Build Them and They Will Come: The Growth of Middle East Data Centres

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Data centres are the backbone of the internet and are increasingly important as the growth in internet usage accelerates. The digital transformation of businesses and their move to the cloud, the growth of online content and the arrival of 5G have all been key factors in the recent growth of internet usage. Businesses and individuals are spending more and more time online. This was before the COVID-19 pandemic greatly accelerated these trends. To support this, we are seeing an unprecedented global data centre building spree.

The hyperscalers (the likes of Facebook, Google, Amazon, Microsoft and Alibaba) have been a big part of this change. Traditionally, these hyperscalers would have been building large hub data centres in key European, US or Asian locations with internet traffic being routed to these facilities. This has now changed. Hyperscalers are looking to build closer to their markets, and to position their data centres strategically in new emerging markets. Each has a different strategy, whether building data centres to cover regional markets or identifying key individual markets and locating data centres there. This is often driven by legal and regulatory requirements, as well as commercial considerations, in the Middle East.

The growth in these hyperscaler data centre builds is not to be confused with the rise of edge data centres. As we have written about previously [attach link to edge computing article], this is a new approach, creating micro data centres, close to users, to provide greater (and faster) internet access to support high bandwidth requirements for technologies such as 5G and connected cars.

The hyperscalers are not the only players in the new data centre space. The hyperscaler need for data centre capacity has spawned a new wave of data centre builders – specialist data centre companies that

build for the exacting specifications (and timelines) of the hyperscaler market and, more generally, for cloud and managed service providers and major corporates. These data centre builders will often be the first entrants into a new market, and particularly into key emerging markets. Funded often by infrastructure investment funds that have identified the investment opportunities in the data centre space, or property development companies seeking to move into a new and lucrative market, these data centre builders are both acquisitive, buying data centre footprint in markets key to their customer base, and also ready to undertake new builds, depending on the market.

In the first of a series of short articles looking at key aspects of data centre development in the Middle East, we focus on key data centre real estate and construction issues. It is important to note that advising on data centre builds requires a mix of legal skills and industry expertise covering the different, and often conflicting, requirements of data centre developers, operators, funders and end user customers.

Real Estate:

The leasing of data centre space can take different forms such as:

- the "wholesale" leasing or granting of rights of use by a specialist data centre provider ("Data Centre Operator") relating to all of the space in the data centre to a single end user with heavy usage requirements;
- "Build to Suit" arrangements, whereby a Data Centre Operator will construct a data centre to the specific requirements of so called "hyperscalers"; or
- the "retail" leasing or granting of rights by a Data Centre Operator to multiple, different end users that have smaller power and space requirements (usually over physically separated, caged racks which contain servers and equipment).

Nevertheless, whatever the type of leasing, there are some common key considerations for end user customers who are collocating their equipment in a data centre. These include:

- the availability of access to power (uninterrupted) and cooling and the costs relating thereto;
- the availability of connectivity and, particularly, multiple (carrier neutral) connectivity options – often challenging in the Middle East telecoms market;
- the option to cross connect;
- access to equipment co-located in the data centre;
- ensuring that the date centre is physically secure with comprehensive security procedures in place;
- ensuring that data is available and secure at all times, in accordance with applicable privacy and cybersecurity laws, with comprehensive data recovery procedures in place in the event of a failure of the data centre (e.g. due to a power outage, an event of damage or destruction or a cyber attack);
- access to smart/remote hands services and remedies for maintenance failures;
- potential step in rights to take remedial action if the Data Centre Operator does not adequately discharge its maintenance obligations or in the case of an emergency;
- rights to freely upgrade the end user's technology without any consent requirements by the Data Centre Operator; and
- protection against the Date Centre Operator creating any security interests over the end user's assets that are located in the data centre.

The co-location (or similar) agreements signed between Data Centre Operators and end-user customers are critical for protecting customer legal rights and commercial interests. These are increasingly moving to managed service or cloud based services agreements. These come with additional issues that need close

legal and commercial attention.

Construction:

There are a number of important considerations that need to be factored into the procurement strategy, in order to ensure that the design and construction of datacentres, in addition to the management of such facilities post-completion, are as trouble-free as possible. This is particularly important based on the challenging timelines required by the hyperscalers for data centre builds.

We set out below some of the key considerations to note from the perspective of a data centre developer and how thee developer (and their stakeholders) may try and mitigate against the risk of issues arising on such projects:

- One of the key factors to ensure a successful project is extensive planning prior to the commencement of the works and good contract administration during the design development and construction phase. Given the phased and intricate nature of what are often heavily engineered projects and the need to adhere to stringent programme and budget requirements, this planning is required to ensure the works are completed according to the bespoke requirements, to the required standard, within the agreed budget and without undue disruption or delay. Investing time and resources in the tender process and indeed in choosing a suitable tier-1 project team (whether consultants and/or contractors) with suitable sector-specific knowledge and expertise in projects of this nature is vitally important, with an appreciation also for the fact that the best route to completion of a successful project is not necessarily the quickest or the cheapest;
- There is likely to be an increased level of regulatory scrutiny at all stages of the project lifecycle, in particular prior to handover in order to ensure the completed works are fit for purpose and satisfy what are often, stringent regulatory requirements (whether they be from the local Civil Defense or other local government authorities), prior to completion being certified. It is therefore important to ensure that the taking-over requirements, as well as any testing and commissioning regime set out within the construction contract, is well drafted and where necessary aligned with the regulatory requirements in mind;
- developers should ensure that any existing or new facilities management arrangements adequately cater the ongoing day-to-day operation and maintenance requirements that will arise post-completion. This may entail revisiting an existing facilities management agreement in order to ensure additional services can be provided, for example, to cater for the expanded scope that will come with overseeing a recently renovated site or, alternatively, may involve procuring services from a new provider, to commence upon completion of the works;
- arrangements with utility providers are key to delivering the data centre on schedule. Early engagement is essential to ensure that utility provider requirements are fully covered (including any third party consents required);
- insurance is a key aspect of any construction project. It is important to ensure that the terms of the policies are closely examined so that they align with the contractual requirements and ultimately mitigate against any design, construction and defects risk that might arise, with a view to recompensing the developer for such insurable risks should they crystallise. Care should be taken in particular with respect to examining (and if needed negotiating the removal altogether of) any exclusions on such policies that may cut across the scope of insurance cover being provided and therefore may prejudice the employer's rights or entitlement. In any event it is recommended that an insurance advisor or broker is approached at an early stage in order to examine the insurance requirements as well as the policies that may subsequently be provided to ensure these provide a robust degree of protection;
- given the multitude of trade contractors and suppliers that are often engaged in such projects, it is important to ensure that well drafted, collateral, manufacturer and supplier warranties are procured in favour of the developer and any other stakeholders with an interest in the project. These should be

procured from all third parties from whom works, services or products are being procured or supplied. In addition, appropriate security should be in place, whether through parent company guarantees or performance bonds, in addition to appropriate insurance cover;

- where an existing site is being developed or renovated it is imperative that the construction site is kept as clean and as organised as possible, in an environment where there is undoubtedly a heightened need to ensure that a more rigorous level of hygiene is maintained. In part, this will mean the need to ensure the contractor not only cleans the site prior to completion, but moreover adheres to stringent protocols throughout the construction phase. In part, this will include securing adequate laydown areas for the safe storage of equipment and materials that are to be used on the project.

In subsequent articles in this series, we will look at other key data centre issues including: regulatory issues, energy and environmental issues, data centre tax issues and data centre financing.