

AISI-Connect National ICT Profile EGYPT (EG)

GENERAL DATA	ICT-INFRASTRUCTURE	ICT POLICIES
Capital: Cairo	Fixed lines (K) '98: 3972	Competition in local loop: Monopoly
98 Population (M): 65.98	97-98 % Fixed Line Growth: 0.15	Competition in telephone terminals: Yes
Currency: EGP	98 Mobile Lines (K): 91	Independent regulator: Yes
Exch rate (/US\$): 0.2944	Mobile Line Growth (%):	Private Wireless Data allowed: No
Currency Stability:	Cities with Internet POPs: 14	Independent Internet VSAT Allowed: No
97 GDP US\$/person: 1195.0	Local Call National Internet: No	VSAT License Fees:
97 Total GDP (\$B):	Dialup Internet subscribers: 100000	Satellite Phone access: No
Local Stock Exchange: Yes	International Bandwidth (Kbps): 26000	Universal Service Obligations:
Personal Safety: 40	Internet Hosts: 1746	IAP License Fees (\$/yr):
Political Stability:	Internet domains:	Private Phone Kiosks: No
Tertiary ICT Students:	Dialup Internet Cost 20hrs/mnth (\$): 60	Public VOIP Allowed: No
ICT Training seats:	64K Local Internet link (\$/mnt):	Business Ownership Rules:
ISDN: No	64K Internat Internet Link (\$/mnt):	Repatriation of Profits Rules:
VPN Services: No	Local phone call cost (US\$/hr: 1.8	Restrictions on market entry:
UNDP Human Devel Index:	Monthly tel line rental (\$/mnt):	Export Credit Guarantees:
.	Telephone waiting time/Wait List:	.
.	Internet Access Providers 50	.
.	Mobile Operators:	.
.	Fixed Line Telecom Operators:	.

[Key to table values](#) All figures above in US Dollars (\$)

ICT Profile:

Internet

The market for internet service provision can be divided into three main groups: academic, governmental, and commercial/private users.

In 1994 the Information and Decision Support Center of the Egyptian Cabinet, in cooperation with the Regional Information Technology and Software Engineering Center, started to promote the

Internet in Egypt with the support of the Egyptian government. The government funded the project as part of its efforts to open the country to the rest of the world and increase the cultural exposure of the Egyptian society. By offering free Internet access for corporations, governmental agencies, non-governmental organizations and professionals, managed to raise the awareness of the technology beyond the walls of the academic institutes. This step showed the uses of the Internet to the public and raised the number of Internet users in Egypt grew to 10,000 by late 1995.

In 1996, the government, represented by IDSC, RITSEC and Egypt Telecom, started the development of an Internet backbone and gateway aimed at providing reasonable prices for the private-sector ISPs. By March of the same year, IDSC and RITSEC licensed 12 ISPs to provide the services, and continuing to provide direct service to governmental organizations free of charge.

IDSC/RITSEC took the Internet points of presence (PoPs) beyond the capital and to major cities in Egypt and this was reflected in the number of Internet users in Egypt which increased from around 25,000 in early 1997 to around 100,000 by mid 1998. The number of ISPs increased from 16 operational ISPs to around 40 in the same period. The number of cities where users can access Internet at local call rates increased from 4 (Cairo, Alexandria, Sharm El Sheikh, and Hurgada) to 11 (Cairo, Alexandria, Port Said, Tanta, Mansoura, Gharbia, Monofia, Hurgada, Sharm El Sheikh, Fayoum, Menia, and Assuit)

In addition to acting as an upstream provider and providing Internet services for governmental organizations, IDSC/RITSEC is also peering with the EUN to exchange local traffic. IDSC/RITSEC is trying to establish an Internet exchange for the Egyptian service providers to save in the international bandwidth and provide better services for Egyptian users at large. Around 70 percent of the Internet traffic between Egypt and the world passes through the network of IDSC/RITSEC.

IDSC/RITSEC maintains the Internet link in Egypt through dual 2.048 Mbps links to two top level IP providers in the US - MCI, and Global One. The two links have different physical and logical paths to ensure redundancy for the international telecom link or the upstream Internet access providers. Lately, to make use of asymmetric links to provide Internet access at economic rates, IDSC/RITSEC procured a 3 Mbps dedicated asymmetric link (bursting to 8 Mbps) to / from Interpacket to provide incoming Internet traffic.

Domestically, IDSC/RITSEC has installed digital multiplexers in the public switches to establish the first digital access network in Egypt. The network is managed by Egypt Telecom and provides a high-speed distribution network for more than 50 nodes in Egypt with speeds up to full E1. The network covers most of the switches within Cairo, while users outside Cairo use the digital network of Egypt Telecom for transmission. Currently, Frame Relay switches are being installed by Egypt Telecom and IDSC/RITSEC started offering Internet access over Frame Relay.

For Internet access in rural areas, suffering from absence of telecommunications infrastructure, IDSC/RITSEC is currently using a pilot network of very small aperture terminals (VSATs) to connect 6 information centers in rural governorates in upper Egypt to the Internet. The VSAT network is using hubless technology to provide access speeds of over 64 Kbps for each site over a shared media. And, in order to provide ?IP over Everything?, IDSC/RITSEC is using X.25 PADs to provide dial-in services for governmental users in Alexandria and Suez. More recently a 900 number has been established for use by ISPs which does not require any prior registration - the charge is built into the cost of the phone call and anyone can use the number at any time.

IDSC/RITSEC manages the (.com.eg) and (.gov.eg) sub-domains, servicing requests of the end customer and users in their community.

In order to develop Egyptian content on the Internet, IDSC began implementing the Egyptian Information Highway Project in late 1995. It seeks to accelerate social and economic growth in

Egypt by promoting and supporting electronic dissemination of information over communication networks. IDSC also attempts to assist with human resource development required for establishing the national information highway.

Pilot information networks have been launched covering culture, tourism, healthcare, environment, education, public services and local government administration. Content in the form of on-line databases, human resource development and creating and supporting user groups were carried out. Beneficiaries have been investors, developers, health care professionals, environmentalists, government officials and the general public. HealthNet is considered among the most successful efforts thus far, in part because of the quality of the voluntary support received by medical personnel who helped pioneer this initiative.

The community of Internet providers in Egypt has established the **Internet Society of Egypt**, a chapter of the ISOC, ISE is an NGO umbrella that has all major players of the Internet in the country.

Following is a list of some of the Egyptian ISPs:

AlexNet	http://www.alexnet.com.eg/	Info@alexnet.com.eg
Data Express	http://www.dataxprs.com.eg/	Dexpress@dataxprs.com.eg
Datum	http://www.datum.com.eg/	Info@mailers.datum.com.eg
Egypt On Line	http://www.egyptonline.com/	Info@egyptonline.com
Egypt Web	http://www.egyptweb.com/	WebStaff@EgyptWeb.com
Egyptian Information Services	http://www.eis.com.eg/	Mail@eis.com.eg
ENSTINET	http://www.sti.sci.eg/	Info@sti.sci.eg
EUN	http://www.frcu.eun.eg/	Info@frcu.eun.eg
EUNET Egypt	Http://www.eu.net/Countries/EG.html	Info@Egypt.EU.net
Gega Net	http://www.gega.net/	Info@gega.net
ICOM	Http://www.adonweb.com/business/icom.html	Icom1@rite.com.eg

In Touch	http://www.intouch.com/	Sales@intouch.com
Instinct	http://www.instinct.com/	Webmaster@instinct.net
Internet Egypt	http://www.brainy1.ie-eg.com/	Info@brainy1.ie-eg.com
Internet Society (ISE)	http://www.ise.org.eg/	Tkamel@idsc.gov.eg
Link Egypt	http://www.link.com/	Manager@link.com.eg
PACC	http://www.pacc.com.eg/	Link@pacc.com.eg
Rite	http://www.rite.com/	Info@rite.com
RITSEC	http://www.ritsec_www.com.eg/	Tkamel@idsc.gov.eg
SofiCom	http://www.soficom.com.eg/	Info@soficom.com.eg
Star Net	http://www.starnet.com.eg/	Info@starnet.com.eg
Way Out	http://www.wayout.net/	Info@wayout.net
BecOnLine	http://www.bec-online.com/	Info@bec-online.com
Techno Mina Comm	http://www.tecmina.com.eg/	Info@tecmina.com.eg
Sinainet	http://www.sinainet.com.eg/	Info@sinainet.com.eg
Infinity	http://www.infinity.com.eg/	Info@infinity.com.eg
Comm Net	Http://www.commnet.com.eg/cngmain.htm	Ossama@commnet.com.eg
Metal Soft	http://www.metalsoft.com.eg/	Webmaster@metalsoft.com.eg

Telecommunications:

The sector is governed by the **Telecommunications Regulatory Board (TRB)**.

Egypt Telecom (previously known as ARENTO) is the sole operator of basic telecommunications services and infrastructure. It is expected that a 20% stake in Egypt Telecom will be sold to the private sector before the end of 2000.

For mobile communications, the Telecommunications Regulatory Board has given license to two operators. The first operator, **Mobinil**, a consortium of Motorola, France Telecom, and Orascom, is currently operating the existing GSM network that supports over 140,000 subscribers. The second cellular license was recently granted to an international consortium, under the name of **Misrfone** (Click GSM), that includes Vodafone, Airtouch, Alkan and EFG-Hermes. A third mobile cellular license is expected to be offered in 2001.

Egypt Telecom also operates an X.25 packet switching network (EgyptNet), available in some of the large cities, a paging service that supports 6,000 subscribers in the greater Cairo/Alexandria area and a manufacturing arm, the **Egyptian Telephone Company (ETC)**, which has entered into joint venture agreements with Siemens, Alcatel, and Ericsson for the manufacture and assembly of digital switches, PBX's, and telephone sets. EgyptNet is currently planning on upgrading their network to offer a frame relay service. In 1998 Egypt Telecom made an agreement with Digitcom of California to establish an Internet voice telephony service between the US and Egypt. The market is currently estimated at over 100 million minutes a year between the two countries. Egypt Telecom will be able to cut its operating costs and become more familiar with the technology, but is unlikely to make the service available for resale to ISPs in the short term - much of its revenues come from international traffic and this is used to cross-subsidise local service.

For international communications, Egypt currently uses a combination of microwave, satellite, and submarine fiber optic links. Egypt is a member of ARABSAT, INTELSAT, and INMARSAT and is connected to the SEA-ME-WE2 submarine fiber optic system. Egypt also participates in the FLAG submarine fiber optic project, and is home to landing sites in Alexandria and Suez.

Egypt Telecom has seen through major recent improvements in the country's telecommunication infrastructure with support from central government and development assistance. Egypt Telecom has an installed base of approximately 5 million main lines, giving Egypt an overall telephone density of around 7 percent (12 percent in Cairo and Alexandria).

Telecom Egypt has been aiming to add one million telephone lines each year until 2002. This project is expected to cost \$1 billion annually and is self-financed by Telecom Egypt and the National Bank of Egypt. The US Agency for International Development is financing the supply and construction of additional telephone lines, cables, switches, and network operation centers by 2001 at a cost of \$300 million.

Two private sector companies are maintaining all services for the country's GSM 900 cellular telephone system and are expected to increase the existing 420,000 lines to 2 million lines in the coming two years, and up to 5 million lines within the next ten years.

Telecom Egypt is also working on increasing network digitization, which is currently 45 percent.

Communication Costs:

Calls cost US \$1.8/hour.

Mobile Calls costs US \$8/hour

Networking Centers:

The **Information and Decision Support Centre (IDSC)** is behind an ambitious effort to take Egypt into the 21st century. It is assisting in the development of high technology industries and supporting the government in IT projects. Through its Information Highway project IDSC/RITSEC has established a HealthNet and EnvironmentNet to support the Egyptian environment sector and are developing a regional telemedicine network to provide telediagnostic, database access and multimedia facilities for doctors in the Arab region.

The **Egyptian Universities Network (EUN)** located in the **Supreme Council of Universities (SCU)** has connected a large community of Egyptian universities. Administered by the FRCU Computer Center at SCU, EUN connects the 13 universities as well as all the research centers and institutes in addition to some other governmental and nongovernmental organizations.

The **Academy of Scientific Research and Technology (ASRT)** is responsible for the scientific and research electronic networks in Egypt and has established the Egyptian National Scientific and Technical Information Network (ENSTINET).

The **Universite Leopold Sedar Senghor** in Alexandria hosts the Centre Syfed established with support from AUPELF-UREF. The **Ministry of Scientific Research** has established the **National Information and Documentation Centre (NIDOC)** which is one of the largest scientific libraries in the country.

The **Egyptian Documentation and Information Centre for Agriculture (EDICA)** collaborates with FAO.

The **Cairo Demographic Centre (CDC)** is the regional training centre for the UN POPIN programme and is in the process of improving its documentation centre.

The **Information technology Institute, ITI**, was established by IDSC in 1993 to provide the Egyptian market with a constant supply of IT professionals, by training university graduates on IT related skills. ITI has trained more than 1,000 of its new university graduates on the different programming platforms. ITI graduates are now participating in various projects of IDSC/RITSEC as well as the networks established by the private and governmental sectors.

The **Centre for Social Research** at the AUC is establishing the Regional Information Network for Arab Women (RINAW).

The **National Institute of Management Development (NIMD)** provides professional training for the staff of documentation and information centers.

The **Ministry of Education (MOE)** has an extensive programme involving ICTs in education. Recently it has launched the Mubarak National Project which includes a number of activities using ICTs in secondary schools.

An SDNP project has also been proposed in Egypt by UNDP.

Organisational Activities in the ICT Sector:

[Ministry of Economy and Foreign Trade](#)

[Regional Information Technology and Software Engineering Center \(RITSEC\)](#) A joint project of UNDP and the Arab Fund for Economic and Social Development. Hosted by the Government of Egypt's Cabinet Information and Decision Support Centre (IDSC) it serves as a regional centre for organisation in Arab states to accelerate the development of an information technology and software engineering industry. Aside from an extensive training facility and software development centre, RITSEC also operates an online Trade Information Network and provides free access to the Internet for businesses while arrangements for the private sector to supply services are worked out.
<http://www.ritsec.com.eg/> postmaster@ritsec.com.eg

[Supreme Council of Universities, University of Cairo](#) Academic Research Network Administrator

[Ministry of Communications and Information Technology](#) Responsible for Egypt's information and communication policy. Magda Ismail magdam@idsc1.gov.eg

[Egyptian Radio and Television Union](#) A department of the Egyptian Ministry of Information. It has recently launched its first satellite for broadcast services, the NileSat. NileSat covers North Africa, the Gulf states, and Southern Europe.

[USAID Egypt](#) A series of USAID investments in Egypt's telecommunications sector is supporting the institutional strengthening of Egypt Telecom (formerly ARENTO) and the improvement and expansion of telecommunications networks in Cairo and Alexandria. <http://www.usaid-eg.org/proj-tel.htm> ayassin@usaid.gov

[Internet Society Egypt Chapter](#) The community of Internet providers in Egypt has set up this society, a chapter of the ISOC, which is an NGO umbrella that has all major players of the Internet in the country. <http://www.ise.org.eg/>

[InTouch Communications Services](#) Internet Service Provider, awareness building, e-commerce etc. <http://www.intouch.com/> Mohamed A El-Nawawy, Chairman and MD nawawy@intouch.com

[The Cabinet Information and Decision Support Centre](#) IDSC is the lead agency in the government for promoting the use of ICTs in the country. It is assisting in the development of high technology industries and supporting the government in IT projects. IDSC/RITSEC was instrumental in starting the **Regional Information Technology & Software Engineering Center (RITSEC)** (see separate entry) which was established by the support of the UNDP and the AFESD for regional activities of IT in the Arab world. <http://www.idsc.gov.eg/> Sherif Hashem shashem@idsc.gov.eg

[Favia International Transport](#) <http://www2.sn.apc.org/africa/www.faviatrans.com> Mr. Adel A. Amin info@faviatrans.com

[Egyptian High Technology Association \(EHITA\)](#) Promotes the development of high technology in Egypt. Member of the ITU-D. <http://www.ehita.com.eg/>

[Oracle Egypt](#) Database software provider's Egypt Office <http://www.oracle.com/info@oracle.com>

[Regional Arab Information Technology Network](#) On a sub-regional level, RITSEC was instrumental in founding the **Regional Arab Information Technology Network RAITNET** (Regional Arab Information Technology Network), a non-governmental regional network of institutions to facilitate co-ordination and training among those active in building ICT infrastructure

in the Arab region. There are about 50 member organizations of RAITNET. <http://www.raitnet.net/>

Academy of Scientific Research and Technology It is responsible for the scientific and research electronic networking in Egypt and has established the Egyptian National Scientific and Technical Information Network (ENSTINET) for this purpose. Several networks are located in Cairo, for the major sectors of Egypt's society (agriculture, energy, industry, medicine, construction, social issues and science & technology) and six are outside Cairo at the universities of Alexandria, Mansoura, Assiut, Menia, Menofia, Suez and Tanta. <http://www.sti.sci.eg/>

Central Production One of three Egyptian MOE agencies to support the ICT aspects of it's schools programmes. It produces multimedia programmes for the social sciences, physics, chemistry and biology and plans to ultimately cover all subjects at all levels. <http://www.frcu.eun.eg/www/homepage/moe/centralpro>

Egyptian Universities Network Located in the **Supreme Council of Universities (SCU)** it has connected a large community of Egyptian universities. Administered by the FRCU Computer Center at SCU, EUN connects the 13 universities as well as all the research centers and institutes in addition to some other governmental and nongovernmental organizations. Currently however, only few universities have their own web sites and while there are about 50 leased lines on the network, some institutions are still connected by dialup links. EUN is a member of TERENA and administers the top level domain for the country. It is also building and maintaining a national database for M.Sc. and Ph.D dissertations approved by the Egyptian Universities, University Staff biographical database and an EUN user Directory. <http://www.frcu.eun.eg/>,%20<http://www.auc.eun.eg>

Ministry of Education It has an extensive programme involving ICTs in education. Recently it has launched the Mubarak National Project which includes a number of activities using ICTs in secondary schools. The project will be piloted initially in 150 secondary schools which have been selected to cover all of the governorates (provinces) and three MOE agencies will be supporting the ICT aspects of the programme: The **Tecnological Development Centre(TDC)**, **The Video, Audio and photography Centre**, and **Central Production**. See separate entries for these three MOE agencies. <http://www.frcu.eun.eg/www/homepage/moe>

Sharkeya Governorate Technology Access Community Centres Project to develop telecentres with UNDP, IDSC, the Sharkeya Governorate and chamber of Commerce <http://www.tacc.egnet.net/>

Technological Development Centre One of three Egyptian MOE agencies to support the ICT aspects of it's schools programmes. icmoe@frcu.eun.eg

Video, Audio and Photography Centre One of three Egyptian MOE agencies to support the ICT aspects of its schools programmes. <http://www.frcu.eun.eg/www/homepage/moe/videocente>

Egypt State Information Service Calendar, Cairo Press Review, major portal to Egypt online <http://www.sis.gov.eg/> feedback@sis.gov.eg

International Development Research Centre, Mena, (IDRC) The north African office for this Canadian development agency. <http://www.idrc.ca/>

Source:

AISI-Connect database - <http://www2.sn.apc.org/africa> Telecom/GDP stats source: ITU/World Bank. Internet hosts: Network Wizards

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