

CENTRAL SOLUTIONS

Oman's elaborate ICT and digitalisation strategy envisions a fast-growing digital economy in which data centers play a fundamental role. See how the data centers of Oman Data Park are contributing significantly to the local economy.

A driver of modern economies and a step ahead towards digitalisation, data centres across the globe have unparalleled importance as the demand for information has surged in recent years, marking a significant shift from the past. The advent of the internet and high-performance computing has revolutionised our daily routines, making online connectivity a fundamental aspect of both professional and social domains.

Consequently, there has been a rise in the demand for real-time data transmission, which has catalysed the emergence of modern data centers that are equipped with cutting-edge computers and networking equipment to cater to these burgeoning demands.

And with Oman Vision 2040 at the forefront of a new ICT strategy to digitally transform the nation, the shift towards the fourth industrial revolution (4IR) is imminent. Oman Data Park (ODP) recognises this shift and outlines a robust 360-degree IT solution plan, which includes establishing a network of data centers to cater to the needs of clients. A data center is a centralised facility for computing resources and networking equipment. These centers are responsible for a wide range of functions, including the collection, storage, processing, and dissemination of large volumes of data.

And demand for these data centers is being driven by several key factors, including the proliferation of remote work, the ongoing process of digitisation, the rapid growth of digital technologies, and the increasing prevalence of the Internet of Things (IoT).

In the Sultanate, our data centers play an integral part in supporting various online services, including data backup and recovery, website hosting, email and instant messaging services, cloud storage applications, and e-commerce transactions. Our data centers also facilitate remote access to information by interconnecting communication networks. They comprise a vast number of clustered servers and associated equipment, which are housed in highly secured and monitored halls.

We currently implement our ambitious strategy to digitise and empower our clients in both Government and private establishments, through the integration of four state-of-the-art 'TIA 942 Rating 3' data centers spread across four locations, namely KOM DC-1, KOM DC-2, Wattayah DC-3, and Duqm DC-4. Furthermore, a fully-fledged facility is set to be established in Nizwa in the coming months. The number of racks in Nizwa will be 210, which will be operational by end of 2024 and expandable to an additional 400 racks in the future. ODP will house space for over 915 racks at full capacity in its data centers along with a robust expansion plan in place. And this expansion is crucial as global IT data center spending is expected to reach US\$222bn in 2023, which by itself is a 5 per cent growth from spending in 2022.

One of the primary features of Oman Data Park's data centers is the 19", 42U Rack with Dual Power distribution units, which provides ample space for storing servers and other IT equipment. This gives our clients ample options to scale their company as they can choose from a range of options, including quarter, half, or full cabinets, depending on their specific needs. The data centers



also offer standard 6KW per rack, with options of higher density on demand, to ensure that clients' equipment runs efficiently. But why invest in a data center? Investing in a data center can prove to be a cost-effective solution for organisations seeking to streamline their IT budget. Instead of allocating funds towards multiple budget items for IT solutions, a single line in the budget for a colocation data center can suffice.

Colocation data centers, also known as "colo," refer to companies that lease space within a data center facility they do not own and which is situated outside their premises. A colocation center provides essential infrastructure such as the building structure, cooling systems, bandwidth, and security measures.

At ODP, our colocation services offer substantial cost savings, with customers enjoying an average reduction of up to 35 per cent in their total cost of ownership. This was particularly evident in the case of a large Omani insurance company that was grappling with managing its infrastructure costs amidst unpredictable growth. By leveraging our flexible and scalable colocation space and on-demand cloud

resources, the company was able to optimise its operations, resulting in significant cost savings amounting to 35 per cent of their total cost of ownership.

This value is also enhanced by our secured facilities, which are monitored by a host of visible imaging CCTV cameras and six guards 24x7 and all year round. Our data center halls also have mechanical and electronic lock options, which prevent unauthorised access. ODP offer all clients 24x7 escorted access, ensuring that only authorised personnel can enter the premises. We also conduct background checks on vendor and contractor employees who have access to the data center, employ electronic door locks and card access control with biometrics, and limit entry points to establish one main entrance for customers and employees with mantraps.

Another advantage is that all our data centers provide cybersecurity for the servers hosted, which is ensured by the 24x7 Security Operations Center (SOC). Additionally, our 24x7 Network Operations Center (NOC) monitors server performance to ensure that they are operating optimally.

All ODP data centers regularly undergo audits to ensure that they are compliant with regulatory requirements. Our facilities come with an expected uptime of 99.982 per cent, or 1.6 hours of downtime annually – which is amongst the highest uptimes for data centers. The global average for downtime of data centers currently stands at 28.8 hours per year.

A part of this success also comes from ODP's 'Intelligent Structured Cabling System', which helps to manage and organise all cabling infrastructure and improve network efficiency, and fully redundant UPS's and backup generators, ensuring that they remain operational even during power outages.

This can be attested by a case study on when the main grid network suffered a nationwide outage on September 2, 2023. Our backup systems had all our servers in the data center running in a matter of seconds. The longevity of the



Key Features of ODP's Colocation Data Center Services

- 19", 42U Rack with Dual Power distribution units
- Quarter, Half or Full cabinet options
- Mechanical & Electronic lock options
- Standard 6KW per rack and options of higher density (On Demand)
- Intelligent Structured Cabling System
- Protected with fully redundant UPS's and backup generators.
- 24x7 escorted access
- 24x7 network & site monitoring (optional)
- Round the clock guarded security & surveillance
- Remote Hands Service
- Environmental Monitoring
- Advanced fire suppression system

outage also proved the efficacy of our backup generators.

Reliability and ease of operations are key to the success of any data center – be it localised or collocated. And while a localised data hall may require investments ranging from tens of thousands of Riyals (for small organisations) to millions of Riyals (for a bank), collocated data centers such as ODP's can save you budget, manpower and time.

Clients who lack manpower can take advantage of our 'Remote Hands Service', which provides assistance with IT equipment installations, maintenance, and troubleshooting. The data centers also come with environmental monitoring to ensure optimal conditions for IT equipment, and an advanced fire suppression system that helps to prevent and minimise damage in the event of a fire.

Our 24x7 cooling and humidity management systems employed also utilised backup power to ensure a steady 15-degrees-Celsius environment for optimum operations of all servers

KOM: 320+

- **New KOM Expansion: 200+**
- **Duqm: 45+**
- **Wattayah: 35+**
- **Firq: 149 Omantel + ODP 200**

Total Racks: 915+ with 5 ODP Data Centers

for low throttling and N+N redundancy. Our primary cooling system is from Tabreed, and have a backup system based on chilled water. We also utilise VESDA (Very Early Smoke Detection Apparatus) and smoke detectors for fire detection and NOVEC for suppression.

As the pace of business continues to accelerate and the demand for data grows, data centers have emerged as a critical component of modern business models. As such, they have become a valuable addition to many businesses in Oman, enabling them to meet their IT specifications and stay ahead of the competition. It's clear that in today's rapidly evolving business landscape, data centers are an indispensable factor for success.