KEYNOTE INTERVIEW

Sourcing the best digital opportunities

A clear understanding of the challenges that exist across different markets, whether that means real estate, technology or power supply, will be essential to seizing the data centre growth opportunity, says Actis's Brian Chinappi

There is little doubt about the scale of the overall opportunity that the data centre market represents. Data centre demand is projected to skyrocket over the coming years, with digitalisation gathering pace and new artificial intelligence solutions set to play fundamental roles in economies around the world.

Nuance will be important. Brian Chinappi, partner and head of real estate at growth market investor Actis, cautions that the abundance of opportunity presented by digital infrastructure does not mean investors should rush into the market before having a deep understanding of the sector. A deep appreciation of the challenges that occur across different markets will also be crucial.

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Q What is the current data centre opportunity in growth markets?

At a high level, we are seeing growth driven primarily by the digitalisation trend that is sweeping across the world's markets. In many of the growth markets, data centre demand is being driven by earlier phases of digitisation, including mobile penetration, content and social media, government and enterprise shifting to the cloud.

The other angle worth considering is data sovereignty. Data has been deglobalising for some time due to both sovereignty and latency, which require data to be stored and computed locally. In this sense, data centre strategies are somewhat enhanced by the increased focus on deglobalisation we are witnessing.

However, when speaking to available capacity, most growth markets are still short of even a sustenance level of stock. While there have been notable increases in stock in the more gateway

Q How should investors in the data centre space think about risk?

Risk factors stem from irrational exuberance. This isn't to play down the significant fundamental opportunities that data centres represent, but the details surrounding each location and project are important. As with any global trend that attracts a lot of capital, some of it won't necessarily be deployed optimally. Investors need to be able to identify the right opportunities and understand the nuances.

Technological change is another potential risk. Technological obsolescence over time can impact future demand for completed facilities. This is especially true given that digital is so fast-moving and dynamic. We mitigate against this risk by targeting locations that deliver sustenance capacity as well as facilities that have significant design flexibility.

In terms of macroeconomic risk, across our markets, you could argue that the greater push to deglobalisation we have seen of late is actually beneficial to creating demand for regional and local data centres. This was already a trend but it has been accelerated by political developments and concerns around data sovereignty. Regarding tariffs, it is hard to say how these will play out, but our supply chain is largely outside that particular complication.

"The only way to manage the growing carbon footprint is to consolidate data centres for efficiency and move them over to green power"

markets over the past several years, capacity generally remains well short of demand, and there are meaningful barriers to entry – whether land, power or water reserves.

In terms of the specific geographies where data centre growth is particularly exciting, most of our opportunity pipeline is in Asia and Latin America. In Asia, hyperscalers are driving huge demand. We are already building/operating data centres in South Korea, Taiwan, Malaysia and China, where demand is driven by both the cloud and also by AI developments.

We also look at markets with local and potentially regional solutions, such as Malaysia and even Kyushu in Japan, as well as India. Similarly, Thailand and the Philippines offer interesting opportunities as data centre solutions become localised due to latency requirement for services and content.

The Latin American data centre market similarly offers a significant growth opportunity, with per capita capacity nearly 15 times lower than in the US. As demand for cloud services and AI infrastructure continues to rise, the region remains largely underserved, attracting increasing interest from global operators and investors.

In addition to growing domestic demand, Latin America offers a unique competitive advantage: abundant, low-cost, renewable energy. The cost of electricity in Brazil, for instance, is less than half the average cost of the US, and a large portion of its energy matrix is already green. This positions the region not only as a destination for serving local markets but also as a viable global hub for data processing exports.

Q How will AI impact the data centre market?

As a firm, we are big believers in the power of AI. It is certainly another demand driver for data centre capacity but the exact pace and scale of the growth it will generate is yet to be proven. For

many of the growth markets we look at, the AI angle isn't fundamental to our thesis just yet, as we are still delivering sustenance level capacity for digitalisation more broadly.

AI is, however, accelerating a change in data centre technology itself. For example, we are seeing a shift to higher-density racks for more AI-focused solutions and the adoption of more efficient cooling technology.

This touches upon the power angle. Electricity demand from data centres worldwide is projected to more than double by 2030, to around 945 terawatt-hours (TWh), slightly more than the entire electricity consumption of Japan today. This increase will need to be accompanied by significant efficiency gains.

As GPUs and AI chips require more energy, racks often exceed 30kW, surpassing the limits of traditional air cooling. This shift necessitates liquid cooling systems, which bring greater construction complexity and operational sophistication.

These changes make flexibility in design essential. Data centres must be built to adapt to advanced cooling technologies, enabling them to support high-density AI applications while managing the added challenges of construction and long-term operations.

Q How does sustainability relate to the data centre market? How can investors support both digitalisation and decarbonisation?

I think both can be supported simultaneously. If you take the view that digitalisation is good for humanity in a multitude of ways, from greater financial independence to improved literacy levels, we need to find a way of facilitating this sustainably. The reality is that increased digitalisation requires more compute power and more data centre capacity.

Digitalisation is inexorable, so building efficient data centres at scale is essential. The only way to manage the growing carbon footprint is to consolidate data centres for efficiency and move them over to green power.

In terms of the different approaches that data centre owners and operators are using to maximise operating efficiencies, several different innovative approaches are being pursued. For instance, we are seeing more efficient cooling approaches, such as direct-to-chip and immersion cooling technologies being deployed as rack density increases. This results in higher energy efficiency (lower PUE) and water efficiency.

In terms of renewable energy, small nuclear reactors are being employed, but that technology is still some way off from widespread adoption. Having said that, several hyperscalers are bringing nuclear plants back online to power their data centres. Likewise, data centres are being built adjacent to gas-fired power plants to improve their sustainability.

AI is also likely to change the location of data centres. For the more traditional drivers of demand, like cloud and online content, it is important that the compute power is close to the end-user to minimise latency.

For AI, this isn't necessarily still the case. Latency is less critical for AI solutions, which is opening the data centre market to new, more remote locations. You are seeing more data centre campuses and larger individual facilities. It is also providing data centre owners with the ability to consider more meaningful renewable power solutions.

Q For data centre operators, how important is the combination of real estate, digital and energy skills?

You need all three skill sets to be successful in this sector. From an Actis perspective, how much we bring of each depends on the particular project. For urban, low-latency data centre solutions, like the projects we have delivered in Korea, our real estate skill set is very important. Ultimately, you need to get something built in a dense, urban environment. You also need to be aware of the digital angle.

This doesn't just concern the technology, either. You need to understand the customer base and have trusted relationships with the hyperscalers. Hyperscalers are looking for multi-faceted solutions to their data centre requirements. To succeed in the sector, you need to be acutely aware of your customers' needs and be able to deliver a complete, tailored solution.

There is also the energy side. You need to understand how power is allocated in the market you are operating in. Are you aware of exactly how the power ecosystem works, as it can vary substantially from market to market? In India, for example, the power piece is not very challenging whereas in Korea and Japan it is. It is about being aware of these geographical nuances.

In Latin America, countries such as Brazil offer abundant renewable energy. But connecting large-scale data centres – now exceeding 50MW to 100MW, due to growing cloud and AI demands – remains complex. Transmission constraints, substation upgrades and regulatory approvals add significant challenges, especially as data centre sizes increase.

Q Looking ahead, are there any significant trends you foresee? How optimistic are you about the direction of travel for digital infrastructure?

I think the main trend is the continuing growth of digitalisation. This is unlikely to slow down as there is long-term support for various tailwinds. We are optimistic that the need for critical digital infrastructure is not going away anytime soon.

Global growth markets represent around 70 percent of GDP, but just 30 percent of data centre capacity. There is a real mismatch here that we are likely to see rectified in the coming years. ■

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