

## AISI-Connect National ICT Profile CAMEROON (CM)

GENERAL DATA	ICT-INFRASTRUCTURE	ICT POLICIES
Capital: Yaounde	Fixed lines (K) '98: 75	Competition in local loop: Monopoly
98 Population (M): 14.31	97-98 % Fixed Line Growth: 0.0	Competition in telephone terminals: Yes
Currency: CFA	98 Mobile Lines (K): 4	Independent regulator: Yes
Exch rate (/US\$): 727.0	Mobile Line Growth (%):	Private Wireless Data allowed: No
Currency Stability: -16.0	Cities with Internet POPs: 2	Independent Internet VSAT Allowed: No
97 GDP US\$/person: 617.0	Local Call National Internet: No	VSAT License Fees:
97 Total GDP (\$B): 8.6	Dialup Internet subscribers: 2500	Satellite Phone access: No
Local Stock Exchange: No	International Bandwidth (Kbps): 256	Universal Service Obligations:
Personal Safety: 4	Internet Hosts: 6	IAP License Fees (\$/yr):
Political Stability:	Internet domains: 59	Private Phone Kiosks: No
Tertiary ICT Students:	Dialup Internet Cost 20hrs/mnth (\$): 40	Public VOIP Allowed: No
ICT Training seats:	64K Local Internet link (\$/mnt):	Business Ownership Rules:
ISDN: No	64K Internat Internet Link (\$/mnt): 4000	Repatriation of Profits Rules:
VPN Services: No	Local phone call cost (US\$/hr: 1.55	Restrictions on market entry:
UNDP Human Devel Index: 134	Monthly tel line rental (\$/mnt): 3	Export Credit Guarantees:
.	Telephone waiting time/Wait List: 7.9	.
.	Internet Access Providers 3	.
.	Mobile Operators: 1	.
.	Fixed Line Telecom Operators: 1	.

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

### ICT Profile:

#### Internet:

The International telecom operator, **Societe des Telecommunications du Cameroun**, provides both the International Internet link as well as selling dialup and leased line Internet access, web hosting and domain name registration under the name **CamNet**.

The Internet is currently available in the political capital - Yaoundé, which has a population of about

1 million, and more recently in the larger commercial centre - Douala. Because of the poor microwave links to the telecom hub in Yaounde, which is common all over the country, IntelCam is planning a large VSAT-based Internet of over 100 ground stations to create a nationally available network. IntelCam competes directly with its own downstream private sector resellers in the provision of dialup Internet access.

**Ditof** is a private ISP, a joint venture with Cameroonian, French and American interests.

**ICC** is the other private ISP and is focusing on drop-in access. Other services include: **AfriCom**, **Sercom**, **CKT Distribution Informatique**, and **Virtual Cameroon**.

### **Telecommunications:**

The **Ministère des Postes et des Télécommunications** is responsible for regulating the telecommunications sector. Extensive liberalisation of the previously state operated sector is now under way and it has recently adopted new legislation in which a two-phase restructuring of the sector will take place where the postal services will be separated from telecommunications, followed by deregulation of the telecommunications sector. A separate regulator is being created called the 'Agence de Régulations des Télécommunications (ART), and the state is progressively disengaging itself from the sector.

Cameroon's telecommunications infrastructure was until recently managed by four different state operated monopolies. **ACTEL** provided the billing and local switch management, while **Bull Cameroun** was responsible for laying the cables and the **Société des communications internationales du Cameroun (INTELCAM)** managed the international network, the X.25 service (CamPac) and Internet services. In mid '99 these were merged together to form the new group - Camtel - which included **Camtel Mobile** - a small cellular network in Doula, Younde and Bafoussam (about 28% of the population). In '99 the government privatised Camtel Mobile, selling it to a consortium comprising MTN (70%) and local partner Broadband Ltd (30%). MTN expects to invest about \$300M over the next five years to upgrade the network and plans to increase the subscriber base to 50 000 during the first year of operation.

In general Cameroon's telecommunications infrastructure is at a very low level of development with long waiting lists for phones and a limited penetration of line with about 94 000 subscribers. In Douala there is about 17Km of fibre optic links.

In mid '98 the Commission for Privatisation invited bids for the 15-year concession on a GSM-900 digital cellular telephony service and after some delays this has now been granted to France Cable and Radio (FCR). The service will be national and includes international services and is expected to move rapidly into the market which is estimated at about 100 000.

### **Communication costs:**

IntelCam:

Leased line: \$4000/month (2M CFA) for a 64Kbps link.

Dialup: Setup - 20 000 CFA. 2hrs/mnth - 6 000CFA/mnth. 10hrs/mnth - 20 000CFA/mnth. 20hrs/mnth - 35 000CFA/mnth. Addnl hours - 2 000CFA/hour.

Ditof: Dialup - 2000CFA/hour

Uninet:

Dialup: 2 hrs/mnth - 2000CFA/hour

Analogue leased line: 400 000CFA/month, (email only: 200 000CFA/month)

Web site hosting: 1-5MB 35 000CFA, 50MB 200 000CFA/month, server co-location 600

000CFA/month.

Centre Syfed: Free for public institutions, others: Monthly fee: - Minitel: 4 000 francs CFA / Minitel or PC: 6 000 francs CFA

Local calls cost 40 CFA / 6 minutes - \$US1.55/hour. About 30% cheaper after hours US\$1.1/hour.

### **National ICT Activities:**

A number of other organizations are very active in the area of networking in the public sector - the **Centre National de Développement de l'Informatique (CENADI)**, **Université de Yaoundé 1 (UniYaoundé1)**, the **École Nationale Supérieure Polytechnique (ENSP)**, and the UNDP sponsored **SDNP Cameroon**.

Officially, responsibility for national Internet and ICT policy rests with a **Comité interministériel** composed of representatives from:

- Ministère de la Communication
- Ministère des Postes et Télécommunications
- Ministère de l'Enseignement Supérieur
- Ministère de l'Éducation,
- Ministère de l'Économie et des Finances
- Ministère des Relations Extérieures et des Services du Premier Ministère

A technical committee composed of experts in the field of ICTs and networking advises the Comité interministériel. Various other structures are also involved in the process:

- An Internet working group comprising representatives from IntelCam, Ministère des Postes et Télécommunications, CENADI, École Nationale Supérieure Polytechnique, Ministère Chargé des Relations extérieures, Ministère Chargé de la Communication and Ministère de l'Enseignement Supérieur.
- An infrastructure committee
- A training and 'vulgarization' committee
- An Internet content development committee
- A co-operation committee

Support for capacity building in training institutions will focus on the Département d'informatique at ENSP, at the Faculté des sciences at the Université de Yaoundé 1 and at the **Instituts Universitaires de Technologie** in Douala and Bandjoun. Modernization of training programmes will be assisted by the **Institut Africain de l'Informatique** in Libreville, Gabon.

The UniYaoundé1 and ENSP operate **UniNet**, on behalf of the **Ministère de l'Enseignement Supérieur**.

At ENSP, there are two departments with a major involvement in networking - The **Automation Control Laboratory (ACL)**, and the **Laboratoire d'Electronique et Traitement des Signaux (LETS)**.

ACC has become host to **SDNP Cameroon**

The **Comité National de Développement des Technologies (CNDT)** is also active in ICT programmes in the country.

**Other organisations not listed below**

The **Sub-Regional Development Centre for Central Africa (SRDC-CA)** is the UN ECA's sub-regional arm charged with supporting sub-regional electronic information exchange networks of economic experts, civil society organizations, NGOs and the private sector. SRDC-CA is co-sponsoring with the World Bank the 'National Workshop on Telecommunications Reform and Information Infrastructure' which was held in early '98.

The **Réseau camerounais de documentation agricole (REDOCAM)** being developed by l'Institut de la recherche agronomique (IRA) with support from the World Bank.

The **Institut de recherches médicales et d'études des plantes médicinales (IRMPM)** is developing a network for medical plant information exchange.

The **Organisation africaine de la propriété intellectuelle (OAPI)** is establishing a central information resource for the 13 central African member countries which includes the development of databases with support from IDRC.

A documentation network is being established by the **Institut panafricain pour le Développement (IPD)** called the Réseau panafricain d'information et de documentation rurales (REPIDOR) which will encourage information exchange with other regional institutions working in the area.

The **Ecole Normale Supérieure (ENS)**, the teacher training school of UniYaounde1 located off-campus is developing a technology based distance education programme and will be connected to UniNet with support from ACCT.

Other relevant institutions:

- Université de Dschang, Dschang
- Université de Douala, Douala
- Université de Ngaoundere, Ngaoundere
- Université catholique d'Afrique centrale, Yaoundé
- Université de Yaoundé' II, Yaoundé
- Ecole Nationale Supérieure des Travaux Publics de Yaoundé (ENSTPE) - Informatics is one of their five areas of specialization.
- Mission de Promotion de utilization des Matériaux Locaux (MPML)
- Cameroon Development Corporation (CDC)
- Institut de Recherche en Agronomie et Développement (IRAD)
- Institut National Agronomique pour le Développement Rural (INADR) (at the Université de Dschang)
- Institut National de Cartographie (INC)
- Institut du Recherche Géologique et Minière (IRGM)
- Cameroon Opportunities Industrialization Centre (COIC)
- Centre Régional Africain d'Administration du Travail (CRADAT)
- Centre d'Etude de l'Environnement et du Développement au Cameroun (CEDC) Samuel Nguiffo [nguiffo@environ.ced.cm](mailto:nguiffo@environ.ced.cm)
- Centre d'Etude, de Recherche et de Formation
- Centre de Création d'Entreprises de Yaoundé
- Centre de Recherche et d'Etudes en Economie et Sondage (CRETES)
- Direction de la Statistique et de la Comptabilité Nationale
- Ecole Nationale Supérieure des Postes et Télécommunications
- Ecole pour la Formation des Spécialistes de la Coopération
- Institut Panafricain Pour Le Développement - Afrique Centrale Francophone
- Institut Sous-Régional Statistique et Economie Appliquée
- Panafrican Institute for Development - West Africa
- Association pr la promotion des initiatives communautaires africaines (APICA) Ousmane

[Korniosgapica@technic.apica.cm](mailto:Korniosgapica@technic.apica.cm)

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## Organisational Activities in the ICT Sector:

**Centre d'Etudes des Telecoms Cameroun (CETCAM)** ICT research organisation.

**Comité National de Développement des Technologies** Active in ICT programmes in the country.  
Dr Efoua Fouda [cndt@camnet.cm](mailto:cndt@camnet.cm)

**Societe des Telecommunications du Cameroun** The International telecom operator, it provides both the International Internet link as well as selling dialup and leased line Internet access, web hosting and domain name registration under the name CamNet. CamNet is the domain administrator for the .cm TLD and has a 128Kbps link to MCI in the US with about 700 dialup users and 4 leased lines to CENADI, two private sector ISPs and to UniNet. An increase to 256kbps for the Internet link has been applied for but CamNet say MCI have been slow to supply. Prices are relatively high for access - leased lines cost about \$4000/month for a 64K line and about USD\$45 a month for 10 hours dialup. Additional hours cost \$4, along with another \$4/hour for local telephone call charges.  
<http://www.camnet.cm/> [jean-claude.tchoulack@camnet.cm](mailto:jean-claude.tchoulack@camnet.cm)

**Africances** Africances is a Global Internet Access Provider. We can provide a Virtual Private Network for corporates located in Central Africa Area. Access point: Douala (Cameroun), Pointe-Noire (Congo) France: The whole Country <http://www.africances.com/> Thomas Okalla [info@africances.com](mailto:info@africances.com)

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**AfriCom** Internet service provider. <http://www.africom.net/>

**Centre National de Développement de l'Informatique** CENADI was originally under the Ministère de la Recherche Scientifique et Technique, but has since moved to the **Ministry of Finance**. CENADI is one of the largest IT users in the country, responsible for government data processing and computer networks. The major task for the agency is the civil service salaries/payroll but it has also recently established a large Internet service and network operations centre to provide Internet links to government departments. CENADI has also prepared a 5 year plan for the use of ICTs in government, and is playing a standardization role for the use of ICTs in government. CENADI developed and operated the country's X.25 packet switched network until the PTO, IntelCam, was able to take it over. More recently CENADI has attempted to involve the PTO in national ICT planning.

The Internet hub established by CENADI at the DGIC building was supported by ACCT's @friNet project which provided one of the servers and training of system managers. One of the objectives of the project is to supply connectivity to the research, academic and educational sectors.

**CKT Distribution Informatique** Web hosting and equipment provider.  
<http://www.africances.fr/ckt> [tekambi@africances.fr](mailto:tekambi@africances.fr)

**Ditof** This is a joint venture with Cameroonian, French and American interests. Ditof has the agency for France Telecom's Minitel terminals and it has extensive plans for using Minitel's to access the Internet. Director Chretien Talelo maintains that most people in Cameroon want access to the information, and fast, especially when the cost of a local call is \$4/hour. So Ditof have installed a Minitel/Internet gateway which allows text-based email and web browsing. The company has also opened two public access points in Yaoundé where users can drop in and make use of the equipment. Talelo also expects that many of the 'teleboutiques' (phone shops) will be able to sell Internet access in this way as an additional service. With the low cost of a Minitel terminal - less than \$200 - Ditof expects that small businesses will more easily be able to get a quick payback on the investment costs.  
<http://www2.sn.apc.org/africa/www.ditof.cm> [ctalelo@mail.ditof.cm](mailto:ctalelo@mail.ditof.cm)

**GCNet** Internet Service Provider and web hosting <http://www.gcnet.cm/> [gcnet@gcnet.cm](mailto:gcnet@gcnet.cm)

**ICC** One of the private ISPs, it is also focusing on drop-in access. It is going for the higher end of the market and has just installed 40 PCs on a LAN at its business centre in the Yaoundé Hilton Hotel and has connected them to its 64Kbps leased line to CamNet. A dialup service is also planned.  
<http://www.iccnet.cm/>

**Sercom** Internet service provider. [akambi.toko@camnet.cm](mailto:akambi.toko@camnet.cm)

**Virtual Cameroon** Information on Cameroun. <http://www.cybernum.com/cyber97B.htm>

**Cameroon Document Systems** Agent for Xerox document management systems, photocopiers etc.

**CD INFORMATIQUE** Certified Oracle Partner. Marc Jacquesson [cdinfor@camnet.cm](mailto:cdinfor@camnet.cm)

**Son et Musique** Distributors for Dell Computers. Mr Andre Tsalpatouros  
[sonetmusique@hotmail.com](mailto:sonetmusique@hotmail.com)

**Top Micro Technologies** PC supplier, agent for Dell Computers. Mme. Chantal Njapoun  
[tmtechno@cyberkoki.net](mailto:tmtechno@cyberkoki.net)

**Automation Control Laboratory** At ENSP (see separate entry) there are two departments with a major involvement in networking - The **Automation Control Laboratory (ACL)**(see separate entry), and the **Laboratoire d'Electronique et Traitement des Signaux (LETS)** (See separate entry.) **ACL** is situated within the Department of Engineering and has operated two dialup store and forward email services for a number of years - Healthnet Cameroun and CamFido which currently connects to GreenNet in London. More recently it has become host to **SDNP Cameroon** (see separate entry.) Prof Sylvestre Kwankam Yunkap [support@camfido.gn.apc.org](mailto:support@camfido.gn.apc.org)

**ENSP** The **UniYaoundé1** (see separate entry) and **ENSP** share the same campus, forming the strongest nucleus of networking skills and activities in the country. The University's Centre de Calcul has 15 network technicians who manage the network operations centre and hub for the academic Internet service called **UniNet**, (see separate entry) which UniYoundé1 operates on behalf of the **Ministère de l'Enseignement Supérieur** who cover the costs.

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ENSP is also one of the few central African tertiary institutions with a research team working on ICTs. Dr. Lot Tcheeko, lecturer at ENSP and technical advisor to SDNP, REIMP and other Internet projects, runs a research programme in which a number of postgraduates are studying networking issues including computer security heterogeneous networks, virtual networks and their impact on the development of telecommunication infrastructure, and mobile computing. <http://uycdc.uninet.cm/>  
Mr Ebot Ebot Enaw [maeobot@uycdc.uninet.cm](mailto:maeobot@uycdc.uninet.cm)

**Laboratoire d'Electronique et Traitement des Signaux** At ENSP, there are two departments with a major involvement in networking - The **Automation Control Laboratory (ACL)**, and the **Laboratoire d'Electronique et Traitement des Signaux** LETS hosted the **ORSTOM/RIO** email server until full Internet services were launched by the PTO at which point it was closed down and users assisted in moving over to CamNet or UniNet.

LETs has assisted in organizing a number of networking training courses and is behind the establishment of the **Connectivity Information & Training Center for Internet (CITI-CM)** which has received about \$200 000 from InfoDev (\$120 000), ORSTOM, UNITAR, ACCT and local companies to establish a training centre and training programme. Training courses will be free to local nationals in the research and academic sector, the private sector will pay about 700 000 CFA for a 2-week course. LETS has also developed a demonstration web-based training course in satellite dish engineering. Tonye Emmanuel [tonyee@hotmail.com](mailto:tonyee@hotmail.com)

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UniYounde1 has a broadband fibre optic network linking the departments on campus installed with support from Co-operation Francaise' Projet d'Appui a l'Enseignement Superieur et a la Recherche dans les Universitaires Camerounaise (PAESRUC) which has recently been extended as the UNICAM2000 programme. However, with only 200 PCs on campus and the limited bandwidth (64Kbps), only 250 staff and post graduate students are currently allowed full access to the Internet. UniNet is supplying dialup access to the Internet for some of the other universities as none of them have LANs. <http://uycdc.uninet.cm/> Mr Ebot Ebot Enaw (manager UniNet) <mailto:eebot@uycdc.uninet.cm>

**Organisation Africaine de la Propriete Intellectuelle (OAPI)** Cameroon is the location of the headquarters OAPI, the intergovernmental organisation formed in 1977 by the Bangui Accord which directed OAPI to take over from the Office Africain et Malgache de la Propriete Industrielle. The OAPI serves the national bodies of its 14 West African member countries concerned with intellectual property. OAPI offers registration for patents and trademarks. Patents in Cameroon have an initial validity of ten years. They can be renewed every five years upon submission of proof that the patent was used in at least one of the 14 member countries of the OAPI. In the absence of use, compulsory licensing is possible after three years. Trademark protection is initially valid for 20 years with renewal possibilities every 10 years.

**Centre Syfed Yaounde** The **Centre Syfed** established by AUPELF-UREF is off-campus. It provides free Internet access and web hosting for organizations in the public sector. The Centre is

currently on an X.25 connection to Paris but is planning a leased line link to the local Internet hub. The Centre Syfed is also planning to set up smaller Centre Syfeds at the other 4 major Universities in Cameroon. <http://syfed.refer.cm/> Isabelle Turmaine <mailto:isabelle.turmaine@aupelf.refer.org>

**SDNP Cameroun** ACL (situated within the Department of Engineering of ENSP) has become host to **SDNP Cameroon**, which developed out of UNDP's support for the National Environmental Management Plan (NEMP) formulated in 1994 by the **Ministry of Economy and Finance**.

SDNP Cameroon runs a Linux Internet server hosting web pages and about 80 dialup email and full Internet users. The provision of web hosting services and content is becoming a more important part of SDNP's activities following the establishment of Internet access by CamNet. However it is likely to continue to play an important role in providing access to some of the NGO sector and others who cannot afford the current cost of access.

How long this continues will paradoxically, in part depend on the effectiveness of SDNP Cameroon's other activities in pushing for policy changes in Government and encouraging support from other agencies. These objectives are encompassed in proposal developed by the project for a 'SDNP Cameroon Sustainability Watch Network' (SWAN) which is seen as a natural extension of SDNP Cameroon's overall goal to promote the exchange of information on sustainable development. As a recent indication of the moves in this direction, the project has just signed a memorandum of understanding with the **Mount Cameroun Project - Limbe** to establish a home page for the **Bio-diversity Conservation Center** in Limbe. SDNP Cameroon is also acting as the communications hub for the World Bank's Central African Regional Environmental Management Project (REIMP) and extensive training of REIMP users in Cameroon has been carried out.

SDNCMR have also developed an online database of NGOs in Cameroun, with a remote update feature via the web: <http://195.24.196.225/ngodb>  
<http://www.sdnpc.undp.org/sdnpcmr> Dr Wawa Ngenge [wangenge@sdncmr.undp.org](mailto:wangenge@sdncmr.undp.org)

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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](#).