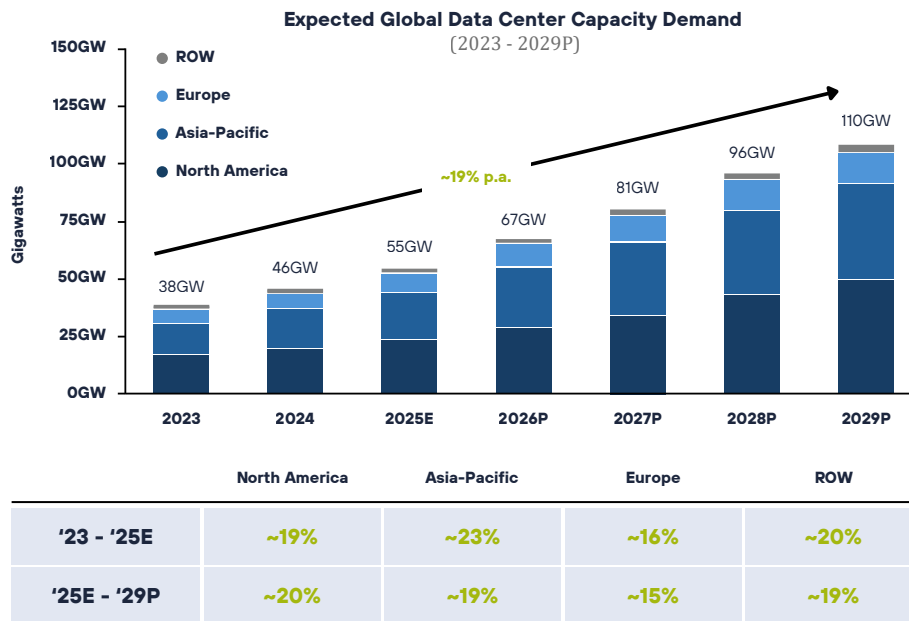
Data center infrastructure & services overview

Global demand for compute-intensive workloads is putting data centers on one of the most powerful multi-year growth cycles in digital infrastructure

The rise of AI, hyperscale, and edge deployments is driving unprecedented demand for the physical backbone of data centers. Constraints today often lie in physical infrastructure, creating investable “picks and shovels” opportunities: durable growth tied to AI and cloud build-outs, with services providing more stable, recurring cash flows

The U.S. data center sector is expected to grow from \$208 billion in 2024 to more than \$584 billion by 2032. Global demand for capacity is forecasted to grow at a +20% p.a. through 2030, with generative AI workloads expanding at nearly double that pace. This will create one of the most attractive investment landscapes across digital infrastructure

Source: STEER Partners Research & Analysis, Dell’Oro Group, HSBC



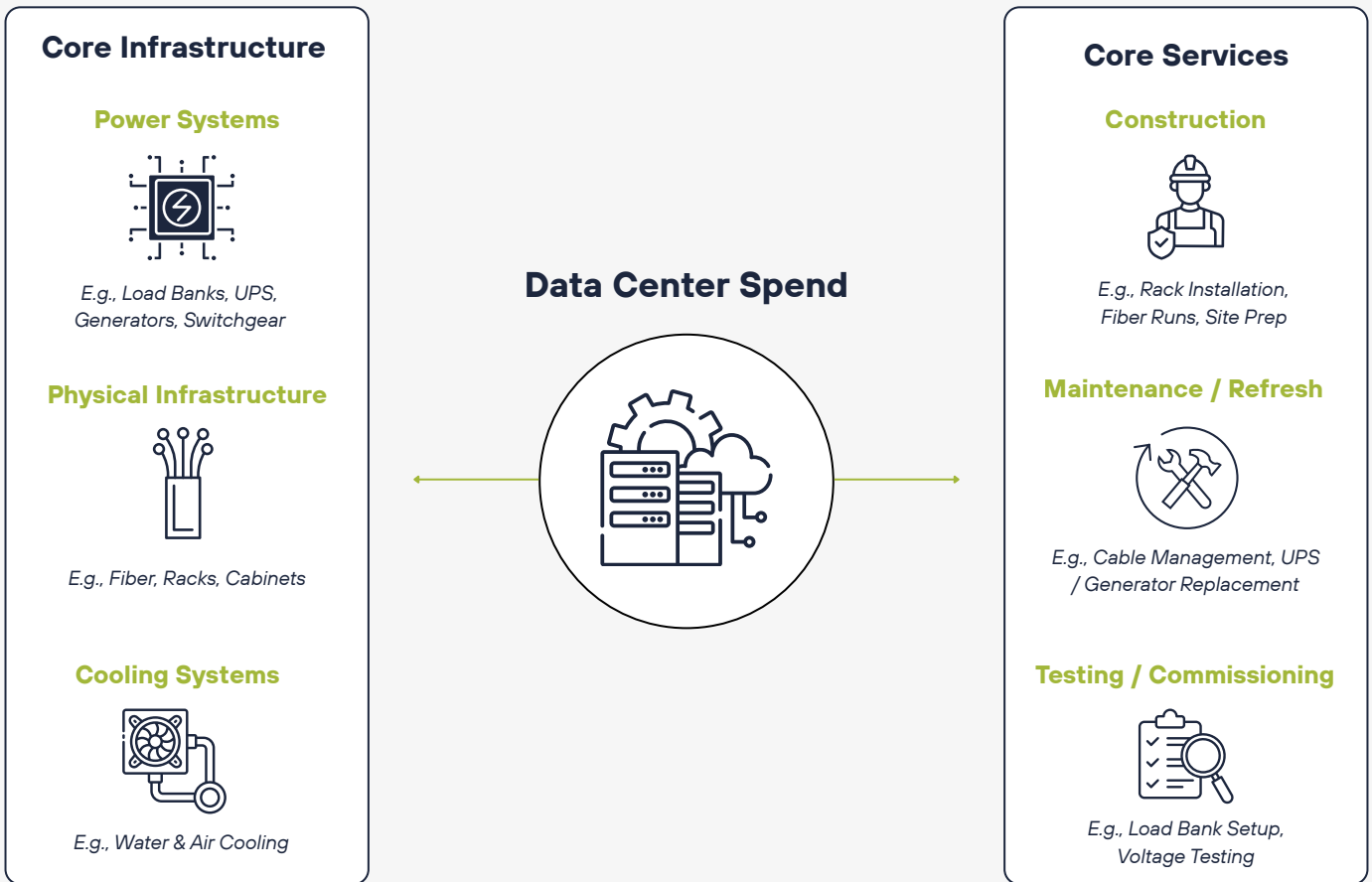
Source: STEER Partners Research & Analysis, S&P

We frame the ecosystem in two categories:

Infrastructure Products
Power systems, cooling systems, and physical connectivity

Services
Installation & commissioning, maintenance & monitoring, testing & certifications

This framework highlights both cyclical growth opportunities in equipment and durable cash flows in services



Market themes of data center infrastructure

Unstoppable power demand

Data center electricity use is on track to nearly triple by 2030 (~950 TWh). GPU-heavy racks are pushing beyond 50 kW and moving toward 200 kW. This shift is reshaping every layer of infrastructure and creating demand for both new buildouts and retrofits

Cooling transformation

Direct liquid cooling is emerging as a major growth driver, growing >150% YoY and projected to account for ~40% of new builds by 2028. Air cooling continues to be widely deployed, but AI is driving demand for CDUs, immersion fluids, and modular cooling loops

Sustainability & efficiency

Operators have a dual mandate to meet demand while cutting energy intensity, leading to the adoption of tech such as renewable-ready UPS systems, intelligent PDUs, and AI-driven monitoring. Design decisions are now made with water and energy conservation in mind

Secondary market expansion

New builds are increasingly happening in secondary geographies where land and power headroom are available. Secondary market growth is sustaining investment momentum in new infrastructure

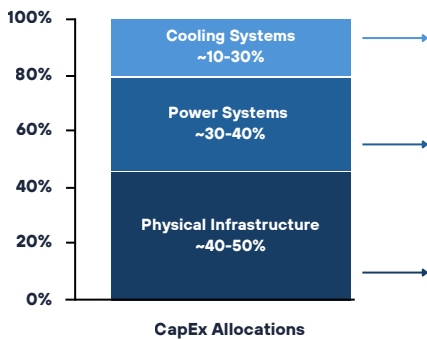
Source: STEER Partners Research & Analysis, S&P

Core infrastructure products trends

CapEx expansion and maintenance intensity are driving growth across data center infrastructure products. Operators are scaling investment in power, cooling, and physical systems to support high density workloads, and both OEMs and service providers are reaping benefits. Spending growth in cooling is outpacing other categories, driven by increased adoption of liquid / direct-to-chip cooling which carry higher unit cost and engineering complexity

Avg. Data Center Capex Allocation

Directional; does not include IT hardware



Source: STEER Partners Research & Analysis, S&P

Key Maintenance Components

- Preventative maintenance, coolant monitoring, pump and heat exchanger servicing, fluid replacement
- UPS battery replacement, generator testing & fuel, electrical switchgear servicing, load bank validation
- Building systems, structural upkeep, cable trays, racks, enclosures, fire suppression, access control

Average Annual Maintenance Cost

- ~\$30K-\$60K / MW
- ~\$25K-\$50K / MW
- ~\$10K-\$30K / MW

*“Worldwide data center capex is projected to grow at 21 percent CAGR to **\$1.2 trillion by 2029**”*

Example product spotlights

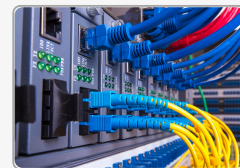
Load Banks (Power Systems)

Load banks are essential to commission power systems in data centers. This product market is rapidly growing due to increasing hyperscaler commissioning needs and power reliability standards. Reliable new construction going forward bolsters the market while recurring test cycles create predictable revenue



High-Count Optical Fiber Cable (Physical Infrastructure)

Data centers are shifting towards high-density optical fiber for linking AI data-center clusters. Vendors like Corning and Amphenol are expanding capacity through FY25-26 under long-term contracts, and this locked-in hyperscaler demand will create reliable growth for both fiber and related assembly / testing equipment such as polishers, curing ovens, etc



Direct-to-Chip Liquid Cooling (Cooling Systems)

As rack densities surpass 100 kW, cooling is the new bottleneck in hyperscale design. New liquid cooling systems can deliver 30%+ in efficiency gains, fueling the market through 2029. New technology development with results in cooling efficiency results can make startup assets prime acquisition targets for PE-backed platforms



Source: STEER Partners Research & Analysis, S&P

Core data center services

Balancing recurring demand with project upside

Services can offer investors counterweight to more cyclical product sales. While equipment revenues can rise and fall with potential demand cycles for new builds, service revenues can be more resilient as, on average, an estimated ~70% of service revenue comes from recurring service. Data center services are tied to regulatory requirements and the necessity to keep infrastructure running without interruption

Structural tailwinds driving expansion

Demand for services is accelerating as hyperscalers, colocation operators, and enterprises increasingly outsource complex functions to specialized providers that can take on the risk of navigating operational and regulatory challenges

Market themes of data center services

Skilled labor scarcity

Certified data center technicians are limited, and so providers with strong training and retention can gain pricing power. High first-time-fix rates reduce downtime and build long-term customer trust, creating a barriers to entry for new competition

Shift to recurring, digital services

Digital services such as predictive maintenance and remote monitoring can create new recurring revenue. AI-driven analytics reduce downtime and embed providers in their customers operations

Compliance & standards

Rising regulatory scrutiny is promoting outsourcing of these services to quality providers. Providers with regulatory know-how can capitalize on this structural moat and capture further recurring revenue

Lifecycle bundling and scale

Customers prefer single vendors for installation, certification, and maintenance services. Providers with scale and strong logistics capabilities win faster, retain customers longer, and generate more predictable service revenue across equipment lifecycles

Key service lines

Construction & Installation

EPC firms drive large builds, while specialized contractors handle complex systems like high-voltage or liquid cooling. Their value derives from technical expertise and speed

Testing & Commissioning

Testing/commissioning services are high-margin and technical. These providers validate performance, ensure regulatory adherence, and respond to failures

Operations & Maintenance

O&M services are the backbone of data center services, covering maintenance, inspections, and industrial cleaning, and their demand will only rise as data centers densify

Construction & Installation	Testing & Commissioning	Operations & Maintenance
<p>Specialized Services: Cooling System Installation / Retrofits Cable Management Patch Panels Edge Data Center Buildouts</p>	<p>Specialized Services: Cabling & Power Distribution UPS Installation Load Bank Testing Sensor Calibration</p>	<p>Specialized Services: UPS & Switchgear Inspection Cooling Filter Replacement Fiber Troubleshooting Contamination Control</p>

Example Providers











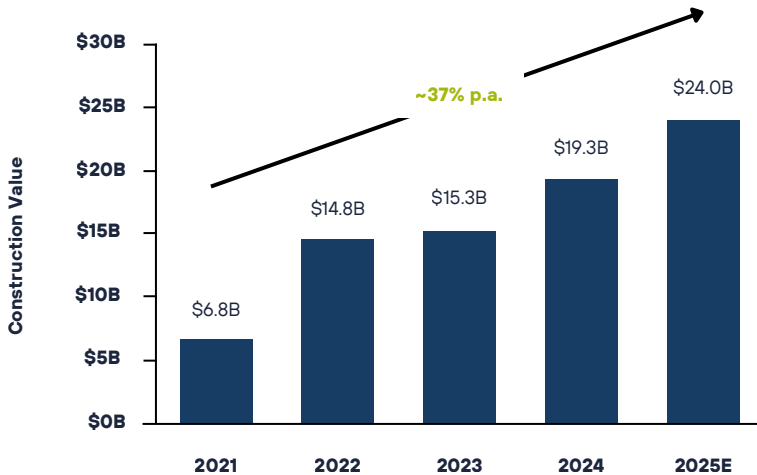




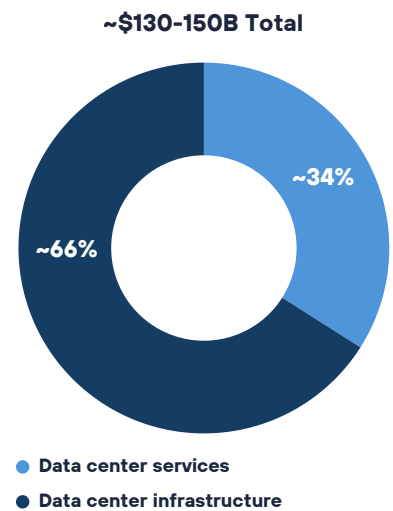




Total Value of US Data Center Construction Starts
(2021- 2025E)



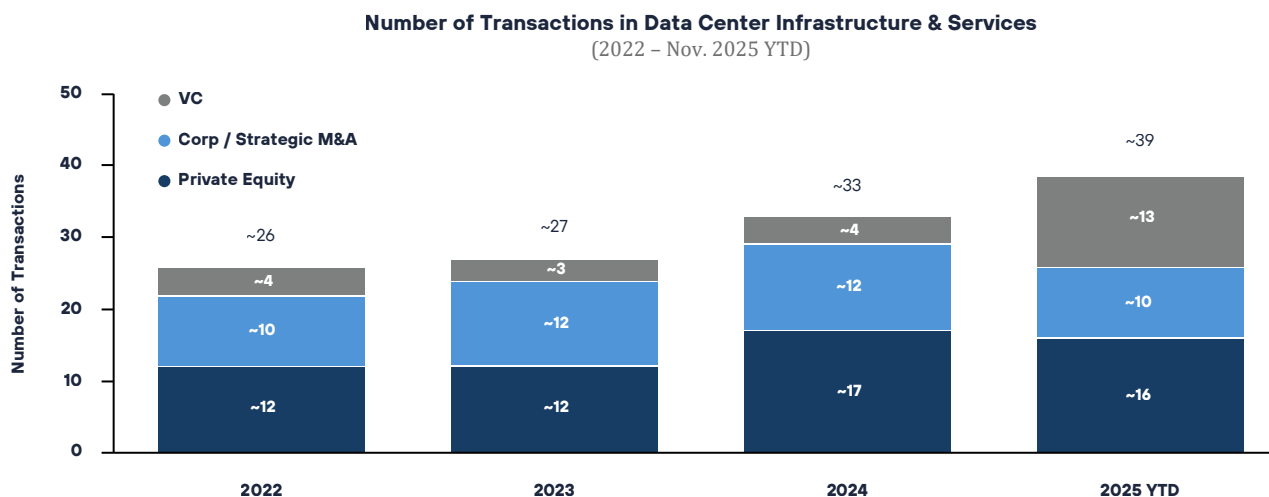
US Data Center Market Size
(2025)



Source: STEER Partners Research & Analysis, Dodge Construction, Precedence Research

Investors have been active, with several new platforms emerging

Over the last two years, investors have accelerated their activity in the data center sector, launching new platforms and scaling through bolt-ons. Transaction activity set records in 2024, with M&A deal value surpassing \$57B, and private equity accounting for the largest portion of total deal volume. Data center infrastructure is viewed as a resilient asset class with strong demand



Source: Pitchbook, Synergy Research Group

Private equity and infrastructure funds lead large-scale platform deals, while venture capital is backing new tech developments in AI-focused infrastructure. Investment will likely concentrate on platforms that can solve bottlenecks at scale going forward, as hyperscalers are continuing to increase capex and infrastructure funds are flush with capital

PE & Infra Funds

- Driving the majority of large-scale platform transactions
- Backed by strong dry powder and focused on scaling assets for AI demand

Examples



Strategic Operators

- Selectively acquiring power-secured campuses and regional footprints
- Focused on bolt-ons that deepen hyperscale partnerships or expand geography



VC & Growth Equity

- Targeting cooling, power-efficiency, and AI/HPC- ready infrastructure
- Exits expected through sales to PE-backed platforms needing tech edge



Long-term investors can capitalize on powerful tailwinds

01

Power as a limiting factor

- Grid shortfalls projected to exceed 45GW by 2030, making power availability a key gating constraint
- Product demand from hyperscalers provides pricing leverage

02

Cooling arms race

- Rack densities are doubling over the near term, forcing liquid/immersion cooling adoption
- Strategic buyers targeting platforms positioned for AI refresh cycles

03

Connectivity bottlenecks

- Rising fiber counts and low-latency interconnects are gating GPU deployments
- Optical innovation (hollow-core, switching) are expanding TAM

04

Growing secondary markets

- Secondary geographies (e.g., North Carolina, West Texas, Indiana) are accelerating
- EPCs and O&M providers benefit from diversified demand and stable contracts

05

Capital formation & consolidation

- PE and strategics moving earlier to secure scarce power/cooling platforms
- Valuations supported by scarcity and scaled asset bases

Investor considerations

Everyone wants in.

Infrastructure funds, strategics, and corporates are competing for a limited pool of assets, pushing valuations higher. Core platforms and OEMs tied to hyperscalers are now commanding 10-20x+ EBITDA multiples, while power, land, and anchor partnerships are increasingly scarce. Entry through differentiated technical capabilities or niche service lines offers a more accessible path to participate

Potential investment strategies:

- Acquire businesses that excel in products or services tangential to data centers and reposition them toward hyperscaler and retrofit demand
- Roll-up specialized services such as regional commissioning, O&M, or testing providers into scaled national platforms
- Form joint ventures or long-term supply agreements with established operators to gain exposure without platform-level valuations
- Back OEMs that pair hardware with recurring monitoring or maintenance revenue

Recent example transactions

Acquirer	Company	Description	EBITDA Multiple (Estimate)
		Load banks & power quality solutions	~14-16x
Blackstone		Power solutions equipment	~14-16x
		Liquid cooling / thermal management solutions	~22.5x
		Outsourced repair, maintenance, and engineering services	N.A.
		Emission and acoustical solutions	N.A.
Blackstone		Electrical testing & maintenance	N.A.

Market outlook and investment positioning...

The data center ecosystem remains one of the most investable areas of infrastructure. Demand for compute, storage, and AI workloads is fueling growth across a wide landscape of products (power, cooling, connectivity) and services (construction, commissioning, O&M). With the U.S. market expected to see sustainable growth past the near term, capital is flowing toward platforms that solve bottlenecks across the ecosystem

Headwinds to monitor

- Skilled labor shortages raising commissioning and maintenance costs
- Delays in grid interconnection prolonging project timelines
- Regulatory & ESG scrutiny (e.g., water, emissions)
- Technology turnover (AI, liquid cooling)
- Potential normalization of capital spending (post-2030)

Investor takeaway

While data center CapEx is expected to remain strong through the remainder of the decade, it will inevitably normalize as build intensity levels off and utilization catches up. The winners in that environment will be those positioned to generate recurring revenue and maintain relevance beyond the current build cycle through service diversification, technology leadership, and customer stickiness

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