

Title: Telecom Egypt Infrastructure: Data-empowered, Innovation-driven

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In an exclusive interview with Telecom Review, Eng. Adel Hamed, managing director and CEO at Telecom Egypt, talks about the importance of being an infrastructure industry leader, the company's upcoming submarine cable projects, its strategies and goals for 2023 and more.

**You have been an infrastructure industry leader for some time despite having faced numerous obstacles, including the recent pandemic. What inspires you in your efforts to drive technology and innovative solutions at Telecom Egypt?**

At Telecom Egypt, we are always inspired by our customers' needs, which is consistent with our customer-centric approach. As such, over the past few years, we have proactively been developing and investing in state-of-the-art, reliable and enabling ICT infrastructure, and broadening our services to meet the evolving needs of customers. By capitalizing on our robust network, profound expertise and skilled human capital, we make every effort to offer our customers data value propositions across all technologies. We are also working on expanding from an established international route to a premium regional digital hub. Additionally, we are embracing digital transformation nationally to empower our customers and employees, while simultaneously evolving into a digital company through expanding efficiency and optimization to enhance our performance in all fields — all through our brand “WE”.

**Your 2023 guidance reflects a positive outlook despite the ongoing global challenges. What are the company's strategies and goals for the coming year?**

Telecom Egypt has always been keeping abreast of the latest, top-notch technologies and trends in the industry. Following its transformation into an integrated telecom operator and the first digital operator in Egypt, Telecom Egypt is now focusing its efforts on transitioning from a telco into a techco. By leveraging their strategic agility, techos are often able to evolve and develop rapidly, adapt to their market environment, identify new opportunities and

address potential challenges. In a digitally-driven world, this transition is vital to enable companies to offer the best value to all stakeholders. Enhancing organizational agility will support Telecom Egypt in formulating transparent targets, enabling seamless operation, and attracting strategic partners. Over the years, Telecom Egypt has achieved remarkable progress in fulfilling its vision of becoming an integrated telecom provider and positioning Egypt as a leading digital hub.

Introducing next-generation technologies and smart connectivity will directly boost the digital capabilities of Telecom Egypt's customers and partners. As one of the largest submarine cable operators in the region, Telecom Egypt is able to offer unmatched value propositions for its modern telecom and IT services.

Furthermore, Telecom Egypt's strategies resonate with Egypt's 2030 Vision, "Digital Egypt," which is an all-encompassing vision that lays the foundations for the transformation of Egypt into a digital society. The company is supporting Egypt's digital transformation plans through its strategic vision of a five-level "digital pyramid": submarine cables (international cable infrastructure) and fiber connectivity serve as the foundation, followed by network connectivity, moving up towards world-class data center facilities, followed by digital platforms and cloud computing, finally reaching solutions and applications at the top. Leveraging its expanding portfolio of solutions, Telecom Egypt will always act as the ICT arm of digitization, providing the digital infrastructure needed to pursue the national developmental march.

**What do you see as the biggest trends and challenges impacting the wholesale and capacity business? What will Telecom Egypt's contribution be to these?**

On the international level, global trends are shaping the future of the telecommunications industry, from the global pandemic to the ever-growing international demand for data and connectivity. Building on its solid foundation and Egypt's strategic location, Telecom Egypt continues to invest in the latest technologies, submarine cables, data centers, and infrastructure to enhance its proactive readiness for any unforeseen incidents and accommodate the increasing demand.

On our part, we are forging ahead with our plans to build submarine cable networks to meet the rising demand for capacity and diversity. We recently initiated a new cooperation agreement with Grid Telecom to construct a submarine cable linking Egypt and Greece. Moreover, we have been working with major global players to build the SEA-ME-WE-6 cable, a 19,200-kilometer submarine cable system connecting multiple countries between Singapore and France. The new cable will extend Egypt's reach as it crosses over the company's distinctive infrastructure through the trans-Egypt network of new geo-diversified crossing and landing points from the other cables in the SEA-ME-WE family. SEA-ME-WE-6 provides an additional layer of diversity and resilience for the high-traffic density route between Asia and Europe, strengthening the overall network of each consortium partner. The added flexibility helps service providers in the consortium rapidly scale capacity, protect traffic from faults, and lower the total cost of network ownership.

Additionally, we have concluded an agreement to provide international services to Aqua Comms to connect their EMIC-1 cable through Telecom Egypt's seamless optical path between East Africa, Asia, and Europe.

Furthermore, we are serving AFR-IX Telecom by providing a landing point in Egypt for Medusa, their major submarine cable system in the Mediterranean Sea. The cable will be an 8,760-km-long submarine cable system with 24 fiber pairs and a capacity of 20 Tbps per fiber pair. It will link the Mediterranean countries through 16 landing points, connecting Portugal, Spain, France, Italy and Greece with North African countries, including Morocco, Algeria, Tunisia, and Egypt.

### **Data centers are evolving worldwide; where is Telecom Egypt on the data center world map?**

Telecom Egypt currently owns and operates seven commercial data center facilities. Driven by innovation and technology, we are always keen to set up new cutting-edge projects to enable us to cater to our customers' needs. We are proud of our data center strategy, which has allowed us to establish our renowned Regional Data Hub (RDH), the country's largest colocation data center, which also recently received the Tier III Gold Certification of Operational Sustainability (TCOS) from Uptime Institute. Telecom Egypt is the first and only holder of the Tier III Gold TCOS certification in Egypt and Africa. RDH is also Tier III certified for the design and constructed facility categories.

This project coincides with the country's efforts to expedite the development of Egypt's ICT infrastructure and digital services as well as contribute to the regional digital transformation. Our new data center is well connected to submarine landing stations in the Mediterranean Sea and Red Sea, giving it access to more than 60 countries around the globe.

RDH hosts the first open-access Internet exchange point in Egypt, EG-IX, based on the IX-as-a-Service (IXaaS) solution offered by AMS-IX, the world-leading interconnection platform service provider. It acts as an open-access Internet exchange platform for a large content delivery network, applications, cloud providers and telecom carriers who are looking to enhance the digital experience of end customers in the MEA region. The new Internet exchange enhances the digital experience of Internet users in Egypt, Africa, and the Middle East.

Additionally, RDH is hosting a local focal point for Cloud4C to provide “RISE with SAP” services. Again, this step aligns with the government’s strategy to accelerate digital transformation, increase reliance on cloud services, meet the demand for data services and improve cybersecurity to address the need for SAP services from various key sectors such as finance and healthcare.

Furthermore, Telecom Egypt is securing Lumen’s first IP Transit PoPs in Egypt, serving Africa and Asia. The collaboration enables both companies to offer seamless, secure, high-quality internet services to local and regional operators in Africa, Asia and the Middle East.

### **What submarine cable projects are you currently planning?**

We are always keen to build partnerships on different levels to maintain our market leadership and satisfy the demand for connectivity in the regions we serve.

We currently have a network of submarine cables with 14 cables currently landing in Egypt, 12 of which seamlessly cross between East and West, and the Red Sea and Mediterranean Sea. For the moment, another five submarine cable projects are expected to land in Egypt in the next few years, including the renowned 2Africa, Africa-1, IEX, SEA-ME-WE-6 and Medusa cable systems.

In addition, the company is aggregating its existing and planned projects to offer end-to-end connectivity to Africa and connect both its east and west coasts to Europe via its new subsea system, the Hybrid African Ring Path (HARP), which will contribute to digitalization across the continent.

Meanwhile, the strategic cooperation with Grid Telecom, which connects Egypt to Greece, offers a new path that differs from our existing Mediterranean routes. Once completed, this hybrid terrestrial and submarine network will provide the shortest possible path across the Mediterranean basin to the Balkans region, as well as other important destinations such as Genoa and Marseilles.

**In your opinion, how will Telecom Egypt continue to grow and stay competitive on a regional and global scale?**

Telecom Egypt has an excellent track record of enabling customers to extend their network reach to global destinations. It has been serving customers in Egypt, the region, and beyond using advanced technology, reliable infrastructure solutions and a wide network of submarine cables connecting the Red Sea and Mediterranean Sea. Globally, we serve the international community by investing in diverse technical solutions that enrich Egypt's role as the pivotal East-to-West crossing.

On the regional scale, we have been working to improve connectivity with our neighbors, Sudan, Libya, Jordan and Saudi Arabia. We signed an agreement with Orange Jordan to create a highly reliable terrestrial system connecting Iraq to Europe through Jordan and Egypt. The new system, commercially known as Cairo-Amman-Baghdad System (CAB), has been operational since the third quarter of 2022. It capitalizes on the distinguished international infrastructure that both operators possess, providing high-quality services via diversified and flexible paths to meet the growing demand for communication services in the Iraqi market. We also signed a strategic memorandum of understanding with the Saudi operator, Mobily, to establish the first direct bilateral submarine cable connection between Egypt and Saudi Arabia. The strategic agreement sets the groundwork to explore different extension options: westwards to Europe through Telecom Egypt's diverse trans-Egypt routes and eastwards to the Arabian Gulf over Mobily's network, utilizing both companies' reliable networks and international reach through their existing and future optical interconnectivity to neighboring countries. This new, high-capacity, fiber-optic, subsea cable line aims to support the demand associated with the surge in data traffic.

## **Geographical diversity is at the forefront of the ICT industry. How do you manifest this at Telecom Egypt?**

At Telecom Egypt, we have talented teams that persistently work with geographical diversity in mind to further improve our customer experience in all aspects nationally, regionally and internationally. This is why we have increased the number of geographically diverse landing stations on the Red Sea and Mediterranean Sea from 4 to 10 over the past decade.

The same concept applies to the diverse terrestrial crossing routes which connect the cable landing stations on the Red Sea and Mediterranean Sea. We have 10 diverse trans-Egypt crossing routes, which will increase to 11 with the commercialization of the Red2Med cable system.

Red2Med is a breakthrough in the transit paths for submarine cables linking Africa, Europe and Asia. It is a wholly-owned, trans-Egypt, hybrid crossing solution, which was inaugurated last October during its landing in Ras Ghareb by the Gulf of Suez in the Red Sea. It runs from Ras Ghareb to Port Said landing station by the Mediterranean Sea, connecting the two seas over a short, fast and reliable infrastructure. The new crossing solution is composed of three segments: from the South, it encompasses the Red Sea submarine festoon cable segment, which is a repeaterless link landing in Ras Ghareb, Zafarana, and Suez; it then extends to the Internet Corridor of Egypt (ICE), linking Suez to Port Said; and finally, it continues to connect to the planned Mediterranean Sea submarine festoon cable.

On its own, the ICE cable, aka the “Golden Route,” is by far the most reliable, shortest and fastest crossing globally, linking the three continents of Africa, Asia and Europe. This trans-Egypt cable, which spans 200 kilometers and runs along Al-Morshdeen Road on the west bank of the highly-secured Suez Canal campus, is a one-of-a-kind route.

## **What is the importance of being the first operator in Egypt and Africa to implement the green tower as an eco-friendly alternative?**

Egypt recently hosted COP27 and emphasized the importance of implementation and solutions for a new sustainable development model that will benefit the environment and achieve economic and social development. As such, being the first operator to implement the green tower in Egypt and Africa solidifies our intentions to support the country's direction on the ground.

The eco-friendly wireless network tower is made of Fiber Reinforced Polymer (FRP), which emits 43% less carbon dioxide than its steel alternative. It is partially powered by solar cells and supports wireless network antennas and radio units that use cutting-edge, energy-saving technology.

The project also demonstrates Telecom Egypt's determination to adhere to the highest international green quality standards, reduce its environmental footprint, and improve environmental sustainability in the pursuit of a low-carbon future — all while contributing to a 20% improvement in signal quality when compared to standard antennas.

## **Society engagement and empowerment have become an integral part of running businesses. To what extent does Telecom Egypt manifest its commitment to these approaches?**

Telecom Egypt seizes every possible opportunity to enhance the lives of Egyptians through its diverse social programs and initiatives, covering health, education, youth empowerment, and the integration of people with special needs.

Working in line with the government's strategy for "Digital Egypt," Telecom Egypt provides technical support to free-service hospitals to enhance the quality of healthcare services provided to citizens. Technical support includes high-speed internet and connectivity between branches or laboratories, hosting services to ensure the privacy of patient information and establishing call centers, as well as other telecom services. In continuation of the Telemedicine Project, the company connected ICT services to link a total of 109 healthcare units in remote or underprivileged areas to major hospitals and medical centers around Egypt to boost the efficiency of the healthcare system.

Telecom Egypt also continued to support the national “100 Million Health Initiative” by providing up to 6,000 data SIM cards to healthcare practitioners to ease bookings for check-ups and follow-ups. It further supported the Shefaa Al Orman Hospital to establish a medical waste disposal unit to safeguard the environment and hospital visitors. The initiative also enabled the hospital to cut spending on waste transfer by implementing a sustainable alternative; the money saved was put towards medical treatments.

In addition to various training initiatives for youth, Telecom Egypt has successfully transformed seven technical schools into WE Applied ICT Schools in various governorates. These are the first ICT vocational schools in Egypt.

Another project supported by Telecom Egypt, in partnership with the Superior Council of University Hospitals, saw the replacement of 430 non-functioning external units of cochlear implants in 2022. This initiative aims to prevent the social isolation of deaf children while helping families save money on replacing or fixing external units.