SPRINGBOARD TO OPPORTUNITY



Building the Digital Future

The data centre market continues to accelerate worldwide. Underpinning all digital activity across business, government and community, it is thriving in the post-pandemic era as enterprise workloads shift to the cloud, the 5G rollout gathers pace and the world embraces the dawn of the smart city as shaped by Industry 4.0 and innovations like artificial intelligence, the Internet of Things (IoT) and virtual reality.

This presents enormous opportunities for data centre service providers and their partners.

Asia Pacific Outlook



Set to be the world's largest data centre region in the next decade¹





26 percent growth in APAC public cloud spending (2021-2026) to USD 165 billion²



50 percent growth in APAC data centre space 2022-2026³

2025

Mainland China outlined ambitious plan to build an integrated national big data system by 2025, with a priority data centre cluster in the Guangdong-Hong Kong-Macao Greater Bay Area (GBA)

Hong Kong: Growth and Opportunity

Delivering data centre capacity is increasingly challenging as higher costs, power constraints, sustainability demands and community resistance put pressure on the industry.

Ranked fourth overall in *Cushman & Wakefield's 2023 Global Data Centre Market Comparison*, Hong Kong continues to be a world-class data hub. It is well-positioned for future growth as a business-friendly market with world-leading connectivity, reliable access to vital resources and talent, and a unique role as an international conduit within Mainland China's bourgeoning GBA.





1 Cushman & Wakefield: 2023 Data Centre Global Market Comparison

2 IDC: Asia/Pacific (excluding Japan) Public Cloud Services Forecast 2022-2026

3 ResearchandMarkets: The Asia-Pacific Data Centre Landscape 2022 to 2026

Standout Strengths of Hong Kong



World-class Connectivity and Cloud Availability

In 2023, Shenzhen-Hong Kong-Guangzhou ranked 2nd as a science and technology cluster on the Global Innovation Index as published by World Intellectual Property Organization (WIPO) for the 4th consecutive year

Hong Kong is one of the leading cities in the world for reliable, high-speed fibre connectivity globally, with high-bandwidth, low-latency connectivity available to data centres throughout the territory and 12 submarine and 23 overland optical fibre cable systems connecting the city to the world.

Currently, over 90 percent of Hong Kong's population have 5G coverage, and its household broadband penetration (99.4 percent) and mobile penetration (315.4 percent) are among the highest in the world. In 2022, the *Ookla Speedtest Global Index* ranked Hong Kong fifth fastest for median fixed broadband worldwide.



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Reliable Access to Vital Resources



Hong Kong is renowned as a safe city, with reliable access to power and water and a low risk of natural disasters like earthquake, tornado, tsunami or volcanic eruption.

Hong Kong's two power companies rely on different fuels for power generation and operate independently, but their transmission networks are connected in case of emergency. Both are committed to developing renewable energy and to maintaining tariffs that compare favourably with other leading cities in the region.

Data centres in Hong Kong have access to adequate supplies of fresh water, allowing them to choose water cooling to reduce their energy needs and carbon emissions. Companies are also pioneering new approaches, such as immersion cooling solutions that help local data centres increase computing density and energy efficiency while reducing space requirements and capital and operating expenses.



Transparent Business-friendly Environment

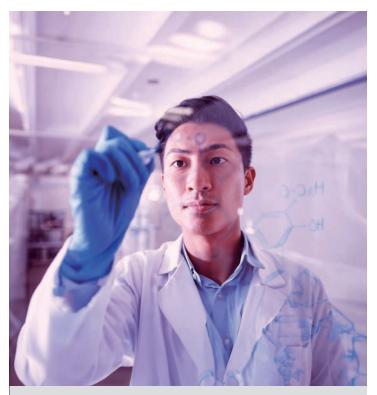
Home to 37 data centre operators and 60 data centres, with all major cloud services available, including Alibaba Cloud, AWS, Azure, Google Cloud, Huawei Cloud, Tencent Cloud

Hong Kong is one of the world's freest economies, characterised by free trade, a free market system and the free flow of capital. It enjoys a simple and predictable tax regime and low tax rate, as well as an internationally recognised system of commercial law with robust intellectual property protection.

The Hong Kong SAR Government is committed to advancing Hong Kong as a prime location for data centres in the Asia Pacific and to fostering technological cooperation and trade. Hong Kong enacted Asia's first personal data privacy legislation in 1996 and it continues to strike a balance between privacy protection and the free flow of information that is an enduring hallmark of its economy.



Global Centre of Innovation



A vibrant and cosmopolitan city, Hong Kong is home to a large pool of well-educated and agile multilingual professionals. Local immigration policies attract talent from around the world and the city remains a premier business hub with outstanding professional services.

The Hong Kong SAR Government has invested around HKD 200 billion in innovation and technology (I&T) development since 2017.

The city has a thriving start-up scene and boasts top universities with deep expertise in I&T research and teaching, as well as a state-of-the-art research and development ecosystem, including the Hong Kong Science and Technology Park and Cyberport. According to a report issued by HKSARG in May 2023, enterprises and organizations in Hong Kong invested USD 3.6 billion in research and development in 2021.

Opportunities for Growth



Meet the Supply Gap

Hong Kong is a leading hub for cloud technology, with numerous high-end regional data centres offering scalable and secure high-availability services. Even so, there will be a favourable supply-demand gap in Hong Kong for the medium term, offering opportunities for business expansion.

According to the Hong Kong Innovation and Technology Development Blueprint, Hong Kong had 800,000 square metres of data centre space as of end-2022, with a further 700,000 square metres of usable floor area coming online before 2026. Crucially, very little of this new supply will be for letting; almost all will be absorbed by owner-operators⁴.

Given that data centres are the backbone of Hong Kong's pillar industries and emerging service sectors, this leaves a substantial shortfall. Demand is being driven by:

Global Business

Hong Kong was home to more than 9,000 overseas companies in 2023, of which more than 1,330 were regional headquarters spearheading growth in Mainland China, Asia Pacific and beyond.

Digital City

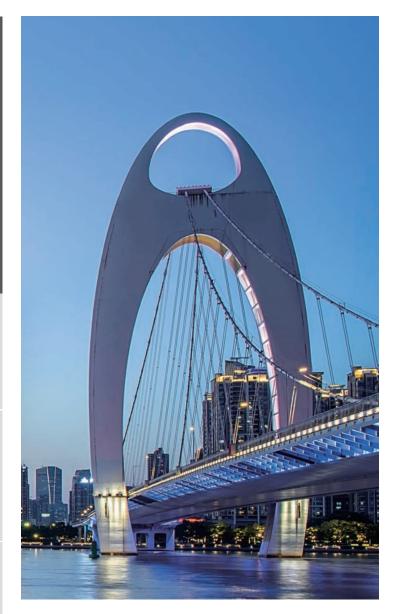
The Policy Address 2023 stated that over a hundred of digital government initiatives to promote digital government and the smart city would be launched to drive digital-based development to improve efficiency and enhance user experience.

Key Industries

Hong Kong has thriving financial, insurance and trade and logistics industries that are among the most sophisticated and digitally empowered in the world, alongside fast-growing emerging industries, such as fintech, digital media and e-commerce.

Mass Adoption of Cloud Computing

There is a widespread shift to cloud services as enterprises of all sizes embrace remote working, artificial intelligence and data analytics. According to Gartner, total end-user spending on public cloud services in Hong Kong is expected to grow at a CAGR of 26 percent in 2021-2024.⁵



The Bay area will, ultimately, expand our domestic market tenfold – and more.

John Lee, Chief Executive, Hong Kong SAR

⁴ Colliers International: Don't write off Hong Kong's data centre market, just yet, 2021

⁵ DBS Group Research: Hong Kong Data Centre Sector, 2022



Springboard to New Markets

Hong Kong is a springboard to the thriving Greater Bay Area (GBA) and Mainland China's wider market and a conduit for Mainland enterprises seeking international expansion. This unrivalled role provides Hong Kong-based cloud and data centre operators with unparalleled opportunities.

The GBA is a world-leading centre of advanced science and technology, with Hong Kong as its data centre and a designated international innovation and technology hub for Mainland China.

Economic Might

Comprising 11 major cities in southeastern China, the GBA economy is already one of the world's largest, with a GDP the equivalent of Canada's. According to S&P Global, it is forecast to reach USD 5.8 trillion GDP by 2040, when it will exceed the GDP of France. In 2023, The GBA boasts 25 Fortune Global 500 companies, Hong Kong is home to six of these companies, while the others are headquartered in Guangzhou, Shenzhen, Foshan and Dongguan.⁶

Close Co-operation

In addition to physical links like the Hong Kong-Zhuhai-Macao Bridge and the Tuen Mun-Chek Lap Kok Link roadway, Hong Kong is also actively building pathways for data exchange within the GBA.

- The Government signed a memorandum of understanding with the Mainland in June 2023 to foster secure crossboundary flow of Mainland data within the GBA.
- As mentioned in Policy Address 2023, the Government is liaising with the Guangdong Province to adopt an "early and pilot implementation" approach in the GBA to streamline the compliance arrangements for the flow of personal data from the Mainland to Hong Kong. It would facilitate the provision of cross-boundary financial and medical services within the GBA.
- Hong Kong-Shenzhen I&T Park, now being built on an 87-hectare site in Hong Kong, will be an open platform for knowledge exchange and applied research.

Furthermore, Hong Kong is a connector for enterprises entering markets in Asia, Middle East, Africa and Europe through China's Belt and Road initiative. It also enjoys close ties with ASEAN. Hong Kong has a free trade agreement with the Southeast Asian union of nations and is one of its most important trading partners and a key source of investment.

Unlock Tremendous Market Potential



To facilitate growth for the data centre sector, the Hong Kong SAR Government encourages the redevelopment and conversion of industrial buildings into data centres. It is also planning to increase land supply for large-scale projects through reclamation and use of rock caverns, as well as the development project of the San Tin Technopole, a science and technology hub being built to anchor in a new Northern Metropolis that is four times the size of Hong Kong Island.

The Government provides sustainable data centre guidance through energy-efficiency codes of practice and the Fresh Water Cooling Towers Scheme. Hong Kong's BEAM Society has also published a *Green Data Centre Practice Guide*.

Data centre partners, such as companies developing value-added software and services, can be accommodated in the Data Technology Hub (DT Hub) at the Tseung Kwan O InnoPark in Hong Kong's southeastern New Territories. It provides more than 27,000 square metres of purpose-built space, more than 20,000 square meters of which is data-centric working space supporting technology research and development, at the heart of the InnoPark data centre cluster. Tenants have access to the world-class ecosystem and support programmes of Hong Kong's largest research and development base, the Hong Kong Science and Technology Park.



Leo Liu Vice President of International Business, General Manager of North APAC Region, Alibaba Cloud Intelligence

Nurturing Local Talents

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We firmly believe that digital talents are the cornerstone of innovation across various industries and elevate the overall competitiveness of Hong Kong. The city already has a strong talent pool that we are committed to nurturing. Alibaba Cloud launched its first data centre in Hong Kong in 2014. It currently operates three data centres in the city and was the largest Infrastructureas-a-Service (laaS) provider in Hong Kong 2021, according to Gartner. Leveraging its cloud-native technology, Alibaba Cloud accelerates the digital transformation journey of its clients and empowers them to harness growth opportunities across the region. The company recognises the importance of local digital talents. Nine universities and institutions are set to participate in its new digital talent development programme, which will provide free training to over 2,000 students.

"As an international city with a business-friendly environment, Hong Kong has always been a gateway for foreign companies to connect with the Mainland China market. The city's worldclass digital infrastructure catalyses connections between investors, start-ups, enterprises, and global resources with cloud service as the important foundation of digital transformation and long-term business success. Continued government investment is helping create enormous potential for companies to expand their businesses in Hong Kong."



Robert Wang Managing Director, Hong Kong and Taiwan, Amazon Web Services

Enabling Innovation

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Serving as a tech bridge, AWS helps companies transform and innovate, whether they are looking to expand their business in Hong Kong or via Hong Kong to the Mainland or the world. AWS has supported the digital transformation of tens of thousands of companies in Hong Kong over the past decade with its reliable and scalable cloud computing services. Over 1,000 start-ups and a number of the unicorns in Hong Kong are built on AWS. Underscoring its confidence in the city, AWS opened its Asia Pacific (Hong Kong) Region in 2019. Since then, it has seen a growing wave of companies move their workloads to the cloud and leverage technologies like AI and big data. AWS has trained over 100,000 people in Hong Kong with cloud skills.

"AWS is committed to nurturing future digital talents in Hong Kong and enhancing the competitiveness of the city. After offering cloud training and other programmes here for many years, we enhanced our strategic collaboration with Hong Kong Science and Technology Park to establish Hong Kong's first AWS Joint Innovation Center in 2023. It aims to help IT companies, startups and researchers cultivate talents, spark innovation and commercialize their ideas through training, incubation programmes, data sharing, technology simulation and other practical support."



Driving Growth Momentum

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To promote the development of Guangdong-Hong Kong smart city clusters, CMHK is investing to nurture firstclass digital-intelligent innovation in the city.

Johnson Zhang Government & Enterprise Business Group Managing Director, China Mobile Hong Kong Limited China Mobile Hong Kong (CMHK) provides innovative and intelligent digital communications infrastructure and services to drive growth across the Guangdong-Hong Kong-Macao Greater Bay Area (GBA). A subsidiary of China Mobile, the world's largest mobile network operator, CMHK has more than 5 million customers, including over 2 million 5G subscribers. It operates three data centres, with a major new facility opening in 2025. Being Hong Kong's 5G pioneer, CMHK invests heavily in 5G infrastructure and vigorously promotes the development and uptake of 5G-driven applications. It founded the GBA 5G Industry Alliance, which now has more than 150 members.

"As a key provider of digital intelligence in Hong Kong, we are integrating new technologies, like 5G, cloud and big data, that are the pillars of economic and social development in the digital age. We work closely with the education sector to nurture next-generation talent at hundreds of primary schools. We are also building a unique business ecology based on enterprises alliances through MyLink—a smart-life portal to the digital economy and the metaverse that already has more than 6 million users."



Joanne Hon Managing Director, Equinix Hong Kong

Creating Value Through Interconnection

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Thanks to the city's comprehensive IT infrastructure and unique international position, leading companies in banking & finance, professional services, trading and logistics and cloud & IT industries choose to grow their Asia Pacific presence from Hong Kong. As a result, demand for data centre and interconnection services continues to accelerate. Since establishing its Asia Pacific headquarters in Hong Kong in 2002, Equinix has built five data centres in the city. It provides cloud on-ramp accessibility to six major cloud service providers and supports more than 600 companies through its distributed global infrastructure that enables the shift to hybrid multi-cloud and interconnection with ecosystem partners across more than 70 metros worldwide. Equinix has achieved 100% renewable energy coverage in Hong Kong since 2020 and continues to improve the energy efficiency of its facilities. Introducing a set of best practices, Equinix Hong Kong Data centre reduced approximately 30% of computer room air conditioning energy consumption, supporting Hong Kong's sustainability objectives.

"Hong Kong stands out for its productivity, market sophistication and research development. Over the years, the Hong Kong SAR Government has actively supported digital transformation and smart city innovation with a deep understanding that data centre services are the backbone of a digital economy. Equinix is confident that Hong Kong will remain a key city leading digital innovation in the region." Hong Kong is growing as a centrepiece of the global cloud and data centre industry. A world-class technology and innovation hub, it is an ideal location for cloud and data centre businesses to flourish. Its local market presents outstanding opportunities as a digital city with sophisticated pillar industries and emerging hightech sectors. Hong Kong is also the pre-eminent bridge between Mainland China and the world. It provides a springboard to opportunities in the booming Greater Bay Area and along the far-reaching Belt and Road, and is a platform for Mainland enterprises to expand to ASEAN, Asia Pacific and new markets worldwide.

To learn more, or for help in setting up or expanding in Hong Kong, contact Invest Hong Kong.

Government Initiatives and Funding Schemes

The Hong Kong SAR Government is committed to supporting technology companies of all sizes. Some relevant initiatives and funding schemes are:

Two-tiered Profits Tax Rates Regime

Profits tax rate for the first HKD 2 million of profits of corporations is lowered to 8.25 percent whilst the remaining profits will be taxed at 16.5 percent

Enhanced Tax Deduction for R&D Expenditure

To encourage more R&D activities in Hong Kong, enterprises will be offered a 300 percent tax deduction for the first HKD 2 million qualifying R&D expenditure and 200 percent deduction for the remainder, not subject to any cap

Research Talent Hub

To provide funding support for technology companies to engage research talents to conduct R&D work in Hong Kong

itf.gov.hk/en/funding-programmes/ nurturing-talent/research-talent-hub/

Technology Talent Admission Scheme

Fast track arrangement is provided for eligible companies to admit technology talent to undertake R&D work

itc.gov.hk/en/fund_app/techtas/index. html

Enterprise Support Scheme

To provide funding support for local companies to conduct in-house research and development (R&D) work

smelink.gov.hk/en/web/sme-portal/w/ enterprise-support-scheme.html

New Industrialisation Funding Scheme (NIFS)

Funding will be provided on a 1 (government): 2 (company) matching basis to manufacturers establishing new smart production lines in Hong Kong

itf.gov.hk/en/funding-programmes/ facilitating-technology/nifs/

Technology Voucher Programme

A cumulative funding cap at HKD 600,000 to support local enterprises in using technological services and solutions to improve business productivity

itf.gov.hk/l-eng/TVP.asp

Contact

Wendy CHOW Head of Information and Communications Technology Tel: (852) 3107 1012 Email: wchow@investhk.gov.hk

SME Export Marketing Fund

A cumulative funding capped at HKD 1,000,000 to support SME to participate in export promotion activities for products and services

smefund.tid.gov.hk/english/emf/emf_ objective.html

Dedicated Fund on Branding, Upgrading and Domestic Sales

A cumulative matching funding capped at HKD 7 million to support local enterprises to develop brands, upgrade and restructure their business operations and promote sales in Mainland, Free Trade Agreements ("FTAs") and Investment Promotion and Protection Agreements ("IPPAs") markets

bud.hkpc.org/en/

Trade and Industrial Organisation Support Fund

A funding support capped at HKD 5 million to non-profit-distributing organisations to implement projects which aim at enhancing the competitiveness of non-listed Hong Kong enterprises

smefund.tid.gov.hk/english/tsf/tsf_ objective.html

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investhk.gov.hk

Invest Hong Kong is the department of the Hong Kong Special Administrative Region (HKSAR) Government responsible for attracting Foreign Direct Investment, supporting overseas and Mainland businesses to set up and expand in Hong Kong. We partner with clients on a long-term basis and are available at any stage of their business development process.

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