

AISI-Connect National ICT Profile

ANGOLA (AO)

GENERAL DATA	ICT-INFRASTRUCTURE	ICT POLICIES
Capital: Luanda	Fixed lines (K) '98: 72	Competition in local loop: Monopoly
98 Population (M): 12.09	97-98 % Fixed Line Growth: 0.16	Competition in telephone terminals: Yes
Currency: AON	98 Mobile Lines (K): 10	Independent regulator: No
Exch rate (/US\$): 257128.0	Mobile Line Growth (%):	Private Wireless Data allowed: No
Currency Stability:	Cities with Internet POPs: 5	Independent Internet VSAT Allowed: No
97 GDP US\$/person: 1684.0	Local Call National Internet: No	VSAT License Fees:
97 Total GDP (\$B):	Dialup Internet subscribers: 4000	Satellite Phone access: No
Local Stock Exchange: No	International Bandwidth (Kbps): 192	Universal Service Obligations:
Personal Safety: 5	Internet Hosts: 6	IAP License Fees (\$/yr):
Political Stability:	Internet domains:	Private Phone Kiosks: No
Tertiary ICT Students:	Dialup Internet Cost 20hrs/mnth (\$):	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): 6.0	Restrictions on market entry:
UNDP Human Devel Index:	Monthly tel line rental (\$/mnt):	Export Credit Guarantees:
.	Telephone waiting time/Wait List:	.
.	Internet Access Providers 4	.
.	Mobile Operators:	.
.	Fixed Line Telecom Operators:	.

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

ICT Profile:

Internet:

The PTO operates an international Internet link via UUNET in the US which brings a 128Kbps connection to Luanda for resale by ISPs. This is backed up with a 64Kbps connection via Global

One in the US. The University connects with a separate 19.2Kbps analogue leased line link to Portugal.

Three private sector ISPs resell Internet access to the public. Ebonet was the first ISP, followed by NetAngola, and most recently by NCR Angola's subsidiary, SNET. While Telecom Angola has plans to act as the hub for the country, further financial resources are needed to implement a service with national coverage.

Telecommunications:

Telecom Angola is the sole supplier of telecommunications services, reporting to the **Ministry of Posts and Telecommunications**.

A war devastated infrastructure has resulted in very few servicable links outside the capital city. The capacity of the network is about 54 000 lines in Luanda and 35 000 outside the capital but about 20 000 lines are dead due to the strife. In Luanda the telephone network is workable but it is difficult to obtain new lines and many exchanges are running at over capacity, resulting in a poor call completion rate. International traffic is carried by the Funda earth station which is also used for television signal distribution. A satellite based network linking Luanda, Cabinda, Benguela, Namibe, Lubango and Ongiva is being financed through Caisse Francais de Developpement.

An analogue cellular phone network operated by **Telemovil** in Luanda is in use by a large number of subscribers (about 7 000) due to the limitations of the public network. Telemovil is expanding the network to Cabinda and Benguela. Angola Telecom is planning to operate a GSM network in a joint venture.

The extremely poor state of the telephone network, even in the capital, Luanda where the public exchanges are saturated, severely hampers widespread use of the Internet. The unreliable analogue telecom links to Cabinda and Benguela results in intermittent service failures at the Internet POPs there.

There is an active process to modernize the telecommunications infrastructure and the 4th workshop on the Angolan Telecommunications White Paper which describes the strategy of telecom sector until 2004 was held in early '98. A fibre network is planned for Luanda and extensive digitalisation of switches is occurring in Luanda and around the country, including Canaan and Capuaco. A \$7m Japanese loan has been signed.

Communications Costs:

EBONet:

Dialup PPP: Setup - 99 USD, including installation, manual and training. Unlimited use: 75 USD /mnth (64 if annual payment) 19.2kbps analog Leased Line: Setup - 450 USD, 600 USD/Month

Netangola: Personal account - Setup - 50USD, Annual subscription 420USD. Corporate: Setup - 240USD, Annual Sub 1890USD.

Email only: 240USD.

The cost of a local call is 0.7USD / 3 minutes = US\$14/hour. This is at official exchange rates - very few organisations outside government use the official exchange rates - using the current unofficial rate, the cost is closer to 0.4 USD / 3 minutes - US\$6/hr). Phone line rental: \$10/month

Organisational Activities in the ICT Sector:

[Department of Planning and Statistics, Government of Angola](#)

SDNP/RIDS SDNP/RIDS Angola is being supported by UNDP to promote information exchange on sustainable development. When the project first started, a dialup email connection to the SDNP Internet gateway in New York was established. However the service has been disbanded following the establishment of full Internet services in Angola. The technicians trained went on to form the first commercial ISP in Angola. UNDP is likely to extend its involvement with SDNP in Angola through the IIA programme, under which Angola is short-listed. SDNP is also discussing possible collaboration with UAN. Ms Olivia Augusto dwang@ebonet.

Angola Telecom Operates an Internet service for resale by private ISPs and also provides internet access to its employees. <http://www.angolatelecom.com/>

EBONET The first ISP in the Country, EboNet has about 2000 users, including 32 small and medium sized LANs connecting via dialup, and more than 5 corporate leased line and wireless users including (SONANGO, Banco de Comercio e Industria, TAAG (Angola Airlines), ENSA (Insurance Company) and the UN Building. There are 2 POPs in Luanda to deal with the inter-exchange saturation in the city, and one each in Cabinda and Benguela.

EBONet was founded by the system administrators from the earlier dialup based hosts - AngoNet and the SDNP node - and continues to support the public sector. A proposal to sponsor connectivity for UAN's Faculty of Law is being developed.

EBONet has established a daily news service (<http://www.ebonet.net/noticias>) which employs two journalists. The service, which is one of the 7 local information sources for the World Bank on Africa, is EBONet's contribution to a project the company has launched called Conheca Angola (Knowing Angola) which is seeking sponsorship from other companies. The aim of the project is to build a comprehensive web server hosting information on Angola's culture, population, history, political situation, economic, etc, including a forum for discussions- ngolanet@ebonet.net - which is a large mailing list of local and international subscribers. <http://www.ebonet.net/> Haymee Perez Cogle haymee@ebonet.net

NetAngola Started service in Luanda at the end of '97. <http://www.netangola.com/>

SNET Angola's latest ISP, a subsidiary of NCR <http://www.snet.co.ao/> administrator@snet.co.ao

Universidade Agostinho Neto Faculty of Engineering has been trying to obtain Internet access for some time and was recently assisted in establishing connectivity through a Portuguese co-operation project which provides an analogue link directly to Portugal. The system is used by some members of staff and post-graduate students through the LAN at the Faculty. Incoming telephone lines are not working, so dialup access is not currently possible.

The University will be assisted with the development of a training programme under the extension to the UNESCO RINAF project.

The academic and other public sectors are going through a process of reorganization and rebuilding following the damage caused by the war. Aside from UAN, there are a number of large technical colleges still operating. Currently there is no formal national information infrastructure planning process or national academic/research network in Angola at present. National academic/research networking is likely to be the responsibility of the Ministry of Science & Technology which has recently obtained an email account on one of the local ISPs. <http://www.uan.ao/> Prof P Teta

HealthNet Angola There is an active **HealthNet** in Luanda, using the local ISP rather than the

LEO system in use in more remote areas. cepis@ebonet.net

Development Workshop A Canadian NGO - Hosts an NGO oriented non-profit email service called AngoNet which was the first in the country with a link to the Internet in early '94. AngoNet has now decided to phase out its access provision and become a 'virtual network' with its own PC server on the ISP EBONet's backbone in Luanda. <http://www.angonet.org/> dwang@ebonet.net

Source:

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

If located in Africa and not listed here, [add your organisation to this page.](#)