

Data centres: managing digital demands



As technologies grow, so do the needs for how we store and manage data

As Covid-19 moved the world online, the amount of data generated surged. Between February and mid-April 2020, global internet traffic increased by almost 40%, driven by growth in video streaming, video conferencing, online gaming and social networking.

This followed what had already been a huge swell in demand for digital services over the past decade. In 2020, 59% of the global population was connected, compared with 26.6% in 2010. Over the same period, global internet traffic has grown twelvefold. The amount of data collected in industry is also increasing at an unprecedented rate, triggered by the rise of the Internet of Things (IoT), artificial intelligence (AI), augmented reality (AR) and blockchain.

IoT-enabled devices have witnessed high acceptance for monitoring and surveillance purposes, especially in the healthcare sector. By 2023, machine-to-machine (M2M) communications could represent 50% of the 14.7 billion expected connections, according to Cisco Systems. In 2018, these M2M communications represented 33% of the 6.1 billion connections. New applications that will emerge from 5G deployment will play a major role in the growth of M2M connections in the next two years.

Meeting future storage needs

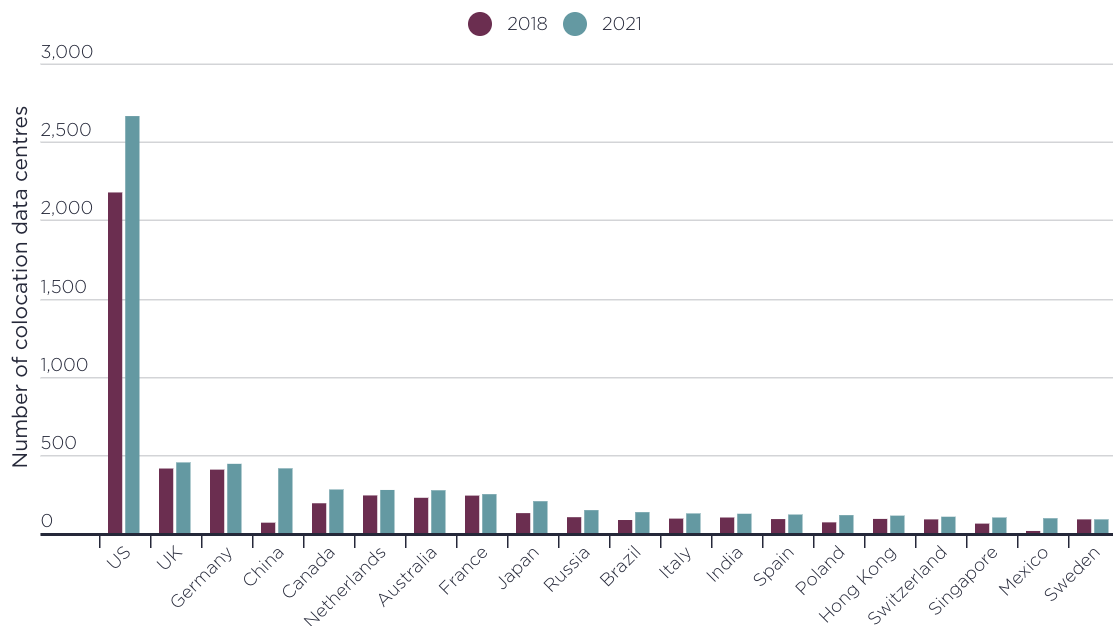
To accommodate this explosive rise in demand for storage capacity, the number of data centres is expanding rapidly across the globe and in all shapes and sizes (hyperscale, cloud, edge, micro and modular).

By 2026, the size of the global data centre market is expected to reach \$251 billion, growing at an average annual rate of 4.5% between 2020 and 2026.

Cloud infrastructure played an important role in enabling businesses and governments to quickly apply solutions to respond to the pandemic. According to Snow Software's global survey of 250 IT leaders in June last year, 82% of respondents said they had ramped up their use of the cloud to enable remote working, while 45% of respondents plan to accelerate the pace of their cloud migration.

With the unprecedented cloud shift likely to become pivotal for many companies and institutions, demand for cloud data centre facilities will continue to grow for the foreseeable future and will bring new requirements for colocation facilities. Indeed, cloud service providers and colocation centres are increasingly collaborating to provide better connectivity and networking among global data centre infrastructure.

Number of colocation data centres by country



Source: Savills Research using Cloudscene

New opportunities for market leaders

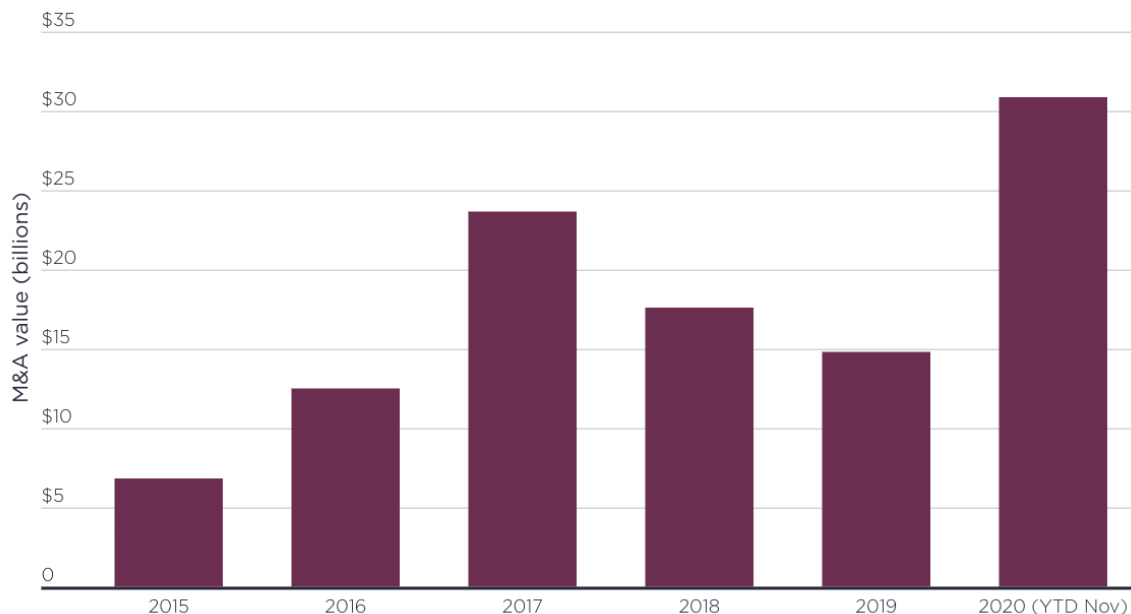
This surge in demand for cloud and colocation services has triggered a hunt for scale and global footprint within the industry, with fierce competition between giant IT companies and smaller market players.

Since 2015, consolidation among service providers has increased. In 2017, Digital Realty acquired DuPont Fabros for \$7.6 billion. 2020 set a new record thanks to the acquisition in March from Digital Realty of the Dutch data centre company Interxion for \$8.4 billion, the largest ever data centre M&A transaction.

During the first 11 months of 2020, 113 global data centre M&A deals were recorded, valued at \$30.9 billion, according to Synergy Research Group. Digital Realty and Equinix, the world’s leading colocation providers, account for 35% of the total deal value recorded since 2015.

Additionally, due to the rise of edge computing, an ecosystem of modular data centre operators has emerged in the past few years, including companies such as Vapor IO, EdgeConneX, EdgeMicro, DartPoints, DataBank, Baselayer and Switch. M&A within this ecosystem has already started attracting traditional large colocation market players. In 2018, Compass Datacenters acquired EdgePoint Systems. Last year, in order to address 5G network transformation, Intel bought Smart Edge for \$27 million.

Global data centres M&A value



Source: Savills Research using Synergy Research Group

Increasing investor interest

While Covid-19 has brought data centres into the spotlight, investor interest in the sector has been growing during the past five years. The fundamentals are strong, with flourishing demand set to grow dramatically in the next five years.

As data centre migration is a highly complex process, tenants usually occupy the premises for a long period – ranging from 10 to 30 years. Hence, the sector offers a long-term income stream and security.

Nevertheless, high barriers to enter the market are restraining private capital's exposure in the sector. The three key reasons are:

- High infrastructure costs mean that data centres are expensive to build
- For non-specialists, they are complex to manage and require scale to achieve profitability
- Due to the speed of technological development, obsolescence is another concern involving expensive maintenance and upgrading costs

As a result, most of the existing data centre stock is owner-occupied, predominantly by a few specialised public REITs, which have been dominating the market. Notably, this includes the US-based Digital Realty and Equinix REITs and the Asian Keppel DC REIT. The strong polarisation of market players has had a catalytic impact on the market liquidity and transparency, dampening the opening of the market to private capital.

New ways to market

Yet over the past three years, non-specialist private institutions have slowly entered the data centre investment market, including general REITs, investment managers, institutional investors, sovereign wealth funds and infrastructure funds.

To circumvent the lack of transparency and the high level of specialism required in the market, partnerships, JV and entity acquisitions will be increasingly used by private investors to enter the market. Due to the supply and demand imbalance, greenfield developments and conversions will remain the best gateways.

Overall yields are attractive compared with other asset types, with large differences across the globe, reflecting the liquidity premium.

In the USA, the most liquid market, prime yields range from 4% to 12%; a wide range which very much depends on size, tenure and various locations across the country.

In Japan, prime data centre yields range between 4% and 5%, in Western Europe between 5% and 7%, in Singapore between 6% and 7%, in Malaysia between 7% and 7.5% and in China between 8% and 12%.

As the market is rapidly maturing and in the face of pent-up demand, we expect strong yield compression in the next one to two years. This is particularly true in China where yields are still relatively high and where requirements for data storage are expected to be one of the fastest growing over the next five years. According to the FTSE Nareit, the data centre sector delivered a total return of 20% in 2020.

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