Pioneering Information Technology In Egypt

As it builds a more prosperous society, Egypt has embraced the advance of communications and information technology to become a regional leader in connectivity and digital literacy. Investments in infrastructure partnered with legislative reforms have granted Egyptians access to the dividends of a connected society. The rapid expansion of Egypt's information and communications technology (ICT) sector is part of the broader Egypt Vision 2030 strategic plan. The ICT sector grew at a rate of 16% last year, the fastest in Egypt, and is the largest contributor to GDP growth.

The Geostrategic Advantage Of Egypt's Technology Communications

Egypt is well-known for its traditional strategic chokepoint for maritime commerce – the Suez Canal. Less reported on – and even more geostrategically important – is Egypt's role as a fiber optic cable hub. Linking Europe, Africa, the Middle East and Asia, up to 30% of the world's internet connections – equating to the data of between 1.3 billion to 2.3 billion people – traverse Egypt. To support this volume of internet traffic, Egypt has 10 cable landing stations on its Mediterranean and Red Sea coastlines, as well as 15 overland routes across the country.

Digital Egypt

In order to achieve the multi-faceted goals of the Egypt Vision 2030 plan and Egypt's digital transformation strategy, the Egyptian government has launched a whole-of-government effort to modernize and improve the ICT sector. This initiative, called Digital Egypt, is spearheaded by the Ministry of Communications and Information Technology (MCIT). The Digital Egypt initiative is built on three pillars:

Digital Transformation

▶ Creating an e-platform to access government services.

  – Agriculture, utilities, real estate and judicial services are among the many government services offered on the platform.

▶ The government of Port Said City established the digital platform on a local level and is providing 155 government services through the program.

  – The MCIT plans on implementing this model nationwide.

▶ The move to the new administrative capital will provide a whole of government approach for a connected government on the basis of a green field approach.

  – This entails unprecedented quantitative and qualitative transition in government performance to become digital, participatory and paperless, by adopting a digital by design approach for work cycles and developing its methods using specialized and participatory applications.

Egypt hosts the sixth annual International Data Corporation (IDC) CIO Summit in September 2020. Source: MCIT Yearbook 2020

ICT for Women Initiative: MCIT is carrying out capacity building programs to empower Egyptian women and girls to use various technologies in all aspects of life. During the COVID-19 pandemic, MCIT organized two webinars to foster women's online research capabilities. Source: MCIT Yearbook 2020
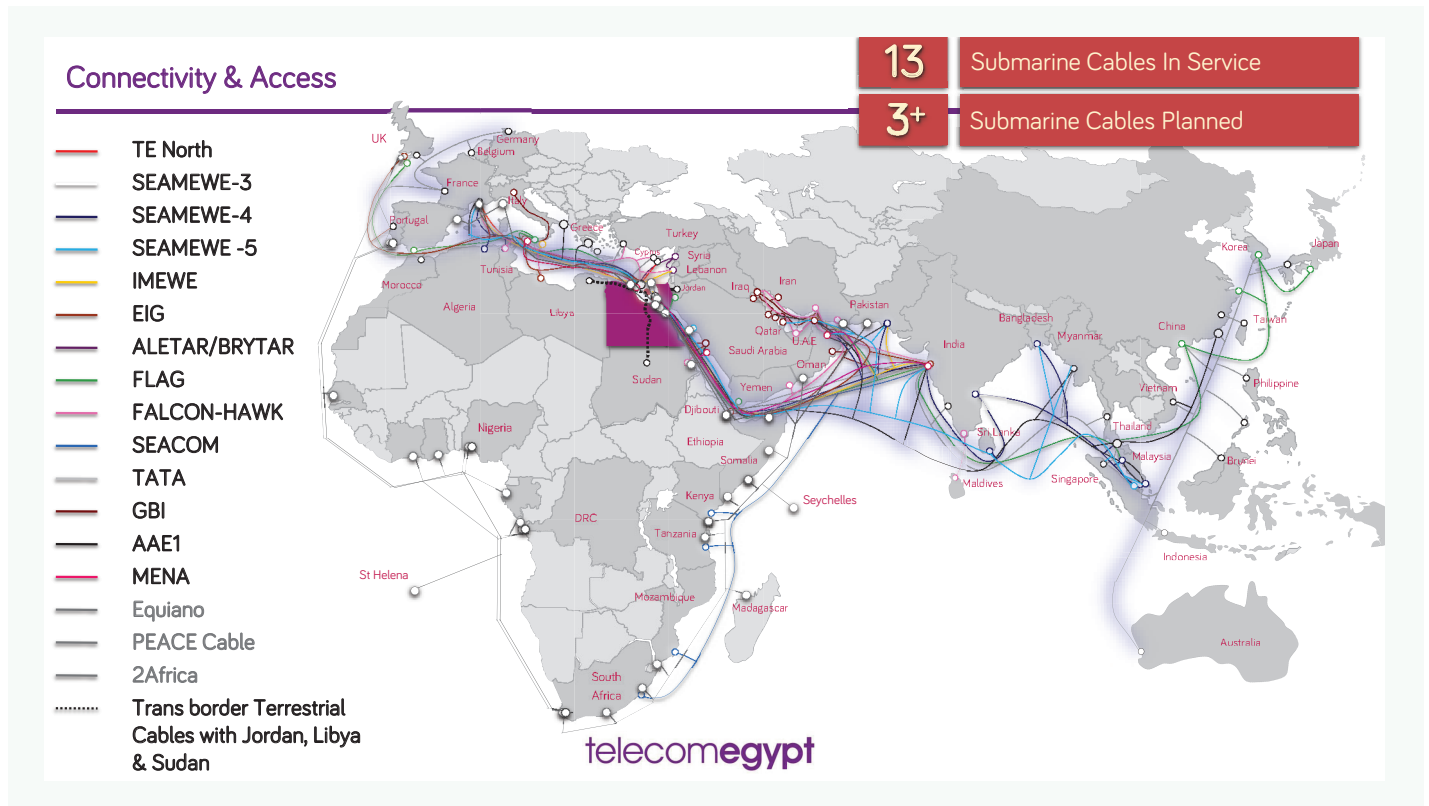
Digital Skills and Jobs

▸ The MCIT is educating Egyptians to fully take advantage of the digital economy.

▸ Training programs are fully inclusive of women, people with disabilities, young people and those from all ethnic backgrounds.

▸ The MCIT's training program has exceeded all expectations, training thousands of Egyptians in a variety of digital skills.

▸ It follows a pyramidal philosophy targeting a large base of the population with essential skills through scalable programs with the private sector, including developing technical schools for applied ICT, moving up to more selective programs addressing the industry whereby citizens are trained to establish their own SMEs through well-tailored training programs and a support system, moving up to training free lancers from all over Egypt. In this respect, technology hubs spread throughout Egypt are playing a major role. In reaching Egypt's University for Informatics and the Digital Egyptian Builders Initiative, Egypt targets a highly trained core of calibers capable of devising new solutions and of competing on the international level.

▸ To govern the training system, MCIT is creating a skill bank that will serve as a database of all the skills and experiences acquired by young people through specialized training in one of MCIT programs. The skill bank will help employers reach and hire the perfect candidates.

▸ For the fiscal year of 2020-2021, the MCIT is scheduled to train 115,000 Egyptians in digital skills and jobs.

Digital Innovation

▸ Artificial Intelligence: the MCIT leads the implementation of **Egypt's National AI strategy** to make Egypt competitive in this developing sector.

▸ Start-Ups: Egypt is a regional leader in start-up investment funding, and is developing a strong culture for young entrepreneurs resting on Innovation hubs throughout the country.

▸ Applied Innovation Center (AIC): The AIC promotes the use of emerging technologies to tackle the most difficult and complex national challenges, cooperating with local and global corporations.

Connectivity & Access

13	Submarine Cables In Service
3+	Submarine Cables Planned

TE North
SEAMEWE-3
SEAMEWE-4
SEAMEWE -5
IMEWE
EIG
ALETAR/BRYTAR
FLAG
FALCON-HAWK
SEACOM
TATA
GBI
AAE1
MENA
Equiano
PEACE Cable
2Africa
Trans border Terrestrial Cables with Jordan, Libya & Sudan

telecomegypt

Investing in Infrastructure

To support the rapid advances in emerging technologies and the ICT industry, Egypt has invested heavily in the infrastructure needed to prepare Egyptians for the digital future.

- ▶ **Investments of over $1.6 billion over the past two years** have improved the core Internet infrastructure, leading to an **average connection speed of 33 Mbps**.
  - – Egypt now has the **second-fastest Internet speed in Africa**, up from 40th in 2019.
- ▶ Over $300 million was invested in fiber-optic cabling over a six-month period, providing nearly 32,000 government buildings with high-speed Internet access.
  - – 5,300 government buildings have been connected by a fiber-optic intranet, creating more resilient services.
- ▶ The National Telecom Regulatory Authority has established a Mobile Number Portability service, aligning Egypt with international standards. This innovation empowers consumers and reduces the time needed to switch between mobile networks.
- ▶ Egypt is a regional leader in subsea cables, providing landing services for 13 submarine cable systems and transiting the majority of the data traffic between Asia and Europe.
  - – The Hybrid African Ring Path (HARP) submarine system, which will connect African countries to Europe, demonstrates Egypt's regional leadership in telecommunication technology. It is expected to be completed in 2023.
  - – The HARP announcement also comes in tandem with Telecom Egypt's efforts to complete the building of phase-1 of Egypt's largest international data center, which is located in Smart Village. Construction plans for the data center were not affected by the COVID-19 pandemic, and the facility is scheduled to be commercialized during the coming months.

Investments of over
$300 M
in fiber-optic cables in a six-month period

Egypt's average internet speed of
33 Mbps
is the second-fastest in Africa

Egypt's e-commerce penetration of total retail sales, at
2.5%
is comparable to that of India and Indonesia

Up to
30%
of the world's internet traffic crosses through Egypt's fiber optic cables

Legislative and Regulatory Frameworks

The Egyptian government recognizes the importance of pairing targeted ICT investments with a comprehensive regulatory and legal ecosystem. The Government of Egypt has promulgated several key regulations including laws on cybercrime, intellectual property, consumer protection, personal data protection (in compliance with the EU'S General Data Protection Regulation), and e-signatures/e- authentication. A new law on e-commerce is also in the process of being enacted. A number of specialized legislations are being amended in light of the digital transformation in Egypt. In 2020, the MCIT established the Data Center Committee, which serves as a comprehensive resource for local and international companies wishing to establish data centers in Egypt.