

AISI-Connect National ICT Profile

UNITED STATES (US)

GENERAL DATA	ICT-INFRASTRUCTURE	ICT POLICIES
Capital: Washington	Fixed lines (K) '98:	Competition in local loop:
98 Population (M): 0.0	97-98 % Fixed Line Growth:	Competition in telephone terminals: No
Currency:	98 Mobile Lines (K):	Independent regulator: No
Exch rate (/US\$):	Mobile Line Growth (%):	Private Wireless Data allowed: No
Currency Stability:	Cities with Internet POPs:	Independent Internet VSAT Allowed: No
97 GDP US\$/person: 0.0	Local Call National Internet: No	VSAT License Fees:
97 Total GDP (\$B):	Dialup Internet subscribers:	Satellite Phone access: No
Local Stock Exchange: No	International Bandwidth (Kbps):	Universal Service Obligations:
Personal Safety:	Internet Hosts:	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 (\$/mnth):	Business Ownership Rules:
ISDN: No	64K Internat Internet Link (\$/mnth):	Repatriation of Profits Rules:
VPN Services: No	Local phone call cost (US\$/hr):	Restrictions on market entry:
UNDP Human Devel Index:	Monthly tel line rental (\$/mnth):	Export Credit Guarantees:
.	Telephone waiting time/Wait List:	.
.	Internet Access Providers	.
.	Mobile Operators:	.
.	Fixed Line Telecom Operators:	.

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

ICT Profile:

Organisational Activities in the ICT Sector:

[African Educational Research Network \(AERN\)](#) AERN was established in 1992 by eight universities in Canada, Nigeria, Kenya, Lesotho, the United States and the United Kingdom. Their brief is to strengthen communications links between educational researchers in the North and their counterparts in Africa. <gopher://ra.cs.ohiou.edu/11/dept.servers/aern>

[AfriSat Satellite Communications Systems \(AFRISAT\)](#) AFRISAT is a recently formed private US company aiming to put up a commercial satellite for African use. It has announced that it wishes to co-operate fully with the ITU and other interested parties in making sure Africa has full access to the benefits of space communications systems.

[AfriSpace](#) A US based company - Worldspace/Afrispace - has partnered with Motorola to establish a worldwide satellite system which will beam digital, CD-quality broad-casts to all of Africa. Motorola is designing the 'Starman digital/analog' radio that will be needed to receive the broadcast, but it will also receive standard broadcasts. The project is expected to get underway in 1996.

[American Association for the Advancement of Science \(AAAS\)](#) The AAAS's Sub-Saharan Africa Program has taken a number of initiatives in assisting the African research and academic community to make use of telematics tools for improving access to Science and Technology Information (SIT). It has a large project on using database systems and has held a number of regional conferences and workshops on electronic communications, networking and informatics. The proceedings have been published and include a directory of African electronic information services. A database access survey of African institutions was carried out by AAAS in mid 1993 and resulted in 66 responses. Only a handful of these had electronic access to remote databases and these indicated that access to commercial online database services was too expensive for regular use, even where X.25 lines were available.

[Association for Progressive Communications \(APC\)](#) The APC is a global communications network which focuses on providing low cost connectivity to environmental, development and human rights networkers. Currently it has over 20,000 subscribers in 94 countries, although about 10 000 of these are in the US. The APC has also provided communications support to a number of large UN conferences such as UNCED in Brazil and the UN Human Rights Conference in Geneva. The APC consists of autonomous members who operate local hosts connected to the Internet in 18 countries, including one in South Africa - SANGONeT. As part of the members' commitment to assisting with local network development in developing countries, APC nodes provide low cost dialup connection points and technical support for emerging systems in Africa, Latin America, Eastern Europe and Asia, many of which are heavily used by local non-governmental organisations involved in development projects. Because of the low cost of connections with South Africa in the Southern Hemisphere, SANGONeT provides an Internet connection hub for local hosts in Malawi, Zimbabwe and Mauritius, and for users in these and other countries who need direct access to a full Internet connection. In London, which generally has cheaper and better connections to the rest of Africa, the APC node - GreenNet - provides links and support for systems in Angola, Cameroun, Ethiopia, Ghana, Kenya, Morocco, Senegal, Sierra Leone, Tanzania and Uganda.
<http://www.apc.org/>

[AT&T Paradyne Unit](#) Telecom technology developer. Has produced a transmission system using ADSL that can deliver 6Mbps over a 2 wire copper circuit.

[Baobab Communications](#) Store and forward internet service provider connecting Sierra Leone's email service provider. postmaster@baobab.com

[Carnegie Corporation of New York](#) The Carnegie Corporation is one of the larger foundations in the US. It has an active development programme in Africa, but little in the area of ICT development currently except for some assistance to UNECA/PADIS for their information and networking standardisation programme.

[CGNET Services International](#) CGNET is a communications facility for agricultural researchers in 70 countries. Individuals and other organisations can subscribe to the service, but it is mainly used by the large agricultural support and research centres, CGIAR centres and associated UNDP and FAO offices. In Africa there are users in over 20 countries and it was one of the first electronic mail

and database hosts to be widely used on the continent. Originally operating as a closed user group on the British Telecom Dialcom host, CGNET now operates its own system connected to the Internet in Palo Alto California (cgnet.com). Because of the difficulty of moving all users simultaneously from the Dialcom system, CGNET continues to operate a gateway between the two networks, so that users on the Dialcom system are accessible via the Internet. With the high costs of connecting via the international packet switched networks and the growth in local Internet hosts, direct usage of CGNET is likely to fall for basic electronic mail services. More recently, CGNET has been involved in installing satellite based Internet services at some of the major international research centres such as ICRAF in Nairobi. <http://www.cgiar.org/ivdn/ivdnfaq.htm>

Chemonics Executing agency for many USAID projects in Africa

Clearinghouse on Development Communication (CDC) Sponsored by USAID, the Clearinghouse has over 6 000 members and publishes the Development Communications Report, operates a library and an online bulletin board. cdc@permanet.org

Communications, Development and Operations Management (CDOM) Freelance ICT consultant.

Cylink Wireless Modems manufacturer - tusing the 2.45GHz range Used by SITA and the WorldBank, but coming coming under competition from cheaper producuts such as the product from Minsk at a quarter the price. Infor by fax from 1-408-735-6614 <http://www.cylink.com/info@cylink.com>

Electronic Media Centre, World Bank (EMC) Active agency within the World Bank producing television and video material to promote the use of Internet in Africa. <http://www.worldbank.org/html/emc/Welcom>

Ford Foundation Ford Foundation's head office has a broad mandate to respond to the needs of its field offices of which there are seven in Africa - Kenya Namibia, Nigeria, Senegal, South Africa and Zimbabwe. Each office is autonomous and has its own areas of programme emphasis, for example in South Africa it is human rights and in west Africa it is governance and natural resource management. Electronic mail connections have been established with all the offices except Nigeria and Senegal. The experience developed in connecting the offices is now driving new thinking at Ford regarding grant making and there is strong interest in getting grant recipients in Egypt connected. The South African office and the regional office (for the Africa and Middle East programme based at headquarters) are both looking at the higher education area for networking. The regional office and the East African office is also supporting the AAAS programme and is testing the dissemination of AAAS publications via the Internet in Mozambique. Ford has commissioned a study to be carried out by Peninsula Polytechnic on media development, mainly in the broadcasting area, but it will also cover ICTs more generally and Internet in particular. Ford is funding the Africa Policy Information Centre which is using electronic mail to distribute material on Africa that creates a heightened awareness in the US on issues regarding the continent.

George Mason University (GMU) The CTIP provides telecommunications research, training and services for the university, national and international communities. It stresses interdisciplinary, and collaborative research and project management, and provides training to professionals at all levels.

Global Information Infrastructure Commission (GIIC) The GIIC's Mission statement is to "foster private sector leadership and private-public sector cooperation in the development of information networks and services to advance global economic growth and quality of life". It has about 40 private sector members, and there are 3 African commissioners - Souleymane Sall (Senegal), Hashem El-Sherif (Egypt) and Dikgang Moseneke (South Africa). The GIIC is concerning itself with addressing a number of issues, especially the shifting role of the private sector

as the role of regulation decreases and the challenge of developing countries. http://www.gii.org/giic_giic_secretariat@csis.org

Hughes Network Systems (HNS) VSAT Equipment Supplier

International Finance Corporation (IFC) World Bank associate.

Internet Research Inc Publishes an excellent in-depth manual on how to establish an Internet Service Provider business.

John D and Catherine T McArthur Foundation

MCI International Internet Service provider used by Senegal postmaster@mcimail.com

Mission Aviation Fellowship USA <http://www.maf.org/> MAF-US@maf.org

National Aeronautical and Space Agency (NASA) Initiator of the NASA Science Internet Project.

National Research Council (NRC) US academic and research group promoting ICT use in Africa's academic community.

National Science Foundation (NSF) Finances the US side of the international leased line connecting the South African academic and research network - UniNet.

RAINet Inc Provides leased line and dialup connectivity for some hosts in Africa.
<http://www.psg.com/> sales@rain.net

Rockefeller Foundation The Rockefeller Foundation does not have any programmes focussing on directly on ICTs but there are some information components in their programmes. For example the Agricultural Sciences Division is supporting a library in Malawi with CD-ROM facilities. Rockefeller maintains an African regional office in Nairobi and its activities are mainly concentrated in Kenya, Uganda, Malawi and Zimbabwe with some smaller activities in Cameroun, Ghana, Burkina Faso and Tanzania.

SatelLife The use of ICTs in the health sector has been pioneered in Africa by HealthNet, a project of the US based SatelLife - a non-governmental organisation established in 1989 by the International Physicians for the Prevention of Nuclear War (IPPNW) to assist health communications in developing countries, particularly Africa. SatelLife was able to raise enough funds to initially share the costs of launching a micro-satellite with another development organisation - the US's Volunteers in Technical Assistance (VITA) and then to purchase its own entire micro-satellite. Working closely with the University of Surrey which designs and manufactures low earth orbiting microsatellites, HealthNet has established low-cost (\$1500) ground stations for its users in 14 African countries - Botswana, Cameroun, Congo, Ethiopia, Gambia, Ghana, Kenya, Mocambique, Malawi, Mali, Sudan, Tanzania, Zimbabwe and Zambia. A groundstation has also been installed at the US hub site which is connected to the Internet to provide wider connectivity for the users. Obtaining clearance for the groundstations has been problematic in a few countries, but in general the administrations have understood the benefits of the system and sanctioned the installation of the equipment and the bypassing of the TO infrastructure. The experiences of health workers using the system have demonstrated the importance of 'high-technology' to aid their work and dispell doubts of its relevance in the face of more basic health issues such as the supply of medicines and surgical equipment. Since the start of the project the terrestrial telephone network has improved substantially and about half of the HealthNet sites are now connecting via international direct dial which is a more expensive option, but because of the limited bandwidth of the satellite, provides the higher volumes

of data throughput now being required to cater for growing numbers of users. To get an automatic reply describing SatelLife and HealthNet, send an email message to: info@usa.healthnet.org To get an automatic reply listing the countries connected to HealthNet, send an email message to: hnet-info@usa.healthnet.org <http://www.healthnet.org/> hnet@usa.healthnet.org

Seelbach Associates Involved in capital finance raising for developing country telecoms.

Telegeography Inc Global telecommunications has not led to the end of geography so much as the explosion of place. So says TeleGeography - the US based telecommunications research group which is helping to reshape our perceptions of space through its maps of global telecommunications traffic. Its most recently published study - TeleGeography 1994 - which was made in cooperation with the International Institute of Communications, graphically illustrates the surprising variations and nature of telecommunications around the world. It highlights the massive disparities in traffic between the rich and poor countries and also reveals other fascinating trends in the great detail of statistics which uses route by route telephone traffic data for the last ten years accumulated jointly with the International Telecommunications Union. The last decade has been a period of unparalleled international traffic growth - 15% annually from 1983 to 1992. Over 200 million new subscriber lines were added and a web of highspeed fibre cables encircled the earth. There was also more traffic per line, growing from 30 minutes in 1983 to 71 minutes in 1992. Since 1992 traffic growth has slowed, probably related to the global economic downturn at the time, but this may also be the result of more efficient line use and the growth in leased line and private networks which are not so easily monitored. By the end of 1995, Telegeography estimates that telephone subscribers will spend almost 60 billion minutes talking to other countries. However the European Community and North America will be responsible for about 40 billion of those minutes, leaving less than a third of the total for the vast bulk of the world's population. Analysis of African traffic patterns unfortunately do not feature in the study, largely because much of the information is not available. However the book does show that Africa and the Middle East together share 6.8 per cent of the total traffic. This region is also the slowest growing at 7 per cent per year in 1992 (compared to 20% for Asia). With only 1.7% of the world's phone lines, but 11% of the world's population, Africa trails very far at the end of the scale. <mailto:tgi@cais.com> or 204579195@mcimail.com

The Internet Society (ISOC) ISOC was formed in 1991 as an association of individuals working with the Internet. Its former president is the designer of the TCP/IP Internet protocol, Vint Cerf. ISOC's principal contribution to telematics development in Africa has been the week-long network training workshops held since 1993, just prior to its annual conferences. These workshops are aimed at the technicians and administrators who are planning to operate Internet connected systems in their home countries. Financial support is available for under-resourced participants and so far over 500 people from 90 developing countries have been through the training programme, of which about 40 were Africans. The success of these workshops has prompted ISOC to expand its support for developing countries by planning to hold more regular regional workshops. (see ISOC Geneva). ISOC was also involved in the development of a major funding proposal to assist developing countries to connect to the Internet. The proposal interested the World Bank, USAID and the White House (which estimates that it would cost \$17-20 million to connect 20 developing countries to the Internet in a sustainable manner) and it was out of this that the Leland project was developed. ISOC became an official member of the ITU in 1995 and it has a joint agreement with the Soros Foundation to create Global Networking Institute. ISOC is keen to assist in the establishment of regional Network Information Centres (NICs) but it is only made progress with this in the Asia-Pacific region. <http://www.isoc.org/>

United Nations Development Programme (UNDP) The UNDP is one of the largest UN organisations with a resident representative in almost every country who also represents the World Bank where there are no other local Bank representatives. UNDP is involved in a large number and wide range of telematics activities in Africa. Along with the IDRC, it was one of the first development organisations to attempt to equip all of its offices in Africa with an internal electronic

communications network - UNDPnet. The hub in New York usually initiates mailbox connections with each of its country offices via scheduled automated direct dial calls three times daily to pick up and send messages using software called Higgins. A new policy is now in effect to use local services where there is a reliable local service provider. The Madagascan office uses the local RIO/ORSTOM service and the South African and Zambian offices use a local Internet provider. UNDP spends about USD 17 m a year on communications costs - USD 3 m on faxes alone. For those with access to X.25 or full Internet, the UNDP also provides an interactive bulletin board system and a number of gopher and Web based information servers, some of which are freely available to the public. The UNDP's most important telematics infrastructure building project operating in Africa is the Sustainable Development Network Programme (SDNP). It has also recently proposed the Small Islands Developing States Network (SIDSNet). It is also a member of the African Internet Forum - AIF.
<http://www.undp.org/>

United States Agency for International Aid (USAID) USAID is the official overseas development agency of the US government. USAID's Global Bureau is divided into four sectors - Democracy, Energy, Environment and Humanitarian Assistance. USAID recently debated the role of information technology in the agency's programmes and it concluded that they should not be added at this time to their areas of emphasis, although AID is supporting telecoms infrastructure development in Africa. It has also now set up a Science, Technology and Communications Unit which will try to bring about greater internal co-ordination and provide strategy and consulting resources for other departments. AID's policy is that project proposals worth more than USD 250 000 must be reviewed by the Technology Unit. USAID also operates an Information Research Office with 200 staff (including contractors). Included in this division is a group for new applications development, systems, IT tools and project design. The total value of the information components all of the agency's programmes is estimated to total \$80-100m. The Information Research Office must be consulted if the IT component in any project reaches \$100 000. While AID has no general ICT programmes, it has embraced them for maintaining contact with its field offices in Africa and with the administrators of the projects which it supports. Most of USAID's activities to support connectivity for the local organisations involved in its programmes are now centred around its Africalink project. Nevertheless USAID recognises the particularly severe problems in Africa with regard to ICTs and it is planning to support more substantial local electronic network infrastructure development in the Leland Initiative. Initiated by the White House, the Leland Initiative aims to connect African 20 countries to the Internet in conjunction with the UN's System Wide Initiative on Africa. The organisation is also funding "Centers of Excellence" around the continent, including Ghana, which may involve ICT training.

United States Information Service USIS offices around the world receive daily newsbriefings via direct calls from Washington to each office using Fido technology.

University of Pennsylvania One of the most comprehensive online information source on African studies is held at the University of Pennsylvania in the US. Their African Studies Electronic Information Board includes the following information: - Almanac & Penn News (Information about the University of Pennsylvania's African Studies Consortium & the surrounding community). - Articles & Papers (Published articles, papers and abstracts of general interest to African Studies). - Audio-Visual Resources for African Studies (videography, filmmaking, audio cassettes). - Bibliography (Africa-related, Islamic, Arabic, or African-American related bibliographies). - Books On-Line (African Studies related monographs) - Computer Networking (e-mail to Africa, networking and Africa, interest and discussion groups, Africa-related software, resources for academic research). - Conferences, Colloquia and Lectures (at Penn, national and international). - Current Events (announcements, new services, upcoming events). - Electronic African News (radio and television broadcasts, on-line computer resources). - GIF Images (GIF archives, Africa-related graphics). - Grants and Fellowships (undergraduate, pre-doctoral, doctoral, post-doctoral, funding for African and Africanist students in the US and abroad). - Job Opportunities (in Africa). - Job Opportunities (in the US, Europe and elsewhere). - K-12 African Studies (K-12 education, outreach

materials). □ - Language, Courses and ASPs (African Studies programs, summer institutes, language study resources, African Studies courses). - Miscellany (African Fine Arts, African recipes, African restaurants). - Newsletters On-Line (African Studies Association, Title VI African Studies Centers). - Organizations, Institutes and Associations (newly formed, research and international organizations and institutes; products and services related to Africa). - Publications Information (newsletters, journals, monographs, African publishers and Africa-related publications). - Travel Abroad Opportunities (employment, study, vacation, internships, volunteer positions). - Urgent Action (Appeals for intervention, activist events and petitions). - What's New in African Studies (recently posted African Studies related information).

[US Department of Commerce](#)

[VP TRESP](#)

World Bank The World Bank is the largest of the multilateral development financing agencies. Aside from many large programmes directly supporting basic telecommunications infrastructure building, it has also allocated over US 1 billion for ICT use within its other substantive programmes over the last 3 years. But despite the general recognition of the importance of telecommunications on development, during the three year period 1990-92, the World Bank invested only \$250 million in telecommunications projects in Africa. During the same period the African Development Bank (ADB) granted \$324.5 million. These figures are for a relatively short period and somewhat misleading regarding the relative contributions of the ADB and the WorldBank. The last 10 years' figures show that the ADB has a rather weak record. During that period the World Bank lent almost 3 times as much to the region for telecommunications and the European Investment Bank almost as much. The Asian Development Bank, which is similar to the ADB in size and total lending, spends twice as much on telecommunications. The Bank has connected its regional offices in Africa to its headquarters in Washington for some time, (more recently some have been connected via VSAT or the UN's network) but it is now embarking on extensive support for local electronic network development in Africa and is also developing information servers on the Internet to make its extensive information sources available to its clients and other co-operating parties. The World Bank has also been instrumental in the formation of the InfoDev fund which has support from a number of international donors interested in supporting ICT projects. While active in this area in Mauritius, Cote d'Ivoire, Senegal and Morocco, so far local infrastructure support has only been given to the emerging national public access hosts in Zambia and Mozambique. The funds made available for Zambia (\$120 000) were used to pay for the necessary equipment, expertise and one year's leased line costs to connect the host to the Internet to South Africa. Ostensibly the support was provided so that the World Bank could obtain better connectivity with its local participants in the major health projects it is administering in Zambia, but the rest of Zambia's telematics users were also expected to benefit. At the end of the year sufficient users were built up to share the high costs of the leased line (\$65 000/year). which is now being expanded with a VSAT connection. In Mozambique the World Bank has followed a similar philosophy, providing support to increase the capacity of the existing local host which has subsequently resulted in commitment by the university itself to fund the first year's leased line costs to the Internet (\$40 000). The Bank has also recently funded a dialup connection via the US to the Internet and a local campus TCP/IP network for the national university in Guinea. The Southern African Bureau has recently started a new programme with support planned for a technical training workshop in Windhoek, Namibia in June 1996, and national network support in Malawi, Lesotho and Zimbabwe. Funds for these Southern African projects are requested from three sources: The Institutional Development Fund (IDF), InfoDev and individual World Bank projects. Some World Bank staff are active members of the African Internet Forum (AIF) and they are keen to see the development of National Information Infrastructure (NII) plans for African countries. <http://www.worldbank.org/> postmaster@worldbank.org

World Resources Institute (WRI) WRI is a medium sized (110 people) non-profit environmental policy research organisation. It supports the use of ICTs to improve the flow of environmental

information in developing countries not a donor organisation as such - it does not provide direct support for infrastructure building - but it has provided funds for research and surveys into access options and strategies for use of ICTs in Africa. About USD75 000 is available in 1996 to support these activities. Electronic mail links to local partners are seen as fundamental to all WRI's programmes and it tries to assist local users to obtain a connection wherever possible. WRI also plans to work with African Internet service providers to make information available locally as part of its mandate to broker information requests from developing countries. Service providers are expected to be encouraged to do this as it will attract a larger local client base. To improve the impact of the information WRI is also interested in supporting research into the design of interfaces for displaying the information most effectively, and for tracking the use of the information made available. Currently WRI's major projects in the area of ICTs in Africa are the GERMP Web Site in Ghana and assistance with the communications components of the Central African CARPE and REIMP initiatives. It is also working on a Southern African Initiative with the CSIR/Forestek and the FAO/FEWS group and would like to finance South Africans to work outside the country to spread the skills into the region.

Digitcom In Sept '98 Egypt Telecom made an agreement with Digicom 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. <http://www.digitcom.com/>

Great Lakes Telecom, Inc Provides turnkey solutions by designing and wiring voice and data networks, including fiber optic, underground, and aerial installation of Local and Wide-Area Networks. A Mitel Elite Value-Added Reseller. <http://www.glt.com/> sales@glt.com

INTELSAT INTELSAT is a commercial consortium of TOs from 125 countries which owns and operates a global system of satellites for international as well as national telecommunications. INTELSAT satellites provide most of the international voice telecommunications requirements for African countries outside of South Africa (which has its own international submarine fibre-optic links). In the past, INTELSAT has had a virtual monopoly on satellite communications with member countries implementing legislation protecting INTELSAT from competition. These regulations have gradually eroded and competition in international satellite bandwidth is now increasing. As a result, INTELSAT's basic wholesale rates are now as low as \$490 per month per 64Kbs half circuit. INTELSAT also has a DAMA (demand assigned multiple access) service which promises peer to peer connections between PTOs using the system. Capacity on the Intelsat 804 satellite which was launched in late '97 is already fully subscribed, so it will be followed shortly after by Intelsat 805 - the first satellite dedicated to Africa, orbiting above Zaire. There are a variety of other satellite providers with capacity over Africa which are competing with Intelsat - e.g. PanamSat and InterSputnik, but these are primarily used in the broadcasting and Internet access markets. <http://www.intelsat.int/> Paul Nalikka paul.nalikka@intelsat.int

NSN Sudanet, the single Sudanese ISP, uses a VSAT system linking to the USA via NSN. <http://nsn.net/>

Sakon Voice and internet telecommunications services provider, Sakon is a subsidiary of the Titan Corporation (<http://www.titan.com>, is a \$500 million publicly traded company and a major provider of satellite communications equipment to the US military. They have installed and are currently operating 10,000 small satellite dishes throughout Indonesia and Interurban systems within Benin. Titan has financed and installed equipment for Sakon's wholesale and corporate retail projects in Central America, Africa, the Middle East, and Asia. Sakon is seeking partners to expand access to telecommunications within the region and to capitalize on the high-margin profits available in the voice termination, VOIP and VPN business. <http://www.sakon.com/> David Delman

david@sakon.com

Starcel Communications Part of the US-based Intercel Holdings, Starcel is a wireless telecom and GSM mobile provider with operations in the DRC, Guinea and Madagascar. In the DRC it recently launched the Afritel fixed wireless CDMA service. <http://www.starcel.com/> Jack Lewin jlewin@starcel.com

Super Technologies Inc Low cost Internet telephony equipment and service provider <http://www.super-phone.com/> Tom Salic sales@super-phone.com

Titan Wireless Africa Private sector telecommunications investment company. Judith Aidoo jaidoo@msn.com

Turbostar Communications West Coast US-based nationwide wireless high-speed Internet services in the United States and is seeking to establish joint-ventures with African companies. <http://www.turbostar.net/> Ahmet C ahmetc@turbostar.net

Comtrends Comtrends provides technical services to ISPs. We work towards helping the Internet grow outside the United States, especially in developing countries. We provide reduced rate consulting services for ISPs in developing areas. Our services include: -ISP startup assistance - Wireless services (both for residential and business users) -Server setup and administration. -Service outsourcing (we run your servers for you) -Web hosting services (we run your hosting operation from the US) -Internet backbone services via satellite- We can provide ISPs Internet connections via satellite from the US. We manage the connection and the Internet setup so there's no need to deal with large companies that provide poor service to small customers. Other projects we are interested in: -Building local Internet traffic exchanges to keep local Internet traffic off slow international links. -Assisting with the creation of ecommerce solutions that work in developing countries without credit cards. -Working with educational institutions to provide their students with a strong technical education. <http://www.comtrends.net/> Robbie Honerkamp robbie@comtrends.net

CyHosting Corporation CyHosting Corporation is a progressive Internet services firm specializing in Web Hosting, ISP, networking and development of advanced information systems. Provides high quality, cost effective technical solutions and consulting to both small business and commercial clients. Also provides life-cycle support, including business process analysis, network design, database design, software development, software, and database conversion. We also provide our clients with database administration, internet services, network support administration, documentation, training, and end user support. We specialize in offering reseller opportunity to any African Company. Aims to break high price barriers by offering a low cost solution to all African businesses. Technical capacity includes web site design, hosting and maintenance for the Internet and Intranets including virtual web based stores with e-commerce solutions. Also provides video conferencing through PC-based solutions for ISDN and POTS as well as complete system integration by CyHosting A+ certified technicians. Training on various platforms as well as software by experienced and certified trainers is also available. <http://www.cyhosting.com/> Olugbenga Owolabi olu@cyhosting.org

Interpacket VSAT and TVRO (Simplex/Broadcast) Internet service provider used by many ISPs in Africa. About 35 cities and towns in 20 countries in Africa are connected to the Internet via Interpacket links. The company has offices in the US and UK. <http://www.interpacket.net/> Julie Spira julie@interpacket.net

PSINet US-Based Internet backbone facilities network. In Africa its partner is Calvacom - <http://www.calvapro.com> <http://www.psinet.com/> info@psinet.com

UUNET Worldwide UUNET is now the Internet services division of MCI WorldCom. The

network spans more than 1,000 Points of Presence in 114 countries. <http://www.alter.net/>

[Aidoo Consulting](#) Telecommunications and IT investment consulting. Judith Aidoo
jaidoo@msn.com

[Astropower](#) Solar electric power equipment manufacturer <http://www.astropower.com/>

[ITXC Corporation](#) US-based voice over IP provider with an Africa bureau. <http://www.itxc.com/>
Yaw Osei Amoako oseiamoako@itxc.com

[Solar Electric Light Fund](#) Provides support for photovoltaic rural electrification programmes.
<http://www.self.org/> Robert Freling, executive director rfreling@self.org

[Waveguide Consulting](#) Acoustics, A/V, Videoconferencing, consulting & design.
<http://www.waveguideinc.com/> Timothy Cape tim@waveguideinc.com

[Westar Group](#) Investor in the ICT sector. <http://www.westargroup.com/> Robert F Krill
bob@westargroup.com

[Ethiopian Scientific Society](#) Reflecting the large diaspora in the USA, this is an active organisation based in Washington DC. It has held a popular series of annual conferences on ICTs and telecommunications. One of the goals of ESS is to encourage collaboration among technical experts in Ethiopia or abroad on projects that would contribute to development in Ethiopia.
<http://www.ctr.columbia.edu/~nemo/ESS> nemo@ctr.columbia.edu

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](#).