GLOBAL INFORMATION SOCIETY WATCH 2007

Focus on **Participation**

Global Information Society Watch

2007

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EGYPT

ArabDev[1]
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Introduction

The Egyptian government has made information and communications technologies (ICTs) a developmental priority and has modernised and upgraded the sector's infrastructure, services, regulations and human resource capacity. Egypt had an antiquated ICT infrastructure until the early 1990s. People waited sometimes for years to have fixed phone lines installed, and the old copper infrastructure made connections unstable. Phone lines outside major cities were failing. Mobile technology aided in the diffusion of phones, but the government also extended fibre optic connections throughout Egypt, upgraded the copper lines and data centres, improved the integration of applications[2] and in general provided more fixed-line connections. Now it only takes a few weeks to have a fixed line installed.

The liberalisation of Egypt's telecom sector is linked to the country's economic reform programme initiated in 1991 and has been set as a World Summit on the Information Society (WSIS) priority. Egypt has signed the World Trade Organisation's (WTO) Basic Telecommunications Agreement (BTA), which sets up a framework for the integration of its ICT industry with the global economy.[3]

The telecom sector has sustained good performance for nearly a decade, despite Egypt's economic slowdown during 2001 to 2004. The government sees the sector as a prerequisite for attracting foreign investment and supporting the local private and government sectors.

While liberalisation is progressing relatively smoothly, there are signs of the over-protection of the incumbent telecoms operator in the liberalisation process. Other challenges to completing liberalisation include the role of the minister as the final decision-maker for the regulator and for Telecom Egypt, a dual role that does not favour deregulation. At the same time, the lack of public participation opportunities in the ICT policy-making process makes liberalisation a technocratic process without adequate public checks and balances.

The average Egyptian is not the main beneficiary of the liberalisation process. It is driven by pressures from the global market and not by mass internal demand to make the price structure for certain services like international calls and broadband internet more competitive. The user base for high-level services in Egypt are the local and foreign business sectors and, at home, the upper-income strata. Egypt's ICT diffusion ranking between 1997 and 2004 hovered around 135 (ranging between 132 to 137 over various years). It is one of the countries with the least diffusion of ICTs, with Niger rating lowest at 180 (UNCTAD, 2006).

This report was completed through desk research, interviews with role players in the sector, and the author's own participation in the ICT for development sector in Egypt.

Country situation

Box 1: Overview of the liberalisation process

1854 - Establishment of the National Organisation for Telecommunications

1881 - Purchase of the Eastern Telephone Company and development of the Telephone and Telegraph Authority

1957 - Establishment of the Egyptian Telecommunication Organisation (ETO)

1982 - Creation of the Arab Republic of Egypt National Telecommunication Organisation (ARENTO)

1998 - Founding of Telecom Egypt and the Ministry of Communication and Information Technology (MCIT)

1998 - Establishment of the Telecommunication Regulatory Authority (TRA)

2003 - Creation of the National Telecommunications Regulatory Authority (NTRA)

The Ministry of Communication and Information Technology (MCIT)[4] was established in 1998 as an entity independent from the former ministry of transportation and telecommunication. MCIT has been responsible for developing ICT infrastructure, stimulating the knowledge economy, and forging an e-government strategy and a legal framework that is in line with international digital requirements. One of these requirements is deregulation.

To encourage sector privatisation, legislation turned Telecom Egypt, the state-owned incumbent operator, into a joint stock company in 1998.[5] Law 19/1998 and Presidential Decree 101/1998 separated operator and service provider from the regulatory functions. Accordingly, MCIT created an independent regulator, the Telecommunication Regulatory Authority (TRA) in line with Decree 10/1998.

Liberalisation was further regulated by Telecommunication Regulation Law 10/2003 and its presidential decree. The law rests on four main pillars: information disclosure, free competition, the provision of universal services and user protection.

A central aspect of the law is the establishment of the National Telecommunications Regulatory Authority (NTRA), which replaced the TRA in 2003 and was assigned all regulatory functions as an independent regulatory authority.[6] Another crucial aspect was the deregulation

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2 Such as ICT tools that are being used for the creation of the Egyptian Information Society Initiative (EISI). These include e-government, e-health, e-content and e-business applications.

3 Egypt has been a member of the International Telecommunication Union (ITU) since 1976.

4 <www.mcit.gov.eg>.

5 Telecom Egypt continued to be the sole fixed-line operator.

6 Law 10/2003 stipulates the NTRA's duties and functions. These are to: draw up telecommunication plans and programmes; prepare and publish telecom services statistics; set the general policies and regulations for non-economical telecom services; establish customer protection rules; provide state-of-the-art services with the best prices; ensure the quality of telecom services; set up and manage a customer

of Telecom Egypt's monopoly of domestic and international telephone service by January 2006. Accordingly, the NTRA will have completed the main elements of the first liberalisation phase by the end of 2006. The first phase of the liberalisation process runs from 2006 to 2008. During this phase licensees are allowed to run voice and data services over satellite earth stations and cable landing points operated by Telecom Egypt. Licences to establish independent landing station infrastructure are set for a future date (MCIT, 2006).

Law 10/2003 governs licence categories and related fees. The NTRA grants the licences. It awarded over 20 licences to operators who offer telecommunications services to the Egyptian market, including mobile, payphone, prepaid calling card, internet, data, and VSAT (satellite) services. The NTRA is also responsible for the advanced radio management and monitoring system and is rationalising the radio frequency spectrum to introduce new services. Licence fees are a main source of income for the NTRA. The authority's budget is further supplemented by government funds.

Consumer protection, negotiation and arbitration

As regulator, the NTRA is the sector's consumer rights protector. The authority has offered a hotline for customer service since September 2002. The hotline responds to both technical and non-technical complaints and enquiries (e.g. the customer can report a failure in services but also pursue billing issues).[7]

The NTRA has established several committees to address consumer protection issues: the Consumer Rights Committee, the Consumer Awareness Committee, the Health Committee, the Service Quality Committee, the Pricing Committee and the Privacy Committee.[8]

The NTRA also manages interconnection agreements in accordance with the stipulations of Law 10/2003. As a result, the NTRA is the negotiator if two service providers have a dispute over an interconnection agreement. The dispute is only taken to court when the NTRA is unable to act as arbitrator.[9] Law 10/2003 gives exact instructions on offences and their financial penalties (in extreme cases there are prison penalties).

Liberalisation of main sector stakeholders

To date there are ten licensed telecommunications service providers in Egypt:

- Telecom Egypt, the government operator, which provides traditional fixed landline services
- Three GSM (mobile) operators
- Two payphone operators
- Four low earth orbital systems operators.[10]

complaints system; regulate licence issuance procedures; create the National Numbering Plan; regulate equipment type approval processes; build and operate the Universal Services Fund (USF); and conduct research and development and training.

7   NTRA. Customer Service. See: <www.tra.gov.eg/english/ DPages_DPagesDetails.asp?ID=236&Menu=4>.

8   NTRA. Costumer Protection. See: <www.tra.gov.eg/english/ DPages_DPagesDetails.asp?ID=276&Menu=9>.

9   A possible scenario would be a lack of qualifications (technical or legal) to act as arbitrator between the affected parties.

10 VSAT Service, Globalstar, Al-Tharaya, and Alkan.

Telecom Egypt

Telecom Egypt[11] replaced the Arab Republic of Egypt National Telecommunication Organisation (ARENTO) in 1998. It has been modernising the ICT sector through upgrading Egypt's ICT infrastructure, expanding and improving quality of services and, through deregulation, offering consumers more competitive prices. Some examples of the upgrades are the installation of fibre optic cables and digital microwave links throughout Egypt's 26 governorates, adding a third mobile carrier and, recently, liberalising the monopoly on international calls.

Telecom Egypt was the monopoly fixed-line call operator until the end of 2006. Domestic fixed-line calls are cheap by international standards (approximately USD 0.17/hour) because Telecom Egypt has subsidised them through high international call tariffs. The challenge that Telecom Egypt now faces is how to manage fees for local calls with the anticipated lower revenues due to liberalising international call tariffs (Hashem, 2006).

One solution is to try to increase demand for international calls, thereby expanding its user base. Telecom Egypt's chairperson, Akil Bashir, sees the liberalisation process in the short term as potentially raising prices for local fixed-line calls. He further emphasises the importance of creating more demand. Lower international tariffs should translate into offering the service to sectors of the economy that have not been using international telephony on a frequent basis. Here the assumption is that the price change will create demand (Hashem, 2006).

Before the liberalisation of the sector, Telecom Egypt's revenue from international calls was approximately EGP 2 billion (USD 35 million) per year. This amounted to 25% of its total returns. The subsidised local calls cost the operator a loss of revenue of EGP 0.5 billion (USD 8.7 million) per year until recently. Income from international telephony is also the only hard currency earner for the company (Hashem, 2006).

Law 10/2003 required Telecom Egypt to give up its monopoly on landline telephone services and open them up to at least two additional operators by early 2006. The telecoms law gives the government a free hand in selling a stake in Telecom Egypt, but stipulates that the state must retain more than 50% of the company. The law also decrees that 5% of the operator should be offered to employees in the event of any kind of sale proceeding.

Telecom Egypt has two liberalisation scenarios for international calls: either to offer two new public tenders or to offer an international licence to the three mobile carriers. It also plans to expand regionally to be able to earn hard currency.

Liberalisation is carefully managed, however. For example, MobiNil[12] and Vodafone will channel their calls through Telecom Egypt, thereby offsetting a drop in revenues. Telecom Egypt has also purchased Vodafone Egypt shares to secure a stake in the thriving mobile market.

The NTRA set up the Universal Service Fund (USF)[13] in 2005 to compensate sector stakeholders, one of the most prominent of them being Telecom Egypt, for expansion in low-density, low-profit areas

11 <telecomegypt.com.eg>.

12 MobiNil was the first mobile phone operator in Egypt, and is still a leading operator now, while two additional companies have been added: Vodafone and recently Etisalat. By channelling their networks through Telecom Egypt they are paying a fee to the latter. In this way Telecom Egypt is benefiting revenue-wise from the mobile sector, though it is not a mobile operator per se.

13 The USF's budget is made up from annual NTRA budget surpluses. The initial budget is LE 50 million (USD 8.7 million).

to meet set ICT access targets. The NTRA's main universal service goals were to guarantee access to telecommunications services at reasonable prices and make them accessible to all citizens; provide access to remote areas, schools and general libraries; guarantee free competition and discourage monopolistic tendencies; and help to consolidate national, political, economic and cultural interactions. The fund is financed by licensing fees, in addition to other funds from the state's budget.

The NTRA is very supportive of Telecom Egypt. The regulator is setting pricing formulas that take into consideration the transition the operator is going through due to deregulation. Telecom Egypt has also been advantaged in relation to other ICT service providers in that it was exempted from paying licence fees on services before 2006. It helps that both the NTRA and Telecom Egypt are under the auspices of the minister of the MCIT.

The operator also maintains a stronghold in the sector through its subsidiaries. It has investments in over 18 companies (e.g. Vodafone Egypt, Nile Online, Egyptnet, Middle East Radio Company, MenaTel and Nile Telecom), giving it a wide spread in the sector and varied revenue sources.

To increase its hard currency revenue, Telecom Egypt has begun bidding for regional and international contracts. It is in the process of establishing Orascom, a second fixed network in Algeria. Through its subsidiary TEData, it is offering in Palestine a "free internet"[14] model that it established in Egypt, and has opened a branch in Jordan (AmCham, 2003).

One example of Telecom Egypt's engineered liberalisation process is its recent acquisition of Vodafone Egypt shares. While Telecom Egypt's shares went public on the Egyptian stock market in December 2006, the cooperative partnership between Telecom Egypt and Vodafone has increased Telecom Egypt's stake in Vodafone to 45%. This partnership allows Vodafone Egypt to extend its services and products through Telecom Egypt's outlets. Through this partnership, Telecom Egypt could potentially work regionally on fixed and mobile operations. It will further maintain a sizable portion of international call revenues while maintaining its commitment to liberalisation (Vodafone, 2006).

Liberalisation examples from other sector participants

Mobile service providers

Egypt has become the largest internet market and the third largest mobile market in Africa (after South Africa and Morocco). Telecom Egypt was the first mobile operator, beginning its services in 1996. The mobile sector was partially liberalised in 1998, when the MobiNil consortium began offering mobile services. MobiNil was comprised of four companies: Orascom Telecom; Al Ahram, a subsidiary of Motorola; Systel, controlled by Alcatel; and Raouf Abdel-Messih, a local partner.

The government sold a licence for a second network to a consortium led by Vodafone and Misrfone, which launched its services in November 1998 under the name Click GSM. In the same year, Menatel and Nile Telecom, both private companies, were licensed to provide payphone services. A third provider – Etisalat – was chosen by a lengthy tender in 2006, and is expected to be fully operational by mid-2007.

Internet service providers (ISPs)

Public data networking services were liberalised in 1999. The first ISPs were able to enter the market in this way; however, it was not until the following year that the market for internet infrastructure was opened to competition. The market for high-speed access services was liberalised in 2001, while the first virtual operators – mostly ISPs – were licensed in 2003.

Internet service licensing has been fully liberalised, and any organisation may apply for a licence. However, there are three licence classes of ISPs in Egypt: class A, B and C. Class A is an all-inclusive licence and is used by the leading ISPs (e.g. Link.net, Internet Egypt and GegaNet). These licensees can install networks throughout Egypt and can resell bandwidth to other ISPs. Class B licensees are not allowed to sell bandwidth to other ISPs. Class C ISPs have to lease or buy bandwidth from Class A licensees and can only provide internet services to their customers. Most ISPs work on a revenue-sharing model with the incumbent operator, which currently benefits both the ISP and incumbent. There is a danger, however, that failure on the part of the incumbent would disrupt services for many customers, as there is only a single point of failure.

Call centres

The liberalised regulatory environment supports the development of offshore services like call centres. These are becoming economically competitive due to the reduction in telecommunication costs. However, foreign language skills are not as strong in Egypt as they are in countries like India. At the same time, skilled ICT labour is in general a challenge in Egypt (Rasromani, 2006). Despite being a latecomer, Egypt is trying to position itself as a global and regional call centre destination.

Egypt is in the process of establishing the first transit telecommunications free zone. Located in Alexandria, the free zone will offer co-location services, managed services and application services via a "telecom hotel".[15]

E-commerce initiatives

There are limitations, at present, for widespread e-commerce services in the local market due to the relatively low diffusion of internet users and the minimal use of credit cards in financial transactions within Egypt. However, MCIT is planning to launch e-commerce capabilities in Egypt by 2007.

Law 15/2004 on e-signatures and the establishment of the Information Technology Industry Development Authority (ITIDA)[16] was passed on 22 April 2004. The Central Bank of Egypt has licensed 12 banks to provide e-banking services. The services include phone and mobile banking as well as internet banking services.

A full modernisation of the National Postal Authority is currently a key government project. The postal authority started to build a network to connect its 3,000 post offices throughout the country. Plans for transforming the authority into a joint stock company[17] are already under way. The opportunities exist for partnerships with the private sector to introduce electronic postal services and new applications in postal banking (CIT Egypt, 2002).

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14 Through Telecom Egypt, ISPs offer numbers (0777-0000 or 0707-0000) that can be dialled from any landline phone to access the internet without paying a monthly subscription fee to an ISP. A per-minute rate for online use is billed towards monthly phone use.

15 A building that is constructed or rebuilt for data centres.

16 <itida.gov.eg>.

17 The formerly 100% public National Postal Authority will offer at least 49% of the shares to private Egyptian entities.

Table 1: Key statistics	
Total population	78,887,007 (July 2006 est.)
GDP (USD)	Purchasing power parity - 316.3 billion (2004 est.)
GDP/capita (USD)	Purchasing power parity - 3,960 (2004 est.)
Independent regulator	National Telecommunication Regulatory Authority (NTRA)
Fixed telecom operators	Telecom Egypt is a state-owned fixed network monopoly – privatisation process completed end 2006.
Fixed network growth	Fixed-line diffusion rate reached 14% June 2005.
Fixed lines in service	10 million (2005)
Fixed line capacity	Total number of subscribers reached 10 million (2005)
Fixed lines/100 pop.	13.5
Main line waiting list	100,000
Main line waiting time	Approx. one month
Number of ICT employees	50,000+ (2005)
Telecommunications revenue (USD)	2.9 billion (2000)
Mobile subscriptions	14 per 100 population (2005)
Mobile diffusion	14,045,134 (2005) – 3rd largest mobile market in Africa
Internet dial-up subscribers	NA - Subscription-free internet, based on a revenue-sharing system between Telecom Egypt and leading local ISPs. Offers internet at the price of a local long-distance call (USD 0.17). This system lifted monthly payment barriers and led to a significant leap in numbers of online users, reaching 4.2 million in mid-2005 from 0.65 million in 2000.
Internet users	5 million (2006), 4% of the population
ISPs	196 (2004)
Internet bandwidth	Dial-up and broadband approx. 32-40 Kbps
Asymmetrical Digital Subscriber Lines (ADSL)	EGP 150-200 (USD 26-35)/month
WiFi - WiMAX	WiFi predominantly used in Cairo and Alexandria, WiMAX has been tested for public application; NTRA is planning a 3.5 GHz spectrum auction in 2007-2008.
Cities with dial-up IP POPs	Universal access in cities and towns
VSAT	International VSAT gateways permitted for data communications. ISPs can get their own international bandwidth using VSAT if they are licensed international VSAT operators.
Local loop	CDMA WLL access system in the Nile River Delta area. The network will have a total capacity of 60,000 subscriber lines, extending Telecom Egypt's services into rural and remote areas where its existing copper network does not reach.
Cybercafés	Over 600
VoIP	VoIP PC-to-PC allowed, PC-to-phone not allowed. Government working on liberalising the latter; main stumbling block is decreased revenue from international calls for Telecom Egypt.
Exchange rate	EGP 1 = USD 0.173

Sources: **NTRA, Telecom Egypt, Information and Decision Support Centre (IDSC), ITU, Economist Intelligence Unit (EIU), World Bank.**

Participation

Currently there are no public consultation forums for ICT policy formulation. While telecommunications law gives the NTRA clear rules and guidelines on regulating the market and protecting the consumer, as well as for imposing penalties on defaulters, public participation in law-making processes are not as clear. For example, the law does not establish a way to contest decisions adopted by the NTRA. It also does not require the NTRA to make its decision-making process public. In one instance this led to a heated debate by opposition groups regarding the transparency of the selection process of the third mobile carrier, Etisalat (although the process has been deemed transparent by the government and the international community).

According to Mustafa (2002), Egypt's liberalisation status compares favourably in the region. However, while Egypt has a relatively transparent regulatory framework, the analysis points out that the regulator is not fully independent due to the NTRA's ultimate subjugation to the sector's minister, and the lack of an open, public decision-making forum.

Conclusions

Egypt has made strides in its liberalisation plan, progressing largely according to schedule. To date the NTRA is showing signs of a well-functioning regulator. While it is fairly independent, it ultimately is governed by the MCIT minister, who also governs Telecom Egypt. This lack of independence from the sector could potentially place it in a conflict of interest.

Telecom Egypt faces a challenge in maintaining and expanding its profit level after liberalisation. As a result, the liberalisation process is being carefully engineered to allow it to keep its advantageous edge over competition.

While Egypt's liberalisation process is running relatively smoothly, its publication and public participation processes leave a lot to be desired. There is, in effect, a dichotomous approach towards liberalisation in Egypt: liberalisation of services and technical applications, but limitations on the "liberalisation" of expression and on the inclusion of public involvement in the decision- and policy-making processes in the sector. ■

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GLOBAL INFORMATION SOCIETY WATCH 2007

GLOBAL INFORMATION SOCIETY WATCH is the first in a series of yearly reports covering the state of the information society from the perspectives of civil society and stakeholders in the global South.

GLOBAL INFORMATION SOCIETY WATCH has three interrelated goals:

• **survey** the state of the field of ICT policy at the local and global levels

• **encourage** critical debate, and

• **strengthen** networking and advocacy for a just, inclusive information society.

The report discusses the World Summit on the Information Society (WSIS) process and a range of international institutions, regulatory agencies and monitoring instruments.

It also includes a collection of country reports which examine issues of access and participation within a variety of national contexts.

Each year, the report will focus on a particular theme. In 2007 **GLOBAL INFORMATION SOCIETY WATCH** *focuses on participation.*

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