

AISI-Connect National ICT Profile MOROCCO (MA)

GENERAL DATA	ICT-INFRASTRUCTURE	ICT POLICIES
Capital: Rabat	Fixed lines (K) '98: 1515	Competition in local loop: Monopoly
98 Population (M): 27.87	97-98 % Fixed Line Growth: 9.2	Competition in telephone terminals: Yes
Currency: MAD	98 Mobile Lines (K): 116	Independent regulator: Yes
Exch rate (/US\$): 10.7	Mobile Line Growth (%): 56	Private Wireless Data allowed: No
Currency Stability: -9.0	Cities with Internet POPs: 10	Independent Internet VSAT Allowed: No
97 GDP US\$/person: 1218.0	Local Call National Internet: Yes	VSAT License Fees:
97 Total GDP (\$B): 33.5	Dialup Internet subscribers: 75000	Satellite Phone access: No
Local Stock Exchange: Yes	International Bandwidth (Kbps): 8192	Universal Service Obligations:
Personal Safety: 17	Internet Hosts: 961	IAP License Fees (\$/yr):
Political Stability:	Internet domains: 1101	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: Yes	64K Internat Internet Link (\$/mnt):	Repatriation of Profits Rules:
VPN Services: No	Local phone call cost (US\$/hr): 0.76	Restrictions on market entry:
UNDP Human Devel Index: 126	Monthly tel line rental (\$/mnt): 7.5	Export Credit Guarantees:
.	Telephone waiting time/Wait List: 0.2	.
.	Internet Access Providers 250	.
.	Mobile Operators: 2	.
.	Fixed Line Telecom Operators: 1	.

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

ICT Profile:

Internet:

The PTO, IAM, provides the international Internet hub via two independent links to the US and Europe for a large and diversified ISP sector. There are an estimated 40 000 Internet users and about

250 ISPs in the country.

Telecommunications:

Ministère de la communication is ultimately responsible for the telecommunications sector.

The telecommunications sector is regulated by the **Agence nationale de réglementation des telecommunications**.

In the largest privatization ever by an Arab country the ONPT was converted into a private company called **Itissalat Al Maghrib**.

Morocco has a relatively advanced and pervasive telephone network, video-conferencing services to 25 countries, an X.25 service (MAGHRIPAC). Both analogue and GSM cellular phone services are available. A consortium consisting of Telefonica, Portugal Telecom BMCE and the Africa group won the bid for the second GSM license in the country, offering 1.08 billion dollars, five times the value of the Egyptian license. See <http://www.anrt.net.ma/gsm2.htm>

Morocco currently operates three satellite stations providing national and international circuits (the Mohammed V station at Rabat, a station at Laayoune and another one at Dakhla).

Communications costs:

ISP tariffs:

ACDIM: Monthly - 450 DH HT, Off Peak account: 250 DH HT (12h30 14h00 & 20h30 7h00 every day, Email only: 150 DH HT, Installation: 250 on site, 150DH on premises, no setup fee if user installs.

Azure: Usage: 1 DH every 2 mn or 650DH unlimited. Leased lines: 2500 DH setup, + 7000/month.

Diagone MarocNet: 240 DH HT/month, unlimited usage.

Elan: Private acct: 300 DH a month, corporate account 500 DH /month. (both unlimited access)

Group Open SA: 500 DH HT /month for individuals, 699 DH HT/month for company account. 300 DH HT / month for access only between 7pm and 8am.

L&L: 300 DH HT/month, if paid annually. 7pm-8am 275 DH/month. Email 100/month. + 0,80 DH/ 3 minutes peak hours, 40 DH/ 3 min off peak.

MaghrebNet: 350 / month. Leased line: 2000 setup fee, 4000/Month

MTDS: Educational acct: 280 DH /15 hours, 350 / 20 hours, individual acct: 400 / 30 hours, 500 / 30 hours. corporate acct: 720 DH / 40 hours,900 DH/ 60 hrs. 20% discount for payment 1 yr in advance. additional hours 35 DH.

Wafenagoce: 300 / month, for 8 free hours a month for businesses, or 5 free hours a month for individuals. Additional hours 25DH/hr

Local calls cost 0.47FF / 6 minutes. See <http://www.onpt.net.ma/iam-ta.htm> for full tariff list.

National ICT Policy Activities:

National networking policy and the use of ICTs for the public and private sector is now the domain of the **Conseiller du Premier Ministre responsable pour IT**, Mr Ben Kamouna. The **Ministry of Education** is also now taking a leading role in networking among teaching institutions. 14 universities and higher education institutes have been connected to the Internet via an X.25-Internet gateway operated by the ISP MTDS in Rabat with support from USAID.

The **Ministere de l'Education Nationale** and the **Ministere de l'Enseignement Superieur, de la Recherche Scientifique et de la Formation des Cadres** are responsible for universities and other

centres of higher education.

Prime Minister's office in conjunction with the **Ministere d'Enseignement Superieure et de la Recherche** and the PTO has established a 2Mbps backbone for all 9 provincial capitals. Access will be provided at cost for the academic/research sector and schools.

The **Centre national de documentation** (CND) has a broad mandate covering many areas relating to ICT policy in the country.

The **Université Mohammed V** in Rabat hosts the **Ecole Mohammadia d'Ingenieurs**.

EMI is a contributor to La Francophonie's ICT Breves news service - <http://www.francophonie.org/liaison>

The general use of Arabic in the country has limited the take up of ICTs. One of the measures being taken to address this is the establishment of a regional information network in Arabic in collaboration with the countries of the **League of Arab States**.

The **Ministry of Environmental Affairs** hosts the national SDNP.

The **Ecole des Sciences de l'Information** (ESI) has an extensive ICT training programme which attracts a number of students from other countries in the region, as well as a large documentation centre. It also has links with schools of information science at universities in Pittsburg, Montréal and Sheffield UK.

The **Ecole Nationale Superieure d'Informatique et d'Analyse des Systemes** is in Rabat.

The **University Ibnou Zhor de Agadir** is the Las Palmas Chair focal point for establishment of a system for improving access to scientific documentation, in collaboration with the **Polytechnical University for Valencia**, Spain.

The **Ecole Nationale de l'Industrie Minerale** (ENIM) in Agdal has an Informatics department which provides training for systems engineers, information centre management, database and network administration and applications development.

The **Ecole Superieure de Technologie de Casablanca** (ESTC) provides training in Informatics in corporate management.

The **Institut National des Postes et Telecommunications** (INPT), Rabat is well known for its telecom and IT programmes.

The **Université des Sciences de Rabat** has established a research project on telecommunications and multi-media with support from INPT and INRIA.

The **Université de Marrakech** has an informatics research project in collaboration with INRIA.

The **Institut National de Statistique et d'Economie Appliquee** (INSEA) provides training in information analysis.

The **Royal Centre for Remote Sensing** (CRTS) is responsible for the distribution of satellite images in the Kingdom.

The **National Centre for Agricultural Documentation** has developed two databases - AGRIDOC

and RETRODOC.

ACCT's BIEF partners in Morocco are: the **Centre africain de formation et de recherche administratives pour le développement** (CAFRAD), Université Mohammed V, CND and the **Fondation du Roi Abdul-Aziz Al Saoud pour les études islamiques et les sciences humaines**.

A Centre Syfed has been established by AUPELF-UREF in Rabat.

Organisational Activities in the ICT Sector:

[Al Akhawayn University](#) Moroccan full Internet service for the academic sector

[Ecole Mohammadia d'Ingenieurs](#) Operates an Internet service. Hosted by the **Université Mohammed V** in Rabat. It is the RINAF focal point and one of the leading networking organizations in the country. / Director, Aside from scientific and technical research and network service provision, EMI also provides continuing education courses and is also the focal point for the regional Arab network - RAITNET. The Department Information of Management has a software laboratory and a networks and systems laboratory. EMI has accords with over 30 universities and schools in Africa, Europe and North America and is the local partner in many projects supported by international development agencies. EMI also has contracts to assist in informatics and network development from many government departments. EMI is a contributor to La Francophonie's ICT Breves news service - <http://www.francophonie.org/liaison> The school is has been developing a scientific research network called Chabaka du Maghrib (CHAMA) which is also aimed at engaging expatriate Moroccan researchers. The network linked Ecole des Sciences de l'Information (ESI), Rectorat de l'Université Mohamed V, Centre national de coordination et de planification de la recherche scientifique and the Institut national de la recherche agronomique (INRA). This was initially seen as the first stage of a dedicated science and technology information network, however with the advent of the national high speed Internet backbone, it is likely that institutions will now connect directly to it instead. <http://www.emi.ac.ma/> Mohamed Ali Taoud webmaster@emi.ac.ma

[ENDA Maghreb](#) Operates a store and forward Internet service.
endamagreb@endamag.gn.apc.org

[Centre national de documentation](#) It has a broad mandate covering many areas relating to ICT policy in the country. It is attached to the **Ministry of Planning** and is officially charged with establishing a science and technology information network as well as collecting, processing and diffusing scientific and technical information concerning the social and economic development of the country. CND also provides guidance in the application of ICTs for government, parastatal and public institutions and local collectives.

CND uses MINISIS to automate its documentation centre and it has developed multidisciplinary thesaurus in French (MAKNAZ) and a number of other databases - MAALAMA, MUTUN and RACID. A regional and sectoral decentralization programme is in place at CND which has seen 20 database access points in the 7 regions of the country.

[Agence nationale de reglementation des telecommunications](#) Regulates the telecommunications sector. It is being assisted in capacity building by the European Union. <http://www.anrt.net.ma/>
webmaster@anrt.net.ma

[Itissalat Al Maghrib](#) The PTO, in the largest privatisation ever by an Arab country, has been converted from the ONPT to IAM and its shares sold on the Casablanca Stock Exchange. The Government is hoping that a major international telecommunications company will buy between 25

to 50 percent of the shares and act as a strategic partner in running the ONPT. IAM also provides the international Internet hub for a large ISP sector. The international link currently runs at 8Mbps to the US, Italy and France. The majority of the 160 service providers are located in Casablanca, Rabat, and Tangier with others in Tetouan, Fes, Meknes, Marrakech, Oujda and Agadir.

IAM has assumed responsibility for the administration of the .ma TLD domain and it also provides special telephone numbers (numero vert) to the ISPs so that it is about 3 times the cost of a local call to access the Internet from anywhere in the country. <http://www.iam.net.ma/>

Ministère de la communication Ultimately responsible for the telecommunications sector. <http://www.mincom.gov.ma/> webmaster@mincom.gov.ma

ACDIM An ISP. <http://www.acdim.co.ma/> webmaster@acdim.co.ma

AIM An ISP. <http://www.aim.net.ma/> info@aim.net.ma

Athena Online Our goal is to provide the best quality and support at the lowest prices. We have not lost a customer since we began so apparently we succeed in doing so. We offer internet access (v34+, v90, ISDN), web and database creation and hosting, e-mail services, domain hosting and consulting. <http://www.athena.online.co.ma/> Franck R. Horlville info@athena.online.co.ma

AtlasNet An ISP. <http://www.atlasnet.net.ma/>

AZURE An ISP. <http://www.azure.net/> rns@azure.net

CASA An ISP. <http://www.casenet.net.ma/> sa@casenet.net.ma

CBI An ISP. <http://www.cbi.net.ma/>

CFC-ESG An ISP. <http://www.cfc.net.ma/>

Cybermania An ISP. Covers Tetouan and Tangier <http://www.cybermania.net.ma/> info@cybermania.net.ma

Diagone MarocNet An ISP which operates in Casablanca/Agadir. 128 kb in Casablanca, 64 kb to Agadir. Under construction: 64 kb to Rabat, 64 kb to Marrakech and 64 kb to Tangier. <http://www.diagone.net.ma/> salwa@marocnet.net.ma

Diagone/marocnet Diagone is one of the major computer, Internet services and training provider over Morocco. Marocnet is his Internet département. <http://www.marocnet.net.ma/> El FAHLI Driss delfahli@marocnet.net.ma

Digiweb France / Maroc An ISP Digiweb France / Maroc is a large multinational web hosting company based in Paris. <http://www.digiweb.net.ma/> delfahli@marocnet.net.ma

Dounia Net An ISP. <http://www.dounia.net.ma/>

EBE An ISP. <http://www.ebe.net.ma/>

ELAN An ISP. <http://www.elan.net.ma/> webmaster@dial.elan.net.ma

EspaceNet An ISP. <http://www.espacenet.net.ma/> webmaster@espacenet.net.ma

FesNet An ISP. <http://www.fesnet.net.ma/>

Group Open SA An ISP. <http://www.open.net.ma/> yalaoui@open.net.ma

L&L Technologies An ISP. <http://www.techno.net.ma/> anass@techno.net.ma

La Tengeroise An ISP. <http://www.tangeroise.net.ma/> tinfo@tangeroise.net.ma

MaghrebNet An ISP. <http://www.maghrebnet.com/> mekki@maghrebnet.net.ma

MicroAccess An ISP. <http://www.mamnet.net.ma/>

Morocco Internet Society Chapter This was the first ISOC chapter to be established in Africa. With an active programme of events, its large membership is probably the most representative of public sector networking in the country. <http://www.misoc.org.ma/> Najat Rochdi najat@misoc.org.ma

Morocco Trade and Development Services S.A. <http://www.mtlds.net.ma/> Karl Stanzick webmaster@mtlds.com

MTDS Morocco Trade and Development Services S.A. is a telecommunications consulting firm located in Rabat, Morocco. It is the premier Internet Service Provider in Morocco currently providing dial-up and leased line services. MTDS also act as consultants to African telecoms companies. As a result of its success in the field of connectivity, the US Government selected MTDS to serve as senior consultants in the implementation of the Leland Initiative, an ambitious project to assist 22 African countries in establishing Internet infrastructure and access. To date, MTDS has installed internet nodes in Mali, Madagascar, Mozambique, Guinea-Conakry, Benin, and the Ivory Coast (Côte d'Ivoire). <http://www2.sn.apc.org/africa/www.mtlds.com> jm mas jm@mtlds.com

MTDS An ISP. <http://www.mtlds.com/> karl@mtlds.com

MultiMedia Marrakech An ISP. <http://www.cybernet.net.ma/> info@cybernet.net.ma

Munisys An ISP. <http://www.munisys.net.ma/> munisys@munisys.net.ma

PLV+ An ISP. <http://www.plvplus.net.ma/> info@plvplus.net.ma

Prolec An ISP. <http://www.arcnet.net.ma/> Prolec@Arcnet.net.ma

S2M An ISP. <http://www.s2m.net.ma/> webmaster@s2m.net.ma

Serinfo An ISP. <http://www.serinfo.net.ma/> serinfo@mail.serinfo.net.ma

SIS An ISP. <http://www.sis.net.ma/> sis@mail.sis.net.ma

SOMARC An ISP. <http://www.mis.net.ma/> webmaster@mis.net.ma

Sprint Technology <http://www.sprint.net.ma/>

Wafanegoce An ISP. <http://www.wafanegoce.net.ma/> wafanegoce@mail.wafanegoce.net.ma

Winner An ISP. <http://www.winner.net.ma/> winner@mail.winner.net.ma

Ministry of Environmental Affairs Hosts the national SDNP with support from UNDP and broad participation from UNFPA, the Federation of Chambers of Commerce and Industry, the Ministry of Agriculture, the Ministry of Public Works, the PTO, Ministry of Public Health, Centre national de documentation (CND), Ministry of Foreign Affairs and the Royal Centre for Remote Sensing (CRTS). SDNP Morocco has also established a comprehensive web server, provides email access and holds regular training and sensitization sessions. <http://www.minenv.gov.ma/> Najat Rochdi najat@sdnhq.undp.org

Royal Centre for Remote Sensing Responsible for the distribution of satellite images in the Kingdom. It conducts training courses and has contracts with a number of satellite image distributors: Spot Image in France for Spot data, Eurimage in Italy for LANDSAT, NOAA, ERS and IRS data, etc. CRTS is also responsible for centralizing the national archives of satellite data and data from projects using spaceborne remote sensing. CRTS is co-ordinating Moroccan efforts to set up the Co-operation Information Network (COPINE) project launched by the United Nations Office for Outer Space Affairs. Morocco has also established the **Regional Centre for Space Science and Technology Education** at EMI. crts@mtds.com

American Perfect Rapid PC supplier, agents for Dell Computers. Mr. Ahmed Tarik APR@casanet.net.ma

Compaq Computer North Africa Local office of the PC equipment manufacturer.

Omnidata Certified Oracle partner. <http://www.omnidata.co.ma/> srkaibi@omnidata.co.ma

Oracle Morocco Database software provider's Morocco Office <http://www.oracle.com/info@oracle.com>

Seka Services PC supplier, agents for Dell Computers. Mr. Kamal Sebraoui <mailto:seka@casanet.net.ma>

XEROX MAROC SA Agents for Xerox document management systems and photocopiers.

North Africa Subregional Development Centre Located in Tangier. One of its objectives is to facilitate networking and information exchange, by providing for public sector, civil society, and private sector development partners to interact at the regional level and share experiences. Part of UNECA. srdc@cybermania.net.ma

Centre Syfed Morocco A centre has been established by AUPELF-UREF in Rabat providing free access to the public sector. <http://syfed.refer.ma/> el-hadi.addahbi@aupelf.refer.org

Ecole Nationale Supérieure d'Informatique et d'Analyse des Systèmes Held a workshop in Rabat in '97 on new technologies of databases, the web and data warehousing with assistance from INRIA which is also assisting ENSIAS with a more general plan to 'train the trainers' in informatics. Faranak.Grange@inria.fr

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.](#)