

DATA CENTRE MARKET OVERVIEW

DC Byte, 13 May 2025

GLOBAL DATA CENTRE MARKET

The global data centre colocation market supply grew at a slightly slower rate of growth of 18.2% in 2024, compared to 20.1% in the previous year due to power constraints and bottlenecks, especially in primary markets.

The generative AI market alone is projected to reach US\$1.3 trillion by 2032F, growing at a Compound Annual Growth Rate ("CAGR") of 42% from 2023 to 2032F. According to Bloomberg Intelligence, the near-term growth will be driven by AI training infrastructure, with medium- to long-term demand expected to shift towards AI inference.

The demand for AI capacity is expected to rise at an average rate of 33% annually between 2023 and 2030F, with around 70% of total data centre demand by 2030F projected to be for advanced-AI workloads, of which generative AI ("Gen AI") is expected to account for 40%, according to McKinsey & Company.

A key driver of this demand will be Agentic AI, an autonomous system capable of dynamic decision-making without human oversight. Given its real-time processing needs, Agentic AI requires low-latency edge environments, which would lead to an increase in demand for inference AI and edge data centre facilities to support its operations. Currently, AI demand is estimated to be 20% inference AI and 80% AI training. However, by 2028F, this ratio is expected to reverse, with inference AI accounting for 80% of total AI demand and AI training accounting for the remaining 20%. This shift will drive the demand for localised data centre capacity to meet the low-latency requirements of AI-driven applications.

Data centre rack densities are rapidly increasing, driven by the rising computing requirements for AI and high-performance computing. Traditionally, non-AI workloads require a lower rack density of around five kilowatts ("kW") to 10 kW, but the latest generation of AI hardware such as NVIDIA's Blackwell architecture can require a higher rack density of up to 120 kW per rack, with future systems such as Rubin Ultra expected to exceed 600 kW per rack.

The need for high-density racks to support AI workloads will see more widespread implementation of advanced liquid cooling infrastructure in the longer term, such as immersion or direct-to-chip cooling, which are already being deployed in new data centre facilities. Upcoming and new data centre facilities are expected to be designed with scalable rack density to accommodate potential AI inference deployments.

The transition to higher density racks and implementation of liquid cooling into data centre designs are expected to take several years. In the meantime, AI demand will continue to be deployed on cloud platforms.

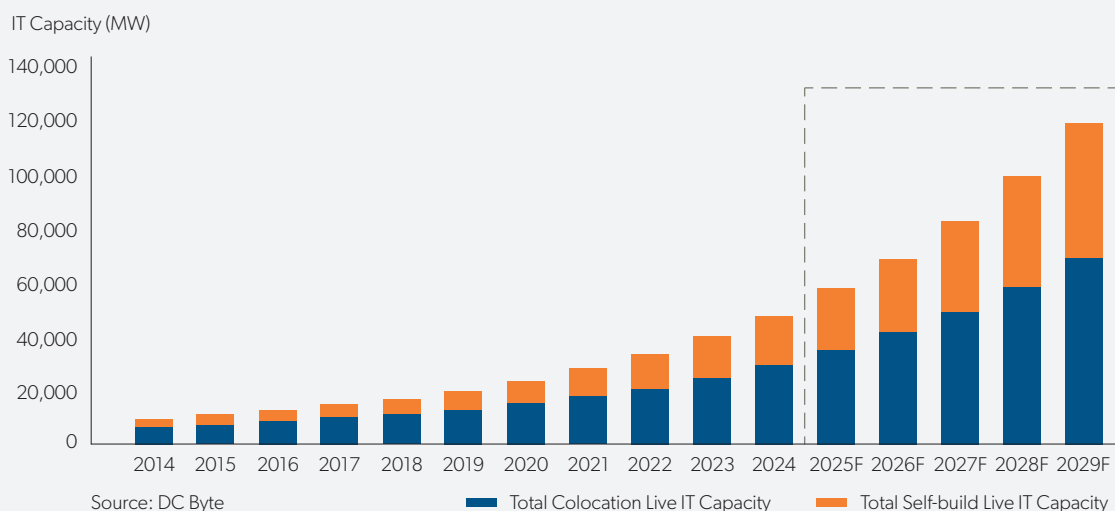
DeepSeek's R-1 model, which offers higher cost efficiencies and reduced Graphics Processing Unit ("GPU") requirements, could significantly boost AI demand. As advanced AI technologies become more accessible and affordable, this will likely increase the adoption of AI solutions among smaller businesses and organisations across various industries. Coupled with the ongoing global AI race, this is likely to accelerate AI demand, particularly in more cost-sensitive markets such as the Asia Pacific region.

The global shortage of power, which is exacerbated by the demands of Gen AI, poses a significant challenge to the data centre market's growth. Power accessibility is increasingly becoming a key consideration before cost, particularly with the expansion of large-scale deployments. Regions with available power supply especially from renewable energy sources are prioritised by operators and cloud service providers, as observed from the rise of mega green campuses, the exploration of the use of hydrogen fuel cells, geothermal power, wind, solar, nuclear, hydroelectric, and even nuclear small modular reactors.

Data centre development costs increased by 9% from 2023 to 2024, which outpaced the 6% increase in the previous year. Component shortages, particularly for GPUs and other essential mechanical and electrical systems, have led to increased operational expenses and project delays. In April 2025, the US announced the imposition of tariffs on Chinese imports, including semiconductors, and this is expected to further increase import costs and, consequently, increase data centre development costs.

Figure 1: Composition of Colocation and Self-build Data Centres

Worldwide Colocation and Self-build Data Centre Live IT Capacity



DATA CENTRE MARKET OVERVIEW

In response, operators are diversifying supplier bases to mitigate risks, but this transition could potentially introduce additional costs and other logistical challenges.

Self-build and Colocation Data Centres

The global colocation data centre market made up a larger share of the global live IT capacity at 61.8% in 2024, recording a five-year CAGR of 17.5% from 2019 to 2024.

The global self-build data centre market has seen significant growth in recent years and is estimated to comprise about 38.2% of the global data centre market in 2024, recording a five-year CAGR of 22.3% from 2019 to 2024.

Cloud computing and AI remain the primary drivers of global data centre demand, together accounting for nearly 50% in 2024. The continued growth in cloud adoption is underpinned by governments and enterprises seeking cost efficiency, scalability, operational resilience, and built-in redundancy.

Cloud service providers are at the forefront of this growth, fuelling the expansion of AI-ready infrastructure through both internal development and the deployment of proprietary AI agents. This momentum is set to continue into 2025, with Amazon Web Services (AWS), Microsoft, and Google announcing capital expenditure plans of US\$100 billion, US\$80 billion, and US\$75 billion respectively, primarily focused on building cloud and AI-ready infrastructures.

To meet the growing AI and cloud demand, cloud service providers are pursuing a hybrid approach that combines self-build data centres and colocation solutions. While self-build data centres offer end-to-end control, colocation data centres remain a compelling option as they offer faster deployment, greater flexibility, and scalable capacity with shorter lead times.

Regional Data Centre Growth

The Asia Pacific data centre market continues to experience the fastest regional growth in 2024, accounting for approximately 27.1% of global live IT capacity. This expansion is driven by cloud adoption, 5G deployment, digital transformation initiatives, and strong momentum in developing markets, particularly Johor, Malaysia, which saw significant increases in IT capacity. The Asia Pacific region now stands as the second largest data centre market globally.

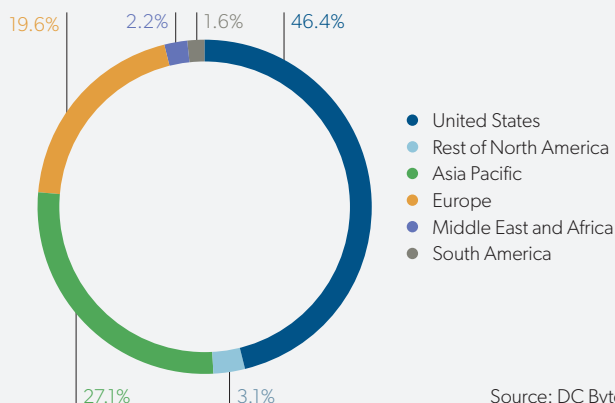
The US continues to be the largest data centre market, accounting for 46.4% of global live IT capacity, supported by its mature and innovation-led technology sector. Europe, which is ranked the third largest data centre market accounting for 19.6% of global live IT capacity, continues to see strong demand from cloud service providers. Capacity constraints in primary European markets such as Frankfurt, London, Amsterdam, Paris and Dublin have led to hyperscale operators to expand into secondary markets such as Madrid, Milan, Lisbon, and Warsaw.

NORTH AMERICAN DATA CENTRE MARKET OVERVIEW

In 2024, the North American data centre market (encompassing the US and Canada) had a total IT capacity of over 130 gigawatts ("GW"), including IT capacity that was live, under construction, committed and in early development stage. Approximately 18.5%

Figure 2: Global Data Centre Distribution (by Region)

Breakdown of Data Centre Live IT Capacity by Region as at 4Q2024



of the IT capacity was live, while 9.0% was under construction. The committed and early development stage IT capacity made up 27.0% and 45.5% of market supply respectively, a significant uptick from the previous year, due to several large-scale mega campuses being announced.

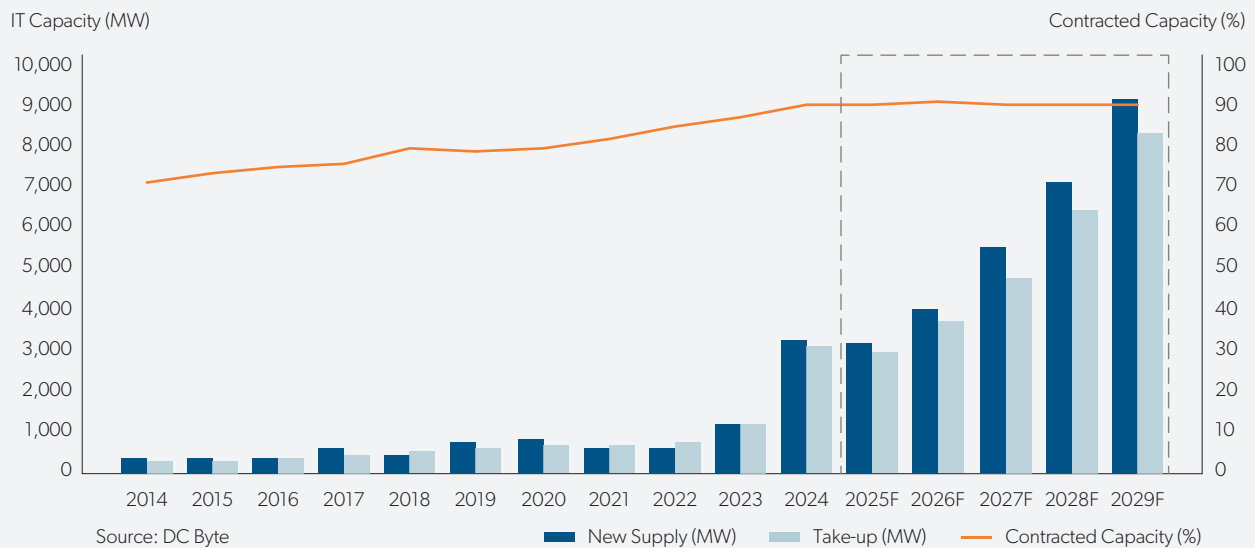
Wholesale colocation operators topped the North American data centre market share in terms of live IT load at 36.5%, followed by self-build public cloud at 29.3%, retail colocation at 13.7% and self-build social media platforms at 10.6%. In the next five years, the market share of retail colocation is expected to shrink and shift towards wholesale colocation, cloud players, hyperscale and build-to-suit data centres.

The North American data centre market is experiencing accelerated growth, driven by the rapid expansion of AI and cloud computing. The surge in AI workloads, particularly Gen AI, has emerged as the most significant demand driver, with training and inference workloads requiring immense computing power and high-density GPU-optimised infrastructure. Enterprise adoption of AI models, along with AI-native startups, is further accelerating demand for scalable, power-intensive data centre environments.

At the same time, major cloud service providers such as AWS, Microsoft Azure, and Google Cloud continue to expand aggressively to meet the growing cloud adoption among enterprises and public sector agencies. This has resulted in sustained requirements for both colocation and self-build data centre facilities, resulting in historically low vacancy rates, particularly in key markets like Northern Virginia, Silicon Valley, and Atlanta.

With land and power availability tightening in Tier 1 markets, operators are increasingly turning to secondary and emerging markets such as Columbus, Phoenix, and Salt Lake City. These markets are attractive alternatives due to the availability of power and land, as well as quicker process in the issuance of data centre permits, allowing operators to diversify deployments geographically while meeting escalating demand.

Power availability has become the defining factor for data centre developments in North America, with operators targeting delivery timelines of two to three years but often facing delays of five years or more. Some developers are collaborating with utilities

Figure 3: North American Colocation Data Centre Live Supply, Take-up and Contracted Capacity

or third-party energy providers to accelerate the construction of infrastructures including substations, extending transmission lines, or tapping into microgrids. These partnerships are also catalysing the growth of renewable and alternative energy projects, including wind, solar, battery storage, natural gas, and geothermal.

Policy developments and asset repurposing are also shaping data centre demand. As part of government initiatives in the US, federally-owned sites are identified for AI data centres and legacy energy assets are increasingly converted into digital infrastructures, further reinforcing long-term growth in the data centre market.

The supply of colocation data centres in the North American data centre market has steadily grown in recent years at an average of

16.2% year-on-year over the past five years (2019 to 2024). In 2024, an additional 3.2 GW of colocation supply was added, which saw the total live colocation supply increase to 12 GW, from 8.8 GW in 2023.

The North American data centre market is poised for continued rapid growth, underpinned by the surging demand from AI and cloud computing, expanding hyperscale infrastructure, and strategic shift towards power-secure and/or renewable energy-enabled secondary markets.

These top 15 key data centre markets in North America (as shown in Figure 4) accounted for over 53.5% of the region's total live supply of data centres and totalled 49 GW of IT capacity (live, under construction, committed and early development stage).

Figure 4: Top 15 Key Markets in North America

Rank	Top Key North American Data Centre Market
1	Northern Virginia
2	Dallas
3	Phoenix
4	Atlanta
5	Chicago
6	Silicon Valley
7	New York/New Jersey
8	Portland
9	Montreal (Canada)
10	Toronto (Canada)
11	Pennsylvania
12	Greater Los Angeles
13	Boston
14	Houston
15	Seattle

Figure 5: Top 15 Secondary Markets in North America

Rank	Top Secondary North American Data Centre Market
1	Omaha
2	Salt Lake City
3	San Antonio
4	Las Vegas
5	Nashville
6	Austin
7	Charlotte
8	Sacramento
9	Kansas City
10	Cincinnati
11	Pittsburgh
12	Miami
13	Minnesota
14	Indianapolis
15	Cleveland

DATA CENTRE MARKET OVERVIEW

Northern Virginia

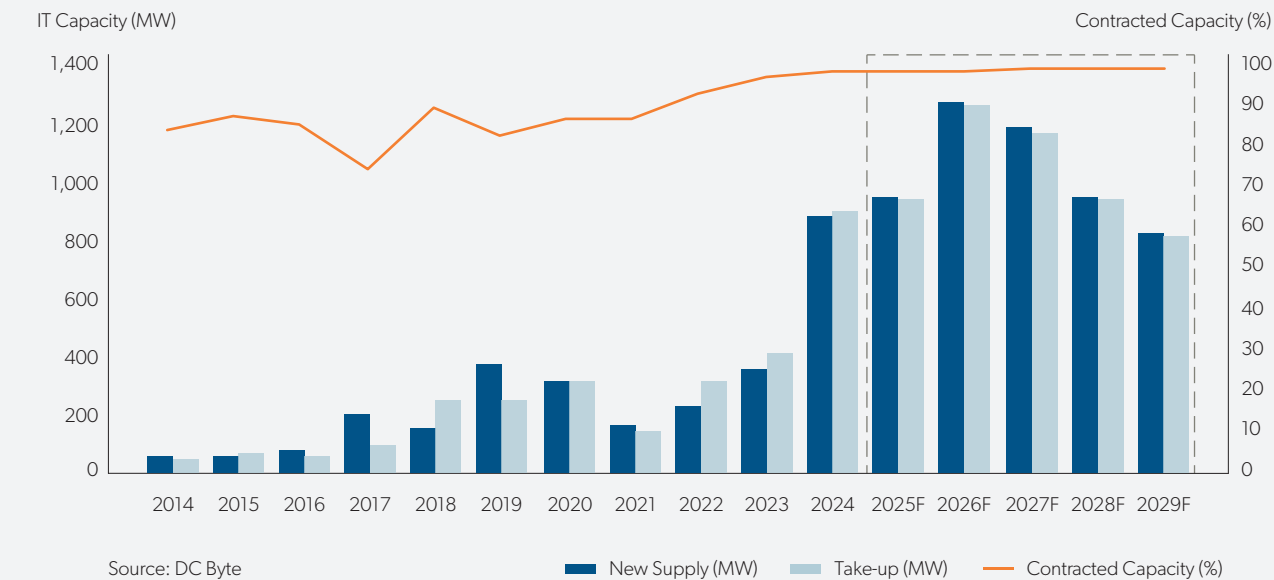
Northern Virginia has the largest and most active data centre market in the world, totalling 20 GW in IT capacity (including colocation and self-build facilities that are live, under construction, committed and in early development stage) as at 4Q2024. 23.0% (or 4,598 megawatts ("MW")) of the IT capacity was currently live, 13.8% (or 2,746 MW) of the IT capacity was under construction, 34.8% (or 6,959 MW) was committed, and 28.4% (or 5,669 MW) was in the early development stage.

The wholesale colocation market segment had the largest market share at 60.5%, while the self-build market segment is dominated by the public cloud players at 30.8% driven by key cloud service providers including AWS, Google and Microsoft.

Total Live IT Capacity*	4,598 MW
Total Under Construction Capacity*	2,746 MW
Vacancy Rate**	1.7%
Number of Data Centres	242

* Total includes both colocation and self-build data centres.
** Applies to the live colocation IT power and does not include pre-sold power that is under construction or future phased power.

Figure 6: Northern Virginia Colocation Data Centre Live Supply, Take-up and Contracted Capacity



2024 recorded a yearly take-up of 901 MW of IT capacity in colocation data centres, with the contracted capacity rate peaking at 98.3%. Northern Virginia's total colocation live supply reached a CAGR of 20.4% from 2019 to 2024. Demand continues to outstrip supply across Northern Virginia, driven primarily by cloud service providers, and the average size of data centre projects continues to grow in response.

In response to the ongoing power crunch, particularly in Ashburn, Dominion Energy is investing heavily in infrastructure upgrades, including a 2.6 GW offshore wind farm (targeted for completion by end 2026), 12 GW of planned solar generation capacity, and 4.5 GW of battery energy storage capacity (targeted to be fully operational by 2039). These projects are in various stages of development and are part of Dominion's long-term strategy to meet rising electricity demand, particularly in areas like Ashburn. Interest in alternative energy sources continues to grow across the region, though implementation timelines may be lengthy.

Google has signed a 79.3 MW wind power purchase agreement with Apex Clean Energy, while Rappahannock Electric Cooperative is partnering with AWS, CleanArc, and EdgeCore to accelerate power delivery in southern Virginia counties.

In 2024, by-right zoning approvals for data centres had been removed in Loudoun County due to community and environmental concerns. Culpeper and Caroline counties are also taking a proactive stance to attract new data centre developments, including offering tax incentives, and establishing Technology Zones. Notably, Culpeper County stands out as a key emerging market as it has a designated 'Culpeper Technology Zone' (CTZ), investments in power infrastructure and favourable incentives to support data centre growth. This has led to increasing data centre projects from major players into the county.

Meanwhile, other counties like Fauquier and Fairfax County have imposed stricter restrictions on data centre developments, such as size and location, in response to community pushback.

Data centre demand in Northern Virginia remains strong even in counties beyond Loudoun County. Growth is expected to concentrate in the Culpeper and Caroline counties, where land and power capacity availability as well as favourable regulations support large-scale data centre developments.

Atlanta

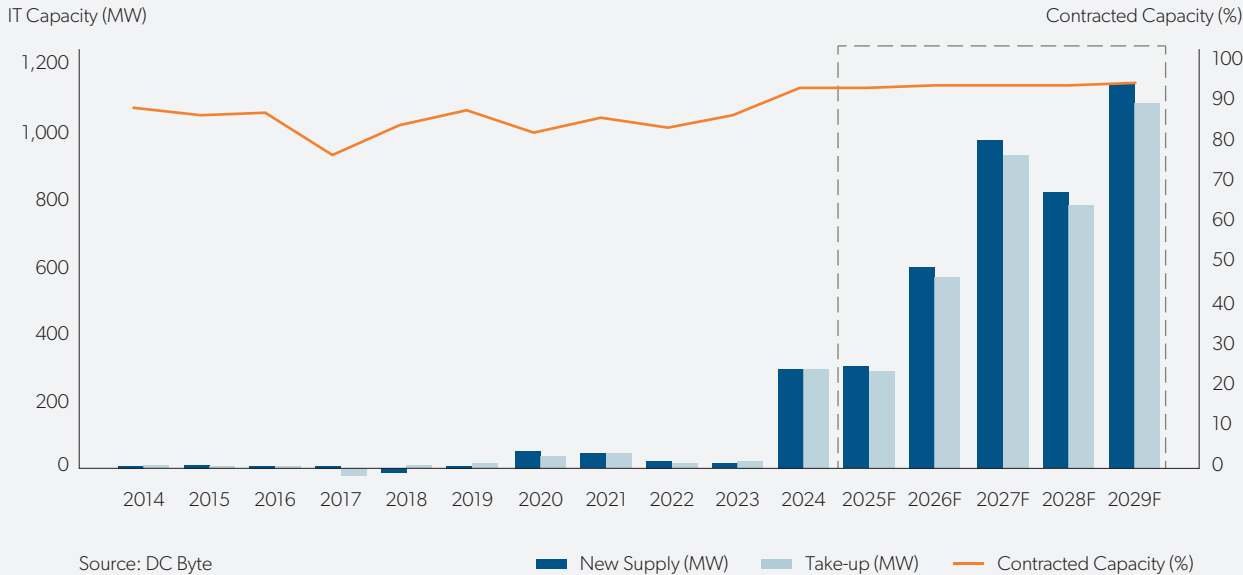
The Atlanta data centre market is ranked the fourth largest in North America and totalled about 6 GW in IT capacity (including colocation and self-build facilities that are live under construction, committed and in early development stage) as at 4Q2024. Only a small portion of the IT capacity was currently live at 16.6% (or 1,023 MW), while most of the total supply was in the committed stage at 41.1% (or 2.5 GW) and 32.7% (or 2.0 GW) was in the early development stage. 9.6% of the total supply (0.6 GW) was under construction.

The colocation market segment made up the majority of Atlanta’s market share at 83.4% while the self-build market segment made up 16.6%. Over the past year, rising interest from cloud service providers has driven major hyperscale developments in the Atlanta

Total Live IT Capacity*	1,023 MW
Total Under Construction Capacity*	593 MW
Vacancy Rate**	6.4%
Number of Data Centres	71

* Total includes both colocation and self-build data centres.
** Applies to the live colocation IT power and does not include pre-sold power that is under construction or future phased power.

Figure 7: Atlanta Colocation Data Centre Live Supply, Take-up and Contracted Capacity



area, including Microsoft and Google in Douglas County and Meta in Stanton Springs County. This surge has prompted both existing colocation providers and new entrants to pursue large-scale campus developments. Most of the planned sites average at least 500 MW of data centre capacity, reflecting Atlanta’s rapid emergence as a key hyperscale market.

2024 saw a sharp uptick in yearly take-up of 296 MW of IT capacity in colocation data centres in Atlanta, with the contracted capacity rate improving to 93.6%. Meanwhile, the total colocation live supply grew by a CAGR of 24.8% from 2019 to 2024.

Atlanta’s data centre growth is driven by tax incentives, lower land and electricity costs, and rising AI demand. Colocation demand has more than doubled over the past five years, with most upcoming capacity already pre-leased by cloud and hyperscale providers. Vacancy rates are at an all-time low, and new supply is not expected until end 2020s or early 2030s.

The rapid growth of data centres, which account for 80% of Georgia’s forecasted power demand, is straining Atlanta’s power grid. In response, Georgia Power’s 2025 Integrated Resource Plan outlines a plan to expand power capacity through power plant

upgrades, increased nuclear and hydroelectric output, renewable energy investments, and grid enhancements. Georgia Power is also partnering with neighbouring states to add over 20 GW of natural gas capacity by 2040.

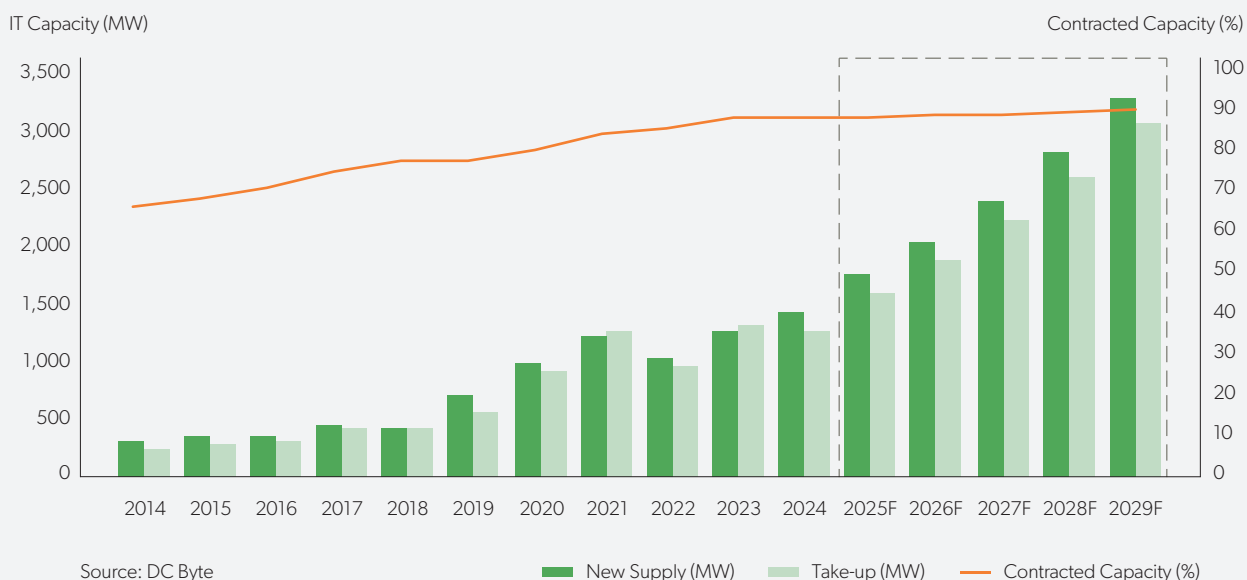
To manage strains on the power grid, the Georgia state government has introduced new regulatory measures. The Public Service Commission (PSC) now requires data centre developers to cover transmission and distribution costs tied to their projects. The PSC will also review development projects with power capacity of over 100 MW. These measures are in response to the sharp rise in data centre activities in the state and growing public concerns over the rising electricity prices.

As short-term access to power becomes increasingly constrained, future data centre developments are expected to shift to other regions within Georgia such as Rome (Georgia), LaGrange, and Peachtree City are emerging as attractive alternatives. Neighbouring states like Charlotte and North Carolina are also gaining prominence as a viable regional hub due to their favourable locations along the primary fibre corridor between Northern Virginia and Atlanta, which are home to several large-scale hyperscale deployments.

DATA CENTRE MARKET OVERVIEW

ASIA PACIFIC DATA CENTRE MARKET OVERVIEW

Figure 8: Asia Pacific Colocation Data Centre Live Supply, Take-up and Contracted Capacity



In 2024, the Asia Pacific data centre market's total IT capacity increased almost five-fold from 11.5 GW in 2019 to 51.8 GW in 2024 (including IT capacity that was live, under construction, committed and in early development stage). Majority of the increased capacity came from the committed and early development stage supply, which made up close to 70% of Asia Pacific's total market supply, while 25.5% of the IT capacity was live with 5.4% under construction.

The Asia Pacific market continues to see strong growth in the data centre sector, driven by a combination of digitalisation, AI adoption, expanding 5G networks, and stricter data localisation requirements. Among the developed markets, Japan, Australia, South Korea, and Singapore remain the top data centre hubs in the region, collectively accounting for approximately 35% of the Asia Pacific market's live data centre capacity in 2024. These mature markets have a well-established infrastructure, reliable power supply, and strong regulatory environments, which continue to attract major cloud service providers, colocation operators, and investors.

Emerging markets in South and Southeast Asia are also seeing increasing interest from developers and investors, bolstered by favourable regulatory shifts and the implementation of data sovereignty laws. With a growing population, a rising middle class and a tech-savvy, youthful demographic, countries such as India, Indonesia, Thailand, and Vietnam present substantial untapped potential for the proliferation of data centre demand. Notably, India, Thailand, and Vietnam are expanding data localisation requirements, driving the demand for in-country data centre infrastructure.

AI is set to become a major driver of growth for the Asia Pacific data centre market. The region's AI market is forecasted to grow at a CAGR of 17.5% between 2024 and 2030F, reaching US\$215.3 billion by 2030. While AI-driven data centre demand in Asia Pacific is still in its early stages, it is expected to accelerate rapidly in the next 18 to 24 months. Growth will be fuelled by the localisation of latency-sensitive inference workloads and the development of multilingual large language models and domain-specific small language models, such as those being developed by Naver in South Korea and Reliance in India.

Sustainability is also becoming a critical factor in shaping the future of data centre developments in the Asia Pacific region. Between 2023 and 2028, the Asia Pacific region is projected to add about 430 GW of renewable energy capacity, with renewable energy sources expected to account for 30% to 50% of the power generation mix. The declining costs of procuring solar and onshore wind energy have narrowed the price parity between renewable energy and fossil fuels, and it is expected to be on par by the 2030s. At the same time, electricity market reforms in China, Malaysia, and Taiwan are creating more flexible options for data centre operators to procure renewable energy directly from energy developers, moving beyond traditional feed-in tariff schemes and grid-based power purchase agreements.

Meanwhile, the Asia Pacific colocation market has seen a steady growth in supply in recent years, averaging 19.2% year-on-year over the past five years from 2019 to 2024. In 2024, it grew by 16.2% to 10.3 GW from 8.8 GW in 2023.

Singapore

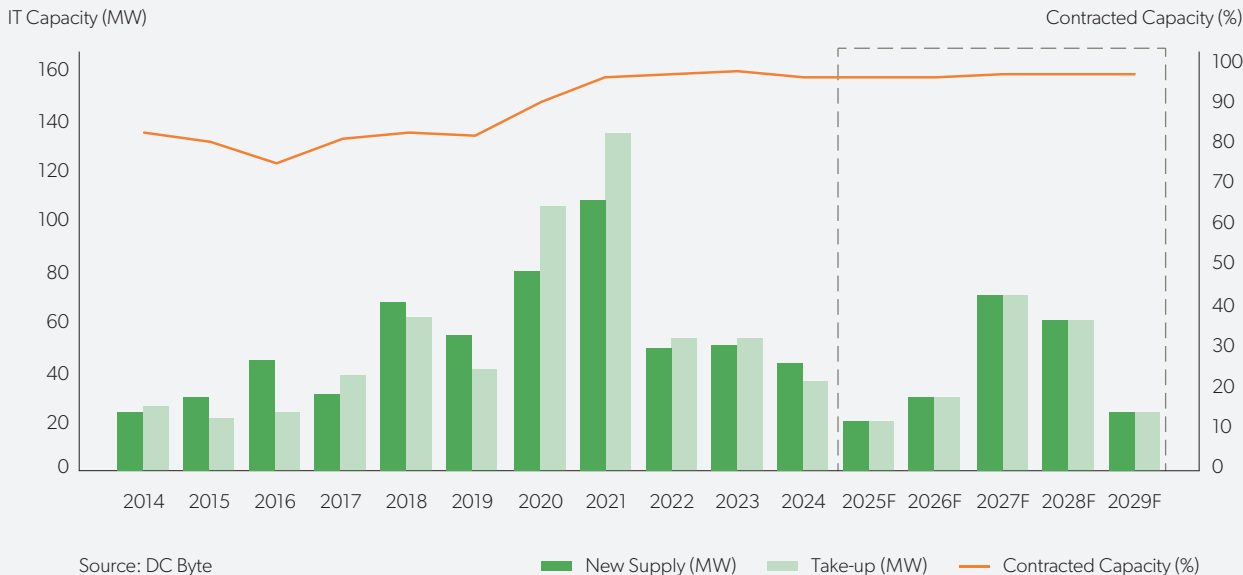
The Singapore data centre market totalled 1,520 MW of IT capacity (including colocation and self-build facilities that were live, under construction, committed and in early development stage) as at 4Q2024. 68.3% (or 1,039 MW) of the IT capacity was live, 3.3% (50 MW) under construction, 22.8% (or 346 MW) committed, and 5.6% (or 85 MW) in the early development stage.

The colocation market segment had the largest market share at 51.0%, meanwhile, the self-build market segment is driven by cloud service providers, including AWS, Microsoft and Google who have an established self-build presence.

Total Live IT Capacity*	1,039 MW
Total Under Construction Capacity*	50 MW
Vacancy Rate**	2.2%
Number of Data Centres	70

* Total includes both colocation and self-build data centres.
** Applies to the live colocation IT power and does not include pre-sold power that is under construction or future phased power.

Figure 9: Singapore Colocation Data Centre Live Supply, Take-up and Contracted Capacity



2024 recorded a yearly take-up of 43 MW of IT capacity in colocation data centres in Singapore, with the contracted capacity rate close to full, due to the limited supply from the restriction on new data centre developments over the last few years. The total colocation live supply grew by a CAGR of 13.3% over five years from 2019 to 2024.

Singapore is a Tier 1 data centre market and a key connectivity and financial hub in the Asia Pacific region. The stable geopolitical climate, extensive subsea cable network and reliable energy infrastructure have attracted various industries including finance, e-commerce, cloud services, and international enterprises to invest in data centre services in the city state. The growth in data centre demand is also driven by increased digitalisation and cloud adoption in tandem with the Singapore government’s focus on digital transformation.

Key upcoming developments include AirTrunk’s planned S\$2.2 billion financing for its 80.2 MW data centre campus. Projects by Equinix and GDS Holdings Limited, awarded through the Call for Application (“CFA”) process, are also in the pipeline and are expected to come online from 2026 onwards, considering the time required for construction and fit-out works.

Since the lifting of the moratorium on new data centre developments in 2019, stringent conditions on new builds have been imposed. These include requirements for new data centres to have a minimum power usage effectiveness of 1.3 and economic and strategic considerations such as impact on the digital economy, strategic alignment with national priorities and sustainability. In May 2024, Infocomm Media Development Authority (IMDA) announced 300 MW of new data centre capacity and 200 MW of green energy to be allocated via future CFAs.

STRATEGY

PEOPLE

PORTFOLIO

GOVERNANCE

FINANCIALS AND OTHERS

DATA CENTRE MARKET OVERVIEW

Tokyo

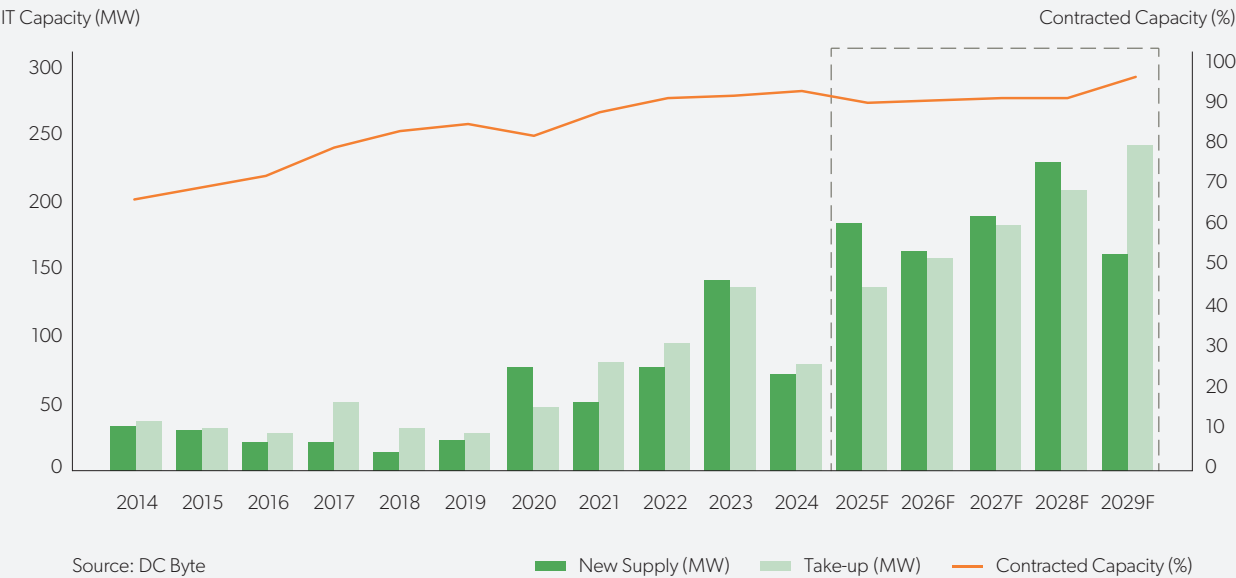
The Greater Tokyo (“Tokyo”) data centre market totalled 4.7 GW of IT capacity (including colocation and self-build facilities that were live, under construction, committed and in early development stage) as at 4Q2024. 25.5% (or 1,192 MW) of the IT capacity was live, 4.9% (or 229 MW) under construction, 31.6% (or 1.5 GW) committed, and 38.0% (or 1.8 GW) in the early development stage.

The wholesale colocation market segment made up over half of Tokyo’s market share at 57.2%, followed by the retail colocation market segment at 13.4%. Tokyo is experiencing growth in its build-to-suit colocation supply given the difficult environment

Total Live IT Capacity*	1,192 MW
Total Under Construction Capacity*	229 MW
Vacancy Rate**	6.1%
Number of Data Centres	187

* Total includes both colocation and self-build data centres.
** Applies to the live colocation IT power and does not include pre-sold power that is under construction or future phased power.

Figure 10: Greater Tokyo Colocation Data Centre Live Supply, Take-up and Contracted Capacity



in developing data centres in Japan, especially for new market entrants which includes self-build projects by cloud service providers. Local data centre developers are thus developing build-to-suits for the cloud service providers.

2024 recorded a yearly take-up of 78 MW of IT capacity in colocation data centres, with the contracted capacity rate hitting 93.9%. Tokyo’s live colocation supply reached a CAGR of 12.5% from 2019 to 2024, driven by demand from cloud service providers in colocation facilities.

Tokyo is a Tier 1 data centre market and Japan’s primary data centre market. It serves as one of Asia Pacific’s key regional business hubs given its strong financial services sector.

Most of the current live supply sits in West and East Tokyo due to their availability of land and infrastructure readiness, and upcoming supply are also expected to concentrate in these submarkets. Key upcoming developments include Airtrunk’s TOK1 and TOK2, SKYY Development’s Asama campus and Hakuba data centre, as well as expansions from Equinix, Colt and OneAs1a.

The Tokyo data centre market continues to face supply constraints due to competition for power and labour resources from the semiconductor and manufacturing sectors, which may pose challenges for new entrants. These constraints are expected to persist in 2025, with general contractors indicating delivery timelines from 2027 onwards for new projects coming into the market.

Osaka

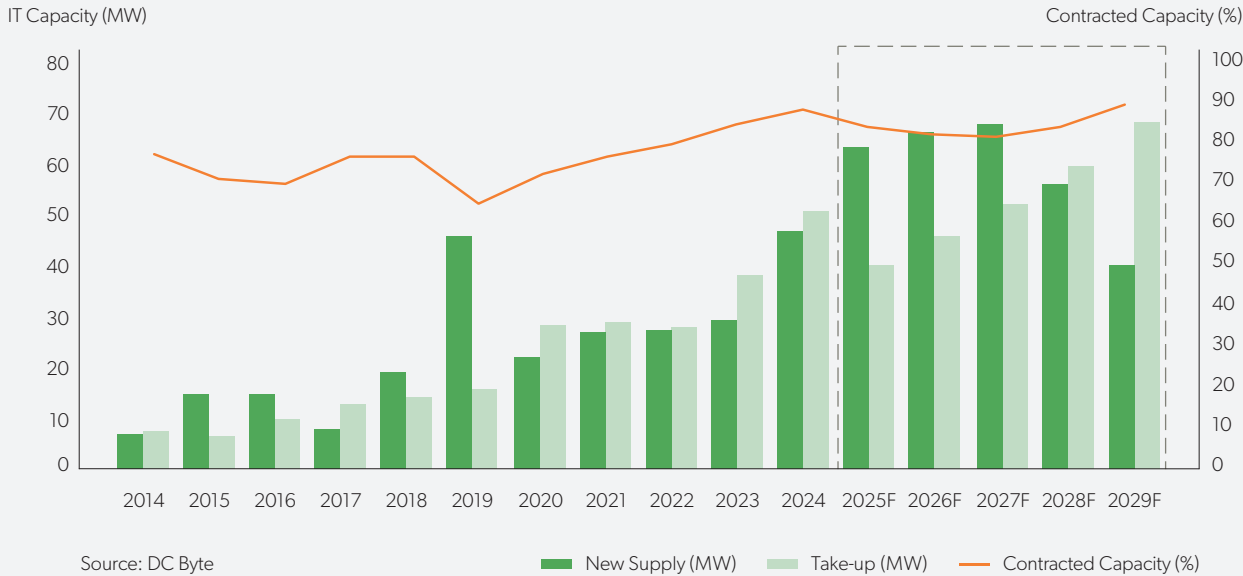
The Greater Osaka (“Osaka”) data centre market totalled 1.4 GW of IT capacity (including colocation and self-build facilities that were live, under construction, committed and in early development stage) as at 4Q2024. 23.3% (or 326 MW) of the IT capacity was live, 5.6% (or 78 MW) under construction, 27.4% (or 383 MW) committed, and 43.7% (or 610 MW) in the early development stage.

The colocation market segment made up the majority of Osaka’s market share at 98.9% and consists of a mix of international players like MC Digital Realty (a 50-50 joint venture between Digital Realty and Mitsubishi), Equinix, Colt and local players like NTT Global Data Centres, and KDDI Telehouse.

Total Live IT Capacity*	326 MW
Total Under Construction Capacity*	78 MW
Vacancy Rate**	11.9%
Number of Data Centres	84

* Total includes both colocation and self-build data centres.
** Applies to the live colocation IT power and does not include pre-sold power that is under construction or future phased power.

Figure 11: Greater Osaka Colocation Data Centre Live Supply, Take-up and Contracted Capacity



2024 recorded a yearly take-up of 47 MW of IT capacity in colocation data centres, with the contracted capacity rate hitting 88.1%. Osaka’s live colocation supply reached a CAGR of 13.6% from 2019 to 2024, driven by demand from cloud service providers who are active in Osaka and are taking up space in colocation facilities. Notably, cloud service providers have expanded the deployment sizes in colocation facilities.

As a distinct cloud region from Tokyo, Osaka continues to attract strong colocation demand from cloud service providers. Currently, major players such as Microsoft and Oracle operate only a single availability zone in Osaka, compared to the three to four zones typically found in Tokyo. However, the number of availability zones in Osaka is expected to grow, as cloud service providers pursue more distributed capacity to support increasing demand driven by accelerated cloud adoption across the Asia Pacific region.

As Japan’s second-largest data centre market after Greater Tokyo, Osaka faces limitations due to its comparatively less developed

fibre and power infrastructure. In the near term, data centre developments are expected to concentrate in areas where existing infrastructures can support immediate deployment.

Currently, most of the live colocation supply is concentrated in North Osaka. However, upcoming capacity is expected to be more evenly distributed across the region’s submarkets, especially with East Osaka experiencing notable growth in 2024. Additional pipeline capacity is expected from major operators such as AirTrunk, Colt DCS, CyrusOne-KEP, EdgeConneX, MC Digital Realty, NTT Global Data Centres, and Vantage Data Centres, highlighting the continued expansion of Greater Osaka’s data centre market.

The robust development pipeline across Osaka’s submarkets underscores the strong growth potential of the Osaka data centre market. Operators remain confident in sustained demand, as evidenced by the acquisition and development of large brownfield sites for future data centre campuses.

DATA CENTRE MARKET OVERVIEW

GLOSSARY

Colocation: facilities built for the leasing of space and IT power within from a dedicated third-party provider of data centre space. Colocation includes retail, wholesale, and build-to-suit facilities. The facilities are typically tagged to the colocation operator, however in the case of the tenant (typically cloud service provider) leasing a shell for its own use, the facility is tagged to the shell owner.

Committed Capacity: the estimated IT power that has a high likelihood to be added to a market's overall supply; however, it does not refer to sold data centre space. This includes powered shell data centres.

Contracted Capacity: proportion of IT capacity that is taken up as compared to new supply during the period.

Early Development Stage Capacity: IT power that has been announced or speculated but has not secured all the required elements (government, land, power, etc.) for development.

Live IT Capacity: IT power that is currently live, fully fitted out with mechanical and electrical infrastructure.

New Supply: IT Power that came live during the period.

Retail Colocation: third party data centre space that offer smaller customer deployments, typically under 500 kW.

Self-build Operators: operators that run data centres that are built for their own use. Examples may include banks, telecoms companies or, more recently, hyperscale companies such as the US or Chinese tech giants.

Take-up: for self-build data centres, take-up represents where IT power is either live or under construction, since at that point they are committed to the cost of the scheme. For Colocation data centres, take-up may occur for live, under construction or committed IT power.

Under Construction Capacity: the estimated IT power that is currently having the mechanical and electrical plant installed to support it.

Vacancy Rate: applies to the live colocation IT power and does not include pre-sold power that is under construction, committed or in the early development stage.

Wholesale Colocation: data centres are developed at scale for large customer deployments.