

DATA CENTRE MARKETBEAT

Fall 2019



CUSHMAN & WAKEFIELD

HONG KONG

MARKET OVERVIEW

Hong Kong is perennially a key data center market in Asia, with a strong economy built off the financial sector and international trade. Despite recent political strife, several operators remain committed to the territory including Equinix (with two projects currently in process), Global Switch (looking to domicile in Hong Kong), new market entrant AirTrunk, and longtime proponent CITIC. For AirTrunk, the new 20 MW project in Tsuen Wan represents the second leg of an Asia expansion that began in Singapore. The Australian firm already operates facilities in Sydney and Melbourne and plans growth in further regional markets in the future. The largest data center operator in Hong Kong, SUNeVision, remains in planning on two important sites acquired in 2018, particularly an eagerly awaited Tseung Kwan O parcel that is the last zoned for data center use in the industrial park. Available land will continue to remain a sore point for the local industry, as hyperscalers that would normally acquire a large plot find them wholly unavailable. The focus in recent quarters, therefore, has turned to the purchase or lease of older industrial properties offering the potential for conversion to data center use and this will likely remain the trend going forward.



“Hong Kong data center capacity remains in high demand, with Amazon and other cloud services companies gaining presence and new operators beginning development.”

CONSTRUCTION UPDATE

OPERATOR	LOCATION	Project	STAGE / EST. DELIVERY
Equinix	Tsuen Wan	HK1 (Phase XII)	Under Construction / Q4 2019
	Shek Mun, Shatin	HK4 (Phase III)	Under Construction / Q1 2020
Global Switch	Tseung Kwan O	TKO (Phase II)	Under Construction / Q4 2019
AirTrunk	Tsuen Wan	HKG1	Under Construction / Q4 2020
CITIC	Kwai Chung	CTT (Phase III B)	Under Construction / 2020
GDS	Kwai Chung	TBD	In Planning / 2021
SUNeVision	Tsuen Wan	TBD	In Planning / 2021
	Tseung Kwan O	TBD	In Planning / 2022

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ECOSYSTEM DEVELOPMENTS

- **Amazon** has opened the AWS Hong Kong Region, creating the eighth location in the greater Asia Pacific. The cloud giant has benefited from consistent growth in Hong Kong, beginning with their first Point of Presence (PoP) in 2008, a proper AWS office in 2013, and now a formal Region.
- Infrastructure-as-a-Service provider **Heficed** has chosen Hong Kong as the location for their first PoP in Asia, offering a variety of solutions for IP address management. The London-based company is another in a long line of market entrants who prefer to use Hong Kong as their base to access mainland China.
- International law firm **HFW** signed an agreement with Equinix to diversify their IT strategy, with Hong Kong one of the key markets for their new distributed capacity. The dense interconnectivity available via the Equinix platform was a key driver behind the decision, with other markets affected including Dubai, London, Melbourne, and Paris.
- Indonesian-owned **Telin Hong Kong** has followed up on the 2018 launch of their local data center with new direct connections available to Alibaba Cloud via Epsilon Direct Cloud Connect. Telin is now able to offer a complete suite of services, including colocation, public cloud access, virtual private networks, and much else.
- **Global Switch** has gained a new owner, with Jiangsu Shagang Group paying HK\$17.3 billion for the final 24% stake held by the Reuben Brothers. Ownership of the ostensibly London-based company is now split among a consortium of companies based in mainland China. Global Switch has elected to push back their long-rumored IPO, likely to 2020 after reviewing market conditions.

GLOBAL DATA CENTER ADVISORY GROUP

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SINGAPORE

MARKET OVERVIEW

Singapore continues to be a global data centre titan, with over 300 MW of new stock under construction and a recent best-in-Asia ranking in our recent review of Southeast Asia data centre markets. Recent growth in Singapore has been spurred by its strongest regional infrastructure, large number of undersea cables for maximum global connectivity, and relative clarity in obtaining land for development. Internet penetration remains the highest in region, with 84% of the population online. These factors enable the market to act as a regional data centre hub, one increasingly buoyed by a diverse array of cloud service providers.

OUTBOUND INVESTMENT CONTINUES

As chronicled in our last report, outbound investment by Singapore-based funds continue to power the global data centre market, with several new deals announced in recent months.

GIC Real Estate has created a joint venture with US REIT Equinix, forming a \$1 billion fund to develop hyperscale facilities in London, Paris, and Frankfurt, with Amsterdam a future target. Initial phases of the four projects total 34 MW, with the new partnership to use the xScale name. GIC has also chosen to form a partnership closer to home, agreeing to work with Polymer Connected to develop a new data centre campus in Jakarta. Initial press suggests a campus of nearly 29 MW, 26 MW of which will be Tier IV.

Mapletree has been on their own acquisition spree in North America, with Mapletree Investments and Mapletree Industrial partnering to acquire assets in two portfolios from Digital Realty. In the first deal, Mapletree will take an 80% interest in three data centres in the key Northern Virginia market, with Digital retaining the remaining interest. In the second transaction, the Mapletree entities will acquire outright a portfolio of ten data centres in the Denver, Atlanta, Northern Virginia, Boston, Phoenix, Toronto, and Dallas markets. The deals are scheduled to close in late 2019 and early 2020, with total costs of \$1.4 billion.

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“Singapore is gaining multiple new cloud compute options, with Baidu, Huawei, and Oracle all creating new local regions.”

KEY INDICATORS



UNDER CONSTRUCTION

342 MW



VACANCY

10.3%

ECOSYSTEM DEVELOPMENTS

- **Huawei Cloud** has launched a new cloud region in Singapore, with plans to make the market one of the largest outside of mainland China. Huawei's latest update utilizes artificial intelligence and provides a full suite of services.
- **SP Telecom** announced direct connectivity to Google Cloud via points of presence at Equinix SG3 and Global Switch Singapore. SP Telecom is a partnership between ST Engineering and Singapore Power, with both the fiber and power companies planning to benefit from customers utilizing faster connectivity.
- **STT GDC** has acquired the 26% of the STT Tai Seng business that they previously held in partnership with Tata Communications. STT Tai Seng is a six-floor data centre, with the building owned by Mapletree Industrial.
- **PCCW Global** has announced a new point-of-presence (PoP) at the Global Switch Tai Seng data centre. PCCW's Console Connect platform offers access to all major cloud on-ramps.
- **Baidu** has launched their cloud services in Singapore, with their new artificial intelligence-enhanced package including database, networking, and other options.
- **Keppel** is strongly considering the construction of a floating data centre that would be docked just offshore. While a specific site still has yet to be determined, there are intriguing technical ramifications such as cooling the prospective facility with seawater and a scalable architecture.
- **Princeton Digital Group** acquired the operating business of what was once io Data Centres, taking control of the management of the facility at 7000 Ang Mo Kio Avenue 5. Princeton will be signing up further colocation tenants in the ESR-REIT and Ho Lee Group-owned building.
- **Oracle** revealed a new availability zone in Singapore for their cloud services, one of 17 new zones announced this year. The software giant is bringing on new sites throughout the Americas, Europe, East and South Asia, the Middle East, and Africa.

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SINGAPORE

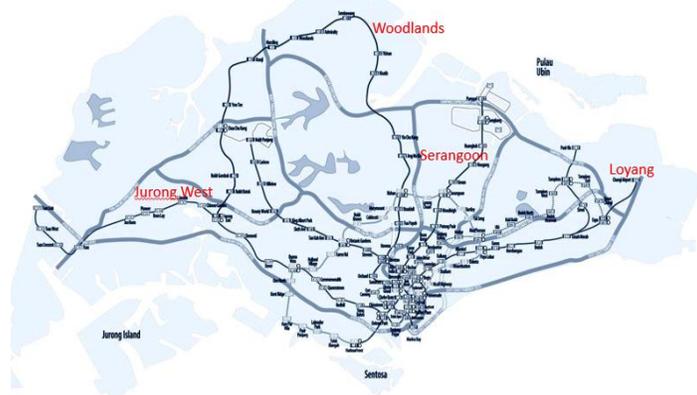
CONSTRUCTION UPDATE

OPERATOR	LOCATION	GFA SIZE (SQM)	TOTAL POWER (MW)	STAGE / EST. DELIVERY
China Mobile	Tai Seng	17,490	20 (est)	Completed / Q3 2019
Iron Mountain	Serangoon (phase 2)	929	1.5	Completed / Q3 2019
Equinix	SG4 (Phase I)	23,800	15 (est)	Under Construction / Q4 2019
CapitalLand (fmr Ascendas)	Tai Seng	20,337	12 (est)	Under Construction / Q1 2020
Google	Jurong West	21,410	25 (est)	Under Construction / Q2 2020
STT	Loyang	27,000	30	Under Construction / Q2 2020
AirTrunk	SGP1	40,000 (est)	60	Under Construction / Q2 2020
Digital Realty	Digital Loyang II	34,000	50	Under Construction / Q3 2020
Facebook	Tanjong Kling	170,000	150	Under Construction / Q2 2022

RECENT SINGAPORE PROPERTY SALES

PROPERTY	SIZE (SQM)	SALE DATE	SALE PRICE (\$)	BUYER	SELLER
20 Tampines St 91	7,854 (IT space)	Sep-19 (pending sale completion)	\$384,900,000	Keppel Data Centre REIT	Alpha Data Centre Fund, Keppel Data Centres
18 Riverside Rd	19,864 (GFA)	Sep-19 (pending sale completion)	\$200,200,000	Keppel Data Centre REIT	Keppel Infrastructure Trust, Shimizu Corp

Singapore Market Map



“Facebook and Google are continuing on their own large projects, and multiple new colocation projects have been announced for completion in 2020.”

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SYDNEY

MARKET OVERVIEW

The Sydney data center market has had a busy few months, with several new developments announced and the arrival of many new cloud services that previously operated in Australia from afar. Starting with the international operators, Equinix is nearing completion on their new SY5 expansion, adding over 25,000 square metres of space in Alexandria. The American REIT is joined by continued investment from Singapore, with Keppel DC REIT and the related Alpha DC Fund both under construction on new projects in the area to be completed in 2020 and 2021, respectively. Interest has migrated from within Australia as well, with Canberra Data Centres (CDC) choosing Sydney for a big investment push. CDC acquired the former DXC data center in Eastern Creek with the intention of turning the single building into a full campus in several phases. Development is already underway on the next 25 MW phase, with completion expected mid-2020.

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“Sydney is rapidly growing as a hub for cloud services, with several large developments underway responding to this demand.”

Demand for data center space has increased thanks to the corresponding increase in local cloud spend. A recent Gartner study indicates a 20 percent increase in public cloud spend over the past year by Australian companies, with similar large increases predicted in the next two years as well. This is faster than the global average, and indicates a desire by local firms to modernize their compute. A flood of software-as-a-service (SaaS) providers have responded to this interest by localizing operations in-country, after previously serving Australia from either the United States or locations in Japan and Singapore. As the main data center market in the country, Sydney has received the majority of this focus, with multinationals Cisco, IBM, Oracle, Amazon, and a host of specialized service providers joining in the mix.

While Sydney remains the number one data centre market, the most powerful platforms going forward will have operations on a country-wide basis to take advantage of the need for local cloud onramps. Melbourne is currently a growing second, with Perth, Brisbane, Canberra, and Adelaide following as the developing edge. As local companies continue to diversify their spend, expect markets to grow accordingly.



UNDER CONSTRUCTION

78 MW

ECOSYSTEM DEVELOPMENTS

- **Cisco** has completed a A\$20 million investment in a new Webex data centre in Sydney, adding to a larger A\$61 million investment in Australian operations. Webex is a portion of larger Cisco operations in country, including hybrid cloud infrastructure, cybersecurity, and mobile platforms.
- The **Digital Transformation Agency** has announced a dual-level certification system, requiring full local ownership of data centre facilities for the most sensitive government data. The certification framework is expected to be rolled out between 2020 and 2022.
- **Options** has opened two new colocation facilities, with their managed services now available at the Australian Liquidity Centre and Equinix SY2. Options focuses on working with the global financial sector.
- **Okta** has opened a new data centre in Sydney, providing localized options for Okta Identity Cloud and infrastructure through AWS.
- **Gotransverse** also opened their own local data centre in July, with the billing service responding to new client Belong.
- **IBM** has launched an expansion of IBM Cloud access throughout Australia with a new Cloud Direct Link partnership with Digital Realty in Erskine Park.
- **TransPerfect Legal** opened a new data centre in Sydney alongside hiring a new client service team as part of a large Australian expansion. TransPerfect provides e-discovery and litigation support assistance.
- **Hurricane Electric** has opened a new point of presence (PoP) in the NextDC Sydney location. NextDC expects considerable speed improvements, and this is Hurricane's fourth Australian deployment.
- **PacketFabric** has announced a new Sydney PoP at Equinix SY4, becoming the first location for the platform throughout the Asia Pacific region. PacketFabric utilizes the Hawaiki cable, linking Australia, New Zealand, and the United States.
- The **Coral Sea Cable System** is now under construction, with the 4,700-kilometre cable to link Sydney with Port Moresby in Papua New Guinea and Honiara in the Solomon Islands upon completion. Funded by ISP Vocus Group, this will be the first cable connecting to the Solomon Islands.
- **Linode** announced a new data center coming in Sydney, marking their 11th location and providing faster access to a large local customer basis. Linode serves as a cloud hosting and services firm, and will be located in Equinix SY4.

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Second Half 2019



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SYDNEY

ECOSYSTEM DEVELOPMENTS

- **Oracle** has announced a new cloud region in Sydney, the first for the company in Australia. The announcement comes on the heels of recent Asia expansion in Seoul and Mumbai, with a further region planned for Melbourne next year. Sydney serves as the initial deployment of the software giant's second generation architecture, with a new emphasis on machine learning.
- **5G Networks** has acquired Australian Pacific Data Centres for A\$3.5 million, taking control of the 1.5 MW data centre in leased space in Pyrmont. 5G plans to use the acquisition as a launch point for further distribution of fibre in the Sydney CBD.
- **Amazon** has signed a new delivery service partner, with NextDC as the latest Sydney operator to offer AWS Direct Connect. The Brisbane-based company has two operating facilities in the area, with the 80 MW S3 in planning.

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“Sydney is the number one market in Australia and will be for the future, though other edge markets are expected to develop.”

CONSTRUCTION UPDATE

OPERATOR	PROJECT	SIZE (SQM)	POWER (MW)	STAGE / EST. DELIVERY
Data Exchange Network	SYD01	4,351	1	Completed / Q3 2019
Equinix	SY5	25,780	30 (est)	Under Construction / Q3 2019
Canberra Data Centres	Eastern Creek	20,000 (est)	25	Under Construction / Q2 2020
Keppel DC REIT	Intellicentre 3 East	13,400	16	Under Construction / Q3 2020
Alpha DC Fund	KDC Sydney 1	5,300	7 (est)	Under Construction / Q2 2021
Digital Realty	Erskine Park III	10,934	12	In Planning
NextDC	S3	70,000 (est)	80	In Planning

RECENT SYDNEY PROPERTY SALES

PROPERTY	SIZE (SQM)	SALE DATE	SALE PRICE (A\$)	BUYER	SELLER
2 Roberts Rd, Eastern Creek	3,000	Apr-19	\$100,000,000	Canberra Data Centres	DXC

RECENT SYDNEY LAND SALES

PROPERTY	SIZE (SQM)	SALE DATE	SALE PRICE (A\$)	BUYER	SELLER
3 Broadcast Way, Artarmon	3,840	Aug-19	\$30,000,000	Alpha DC Fund	Lindsay Bennelong Developments

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TOKYO

MARKET OVERVIEW

Tokyo remains one of the largest data center markets in the world, with an economy deeply rooted in finance, technology, and other sectors requiring heavy compute capacity. After a relatively slower end to 2018, Equinix, Colt, and the Mitsubishi and Digital Realty partnership all launched new projects in greater Tokyo with completions expected throughout 2020 and 2021. Inzai in Chiba Prefecture is rapidly becoming a new regional data center market with these developments, and IJJ launched a new campus in nearby Shiroy at mid-year. Inzai is not only home to colocation, as Google closed on a site in May with plans to develop their own large campus, their first data center development in Japan. Purchased from Australian developer Goodman Group, the facility will slot in among warehouses on the greater Goodman Business Park. Similar to most developed markets, public cloud spend is expected to grow by at least 20-25% over the next several years as mid- and large-size Japanese firms modernize their infrastructure and migrate workloads. Combined with the continued development of Osaka as a data center destination, overall outlook remains positive for the nationwide industry.

ECOSYSTEM DEVELOPMENTS

- **Oracle** has added Tokyo to its Cloud Infrastructure platform, creating the new region in response to the continued growth in cloud investment throughout Japan. The new region is the company's fourth throughout the Asia Pacific theater, after Mumbai, Seoul, and Sydney.
- **Reveal Data** opened a new data center in Tokyo in August, continuing a long international expansion that now totals 19 similar facilities across the globe. The company creates eDiscovery software for the legal sector and offers a variety of related solutions for law firms.
- **NTT** announced a dramatic rebrand across their extended platform, with Dimension Data, RagingWire, e-shelter, NetMagic, and all others joining together under the NTT brand in 2020. The restructure will create an \$11 billion data center powerhouse with operations across 20 countries.



“Three major new projects have been announced, stimulated by international interest in the strong client base Tokyo has to offer.”

RECENT LAND SALES

PROPERTY	SITE	Size	SALE DATE	BUYER	SELLER
Future Google Data Center Development Site	Within Goodman Business Park, Inzai	Not disclosed	May-19	Alphabet	Goodman

MAJOR CONSTRUCTION UPDATE

OPERATOR	SITE	SIZE (SQM)	STAGE / EST. DELIVERY
IJJ	SHIROI DCC	40,000	Completed / Q2 2019
KDDI	TAMA 5	3,800 (est)	Under Construction / Q2 2020
SoftBank	Fuchu	36,853	Under Construction / Q2 2020
Equinix	TY12	2,787	Under Construction / Q4 2020
Colt	INZAI 3	8,000	Under Construction / Q4 2020
MC Digital Realty	NRT10	20,000 (est)	Under Construction / Q2 2021

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