Data Centres Global Forecast Report

Knight Frank

2025

Forecasts and Insights: Navigating the evolving global data centre market

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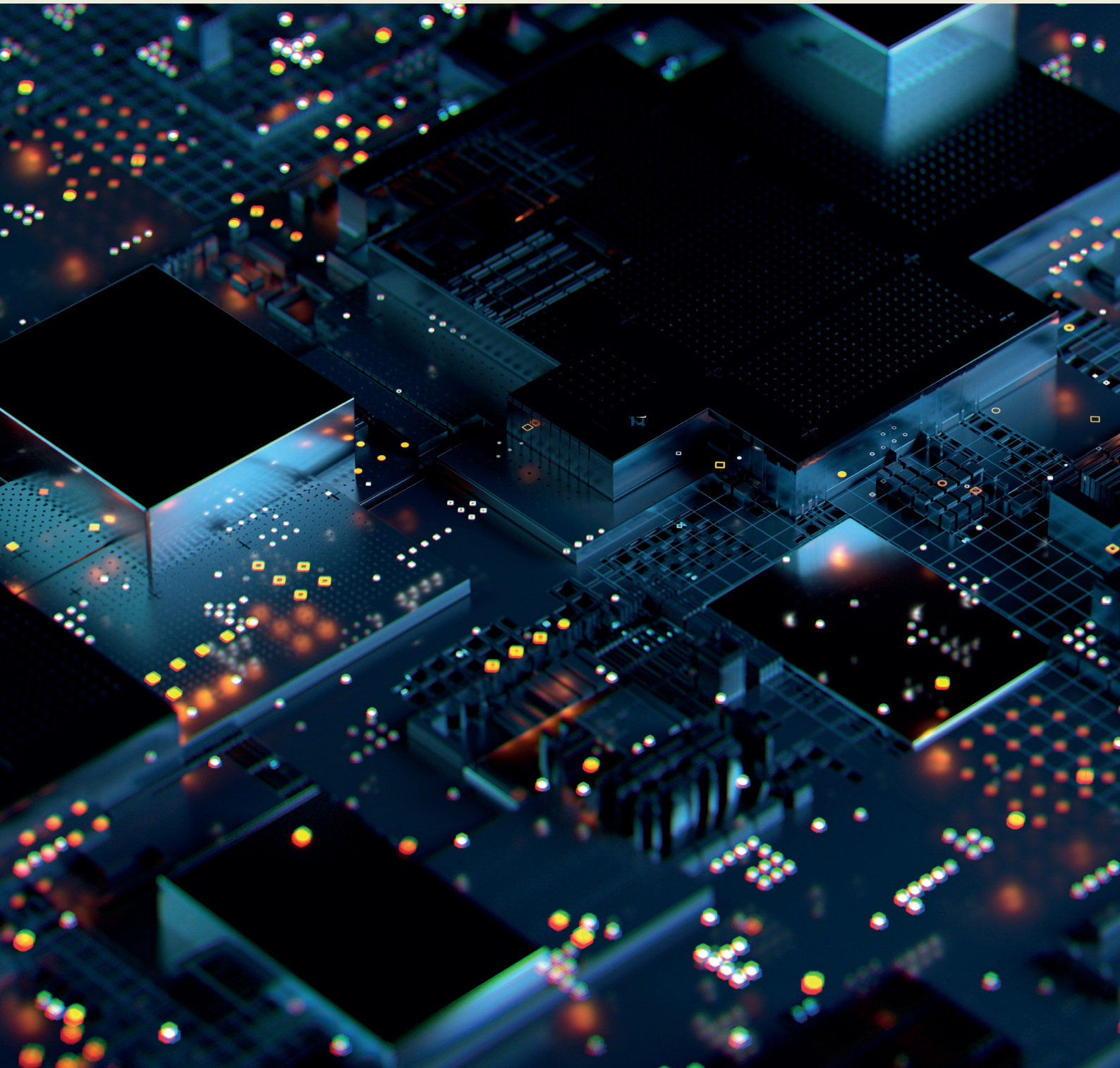

Foreword

STEPHEN BEARD
GLOBAL HEAD OF DATA CENTRES
DEVELOPMENT & INVESTMENT

The global data centre outlook for 2025 demonstrates unprecedented growth and transformation. Across EMEA, APAC, and North America, factors such as power availability, sustainability, and rapid technological advancements are reshaping the industry at an extraordinary pace. These forces are driving a landscape rich with opportunities for innovation, investment, and expansion, yet one also marked by significant technical, regulatory, and resource-based challenges.

Key drivers fuelling sustained growth in global data centre requirements include the rise of artificial intelligence (AI), hybrid cloud adoption, and the ever-increasing demand for data. In response, the marketplace is evolving rapidly, with the sector delivering specialised, scalable data centres designed to meet diverse and bespoke customer needs in greater numbers. Simultaneously, governments worldwide are introducing policies and initiatives to accelerate AI development and integration within their jurisdictions.

However, the rapid evolution of AI brings both transformative potential and inherent volatility that will significantly shape the data centre industry. The demand for high-performance computing, vast storage capacities, and resilient power infrastructure continues to mount as AI applications mature. Yet, this dynamic growth is set against unpredictability as the marketplace fluctuates between breakthroughs and infrastructure limitations. These oscillations demonstrate the interplay between technological potential, the fragility of investment sentiment and the readiness of the data centre ecosystem.

One thing we can be sure of is the growing influence of the Green agenda. Sustainability, once a priority, has now become an imperative. Global climate targets are driving accountability, and data centres are adopting renewable energy, advanced cooling technologies, and innovative energy-efficient designs. Meanwhile, regulatory frameworks enforcing stricter environmental and cybersecurity standards are proliferating – a necessary evolution, though one that adds complexity to the sector's expansion.

Connectivity remains a critical, yet often underappreciated, element of the data centre ecosystem. While the search for abundant and low-cost power is driving activity in markets such as the Nordics, the evolution of AI means shifting priorities. As consumer demand for instantaneous responses grows, most AI computation will increasingly be located within established connectivity hubs and expanded Cloud Availability Zones.

Ultimately, the data centre industry must balance the pursuit of innovation with the imperatives of sustainability and security, which will underpin the future global digital economy. Moving forward, data centres will play a pivotal role in enabling technological progress while supporting the creation of a sustainable and interconnected world.

This forecast report explores the key trends transforming the data centre industry and examines their impact on capacity across major global markets. The interplay between power availability, regulatory shifts, and technological advancements is becoming increasingly complex. Understanding how these forces interact will be essential for navigating the sector effectively.

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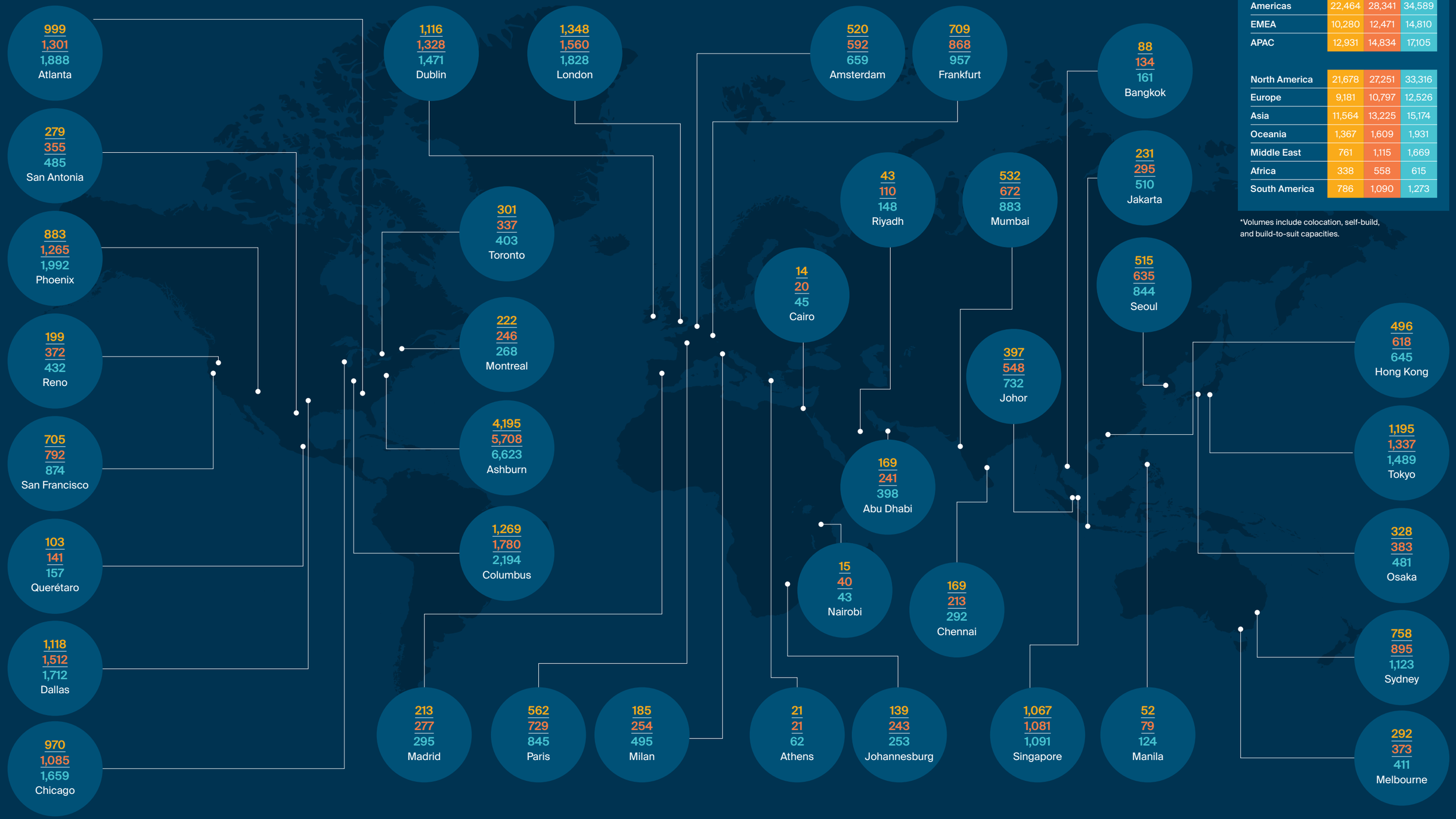
Live IT Capacity (MW)



	2024	2025	2026
Global	45,676	55,646	66,504
Americas	22,464	28,341	34,589
EMEA	10,280	12,471	14,810
APAC	12,931	14,834	17,105
North America	21,678	27,251	33,316
Europe	9,181	10,797	12,526
Asia	11,564	13,225	15,174
Oceania	1,367	1,609	1,931
Middle East	761	1,115	1,669
Africa	338	558	615
South America	786	1,090	1,273

*Volumes include colocation, self-build, and build-to-suit capacities.

Regional Insights

EMEA

OLIVER WESTON
ASSOCIATE

The European data centre market is growing at pace and will see substantial investment in 2025 as markets continue to be characterised by surging levels of demand – underpinned principally by the occupational dominance of Microsoft, Amazon Web Services, and Google. Knight Frank expects that the power shortages, permitting challenges, and regulatory constraints that characterised 2024 will play an even more pronounced role in 2025 – placing greater premiums on available powered land and powered shell opportunities.

Whilst FLAP-D markets will remain important for end users and developers, operators will continue to take a more agnostic approach to the established availability zone locations and will develop beyond these regions in search of land and power. We expect Tier 2 & 3 markets will experience significant growth. These markets offer relatively lower costs of land and less constrained grids, providing a greater prospect of securing power within a 3-to-5-year time horizon. In 2025 we will see the growth of markets such as Lille, Dusseldorf, Scotland & North England, Turin, Lisbon, and Bilbao. These markets will offer attractive IRR returns to early movers, provided Opcos can strategically time their market entry to match cloud & AI demand.

Finally, we expect greater flexibility and more creative inputs regarding power. This will include private wire solutions, gas turbine generation or joint ventures with renewable and battery storage companies.

Data centres are as capital intensive as they are power intensive, and there is a weight of capital wishing to deploy into the sector. There are several powered shell transactions under development currently which will provide investment opportunities for the capital markets moving forward. We will continue to see OpCo and PropCo splits as operators re-cycle capital to feed the next wave of development. Knight Frank still expect to see a yield premium of between 25 – 50 Bps for standing DC investment assets over the equivalent industrial stock – reflecting the strong fundamentals of the data centre space and highly secure nature of the customer base.

APAC

FRED FITZALAN-HOWARD
HEAD OF DATA CENTRES, APAC

The APAC data centre market is positioned for aggressive growth over the coming years, driven by increasing investor interest across both tier 1 and 2 markets. The high-profile acquisition of AirTrunk by Blackstone, which valued AirTrunk at AUD$24 billion, underscores the growing enthusiasm among global investors for the APAC market. This transaction is likely to catalyse a wave of M&A transactions, as competing operators seek to leverage this set valuation. Whether these valuations will sustain, or face recalibration remains to be seen.

> "The APAC data centre market is positioned for aggressive growth over the coming years, driven by increasing investor interest across both tier 1 and 2 markets."

Secondary markets across APAC will bridge gaps in capacity and drive more equitable growth across regions by closely aligning with primary regional hubs, offering competitive advantages in power availability, land options, and cost-effectiveness. Cities such as Melbourne, Chennai, and Osaka are emerging as key players, complementing the established markets in Sydney, Mumbai, and Tokyo.

Although the APAC data centre market is relatively nascent compared to the mature ecosystems of the US and Europe, it continues to face challenges. Key hubs like Singapore, Tokyo, and Sydney have reached higher levels of maturity, but many other regions struggle with regulatory inconsistencies, power shortages, and land scarcity. In India, data centre operators frequently encounter delays due to a lack of standardised regulations across states. Similarly, emerging markets such as Vietnam and Indonesia grapple with unreliable power infrastructure, while the Philippines and Thailand face difficulties in cultivating a specialised workforce to design, build, and maintain data centre facilities. These issues highlight the uneven development within the region and underline the complexities of scaling the market effectively.

As the APAC data centre market expands, the outlook for artificial intelligence (AI) integration adds another layer of excitement. While current AI deployments in the region are in their infancy verses the US and Europe, they present tremendous opportunities for growth, with pilot projects and early-stage investments laying the groundworks for AI infrastructure rollouts. Although the fragmented regulatory landscape raises concerns, combined with US export regulations targeting Chinese procurement of AI across APAC, the APAC market is well-positioned to embrace this innovation.

NORTH AMERICA

JASON SHEPARD
MANAGING PRINCIPAL, CRESA MCS

North America is the most capacity-rich region in the world, hosting almost half of global live IT capacity. It is supported by an abundance of suitable land, access to power, and strong investment. Almost 3GW was deployed in of 2024, with a further 11GW expected over the next two years.

The entrance of artificial intelligence (AI) into the sector has resulted in historically low vacancy rates, surging rental rate costs, and increasing lead times for critical infrastructure. The downstream impact has been a squeeze on enterprise customers of colocation facilities and the rapid expansion of colocation operators and developers building powered-shell facilities capable of servicing a various data centre demand cases.

According to AFCOM's 2023 State of the Data Centre Study, 64% of respondents replied that the acceptable latency for distributed infrastructure requirements was twenty milliseconds (ms) or less. While the low latency requirements are often associated with traditional enterprise data centre tenants, these needs also apply to the cloud operators providing services to other data centre operator types.

A primary challenge facing the data centre industry is securing not only suitable power infrastructure serving properties for development but also the energy supply to power these facilities. According to Cresa MCS analysis of Q1 2024 US EIA data, circa. 72% of the 175,000 megawatts (MW) of planned or under-construction power capacity in the United States are via solar or wind sources. While solar & wind power generation satisfies green initiatives, their intermittent supply conflicts with the always on operations needs of the data centre sector.

While 2024 introduced the concept of gigawatt data centre campuses, many electric utilities were pushed into re-evaluation based on existing & future capacity/energy generation supply concerns. We believe the limit on stabilised base energy supply will cause the data centre operator/development community to respond with more manageable-sized data centre deployments &/or utilizing on-site cogeneration to mitigate reliance on the utility providers to supply energy.

Technical Insights

VALUATIONS

ALEX BURGOYNE
GLOBAL HEAD OF DATA CENTRES VALUATIONS

As reported by Reuters, December 2024 marked the biggest monthly tally of rate cuts across G10 central banks since March 2020. Whilst the UK held interest rates at 4.75%, the outlook in the debt and equity markets is positive for 2025. The data centre market is extremely capital-intensive, and this policy loosening will encourage continued growth in construction and delivery. The existing global supply volume of circa. 45GW represents an estimated $540 billion dollar investment, with the next two years of global deployment adding a further $242 billion.

Pricing has shown consistent double-digit growth. Initially fuelled by construction inflation – amidst the combination of supply chain disruptions, rising raw material costs, and labour shortages – this will now be very much demand-led inflation going forward. We expect rental growth in 2025 to be in the region of 10-15% on new leases, whilst lease renewals could see even greater increases of 20% or more. Limited opportunities within cloud regions, as well as additional new demand from HPC, suggest this will continue in the short to medium term. Capitalisation rates remained stable over 2024 – between 4.75% and 5.25% – with the potential for compression over 2025.

Power availability will be the foremost restriction to capacity growth in 2025, albeit the cost of capital, land availability and a skilled labour shortage will also factor. Consequently, competitive pressure will remain high and underpin elevated land values and rental growth. Nonetheless, the upward demand trajectory of the sector is such that, despite the headwinds, we can expect expansion announcements across the main European hubs to continue and speculative projects in less established regions to grow in number.

POWER AND MEP

CHRIS JONES
PARTNER

Across the United Kingdom, there exist major constraints in the sourcing of sizeable power that is available within reasonable timescales. This is primarily the result of the drive to net zero requiring the rebuilding of national and international transmission networks to support the transition to zero carbon generation sources. This fact, coupled with the emergence of artificial intelligence (AI) and increasing power densities expected alongside the increased use of immersion cooling, will make the availability of power more acute in the short-term.

Grid reform in the UK is already underway which should reduce current connection queues. Primarily, this to be achieved by reducing the amount of battery storage projects that, particularly in the UK, have been very speculative in nature. In the UK current proposals are looking to reduce the current connection queue from 800GW to circa. 230GW. It is expected that upon completion of this review, new connection lead times, which at present result in new connection dates in the late 2030's, could be reduced to the late 2020's or early 2030's. The picture is similar, though not usually as acute, in other global data centre markets.

Whilst the design of cloud data centres is well understood, the advent of AI raises some questions regarding the design of these types of facilities. The use of immersion cooling could increase power requirements of AI-based facilities fourfold over the equivalent cloud facility, sometimes exceeding several gigawatts (GW) in capacity. This raises questions regarding current designs being proposed. Firstly, how many, what size, and the location of AI data centres will need to be clarified. Many quasi-AI designs being proposed are still being based upon Up Time Institute Tier 3 requirements and cloud design standards. Clarification from the sector on the design requirements for AI facilities would be welcome, with an update of Uptime Institute Tier ratings long overdue.

OCCUPIER

CELESTE MCGINLEY
SENIOR SURVEYOR

Cloud Service Providers (CSPs) have continued to expand their global infrastructure in response to the growing adoption of cloud computing. However, organisations are increasingly exploring a wider range of options including on-premises IT, hybrid, and multi-cloud environments. Over the past twelve months, several new occupiers have emerged, driven by the rise of CPU and GPU-as-a-service providers and high-performance computing (HPC). These occupiers are often seeking large reservations (5-10 MW) for their initial deployments, typically within tight timeframes, to support the growth of their applications and platforms.

A key trend on the horizon is the shift towards hybrid cloud models, as businesses choose to keep certain data and applications on private infrastructure within colocation data centres, while using public cloud resources for other needs. Over the next 12 months, we anticipate that the most prominent and power-hungry occupiers will be a select group of GPU-as-a-service providers who successfully navigate their initial years and emerge as leaders in their field.

We expect average rack densities to steadily increase, with colocation operators adapting their designs and builds to meet these demands. Currently, average densities in colocation facilities range from 5-10 kW per rack, but the standard could soon shift towards 20 kW or more. Therefore, we expect it to prove increasingly challenging for occupiers seeking lower densities to secure modern colocation space, such as financial institutions who have historically run at 2-4kW per rack.

The quantity of retail and small wholesale colocation providers has decreased, as more operators focus on securing single tenant agreements. Only a few operators, such as Equinix and Digital Realty, still have the capability to cover deployments ranging from a few racks to 500 kW to 50 MW. Furthermore, we question what the potential impact of new and upcoming data sovereignty and compliance regulations will be on occupiers. As stricter enforcement regarding where data can be stored and processed is anticipated, particularly in relation to AI applications, more occupiers may seek colocation facilities in regions that align with their data privacy requirements.

We like questions, if you've got one about our research, or would like some property advice, we would love to hear from you.

Stephen Beard
Global Head of Data Centres
Development & Investment
+971 50 121 7523
stephen.beard@me.knightfrank.com

Fred Fitzalan Howard
Head of Data Centres, APAC
+65 8872 6707
fred.fitzalanhoward@asia.knightfrank.com

Christopher Jones
Head of Power Procurement & MEP Consultancy
+44 7970 318 229
chris.jones@knightfrank.com

Celeste McGinley
Senior Surveyor
+44 7811 035 528
celeste.mcginley@knightfrank.com

Harry Hannam
Senior Analyst
+44 7974 860 629
harry.hannam@knightfrank.com

Alex Burgoyne
Global Head of Data Centres Valuations
+44 7885 610 673
alex.burgoyne@knightfrank.com

Jason Shepard
Managing Principal, Cresa MCS
+1 714 925 8539
jasonshepard@cresa.com

Oliver Weston
Associate
+44 7977 059 465
oliver.weston@knightfrank.com

Darren Mansfield
Head of Data Centre Research
+44 7469 667 194
darren.mansfield@knightfrank.com