

Key Indicators



Under Construction (2H20-2024)
4.21M sf



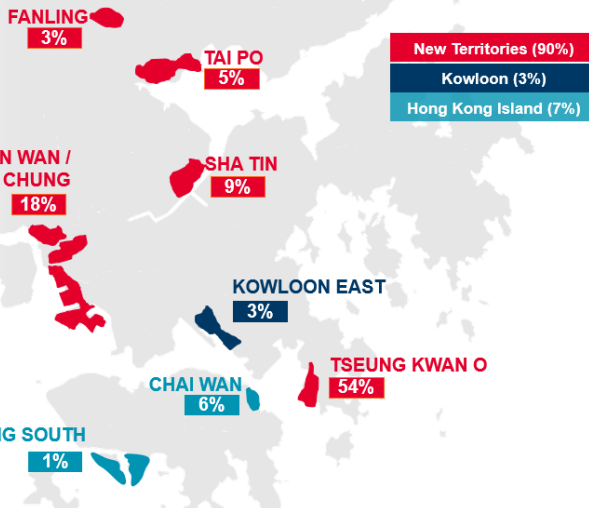
Total Stock (End-2Q20)
7.92M sf



Transaction Volume (2020 YTD)
HKD 5.96B

Hong Kong Market Map

SHARE OF TOTAL STOCK (%)



Hong Kong Data Center Market Remains Hot Despite Geopolitical Uncertainties

Despite the ongoing geopolitical uncertainties and COVID-19 outbreak, activity in the Hong Kong data center market has remained red hot. In one of the largest leasing transactions this year, US-based data center REIT Digital Realty announced in early July that it agreed to lease a newly completed purpose-built data center at 11 Kin Chueng Street in Kwai Chung as the operator's second facility in the city.

Investors also remained on the lookout for suitable opportunities against renewed demand from operators for data center spaces being supported by growing cloud computing amid remote working trends amidst the pandemic. Grand Ming Group, a local developer, acquired two greenfield sites in Fanling for a combined HKD 356.0 million to further complement their existing data center footprint in Tsuen Wan and Kwai Chung. The investor is required to pay a land premium to modify the leases of the two sites from agricultural to data center usage. The land premium negotiations with the government could take more than 18-24 months against a new benchmark of fee assessment set by a recent record high price of a government land sale.

China Mobile secured an industrial site in Shatin for HKD 5.6 billion. The accommodation value of HKD 5,967 psf was the highest on record for an industrial site and around 49% higher than the upper-end of market expectations. The Chinese mobile phone operator intends to build a high-tier data center on the site.

COVID-19 Driving Growing Demand for Data

The third wave of the virus outbreak in Hong Kong saw MNCs suspending their back-to-office plans and requesting their staff to work from home. It is anticipated that even in the aftermath of the pandemic that many companies will continue to allow some level of remote working, which will in turn accelerate the pace of digital transformation of businesses in all aspects and lead to a surge in demand for cloud usage. Hong Kong's impending introduction of 5G will also drive more usage of data, which in turn, will translate into increased demand for rack spaces in the city. Reflective of this, a handful of PRC and international operators remain on the active lookout for suitable leasing or investment opportunities in the city.

Ecosystem Developments

- **Digital Realty** announced the development of their second data center in Hong Kong after signing a lease with Hon Kwok Land Investment to lease 11 Kin Chueng Street. Scheduled to commence operations in mid-2021, the new 228,000 sq ft building will deliver up to 24MW and could potentially yield a total of 2,300 racks
- **GDS** has secured approval from the government to increase the total development GFA of its first self-developed data center in Hong Kong. Expected to be completed in 2H22, the new data center in Kwai Chung will yield a total GFA of 246,800 sq ft including an IT area of 76,000 sq ft.
- **Equinix** has completed the third phase expansion of HK4 at Ever Gain Building (No.3) in Shatin. With an additional 1,000 racks added to the data center facility, HK4 now has a total capacity of 1,500 racks. The operator intends to add additional 3,000 racks to the facility in the future.

Ecosystem Developments (cont.)

- **SUNeVision** announced a new Microsoft Azure ExpressRoute site within its MEGA-i data center in Chai Wan. The enhancement will allow customers to directly connect to Microsoft Azure, bypassing the public internet, in a move aimed at improving security and network performance.
- **G-Core Labs** opened its first point of presence (PoP) in Hong Kong, to be located in a Tier III class data center. The PoP targets demand in China as well as foreign companies seeking to tap regional markets.
- **Equinix** announced that it will provide access to Alibaba Cloud across 17 global cities. Along with Hong Kong, other cities in APAC covered by the partnership include Singapore, Tokyo, Sydney, and Jakarta.
- **Alibaba Cloud** added three hyperscale data centers to its China portfolio, bringing their total number to five. The Chinese cloud operator has at least 10 more data centers planned and will invest 200 billion yuan (USD 28 billion) in the next three years to build the cloud infrastructure to support global clients.
- The **PCCW** ConsoleConnect platform now offers direct on-ramps to IBM Cloud, with Hong Kong an initial market for this connectivity. The partnership enables access to the entire IBM portfolio including compute and storage infrastructure options.

Construction Update

OPERATOR	LOCATION	PROJECT	STAGE / EST. DELIVERY
Airtrunk	Tsuen Wan	HKG1	Under Construction / Q4 2020
Digital Realty	Kwai Chung	Digital Kin Chuen (HKG11)	Under Construction / Q2 2021
CITIC	Kwai Chung	CTT (Phase III B)	Under Construction / Q2 2021
Equinix	Tsuen Wan	HK1 (Phase 13A)	Under Construction / Q3 2021
GDS	Kwai Chung	HK1	Under Construction / Q3 2022
SUNeVision	Tsuen Wan	TWTL 428	Under Construction / Q4 2022
	Tseung Kwan O	TKOTL	Under Construction / Q4 2022

Recent Hong Kong Land Sales

PROPERTY	SALE DATE	LOCATION	PRICE (HKD MILLION)	UNIT PRICE (HKD PSF)	PURCHASER
7 On Fuk Street	Jun 2020	Fanling	188.0	1,968	Grand Ming Group
3 On Kui Street	Jun 2020	Fanling	168.0	1,877	Grand Ming Group
STTL 613	Jul 2020	Shatin	5,600.0	5,967	China Mobile

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Cushman & Wakefield's [Data Center Advisory Group](#) is a global team of elite professionals delivering specialized real estate solutions for mission critical users, owners, and environments. With scalability, reliability, and security as a driving force, our highly knowledgeable and responsive professionals guide clients to make effective financial decisions. Our expertise ranges includes colocation facilities, control centers, greenfields, powered shell, and trading floors. We lend additional value through our understanding of global dynamics and their impact on local markets.

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Key Indicators



Under Construction
249 MW

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ADVISORY GROUP

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Market Overview

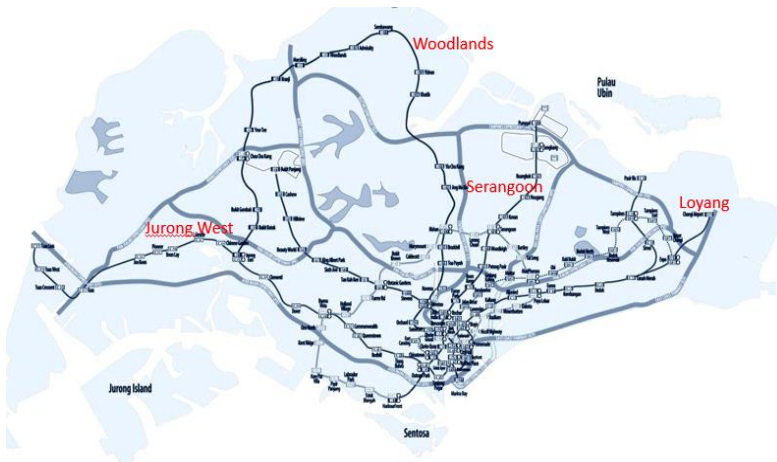
Despite the unofficial moratorium on new site development, Singapore continues to lead the greater APAC region in data centre innovation and often as the first market reviewed for regional market entry. Phased buildouts are still continuing, with Digital Realty, Equinix, and Iron Mountain all underway on additional capacity and new entrant AirTrunk continuing their initial local campus. Major global cloud services continue to view Singapore as a first-tier location for new releases, with Google Cloud, Alibaba, and Oracle all making further inroads in coming months, and Tencent recently established a Singapore office to focus on regional expansion. The prize for each platform lies not only in Singaporean business, but to allow local capacity to serve regional deployments across Southeast and greater Asia for large multinationals. As demands grow on local infrastructure, it remains to be seen if Singapore will lose workloads to developing lower cost markets, whether that be Jakarta, Kuala Lumpur, or elsewhere. The trade-off would be a loss in connectivity and available services, though if local capacity is unable to develop it may prove a needed shift. Despite this potential shift in future, for the time being Singapore will likely attract companies concerned about regional political issues, as Naver's move from Hong Kong indicates. Anecdotal reports indicate that further moves for communications, media, and financial organizations are being mooted, suggesting a major opportunity for those few who are fortunate to have available capacity. All in all another positive several months for Singapore, with the possibility of more good news ahead.

Development on new phases continues despite the unspoken moratorium, with several major cloud services increasing their local platforms.

Ecosystem Developments

- **Big Data Exchange (BDx)** has entered Singapore, taking over the former 7.3 MW Telstra data centre in Paya Lebar. The newly-named BDx SIN1 has 1,800 racks available with Singapore chosen thanks to its excellent connectivity to the rest of Southeast Asia.
- **Keppel Data Centres** has continued research into floating data centres, signing for feasibility studies with both Toll Group and Royal Vopak to explore the modular design aspects and liquefied natural gas power, respectively. Keppel followed this up with another research agreement with Mitsubishi Heavy Industries to explore hydrogen power in data centre applications, and a further partnership with Chevron, Pan-United, and Surbana Jurong to investigate carbon capture technologies. In other Keppel news, the company has agreed to form a joint venture with SPH to reconstruct a building on Genting Lane for data centre purposes, acquiring a 60% interest at a value of S\$50,000,000.
- **Singtel** completed a major solar installation at their Bedok data centre in April, with the rooftop installation spanning over 8,200 square metres. Singtel partnered with SunSeap Global on the improvements, with the expectation that ten percent of the overall load will be provided by solar power.
- **G-Core Labs** opened a new point-of-presence (PoP) in Singapore at mid-year, with the edge cloud infrastructure provider aiming for gaming and media firms as local clients. The company now has 65 PoPs around the globe and over 5,000 peering partners focused on content delivery networks.
- **Iron Mountain** announced a 3 MW pre-lease with an unnamed Fortune 200 company, including all of a 2.8 MW buildout currently underway for year-end completion.
- The **PCCW ConsoleConnect** platform now offers direct on-ramps to IBM Cloud, with Singapore an initial market for this connectivity. The partnership enables access to the entire IBM portfolio including compute and storage infrastructure options.

SINGAPORE MARKET MAP



ECOSYSTEM DEVELOPMENTS

- **Zoom** continued its big 2020 with the opening of their first Southeast Asia data centre in Singapore, representing the 18th location worldwide for the popular videoconferencing service. Zoom reported a quadrupling of revenue year-on-year in its last quarterly report.
- **Oracle Cloud** is coming soon to Singapore, part of a global push into primary and secondary locations throughout 2020. The cloud service has been instrumental in the expansion of Zoom and many other enterprises over the past year.
- **Google** has launched its Bare Metal Solution for Google Cloud in Singapore, with the local market joining eight other major markets globally offering the service. The solution offers customers the ability to run their own applications in Google facilities that may not be optimized for the cloud, with cross connects available to Google services.
- **Equinix** announced the availability of Alibaba Cloud to their clients mid-year, with Singapore and 16 other major markets providing this service at launch. Alibaba Cloud now offers full integration with Platform Equinix and the Equinix Cloud Exchange Fabric. The REIT has also elected to exercise their purchase option to acquire their SG3 data centre from current landlord Mapletree.
- **Naver** will be relocating their backup data centre from Hong Kong to Singapore, with the Korean internet giant citing concerns over changes in the local National Security Law. The deal raises the possibility of further moves coming as enterprises review regional politics.
- **Cloudflare** recently released their Cloudflare Network Interconnect product, allowing users to directly connect to Cloudflare services rather than utilizing the public cloud. The company is partnering locally with PCCW, Equinix, and Megaport to offer this platform, and Singapore is joining 22 other major metros to have this service at launch.

Construction Update

OPERATOR	LOCATION	GFA SIZE (SQM)	TOTAL POWER (MW)	STAGE / EST. DELIVERY
AirTrunk	SGP1	40,000 (est)	60	Under Construction / Q4 2020
Iron Mountain	SIN-1	3,000 (est)	2.8	Under Construction / Q4 2020
Digital Realty	SIN12	19,221	22.5	Under Construction / Q1 2021
Equinix	SG5 (Phase I)	3,809	7 (est)	Under Construction / Q1 2021
	SG4 (Phase II)	4,102	7 (est)	Under Construction / Q1 2021
Facebook	Tanjong Kling	170,000	150	Under Construction / Q2 2022

Recent Singapore Property Sales

PROPERTY	SIZE (SQM)	SALE DATE	SALE PRICE (\$)	BUYER	SELLER
26A Ayer Rajah Crescent	35,749	Aug-20 (in contract)	\$125,000,000	Equinix	Mapletree Industrial Trust

Recent Singapore Land Sales

PROPERTY	SIZE (SQM)	SALE DATE	SALE PRICE (\$)	BUYER	SELLER
82 Genting Ln	24,892	Jul-20	\$50,000,000 (60% interest)	Keppel Data Centres	SPH

Key Indicators



Under Construction

172 MW

MORE INFORMATION

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Market Overview

Sydney has continued its progression as a hyperscale cloud destination, with Amazon Web Services, Microsoft Azure, Google Cloud, and Alibaba all continuing their local market inroads in a bid for further market share. Each has been intrigued by the plethora of locally based mid- and large-size enterprises currently reviewing their IT strategy, along with the many government and educational organizations pursuing modernization initiatives from the NSW government and ATO on down. As each service signs up new clients, the need for further local capacity continues to grow, leading to large-scale development. AirTrunk is leading the way in large development, with SYD2 aiming for year-end completion and the second phase of SYD1 in serious planning. The developments support the company's continued growth across Asia, with sites in Singapore, Hong Kong, and Tokyo all under construction. Fujitsu recently announced a further expansion to their Western Sydney site, with another 20 MW coming online early next year, and the Alpha DC Fund, NextDC, Macquarie, and Digital Realty are all working on new capacity. The local investment acquisition market has stayed quiet to date in 2020, though anecdotal reports of investors looking for acquirable assets continue to circulate. Other assets throughout the country have traded hands, with the A\$417 million sale-and-leaseback of Telstra's Melbourne-area campus as the largest single-asset transaction to have been signed for this year. Assisted by an exceptionally rare 30-year lease term, the acquisition could show the potential for data centre deals with strong tenancy. All considered Sydney remains a strong and well-provisioned market which should continue well into the next couple of years.

The three major global cloud services have each upgraded their local offerings of late, adding further benefits for local companies to migrate to the cloud.

Ecosystem Developments

- As speculated in our previous report, the **ATO** has signed a 10-year, A\$73.1 million contract to migrate their workloads from Global Switch to Canberra Data Centres to localize all data management with an Australian-owned firm. The deal enables the agency to modernize their overall IT infrastructure, with the overall aim for more flexible contracts across the platform. Macquarie signed a similar deal earlier this year for government capacity in Canberra.
- In other Macquarie news, the operator announced a 10 MW lease at their upcoming IntelliCentre 3 East facility with an as-yet unnamed company. Due in February, IC3 East is Macquarie's third campus in the Sydney area, with one campus in Canberra also already completed and another on the way.
- Managed services provider **AC3** has followed the ATO out of Global Switch, agreeing to move to Equinix by early 2021. The move was required due to the many government organizations contracted with AC3, and buoyed by the many existing agreements between the services provider and the global REIT.
- **Linode** released a new container management system to select locations across their platform, with Sydney joining three US markets for initial rollout. Called Linode Kubernetes Engine, the update will allow easier management across Linode compute nodes.
- **Google** has launched its Bare Metal Solution for Google Cloud in Sydney, with the local market joining eight other major markets globally offering the service. The solution offers customers the ability to run their own applications in Google facilities that may not be optimized for the cloud, with cross connects available to Google services.
- **Equinix** announced the availability of Alibaba Cloud to their clients mid-year, with Sydney and 16 other major markets providing this service at launch. Alibaba Cloud now offers full integration with Platform Equinix and the Equinix Cloud Exchange Fabric.

Ecosystem Developments

- **Cloudflare** recently released their Cloudflare Network Interconnect product, allowing users to directly connect to Cloudflare services rather than utilizing the public cloud. The company is partnering locally with PCCW, Equinix, and Megaport to offer this platform, and Sydney is joining 22 other major metros to have this service at launch.
- **Microsoft** is adding further availability zones to each current region globally, with Australia East (based in Sydney) among the first to receive upgrades. Further availability zones should add more robust coverage in each market with larger overall footprints.
- **Amazon Web Services** signed an important new client of late, with the New South Wales government joining in on the federal Digital Transformation Agency agreement with the major cloud services provider. The previous federal deal was agreed in 2019 at a cost of A\$39 million as the government sought to simplify cloud services acquisition across all government agencies. In further Amazon news, the company signed an agreement with Wipro to create the Wipro-AWS Launch Pad in Parramatta to showcase scalable solutions from the coexistence of the two platforms.
- In a similar transaction, the New South Wales government also signed a deal with **Vault Cloud**, with the five-year agreement aiming to boost usage of locally based cloud service firms while assisting the government with further managed services. To provide full support for the deal, Vault has announced a new cloud region in Western Sydney, hosted by Canberra Data Centres.
- The **University of Sydney** joined the move to the cloud, signing a deal with Tribal Group for all student management services. The British services firm specializes in the education sector, with efficiency gains and cost savings mentioned as key drivers behind the migration.
- **5G Networks** closed their acquisition of ColoAU in July, with two data centres in Sydney (at Equinix and NextDC) included in the deal. The A\$2.9 million deal will allow 5G to leverage further network capabilities, and is the latest in a string of recent acquisitions for the company.

Over 170 MW of new data centre capacity is under construction throughout Sydney, with locally based AirTrunk leading several projects to be completed over the next two years.

Construction Update

OPERATOR	PROJECT	SIZE (SQM)	POWER (MW)	STAGE / EST. DELIVERY
AirTrunk	SYD2	32,000	110	Under Construction / Q4 2020
	SYD1 (Phase 2)	12,000 (est)	40	In Planning
Fujitsu	Western Sydney	4,500	20	Under Construction / Q1 2021
Macquarie	Intellicentre 3 East	13,400	11	Under Construction / Q1 2021
Alpha DC Fund	KDC Sydney 1	5,300	7 (est)	Under Construction / Q2 2021
NextDC	S3	5,000 (est)	12	Under Construction / Q2 2022
Digital Realty	Erskine Park III	8,234	12	Under Construction

New development has been joined by further cloud service options to continue major growth of the local ecosystem.

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Market Overview

Tokyo is rapidly becoming a regional hub for hyperscale deployments, as the xScale joint venture between Equinix and GIC nears first phase completion and development continues from the Digital Realty/Mitsubishi Corporation partnership on their latest site. These developments have now been joined by AirTrunk, who confirmed their long-rumored entry to the market with the 60 MW first phase of their new 300 MW TOK1 campus to be operational by the end of 2021. This site thus has the potential to be the highest capacity campus locally at full build-out and serves as a major confirmation of both market potential and specifically the rapidly developing data centre cluster at Inzai. This focus on larger deployments is predicated on the continued digital transformation of large local corporations, with major cloud services such as Google and Alibaba making recent inroads and additional supporting applications gaining wider availability. All this leads to continued positive growth throughout the local ecosystem.

Ecosystem Developments

- **Google** has launched its Bare Metal Solution for Google Cloud in Tokyo, with the local market joining eight other major markets globally offering the service. The solution offers customers the ability to run their own applications in Google facilities that may not be optimized for the cloud, with cross connects available to Google services.
- **Equinix** announced the availability of Alibaba Cloud to their clients in the summer, with Tokyo and 16 other major markets providing this service at launch. Alibaba Cloud now offers full integration with Platform Equinix and the Equinix Cloud Exchange Fabric.
- **Cloudflare** recently released their Cloudflare Network Interconnect product, allowing users to directly connect to Cloudflare services rather than utilizing the public cloud. The company is partnering locally with PCCW, Equinix, and Megaport to offer this platform, and Tokyo is joining 22 other major metros to have this service at launch.
- In other **PCCW** news, the PCCW ConsoleConnect platform now offers direct on-ramps to IBM Cloud, with Tokyo an initial market for this connectivity. The partnership enables access to the entire IBM portfolio including compute and storage infrastructure options.
- Stonepeak Infrastructure has backed a new data centre venture to be called **Digital Edge**, with an immediate partnership announced locally with Itochu Techno-Solutions for their Mejirozaka facility. Stonepeak and partners have committed \$1 billion to the venture, with a further 12 MW development coming in Osaka.

Major Construction Update

OPERATOR	SITE	SIZE (SQM)	STAGE / EST. DELIVERY
Equinix	TY12x (Phase I)	2,787 (est)	Under Construction / Q4 2020
	TY11 (Phase II)	3,594 (est)	Under Construction / Q1 2021
Colt	INZAI 3	8,000	Under Construction / Q4 2020
MC Digital Realty	NRT10	37,780	Under Construction / Q3 2021
AirTrunk	TOK1	56,000	Under Construction / Q4 2021