

Hyperscale or Colocation?

Why both are critical to digital demand

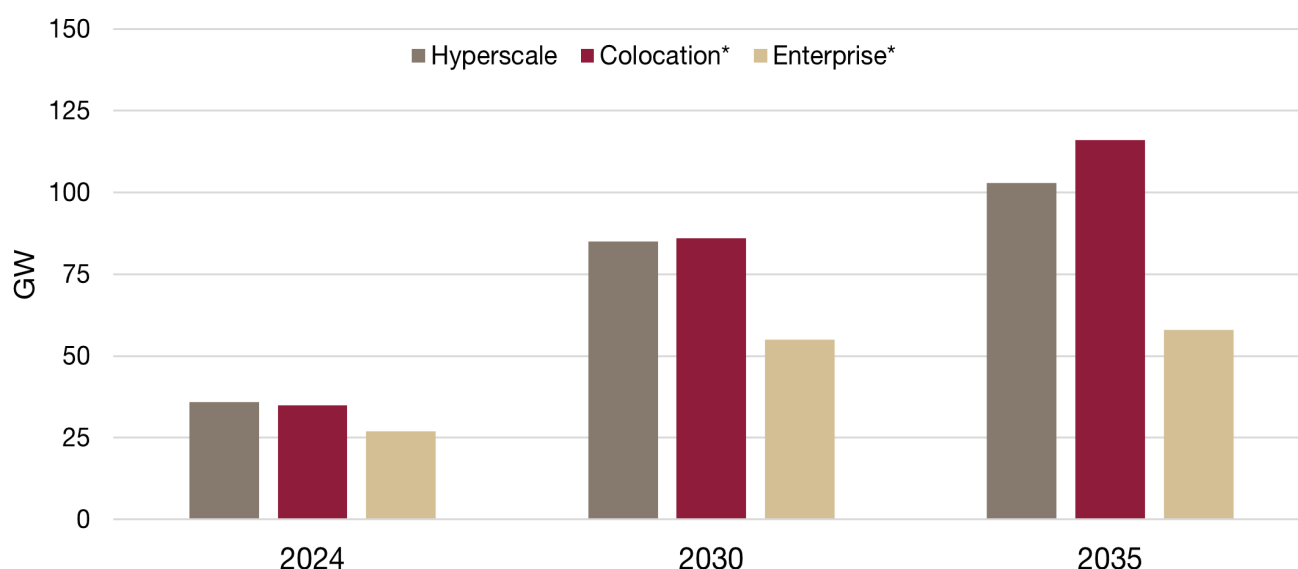
(5-minute read)

As data centres expand, investor questions multiply: In 2024, data centre investment reached record highs, driven by AI workloads and ongoing digitalisation trends—such as cloud computing and data sovereignty—which are boosting demand for new capacity. For 2025, projections indicate that transaction volumes may

exceed USD 120 billion.¹ As investors' portfolio exposure to data centres grows, more questions are emerging about the sector. Increasingly, investors are focused on understanding the business drivers, interplay, and trade-offs between hyperscale and colocation data centre fundamentals.

The data shows that the future isn't about choosing between hyperscale and colocation—it's about leveraging both to build resilient, scalable digital infrastructure.

Global data centre capacity growth by type (GW, 2020-2035)



Source: IEA, Energy and AI Observatory, April 2025. Past performance is not a guarantee for future returns. There is no guarantee that the forecast highlighted will materialise. Notes: Colocation data centers host multiple tenants—including enterprises. Enterprise data centres are owned by a single organisation to run IT systems and store data.

Why both are essential: According to the latest IEA forecast, both hyperscale and colocation data centres are indispensable to the digital ecosystem. While current attention is largely focused on hyperscalers—driven by AI demand—**projections indicate that colocation growth may outpace hyperscale by 2035.**²

Hyperscale data centres deliver substantial scale and efficiency for cloud and AI giants, whereas

colocation facilities offer flexibility, edge proximity, and neutrality for multiple companies and service providers. Together, they form the backbone of global connectivity and computing. Although forecasts may shift rapidly given the sector's pace of change, one point remains clear: both business models are essential to global digital infrastructure, and neither can be overlooked.

1. Infralogic, November 2025

2. IEA, Energy and AI Observatory, April 2025

HYPERSCALE

Hyperscale data centres are essential:

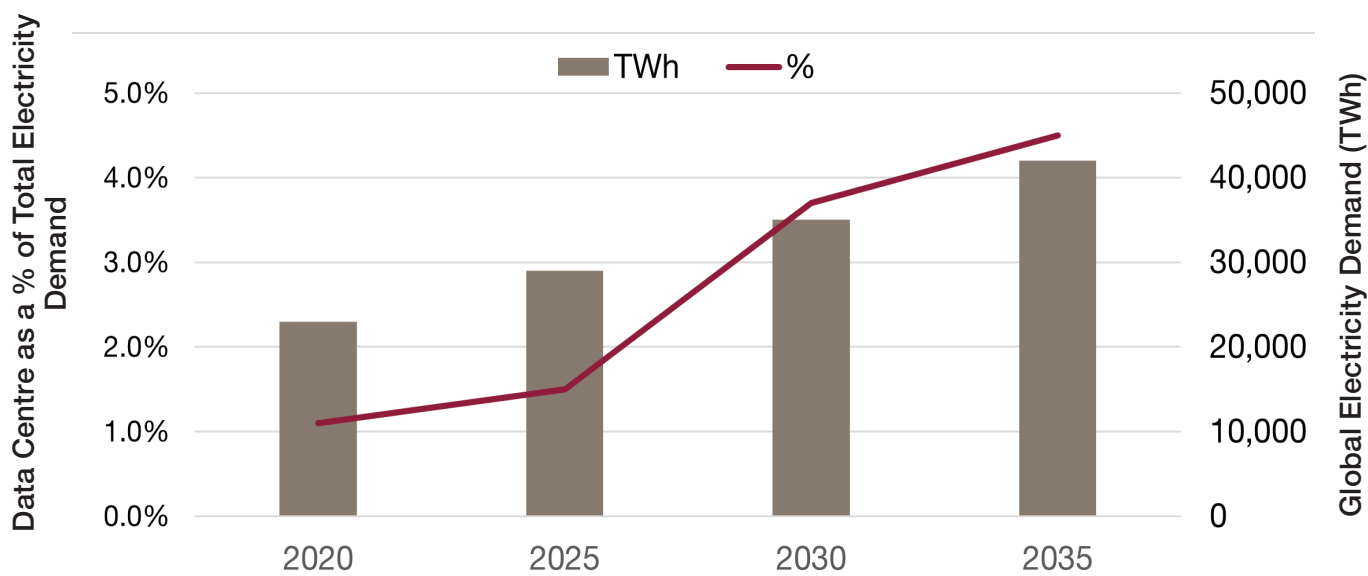
Hyperscale data centres primarily serve major public cloud providers with high credit quality, delivering critical digital services. These facilities attract large-cap investors that build and lease capacity to hyperscalers and are concentrated in key data hubs—most notably in North America—in strategic locations with strong connectivity. Hyperscalers require progressively larger, highly efficient facilities, with Power Usage Effectiveness (PUE) ranging from 1.05 to 1.25, a significantly better efficiency than the industry average.³

Long-term contracts and bespoke, purpose-built designs make hyperscale tenant renewal “sticky”, especially given the strategic importance of these sites.

Hyperscale data centres have higher operating margins than the industry average, driven by superior power density and occupancy, but high capex can cap overall profitability.

Size comes with vulnerabilities: Hyperscale data centres, while recently benefiting from AI-driven growth and high-quality tenants, can face vulnerabilities. Heavy reliance on a few prevalent cloud providers creates concentration risk: demand shifts, new AI entrants, or regulatory unbundling could disrupt growth in what is effectively an oligopolistic market.⁴

Data Centres, Electricity Consumption as a % of Global Electricity Consumption, TWh, %, 2020-2035



Source: IEA, Deloitte, InfraRed Capital Partners, April 2025. Base Case. Past performance is not a guarantee of future results. There is no guarantee that the forecast highlighted will materialise.

Other challenges include rising capital intensity, with higher facility sizes adding construction complexity, as well as scaling into emerging jurisdictions beyond mature hubs, where factors such as the availability of low-cost power, water supply, and streamlined permitting are increasingly important. Securing reliable power and grid connections is critical.

Globally, power supply growth is expected to be sufficient to meet overall data centre demand. However, the challenge lies particularly in the highly concentrated nature of hyperscaler demand, which often clusters in specific geographic locations, creating localised constraints on grid capacity and infrastructure.

3. Uptime Institute, February 2024

4. European Union Institute For Security Studies, November 2025

In Northern Virginia—home to ca. 30% of U.S. hyperscale capacity and 13% globally⁵—PJM capacity prices surged from \$30/MW-day to over \$329/MW-day in one auction.⁶ Without new investment, Virginia’s energy prices could rise 25–75% this decade, with residential bills potentially increasing by 50%.⁷

COLOCATION

Colocation data centres also provide critical services: Colocation facilities provide data centre space, power, cooling, and security for third party company servers to multiple tenants. **These facilities are critical enablers of hybrid IT strategies,** supporting workloads that cannot easily migrate to public cloud, due to cost, complexity, or regulatory constraints, while offering strong connectivity to multiple cloud providers.

Industries such as finance, healthcare, and government rely on colocation to meet increasingly stringent data sovereignty and residency requirements. Despite improvements in public cloud security, many organisations still also prefer the control, flexibility and compliance benefits of private or colocation environments.

Colocation data centres tend to be dispersed geographically and provide critical services for latency-sensitive applications and high-performance computing, where proximity to end-users or systems is essential. Technologies requiring low latency include online gaming, financial trading, real-time video conferencing, and increasingly Content Delivery Networks (CDNs) such as Netflix, which rely on distributed infrastructure to minimise latency for end-users.

Demand for low-latency connectivity is anticipated to grow exponentially, as technologies such as telemedicine, autonomous vehicles and industrial automation accelerate. As AI shifts from training to inference, workloads may become increasingly latency-sensitive, creating an additional future tailwind for

colocation facilities that can deliver proximity and low-latency connectivity. A broader geographical dispersion makes colocation data centres potentially less exposed to risk factors such as power prices and grid connectivity issues.

Managing complexity to deliver flexibility:

Colocation facilities are typically built before securing tenants, exposing assets to some commercialisation risk and making location choices critical to capture demand. Strong, local demand minimises voids, yet operators face complex multi-tenant environments and churn risk from diverse client needs. Contracts tend to have an average of 5 to 7 years, though service flexibility and potentially high migration costs drive customer stickiness.

Colocation data centres tend to have lower EBITDA margins than hyperscale, but lighter capex requirements and a diversified revenue profile can support comparatively higher returns. Operational costs, including cooling and maintenance, are higher than hyperscale peers, prompting a focus on improving Power Usage Effectiveness (PUE) for commercial and sustainability benefits. Data centres generally face reduced technological risk as they lease the facility structure along with power, connectivity, and cooling systems, while tenants own the hosted computing equipment. Retrofits to heating and cooling systems further ensure long-term relevance for assets that are older and may face competitive pressure.

DEMAND DRIVERS

Demand drivers underpin sector beyond

AI: Artificial Intelligence is currently a major catalyst for data centre growth. Projected growth is strong, but also remains uncertain, given the strong pace of AI’s technological innovation, rising energy requirements, and the nascent and untested nature of some underlying business models leveraging AI.

5. DataCenterMap, November 2025

6. Power prices surged from roughly \$30/MW-day to over \$329/MW-day in the PJM Interconnection capacity market, driven largely by the outcomes of the 2025/2026 and 2026/2027 Base Residual Auctions (BRA).

7. Brannon, Ike and Wolf, Samuel, The Impact of Data Centers on Energy Demand and Market Prices, November 11, 2024

While the most demanding AI applications remain concentrated within hyperscale environments, colocation facilities are also expected to gain additional upside as AI adoption broadens across industries, enabling decentralised processing and hybrid digital strategies.

Beyond AI, other structural demand drivers continue to support long-term sector growth. Global data creation is surging. Cloud migration

remains a dominant force, while regulatory compliance and data sovereignty requirements, in an increasingly fragmented geopolitical landscape, sustain demand for localised infrastructure. Growth is also fuelled by video streaming and IoT devices—all of which require scalable storage and low-latency delivery. These factors collectively underpin a resilient demand outlook, even as technology cycles and energy constraints introduce short-term volatility.

INVESTOR ALLOCATIONS

Allocation considerations: Hyperscale and colocation data centres provide critical services but operate in distinct market segments, differentiated by ticket size, business fundamentals, and geographic focus. Investor portfolios can leverage these differences to build a diversified exposure across the sector.

While demand projections remain strong, potential medium-term shifts in supply-demand dynamics make asset selection critical, as does maintaining discipline in pricing assumptions—particularly around AI-driven growth. Given that AI, despite its projected strong expansion, remains nascent, underwriting assumptions should reflect a more prudent business case.

Today, hyperscaler data centres are mostly suited for **large-cap strategies, due to the increasing size of the facilities and large capex commitments.**

Mid-market, value-add strategies typically focus on new colocation developments, in strategic locations supported by robust demand fundamentals, with clear exit visibility mitigating investment duration.

As the sector broadens, we anticipate increased data centre appetite by core plus strategies focused on blending operational acquisitions providing yield, with development projects, bolt-on opportunities, and adopting active asset management strategies to improve operational performance.

Authored by:



Gianluca Minella,
Head of Research



Julien Eaton,
Director, Investments

To discuss any of the themes covered in this latest InfraRed insight, please send an email to info@ircp.com and one of the team will be in contact.

Appendix: Comparative Summary - Hyperscale vs. Colocation

	Hyperscale	Colocation
Typical Size	>25 MW	5–25 MW; <5 MW for edge
Geographic focus	Historically tier 1 locations, now driven by power availability and interconnection	Typically metro or near corporate-dense areas for proximity
Typical Use	Public cloud providers or content delivery networks	Broad “corporate” deployments + service add-ons (private cloud, managed services)
Business Drivers	Move to public cloud; AI workloads; content hosting; lowest pricing	Customer service; compliance; data sovereignty; hybrid IT; AI adoption
Customer Mix	Low: 1 or few tenants	High: hundreds of tenants
Contract Profile	10–15 years; high renewal risk	5–7 years, often shorter remaining terms
Customer Stickiness	High but binary risk	High, especially for hybrid IT; low churn
EBITDA Margins	Higher (~80%)	Lower (~60%)
Capex Intensity	Higher	Lower

Source: InfraRed Capital Partners, November 2025. For illustrative purposes only. Past performance is not indicative of future returns.

Disclaimers

InfraRed has based this document on information obtained from sources it believes to be reliable, but which have not been independently verified. All charts and graphs are from publicly available sources or proprietary data. Except in the case of fraudulent misrepresentation, InfraRed makes no representation or warranty (express or implied) of any nature or accepts any responsibility or liability of any kind for the accuracy or sufficiency of any information, statement, assumption or projection in this document, or for any loss or damage (whether direct, indirect, consequential or other) arising out of reliance upon this document. InfraRed is under no obligation to keep current the information contained in this document.

You are solely responsible for making your own independent appraisal of and investigations into the products, investments and transactions referred to in this document and you should not rely on any information in this document as constituting investment advice. This document is not intended to provide and should not be relied upon for tax, legal or accounting advice, investment recommendations or other evaluation. Prospective investors should consult their tax, legal, accounting or other advisors. Prospective investors should not rely upon this document in making any investment decision.

Investments can fluctuate in value, and value and income may fall against an investor's interests. The levels and bases of taxation can change. Changes in rates of exchange and rates of interest may have an adverse effect on the value or income of the investment or any potential returns. Figures included in this document may relate to past performance. Past performance refers to the past is not a reliable indicator of future results. There can be no assurance that the opportunity will achieve its target returns or that investors will receive a return from their capital. Investment in the products or investments referred to in this document entails a high degree of risk and is suitable only for sophisticated investors who fully understand and are capable of bearing the risks of such an investment, including the risk of total loss of capital originally invested. It may also be difficult to obtain reliable information about the value of these investments, which will often have an inherent lack of liquidity and will not be readily realisable.

This document is being issued for the purposes of providing general information about InfraRed's services and/or specific assets and their operational performance only and does not relate to the marketing of investments in any alternative investment fund managed by InfraRed. InfraRed may offer co-investment opportunities to limited partners, or third parties. These circumstances represent conflicts of interests. InfraRed have internal arrangements designed to identify and to manage potential conflicts of interest.

This document should be distributed and read in its entirety. This document remains the property of InfraRed and on request must be returned and any copies destroyed. Distribution of this document or information in this document, to any person other than an original recipient (or to such recipient's advisors) is prohibited. Reproduction of this document, in whole or in part, or disclosure of any of its contents, without prior consent of InfraRed or an associate, is prohibited.

This document is not intended for distribution to, or use by, any person or entity in any jurisdiction or country where such distribution or use would be contrary to law or regulation.

InfraRed Capital Partners is a part of SLC Management which is the institutional alternatives and traditional asset management business of Sun Life.