Opportunities in the GCC Data Centre Market

Growth in global demand for data over recent times has been dramatic. To service this demand there has been a proportionate increase in Data Centre requirements and provisions, including but not limited to Hyperscale, Wholesale Colocation and Edge markets. However, whilst most world regions have witnessed strong growth in the Data Centre market, the Middle East and African market is very much in its infancy. As the landscape continues to evolve, the MEA market is set to grow and adopt more cloud-based on-demand computing platforms, which in turn will drive demand for Data Centre real estate.

INCREASED DATA CONSUMPTION

Demand for Data Centres has been underpinned by technological advances and an increasing adoption of cloud-based services. This trend is likely to intensify and drive demand away from locally stored content to cloud-based platforms with the increasing adoption of the Internet of Things (IOT), automation, Artificial Intelligence and increased data usage with the ongoing move to 5G infrastructure.

As these trends play out, the levels of data produced, stored and analysed will grow exponentially, which will drive significant demand for Data Centres. However, rather than being able to utilise and grow existing infrastructure, localisation of Data Centres will be required going forward. As a result, the Middle East, Africa and South Asia (MEASA) region, with a population of almost three billion people, and arguably the world's most underserved region in terms of Data Centre provisions, will become a key market for cloud-based on-demand computing service providers.

DEMAND DRIVERS FOR DATA CONSUMPTION

The Internet of Things (IOT) is the term used for systems of interrelated connected devices. Power, heating, cooling, security, electrical goods, entertainment and lighting systems joined within the home and workplace by internet-enabled devices such as smart phones, laptops and iPads. The growth in the use of such internet-enabled devices has led to a substantial increase in data usage.

Shifts in creative media content towards Content Delivery Networks (CDN), such as YouTube, Netflix, Amazon Prime and gaming solutions, alongside the expected shift to 4K and 8K content, will significantly underpin additional data consumption.

Automation ranges from factories using computers rather than employees to aircraft, cars, lorries and ships navigating without drivers, pilots and captains.

Artificial Intelligence enabling speech recognition, decision-making and language translation.

The roll out of 5G; a cellular network with significantly greater bandwidth compared to predecessors, will provide the infrastructure required for smart cities (traffic, lighting and security), advanced health services, sophisticated national security systems, drone delivery systems and autonomous vehicles.

The use of cloud-based services by businesses of all sizes will increasingly become the norm. Whilst enterprise moves onto the cloud at a rapid pace, this is likely to be effected via a hybrid solution mixing cloud, colocation and on-premises solutions to deliver flexible, scalable, cost effective IT solutions.
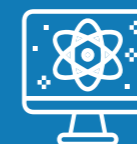
The growth of Big Data; data coming from a number of sources that needs to be stored, processed and analysed to make informed business decisions in each and every industry.

LOCALISATION

Given historic requirements, Data Centres have traditionally been clustered in a select few geographies at existing peering points. These locations have been in the United States (Virginia), Europe (London, Paris, Amsterdam, Frankfurt and Dublin) and Asia Pacific (Tokyo, Hong Kong and Singapore).

GLOBAL DISTRIBUTION OF HYPERSCALE DATA CENTRES

At the time this structure was suitable, as the majority of businesses were able to host and distribute data from these clusters without significant pressure on latency (the time taken to deliver the data from the Data Centre to the end user). However, as technology and content has become more complex, the quantity of data

required has increased to a level where the existing Data Centre hub model is no longer capable of handling the necessary volume of data. As a result, cloud-based service providers are now looking to be closer to population centres, which will enable them to deliver more sophisticated services in a timely manner and reduce transit

costs. This move has been made possible by advances in Data Centre Interconnect (DCI) technologies.

Given such technological advances and shifts in demand, the Middle East and Africa will need to establish localised Data Centre provisions - currently there is only one Hyperscale data centre player in the region. With a robust demographic base, the Middle East and Africa region is likely to see internet activity, and therefore data demand, continue to grow in the short to medium term. Mobile internet connectivity in the Middle East and Africa has increased from 29% in 2014 to 40% in 2018 with Sub Saharan Africa witnessing growth of 13% to 24% according to data from the Global System for Mobile Communications Association (GSMA). The GSMA also estimates that, as at 2018, there is a usage gap of 760 million people in the region.

ADVANCED MARKETS, MEGAWATTS (MW) PER MILLION

Major Asia Pacific Markets
(Estimated*)

Asia Pacific	Population	DC Market		MW PER POP
Singapore	5,600,000	450	MW	80.36
Hong Kong	7,392,000	320	MW	43.29
Tokyo	9,273,000	220	MW	23.72
Sydney	4,600,000	220	MW	47.83
Totals	**26,865,000**	**1,210**	**MW**	**45.05**

Major European Markets
(Estimated*)

Europe	Population	DC Market		MW PER POP
London	8,900,000	700	MW	78.65
Amsterdam	2,800,000	550	MW	196.43
Frankfurt	5,500,000	450	MW	81.82
Paris	2,141,000	350	MW	163.48
Totals	**19,341,000**	**2,050**	**MW**	**105.99**

MIDDLE EAST AND AFRICA, MEGAWATTS (MW) PER MILLION

GCC Markets
(Estimated*)

GCC	Population	DC Market		MW PER POP
Dubai	3,200,000	60	MW	18.75
Abu Dhabi	1,300,000	20	MW	15.38
UAE	9,400,000	90	MW	9.57
Saudi Arabia	35,000,000	60	MW	1.71
Bahrain	1,600,000	12	MW	7.50
Kuwait	4,100,000	10	MW	2.44
Oman	4,700,000	15	MW	3.19
Totals	**54,800,000**	**187**	**MW**	**3.41**

Middle East (& Africa) Markets
(Estimated*)

MEA	Population	DC Market		MW PER POP
Egypt	98,000,000	25	MW	0.26
Jordan	9,800,000	12	MW	1.22
Pakistan	200,000,000	50	MW	0.25
India	1,400,000,000	350	MW	0.25
Kenya	50,000,000	15	MW	0.30
Ethiopia	112,000,000	15	MW	0.13
Morocco	36,000,000	35	MW	0.97
Totals	**1,905,800,000**	**502**	**MW**	**0.26**

Due to the expected growth in localised data, current regional Data Centre provisions are underserved. Benchmarking against advanced economies where MW per million people stands at 106 for Europe and 45 for Asia Pacific, in the GCC and selected regional countries, this figure is significantly lower at 3.4 and 0.3 MW per million people respectively. Therefore, for such usage and capacity gaps to narrow and for the market to keep up with increasing and more complex demand, from both an individual and state level, Data Centre infrastructure in the Middle East and Africa must now be localised.

REAL ESTATE OPPORTUNITIES IN THE MIDDLE EAST'S DATA CENTRE MARKET

Given these trends and capacity gaps, we forecast that the Middle East region will witness some of the strongest levels of growth in the global Hyperscale Data Centre Market over the next decade. This trend will be structured as a typical hierarchical distribution and logistics model, where Hyperscale Data Centres service regional requirements. Initially such infrastructure will only be located in regional hub locations alongside wholesale co-location solutions. More so, this will also drive demand for regional, micro and macro edge computing requirements.

To house these data centres, a number of real estate provisions will be required. Depending on the type of demand, this could mean build-to-suit industrial units, repurposed industrial or office units or even build-to-lease Data Centre real estate. Compared to traditional real estate asset classes, there are a number of enhanced factors which investors will need to account for in the provision of Data Centre real estate. Data Centres require substantial amounts of power input and advanced connectivity in very secure and stable environments. As a result, compared to traditional real estate assets the initial investment requirements can be significantly larger, however, returns reflect these greater risks.

More so, given the ever-growing critical importance of digital infrastructure, the Data Centre asset class has become much less susceptible to market downturns compared to other real estate asset classes. Given the now intrinsic requirement for such digital infrastructure and therefore physical real estate to service this digital infrastructure coupled with capital expenditure requirements to set up such Data Centres, occupiers have tended to lease assets for much longer periods compared to traditional real estate and pay sizeable premiums too.

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