



Turner & Townsend

# Middle East data centre market analysis

Demand and opportunities  
for a new digital age

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making the **difference**



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# Market sentiment: record high demand, delivery challenges persist

We published our seventh [Data centre cost index](#) in 2023 – the construction industry’s only cost index specific to the data centre sector. This looks at 46 of the world’s key data centre construction markets and provides an index ranking as well as an indicative US Dollar per watt (US\$/W) cost for each location.

**83%** | **said data centre construction has struggled to meet industry demand in 2023.**

83 percent of those that responded to our latest global data centre survey, which underpins our Data centre cost index, said data centre construction has struggled to meet industry demand in 2023. These trends are now being turbo-charged by modern technologies – artificial intelligence (AI), most prominently. According to PwC’s Global Artificial Intelligence Study, AI, in all its applications, could contribute up to \$15.7 trillion to the global economy in 2030.

**88%** | **said demand for data centre capacity in AI and machine learning projects is increasing rapidly.**

AI and machine learning platforms, though, require an exponential rise in computing capacity, further pushing demand and opportunity into the data centre sector. 88 percent of our survey respondents said demand for data centre capacity in AI and machine learning projects is increasing rapidly.

With AI resulting in higher power density requirements and [Omdia’s 2022 Data Centre Thermal Management Market Analysis Report](#) suggesting that power demands for racks will soon increase almost ten-fold to 50kW, it is not surprising that 79 percent of our survey respondents also believe the data centre sector is recession-proof. An eight percent increase on last year. The Middle East as a region sits at the heart of the data centre sector, with its market expected to double in size by 2030, mostly driven by the push for the adoption of a digital economy and artificial application. Here, we shine the spotlight on the Middle East’s market dynamics.



[Read the Data centre cost index 2023](#)



# Investment in Middle Eastern data centre projects to grow exponentially in 2024

The Middle East's data centre market is in the midst of a significant boom. According to [Arizton](#), the Middle East and North African data centre markets have an 8.84 percent CAGR from 2022 to 2028. This growth is primarily being attributed to the rising demand for cloud services, digital transformation and the proliferation of Internet of Things (IoT) and AI technologies. It is also being heightened by governmental digital initiatives:

- New Kuwait 2035
- Digital Oman 2030
- Bahrain's Cloud First Policy
- UAE Vision 2031
- KSA Vision 2030

## Key growth drivers in the Middle East's data centre market



Rapid Urbanisation



Growing demand for AI Adoption



Cloud Infrastructure Growth



Smart City Projects

Countries like the UAE and KSA have emerged as key regional data centre hubs, with both strategically positioned to serve as crucial gateways for data traffic between Europe, Asia and Africa. The region continues to see significant investment coming from domestic and international players, with world-leading hyperscale data centre developers and major cloud providers, including Amazon Web Services (AWS) and Microsoft, announcing new cloud availability zones to be delivered via its UAE data centres. Additionally, major industry players such as Khazna Data Centers, Gulf Data Hub, Equinix and STC are rapidly expanding their presence in the region and establishing a competitive landscape.

In KSA, increasing activity as part of [Vision 2030](#) has seen a race to market in the Kingdom, with EDGNEX, Ezditek, Quantum Switch Tamasuk, Khazna Data Centres and other local players entering the data centre market to capitalise on the growing demand across the country, with a significant pipeline of data centre developments planned over the next five to seven years.

The Middle East's data centre market is therefore poised for substantial growth, with the convergence of technological advancements, increased data traffic and a focus on sustainability creating fertile ground for investment and innovation. The region's ongoing expansion presents opportunities for both local and international data centre providers to meet escalating demand for digital services and infrastructure development. Yet, while the Middle East data centre market benefits from the availability of both local and global data centre contractors, the market still lacks the skilled workforce it needs to accommodate the growing need on-the-ground for data centre specialists and experienced operational personnel.



# A deeper dive into the Middle East's primary data centre markets: UAE and KSA

The UAE and KSA have the highest share of operational data centres in the Middle East and North Africa, with 24 and 22 colocation facilities respectively, fueled by digital transformation strategies and smart city initiatives. Equinix, Etisalat (via its subsidiary, Datamena), Khazna Data Centres, Gulf Data Hub, and STC Data Centres are among the prominent providers operating in the region. Current hyperscale cloud providers include AWS, Microsoft, Google, and Alibaba. The recent establishment of AWS's own data centres in the UAE underscore the country's rapid adoption of cloud services, with most government institutions, large corporations and SMEs currently using cloud services or in the early stages of implementing a migration strategy.

"The UAE and KSA have emerged as key regional hubs, attracting substantial investments from both domestic and international players. These nations have strategically positioned themselves to serve as crucial gateways for data traffic between Europe, Asia and Africa." – **Ajay Mangara, Associate Director, Data Centre Lead, Middle East**

## United Arab Emirates



# US\$1.2bn

Active data centre projects  
Source: MEED Data Centre Report Jan 2024

The UAE has had the largest data centre capacity in the Gulf Cooperation Council (GCC) region for many years. It is also leading the charge in AI adoption in the Middle East and has one of the fastest-growing data centre industries. The strategic location of the UAE makes it a hub for connectivity between the East and the West, enhancing its appeal as a data centre destination. Advanced telecommunications networks and IT infrastructure, reliable power supply, electrical and mechanical infrastructure, amongst other factors, are primarily responsible for determining the market's size, but significant growth in digitalisation, robust fibre connectivity, expanding technology adoption and other factors add to the market's vitality.

There are a multitude of domestic and international data centre providers operating in the UAE. The [Digital UAE Factsheet Report](#), released by the Telecommunications and Digital Government Regulatory Authority (TDRA), highlights feature of digital life and performance indicators of the UAE's digital transformation, presenting the UAE as the current global leader when it comes to internet usage – with 99 percent of the population active online.

The UAE has worked hard to improve its international and regional connectivity, which is currently supplied by 17 international subsea cables, compared to a far lower number a decade ago. Furthermore, the country boasts an internet penetration rate exceeding 98 percent and ranks 30th out of 131 in the [Network Readiness Index \(2023\)](#), positioning it as an attractive destination for data centre investments.



Dubai is now the leading market in the UAE for data centres, with around 18 facilities (operated by both local and foreign data centre providers), followed by Abu Dhabi. Notably, both have been recognised as two of the smartest cities in the Middle East and North Africa (MENA) region, and are listed among the top 20 globally, according to the [International Institute for Management Development's \(IMD\) 2023 Smart City Index](#).

Market	Data centres
Dubai	18
Abu Dhabi	4
Other Emirates	2
<b>Total data centres</b>	<b>24</b>

Source: Datacentermap.com

### Kingdom of Saudi Arabia



**US\$763m**

**Active data centre projects**

Source: MEED Data Centre Report Jan 2024

KSA has a large domestic market with a population close to 35 million, and recent data protection laws that impose stringent restrictions on the transfer of data outside of the nation have strengthened this market. The Kingdom is made up of avid social media users, a high percentage of online content consumers and is fast becoming a global hub for gaming and electronic sports.

KSA also leads in regional data centre investments, with 22 colocation facilities already operating and over 40 under construction. Quantum Switch Tamasuk alone plans to develop six new facilities by 2026, aligning with Vision 2030 and the government's goal to position the country as a key ICT hub.

Market	Data centres
Riyadh	13
Dammam	4
Jeddah	2
Khobar	1
Madinah	1
Unaizah	1
<b>Total data centres</b>	<b>22</b>

Source: Datacentermap.com

Saudi Arabia's data centre investments have traditionally been concentrated in Riyadh, Jeddah, and Dammam. However, the new smart city of Neom is expanding with a 12MW facility, with Oracle as the first tenant. Neom is expected to attract more investments in the future, with a US\$500 million hyperscale data centre aimed at providing reliable services and connections to the nation and the Gulf Cooperation Council market.



# Data centre cost trends: industry booms on rising demand for data storage

Over its history, our [Data centre cost index report](#) has shown year-on-year cost inflation across all regional markets, as the industry has boomed on the back of rising demand for data storage. Reflecting the growing profile of new markets, Riyadh in KSA is a new entrant to the index with an average cost of US\$10/W. Investors are watching this market with interest, as digital connectivity and investment continue to rise in support of KSA's national building programme and expanding range of giga-projects. Furthermore, price increases for commodities like metals and energy are driving up the cost of construction materials and components, while supply and demand imbalances are producing lead time delays.

**The Middle East's average cost as of Feb 2024 (US\$/W)**





# Risks and mitigations around data centre construction

Several elements must be included in project procurement strategies to ensure the design and construction of data centres, as well as the operation of such facilities after completion, are as simple and feasible as possible. This is especially crucial given the challenging timescales demanded by hyperscalers for data centre construction.

Below, we have outlined some of pointers to keep in mind as a data centre developer:

- **Take advantage of tried and tested models**

Each data centre project is unique, requiring the appropriate model for what the customer intends to do with the facility, as well as how they intend to grow and what their intended budget is. Certain standards may be effective in some situations but not in others. A poor design could leave parts of the data centre idle, resulting in a waste of resources that can be costly.

- **Solidify your programme delivery approach**

Successful data centre owners and developers should utilise dedicated project management offices (PMOs) for global and regional construction portfolios. These PMOs help in quickly identifying market trends and intelligence, sharing critical data across projects and optimising resource allocation and usage, thereby enhancing operational efficiency and effectiveness in managing multiple construction portfolios.

- **Invest time and resource into holistic contract management**

Extensive planning and good contract administration are crucial for successful developments, especially in heavily engineered projects. It ensures work is completed according to bespoke requirements, standards, budget and without disruption. Investing time and resources in the tender process and choosing a suitable tier-1 project team with sector-specific knowledge is essential.

- **Choose the right procurement route**

Clients may opt for fixed-price contracts, acknowledging both their advantages and challenges. While they offer stability and programme and price certainty, factors such as supply chain costs, lead times and contingency and inflation allowances may influence their desirability. In certain project contexts, an open-book procurement route with incentivisation could be considered as an alternative approach.

- **Engage with the local supply chain**

Local tendering can assist data centre owners and developers in diversifying their supply chain. This lessens the possibility of having a workforce that is primarily 'fly-in, fly-out'. Long term, companies must contribute to acquiring and developing local personnel, since the existing pool of skilled resources is insufficient.

- **Be proactive with design scheduling**

The final construction design should ideally be arranged earlier than usual. Minimising design changes allows contractors to place orders for exact amounts, securing production slots and keeping enough float for any manufacturing or transportation delays.

- **Establish a robust, regulatory compliance roadmap**

Regulatory monitoring should be carried out at all project stages, particularly before handover, ensuring completed works fulfil severe local authority criteria. It is critical to create properly written handover requirements, as well as testing and commissioning regimes that comply with regulatory standards.

## **Anticipating supply chain disruptions: implementing agile procurement strategies in data centre construction**

In today's volatile market, data centre construction faces supply chain disruptions from unforeseen events like natural disasters and global crises. To mitigate risks, agile procurement strategies prioritise flexibility and diversification of suppliers. Maintaining close supplier relationships and leveraging technology enable real-time monitoring and swift response to disruptions. Agile approaches ensure timely completion by adjusting procurement strategies, identifying alternative suppliers and reallocating resources. This proactive stance enhances project resilience, minimising delays and cost overruns. Embracing agility in procurement secures critical infrastructure delivery amid unpredictable market conditions.

# Looking ahead: future outlook prosperous for data centre sector

As global connectivity improves, the proliferation of data centres is inevitable. While advancements in efficiency and declining component costs will likely decrease the space required per kilowatt, shifts in content consumption habits - such as increased video streaming, TV viewing and gaming - will drive up the demand for bandwidth per individual. Consequently, service providers will face heightened pressure to accommodate these escalating bandwidth requirements, underscoring the critical need for robust infrastructure and scalable solutions in the face of rising data demands.

The data centre market in the Middle East is on a growth trajectory, yet faces challenges due to a shortage of skilled professionals. Enterprises are transitioning from on-premises server rooms to managed, colocation and hybrid data centre services. The region's smart city initiatives, particularly in the UAE and Saudi Arabia, are catalyzing this transition. Businesses are embracing advanced technologies like AI and machine learning, leading to heightened data volume and network demands. Consequently, data centre providers are strategically locating facilities nearer to their clientele, reflecting an optimistic outlook for the future of data centres in the Middle East.





# Key takeaways

- The Middle East's data centre market is expected to double in size by 2030, mostly driven by the push for the adoption of a digital economy and artificial application. The regional data centre market is mostly dominated by Saudi Arabia and the UAE due to their governments' strategic efforts to revamp their economies.
- The Middle East is experiencing significant investment from leading hyperscalers and major cloud providers like Amazon Web Services and Microsoft. The UAE currently has the largest number of hyperscale data centres in the region.
- To mitigate risks and safeguard investment, data centre developers and investors will need to develop a robust procurement strategy optimised for the domestic market and ongoing project controls to maintain operational transparency throughout their projects.
- There has been an increase in multi-tenant data centre requirements. The Middle East's focus on single sites is shifting due to development and market opening, aiming to boost growth and drive demand.
- Modular construction in data centre hyperscale development is starting to become a feasible solution in the region.
- Scalability constraints are still a key blocker in data centre design and planning. The design should be crafted to allow for flexible scalability to accommodate future growth, preventing costly and disruptive expansions.

# About Turner & Townsend

Through the commitment, capability and care our team brings we build trust between clients, suppliers, governments and society. Delivering better outcomes that have a positive impact on the world around us.

We work smarter to face the challenges of the future; bringing the clarity that helps teams realise their full potential across the real estate, infrastructure and natural resources sectors.

It's how we've made the difference for 75 years.

Transforming performance for a green, inclusive and productive world.

## Our team



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