KEYNOTE INTERVIEW

AI is changing the Asia data center market

The growth of AI is changing how and where data centers will be built and driving substantial demand in Asia and other regions, says Actis's Thomas Liu

The growth of artificial intelligence applications is revolutionizing businesses and driving substantial demand for data centers all over the world. The most substantial changes have occurred in the US, but the need to support AI is spreading globally.

Hyperscale demand from global giants such as Microsoft and Google means a big opportunity for those who can provide them with mission-critical infrastructure. Sustainable infrastructure investor Actis recently launched Epoch Digital, an Asian data center platform, and has also acquired assets in the Americas. Thomas Liu, partner and head of Greater China and Asia Data Centers, explains how AI is changing the outlook for data centers in Asia and how to operate in this fast-changing but growing market.

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Q How is capital being deployed to the Asian data center sector and what is changing as demand from AI grows?

Traditionally, the data center space has been about supporting cloud computing deployment, with most of the demand coming from cloud services hyperscalers such as Amazon Web Services and Microsoft in major gateway cities. So, in Asia-Pacific that means cities such as Tokyo, Osaka, Seoul, Hong Kong, Singapore and Mumbai.

What is changing with AI is that, while cloud computing needs to be close to the enterprise customers, the training modules of generative AI – which drive applications such as ChatGPT – do not have the same requirement to minimize latency, the time it takes to request and send data. This means data centers which support AI training can be located further afield; they do not need to be located near land- and power-constrained cities.

This widens the scope for data center locations and means they can be sited on cheaper land and with better access to power. However, they still have substantial power and connectivity

requirements, so they can't be built just anywhere.

Hyperscalers are looking at locations in India, for example, because they offer cheaper land and potential access to renewable energy, which is an important consideration for data center users. We also see Johor Bahru in Malaysia, close to Singapore, as an up-and-coming location.

Microsoft has recently acquired two plots of land in Johor Bahru, which offers land and power at much lower costs than major Asian gateway cities as well as the potential for green power. Its adjacency to Sinapore, which is a regional connectivity and data center hub, but land and power constrained, offers further appeal to the hyperscalers. So, this AI demand will drive data centers to new locations in Asia-Pacific, and while this trend is still in evolution, our view is that markets such as Malaysia, India and Japan will benefit.

The other side of AI demand is the applications, by which I mean the AI components you see added to applications such as Zoom or Microsoft Office. The components for these applications will have to sit alongside their cloud computing servers, so those will still be located within the cloud architecture, in locations such as Seoul, Singapore and Tokyo.

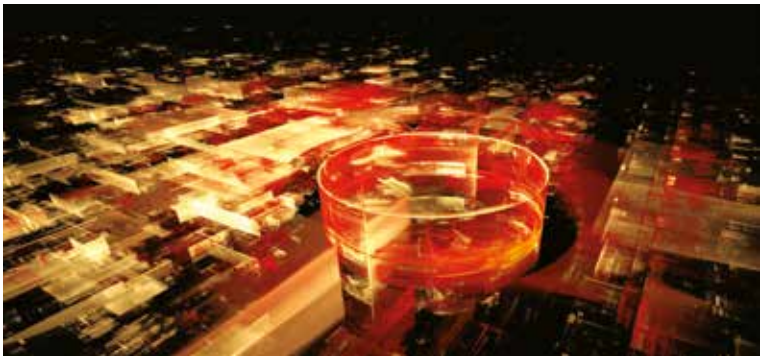
Q What will happen in established data center markets as access to land and power shrinks?

The major challenge is power. Grid capacity can be added in these locations, but it takes time. The power generation and transmission infrastructure can take years to develop. That means people will need to look further out.

We have already seen that in major cities like Tokyo. If you go to TEPCO (Tokyo Electric Power Company) they will tell you that you might get power for your site in five or six years. So data center operators and hyperscalers have established a second cluster in Osaka and continue to look further out for areas that have readily available power.

Q Does AI demand mean we will see bigger data centers?

The trend has been for larger centers as cloud customers are signing bigger contracts: what were 10-20MW contracts are now 20-30MW, and we are starting to see even 100MW-plus contracts. Overall, hyperscalers have contracted gigawatts of capacity over the last 18 months for AI purposes. Where AI data centers are built in markets with more land and power, we will see larger data center campuses in the future.



Q Are you seeing new demand alongside the big hyperscalers?

The market is still dominated by the largest global players and some Chinese companies, but AI is also driving demand from new places. There are companies buying a lot of Nvidia chips to provide 'servers as a service' to corporations which require AI processing power.

Connected to this, companies such as CoreWeave and Lambda in the US have raised substantial growth capital, and we are starting to see Asian companies with the same business model. It remains to be seen if any of these companies will become as big as the major hyperscalers, but AI is creating a new corps of competitors for them.

Q How can real estate investors capitalize on data center demand from the hyperscalers?

The sector is a mix of real estate and infrastructure so a successful data center operator would need to deliver on both counts. The data center campuses – the land, core and shell – are true real estate, very much like any industrial estates. However, to deliver a solution to the hyperscalers, you would need to have an infrastructure mindset as well, because you are delivering critical infrastructure to them: a 24/7, 365-day, no fail, no interruption facility.

Hyperscalers aren't interested in someone showing up to say: "Hey, I have a piece of land and I can build a building for you." They need someone who understands what they require in terms of resilience, specifications and a team which can work with them on their design as well as delivering the operation side.

Investors really need to either build in-house expertise or invest in a very good senior team; folks that have already had 10-20 years' experience and have delivered for the hyperscalers. Rolling out this critical infrastructure, they demand people with experience and a track record.

We think now is a good time to be in this space, especially for those who already have access to powered sites or mature operational experience, track record and team in place, because the hyperscalers will have massive needs

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in the next few years. AI has already had an effect in the US, but Asia is just starting in comparison.

Q How strong is investor appetite, and how can they best allocate capital?

There is a lot of interest in the space, but I believe investors have grown more cautious than they were, say, five years ago, as they have witnessed some projects built without a proper leasing plan, or with significant cost overruns.

Often, pure real estate investors don't appreciate the infrastructure side of the business. Equally, infrastructure investors don't always appreciate the real estate side of it, especially the local market practices, such as negotiating with land sellers, accessing power and obtaining project approvals.

Investors are getting smarter and appreciate the risks associated with this new asset class. They balance the optimistic outlook with a more cautious approach to how they underwrite the risk/reward, and whom they should back.

Q How can data centers be more sustainable?

The digitalization of economies is irreversible, so that demand for data centers will continue. Data centers are large energy users, but they are still more efficient and sustainable than companies having servers in their own offices.

The sector is continually becoming more efficient and the power usage effectiveness (PUE) ratio has come down from an average of two, which means as much power is used by the data center as the servers, to 1.5 and as low as 1.2-1.3 in cooler regions. Power is the largest operating cost item for data centers, so everyone involved is incentivized to make data centers as efficient as possible. Technology such as liquid cooling and immersive cooling has the potential to drive PUE down to below 1.1.

The other aspect to sustainability is renewable power. Amazon, Microsoft, Meta and Google are the four largest purchasers of corporate renewable energy power purchase agreements, with almost 50GW contracted worldwide. Data centers which support AI can be built anywhere with power, so they could be located near to sources of renewable power. Actis develops renewable energy platforms across Asia and we are seeing the hyperscalers' growing interest in our markets.

Q Where else are you seeing demand for data centers?

There are several markets in Latin America which have growing demand for cloud computing and some more developed markets such as Brazil, centered on São Paulo, Mexico and Chile. The scale of development there is behind Asia at present, with the entire continent having just over 1GW capacity, which is about the same as Tokyo. So, there is a lot of growth to come in these markets, even without considering the potential of AI.

Q Finally, Actis recently launched Epoch Digital. What is the approach taken with this platform?

Actis launched Epoch Digital as an integrated data center platform in Asia with a current portfolio under development offering c.200MW of IT capacity across three projects.

Epoch Digital targets to develop, own and operate a scalable and geographically diversified portfolio of data centers across strategic and highly selective markets in Asia where hyperscale customers are growing with imminent demand, and where we and the leadership team of Epoch Digital enjoy a competitive advantage, with a long track record and deep experience of investing in and developing infrastructure and real estate projects across many Asian growth markets. The platform will play a pivotal role in providing trusted and sustainable data center services to meet rapidly growing data needs. ■