

Case study: Moro Hub helps redefine UAE as digital transformation leader

Over the past several decades, countries in the Middle East have worked hard to evolve beyond their oil-based economies. In the United Arab Emirates (UAE), an aggressive adoption of digital and cloud services has helped establish the country as a leader in the digital transformation. As one of the Middle East's largest and most advanced colocation data centers, Moro Hub in Dubai plays a big part in that success. Recently Moro Hub was recognized by the Guinness Book of Records as the largest solar-powered green data center in the world, inaugurated by His Highness Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, crown prince of Dubai and chair of The Executive Council of Dubai.



Challenges

Build a best-in-region colocation data center to support UAE's digital transformation.

Support A-list colocation clients with high-density, high-speed performance, simplified management and a clear migration path to higher speeds.

Solutions

- Category 6A UTP field-installed Ethernet
- OM4 multimode field-installed low-loss fiber
- OM4 multimode preterminated ULL fiber
- TeraSPEED® singlemode preterminated ULL

Results

- Scalable, 400G-ready infrastructure
- Reduced deployment times
- Smart data management

About Moro Hub

As part of 10X, Dubai Electricity and Water Authority (PJSC) mobilized its innovation unit to create a new entity called Digital DEWA, which uses innovation in artificial intelligence and digital services to meet the current and future requirements brought about by the fourth industrial revolution. This entity required an innovative, agile data hub, and thus Moro Hub was established. Forming the backbone of Digital DEWA, Moro Hub was introduced to fulfil the need for an innovative and agile data center.

Through its purpose-built, industry-accredited data hub, Moro Hub uses its expertise, capabilities and alliances to contribute to the digital transformation of society. Trusted to secure, manage, and integrate data, Moro Hub is committed to providing value through customer-centric innovation, creating new opportunities now and in the future. For more info, please visit www.morohub.com.

Tackling tough challenges head-on

Given the level of its customers' expectations, Moro Hub required an infrastructure that could ensure industry-leading performance and reliability. "Our ambition at Moro Hub is to be the number one data and digital transformation provider globally. To do that, we need to provide a complete facility, technology, and service ecosystem to support our customers as their infrastructure needs evolve. As networks become more complex, especially within the data centers, and the dependency on them becomes greater, it is often a challenge to plan change quickly and safely. Hence lead times often extend far beyond what they should require, simply because of self-imposed safeguards in the process," said Mohammad Bin Sulaiman, CEO of Moro Hub.

The decision was made early on to design the data center's fabric network using spine-and-leaf topology. This any-to-any architecture is also crucial for Moro Hub's colocation customers since additional spine switches can be added and connected to every leaf to increase capacity whenever required. In addition, adding new switches does not require any re-architecting of the network, eliminating downtime.

A key challenge early in the planning involved selecting a technology partner to



provide all the cabling and connectivity. Since Moro Hub represented an ambitious vision, they collaborated with CommScope, a global provider that possesses the technical expertise and experience to serve as both an advisor and a supplier.

From a solutions perspective, CommScope is known for its industry-leading copper and optical fiber-optic cabling which is optimized for density, speed and simplicity and has a clear migration path for higher speeds. Additionally, CommScope global delivery and technical support collaborated with Moro Hub to offer products and on-site expertise that would be needed to keep the project on schedule and within budget.

Building a best-fit infrastructure solution

After reviewing the initial network design and goals, the Moro Hub and CommScope teams—along with the global technology integrator, PTS—began working on the network design. To provide connectivity within the cabinet rows, the joint team went with the CommScope Category 6A UTP field-installed Ethernet. For the racks, they chose CommScope's multimode OM4 preterminated low-loss fiber for the low-density racks (less than 4 kilowatts), and multimode OM4 preterminated ultra-low loss for high- and medium-density racks (between 4 kW and 12 kW).

In addition, CommScope TeraSPEED singlemode preterminated fiber was deployed from the main distribution cabinets to the meet-me rooms. The ultra-low latency (ULL) platform enabled Moro Hub to increase capacity when required without incurring any extra costs. While the preterminated ULL cabling reduced deployment time, it also delivered another important benefit: Its smaller outer diameter enabled Moro Hub to increase system density and optimize airflow inside each cabinet.

New network delivers long-term benefits

The network infrastructure gives Moro Hub all the performance and benefits, plus several more. The preterminated cabling assemblies helped save a significant amount of installation time and rework. Additionally, the scalable design gives Moro Hub a future-proof migration path from 100G to 400G when Moro Hub and their customers are ready.

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CS-116013-EN (07-24)