africa & middle east telecom-week

African Mobile Factbook 2008

This briefing paper provides a snapshot of the African mobile phone market at the start of 2007, written and produced as a free service for executives involved in the mobile phone industry by the editorial team of 'Africa & Middle East Telecom Week'.

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The African Mobile Market

Market Overview

The African mobile market has grown at a slow pace primarily limited by restrictive regulatory policies, closed markets, high entry barriers, and a shortage of local skills in information and communication technologies. However, the region has seen rapid growth in the last three years due to liberalization effort resulting in formation of independent regulatory bodies and increased competition in the market. Africa has become the fastest growing mobile market in the world with mobile penetration in the region ranging from 100% to 30% and in most countries exceeding the fixed line penetration. For example, in South Africa, while the penetration of fixed-line telephony at end-March 2007 was approximately 9.8 percent[1], mobile penetration had far exceeded this, reaching approximately 84 percent by the end of 2007. Several key markets, such as Nigeria, South Africa, and Egypt, have emerged as the primary areas of growth; South Africa is a relatively mature market, while Nigeria and Egypt have immense potential for growth. 3G services are picking up in Africa and are expected to create more opportunities for mobile operators.

The fast growth of mobile services in Africa has been enabled by the introduction of GSM-based services, which have provided a cost effective means of communication compared to fixed-line telephony. Currently, GSM based services are growing at approximately 62% annually[2]. Though mobile analogue networks were present in some countries before the launch of GSM networks, they did not succeed in reaching the mass market for a number of reasons, such as the high cost of handsets and service charges. For example, ETACS was introduced in Kenya in 1993 but had only 20,000 subscribers by the end of 1999.[3]

Some of the other factors that have contributed to the growth of mobile services following the launch of GSM-based networks in Africa include the availability of pre-paid billing, community phones, and the liberalisation of telecom policies in a number of African countries.

The availability of pre-paid subscriptions has been a major driver for the substantial growth in the number of subscribers in the region. The popularity has increased since majority of the population lie in a low per capita income group and can avail easy access to mobile services by paying at their convenience. Pre-paid subscriptions account for nearly 95 percent of total mobile subscriptions in the region.[4] This pattern is seen around the world; populations with a higher per capita income, such as in Western Europe or North America, favour post-paid subscriptions, where populations in Africa and Latin America favour pre-paid subscriptions.

A system of 'community phones', which allows users to pay by the call, has also proved successful in increasing the take-up of mobile services in some areas. This system has particularly gained popularity in rural areas of Africa, where network operators find the cost of providing coverage to every rural settlement prohibitive, and each individual cannot bear the high cost of owning their own handset, therefore using the centrally located 'community mobile phone' offers an affordable solution.

Most African countries introduced liberal telecom policies in late 1990s and early 2000, thus facilitating the entry of new operators, some of these with foreign stakeholders. The entry of new operators besides the state-owned sole operator in most countries brought much needed competition to these mobile markets, thus positively influencing price competition and driving subscriber growth. Some of the major operators in Africa are MTN, Orascom and Vodacom, which have operations across multiple African countries.

Given the scope for growth of mobile services in many countries of the region primarily due to low penetration levels, such as Tanzania, Ghana, etc., some of the operators are seeking to expand their networks to such countries. For example, MTN acquired operations in Cote d'lovire and Zambia during the second half of 2005.

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[1] Source: http://www.telkom.co.za/

[2] Source: http://www.gsacom.com

[3] Source: http://www.cck.go.ke/market_information-telecommunications/

[4] Source: http://www.redknee.com/

Most of the mobile operators are home-grown. Since most multinational investors prefer lucrative markets in the Asia and Latin America, African operators have relied heavily on local funding. As a result, firms like MTN, Vodacom, Orascom and Millicom have been successful in exploiting the experience and skills gained domestically in other African markets. In 2005, the continent's seven largest investors controlled 53% of the African mobile market, and are looking at further expanding their market. For instance, Celtel has established its One Network system in East Africa, creating a borderless market so that subscribers can use airtime bought in Kenya for calls in Uganda or Tanzania.[5]

Moreover, positive regulatory developments have also encouraged operators to invest more heavily in the region. The Communications Commission of Kenya (CCK) has frequently intervened to reduce inter-connectivity charges levied by the Kencell Communications (now known as Celtel) and Safaricom in the country and has also continually monitored operators on quality of service, using modern quality monitoring devices.[6,7]

The mobile market in the region however faces a number of hurdles, such as low per capita income and lower living standards, in sustaining the rapid growth that has been achieved in recent years. Orascom is one operator that appears to be actively limiting its focus on key countries of operation, and then shifting further investment to some of the emerging markets in the Middle East and Asia, rather than pushing further expansion in Africa. For example, it has increased its stake in its subsidiary in Iraq where the per capita income and living standards are much higher, compared to Africa, and hence there is greater scope for expansion.

In terms of mobile value-added services, the region is currently at a nascent stage. In general, the demand for value-added services in the region is expected to be low due to low levels of penetration, low literacy levels and low per capita income, causing operators to limit their investments in the development of anything but the most basic value-added services. However, some of the developed markets, such as South Africa, Morocco, Mauritius and Nigeria, will continue to prove an exception to this rule. Across most of Africa, SMS is likely to be the only non-voice value-added service to gain mass market popularity in the immediate future. As subscriber numbers grow, it is likely that locally produced SMS content will proliferate (adapted to local language, markets and demands) and, as a low-cost service, SMS traffic should grow to significant volumes.

Market Size – Subscriber Growth and Penetration

Mobile penetration across most of the region is still quite low despite the fast growth in recent years. Overall, the region had 79.74 million subscribers and a corresponding mobile penetration rate of 10.3 percent at year-end 2004. In 2005 this figure grew to a close at 133.55 million, a penetration rate of approximately 15.2 percent. The growth has continued through subsequent periods, resulting in some 280.7 million subscribers at the end of 2007, representing a penetration of 30.4%. Pre-paid subscriptions are highly dominant in the region and constitute approximately 95 percent of the total subscribers.[8]

Total mobile subscribers in the region are expected to increase in the 5-year period from end-2007 to end-2012, resulting in a mobile subscriber base of 561.18 million by the end of 2012. The corresponding mobile penetration for the region is also expected to increase from 30 percent in 2007 to 53.5 percent in 2012. The negative factors already highlighted are expected to retard the rate of growth in the next 5-year period, although there will also some countering factors. The overall effect will be a slowing, as the various markets mature, leading to a period when the rate of growth may actually improve.

Table 1, below, shows forecast growth of mobile subscribers in Africa for the 11-year period from 2002 to 2012.

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[5] Source: http://globaltechforum.eiu.com

[6] Source: www.commnow.com

[7] Source: http://www.cck.go.ke/annual_reports/annual_report.pdf

[8] Source: http://www.redknee.com/newsletter/template.php?action=view_article&article_id=154

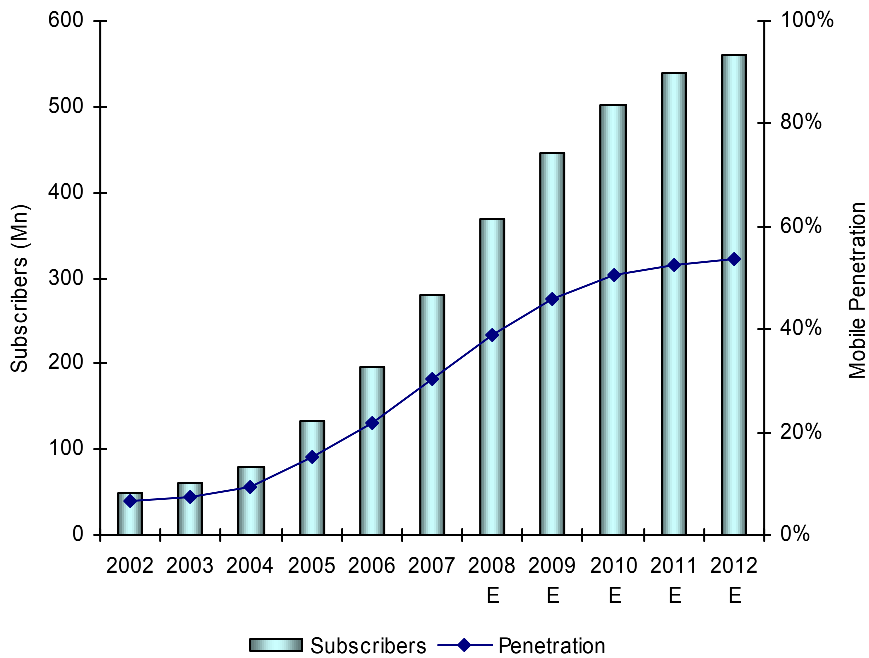
Table 1: Africa – Mobile Subscribers (2002-2012, In Million)

Year-End	Subscribers	Year-End	Subscribers
2002	49.10	2008 E	369.78
2003	60.88	2009 E	446.54
2004	79.74	2010 E	502.15
2005	133.48	2011 E	538.43
2006	196.45	2012 E	561.18
2007	280.69		

Source: Blycroft Ltd.

Figure 1 illustrates this forecast subscriber growth and penetration in Africa for the 11-year period from 2002 to 2012.

Figure 1: Africa – Mobile Subscribers and Penetration (2002-2012)



Source: Blycroft Ltd.

Technology and Infrastructure

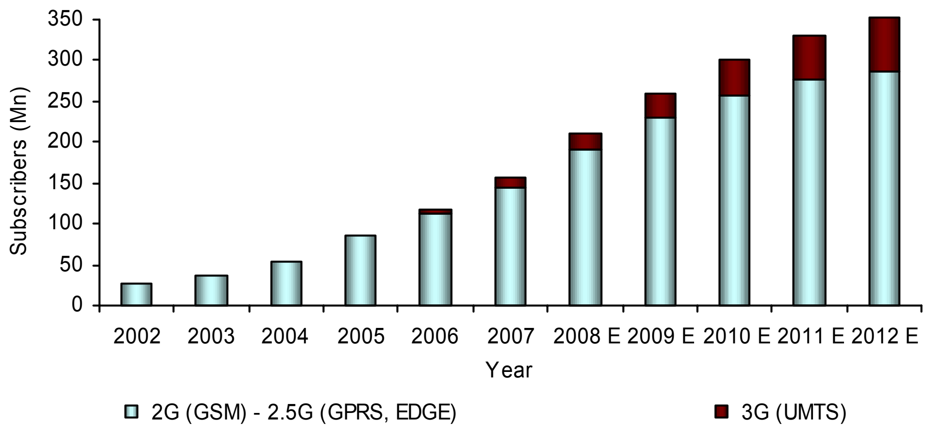
The majority of countries in Africa deploy GSM-based networks. GPRS- and EDGE-technologies have also been deployed in some of the comparatively developed mobile markets. Even though only few Africans are capable of affording broadband internet services, demand is very high among those who can, making 3G service a viable business opportunity for mobile operators in the major cities in the continent. Some of the market players feel that 3G services will fill the void created in the regions where decent fixed line infrastructure is scarce and subscribers are unable to access the Internet.

At least 15 mobile operators have already announced plans of introducing 3G services including existing networks in South Africa, Egypt and Tanzania and others planned in Kenya, Namibia and Nigeria. Only 5 percent of subscribers availed 3G voice and data service by 2006 end, according to Informa Telecoms and Media, an industry watcher.

Figure 2 shows the forecast growth for mobile subscribers in the key African mobile markets of Egypt, Kenya, Morocco, Nigeria, South Africa and Tunisia, based on technology during 2002-2011.

3G subscribers are expected to increase at a CAGR of 76.2 percent from 2005 to 2011 and constitute approximately 18.6 percent of the total subscriber base in 2011.

Figure 2: Africa – Technology Break-up of Mobile Subscribers (2002-2012)



Note: Includes countries- South Africa, Egypt, Kenya, Morocco, Tunisia and Nigeria.
Blycroft Ltd.

Value-Added Services

Africa is a very voice-centric market, and value-added services, except SMS, have made little appreciable impact so far. The market for value-added services (VAS) is still at a nascent stage across the continent, and such services only accounted for approximately 5-6 percent of total service revenues for a few of the major mobile network operators in the region in 2004-2005.

Obviously the usual array of value-added services is provided by many operators in Africa, such as SMS, MMS and content downloads. However, the use of these services remains low primarily because of low levels of penetration in the region, low literacy levels and low per capita income. Local cultural factors have also contributed to low usage of data services in the region. Africa has people belonging to diverse cultures with each culture having its own language, religious beliefs and governing systems. North Africa including Egypt, Morocco and parts of sub-Saharan Africa, is under the influence of Arabic culture, whereas the south of sub-Saharan Africa is dominated by the Bantu linguistic group. Such a multi-cultural environment has led to lower availability of data content and the appropriate interface for local languages, thereby leading to lower take-up of data services in Africa. The demand for value-added services in the region is expected to be low, causing operators to limit their investments in the development of such services.

However, some of the more developed mobile markets in Africa, such as South Africa, Morocco and Nigeria witnessed strong growth in the use of basic mobile-voice services, especially SMS. For example, in the highly competitive mobile market of Nigeria, a number of private value-added service companies have emerged, and increasing content services are available in South Africa now. These companies operate on a revenue sharing basis with the operators, as in Europe and Asia and elsewhere, and the VAS provided by these companies are the usual array of ringtone downloads, news, travel updates, weather reports, sports information, etc.

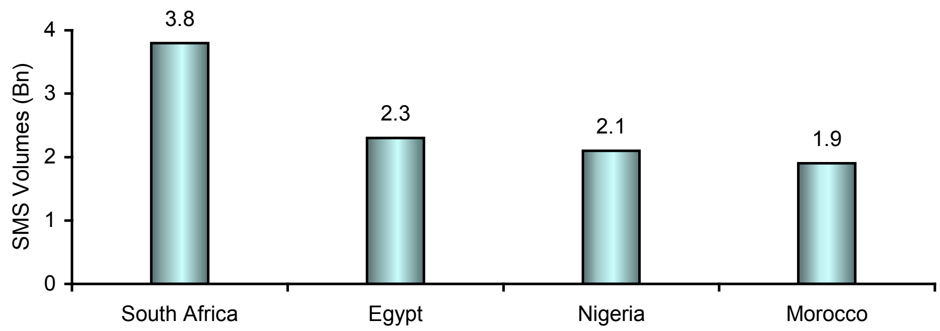
SMS

SMS is perhaps the only value-added service that is expected to gain mass market popularity as the subscriber base in Africa increases.

SMS has been utilised in innovative ways in Africa for region-specific uses, such as pricing information for agriculture products, payment mode via SMS and mobile banking. Services, such as mobile banking have been catching up in Africa primarily because of the regional preference for dealing in cash most of the time, and the majority of the population not using other payment modes, such as credit cards. However, the only potential countries likely to witness significant SMS revenues are the few more advanced, bigger markets, such as South Africa, Nigeria, Morocco, etc.

Figure 3 illustrates the number of SMS sent in some of the developed mobile markets of the region in 2004.

Figure 3: Key African SMS Markets (In Billions, 2004)



Source: Portio Research Ltd.

Handsets

A major reason for the low penetration of mobile services is, of course, cost. The majority of the African population who belong to low income groups cannot afford a mobile handset at all, let alone the ongoing costs of using one. Though alternatives such as community phones have partially solved this problem, it is expected that a reliable supply of affordable, cheap, basic handsets could drive aggressive growth of mobile services markets in Africa.

The mobile network operators in the region have taken some initiatives to bring down the prices of mobile handsets for subscribers. One such initiative has been the grouping of a number of major operators to invite bidding by mobile vendors for subsidised handsets. In 2007, Vodafone followed Motorola by announcing its plans to launch its own-name brand of two low-cost mobile handsets in South Africa. The two handsets were priced at around USD 25 and USD 45, depending on the specific model and the local market conditions.[9]

Another important step in this direction has been the Emerging Market Handset (EMH) programme initiated by the GSM Association. Under the programme, various GSM-based mobile service providers and handset vendors across the world have committed themselves to strive to give more people in developing regions, such as Africa, access to low-cost mobile handsets.[10] Some of the operators in Africa which are a part of the programme are listed in table 2 below.

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[9] Source: http://www.sagoodnews.co.za/science_technology/low-cost_phones_to_launch_in_sa.html

[10] Source: http://www.gsmworld.com/emh/faq.html

Table 2: Emerging Market Handset Program – Member Operators

Mobile Network Operator	Country of Operation
MTN	• South Africa • Benin • Botswana • Cameroon • Congo Brazzavile • Cote d'Ivoire • Ghana • Guinea • Guinea-Bissau • Liberia • Nigeria • Rwanda • Sudan • Swaziland • Syria • Uganda • Zambia
Orascom	• Egypt • Algeria • Tunisia • Congo Brazzaville • Zimbabwe
Vodacom	• South Africa • Tanzania • DRC • Mozambique • Lesotho

Source: Company Reports

As a part of the programme, low-costs handsets were supplied by some of the operators in various emerging markets in Africa including South Africa, Nigeria, Egypt, Algeria, Tunisia, Democratic Republic of Congo (DRC) and Kenta.[11] With the successful implementation of this programme, the wholesale cost of handsets has been reduced by Motorola to as low as USD 30 per handset. The handsets which are meant especially for the EMH program are expected to be made available in Africa by the beginning of 2006 by several operators, such as MTN, Vodacom and Orascom.[12]

Performance Analysis of Attractive Markets and Players

Key Markets

Though most of the mobile markets in Africa have witnessed double and triple digit growth in subscriber numbers over the last few years, mobile penetration across the whole of Africa in general remains low but gradually improving. Mobile penetration in the continent has improved significantly from 10.3 percent in 2004 to 22 percent at the end of 2006.

Figure 4, below, depicts the subscriber-base and corresponding penetration rate for some of the key mobile markets in Africa in 3Q 2007.

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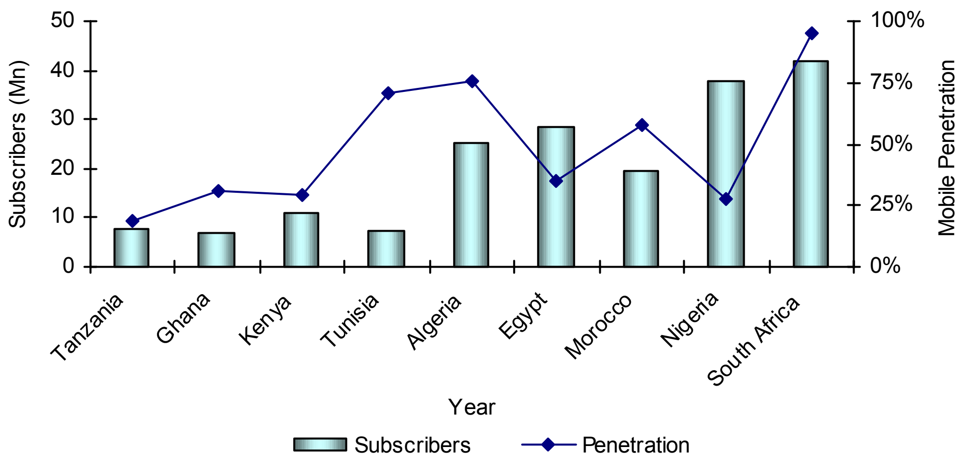
[11] Source: http://www.gsmworld.com/emh/phase_one.html

[12] Source: http://www.gsmworld.com/emh/index.html

Figure 4: Africa – Major Mobile Markets (3Q 2007)



Source: Industry data & estimates c. 2008 Blycroft Ltd

Such a situation coupled with liberalisation of the telecom markets and launch of advanced services has meant that there is a huge growth potential for mobile network operators in the region to increase their subscriber base. South Africa, Nigeria, Morocco, Egypt, Algeria and Kenya constitute the key mobile markets in Africa in terms of the potential for growth in number of subscribers. At the same time, other countries like Tanzania, Ghana, and Tunisia have also shown strong potential for the operators with the number of subscribers increasing by more than 100% in most of these countries on the last three years.

Nigeria, which has the largest population in Africa, had reached 30 percent mobile penetration by the end of 2007, up from 28 percent by the end of 3Q 2007, and this trend is likely to continue with the favourable policies from the regulator and the on-going re-privatisation of NITEL. The number of subscribers in the country is expected to increase at a CAGR of 30.2 percent during 2005-2011.

Like Nigeria, Kenya and Egypt are also likely to register strong growth in subscriber numbers during 2005-2011, and across the continent other countries show strong growth signs.

South Africa, however, has the highest mobile penetration on the continent; the launch of 3G services in the country in 2004 enhancing the subscriber base in the region as well as generating higher ARPU for South African operators in the future. It is estimated that the total number of subscribers will increase at a CAGR of 4.7 percent during 2005-2011. However, it is no-longer the largest market by mobile subscribers, having been overtaken by Nigeria in 1Q 2008: Nigeria's regulator reporting some 45.89 million subscribers against South Africa's 45.68 million for the same period.

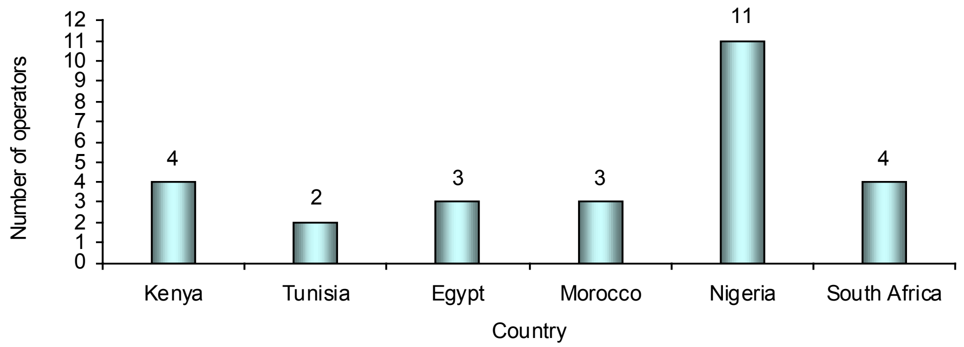
Tunisia, which has the second highest level of mobile penetration in the region, is also expected to register a CAGR of 9.7 percent during 2005-2011, driven by the privatisation of state-owned Tunisie Telecom in 2006 and launch of GPRS and EDGE technologies. In fact, the mobile penetration in the country is expected to exceed 80 percent by 2009. Tunisia's rapid growth, with penetration reaching such high levels in such a short time, is primarily because of its small population of only 9 million people.

In terms of level of competition, most markets in Africa are still not very competitive; with most of the countries having only two operators, barring a few examples, such as Nigeria and South Africa. However, with the proposed privatisation of state-owned operators in Morocco, Nigeria and Tunisia and the proposed issuance of a third GSM licence in Egypt, competition should increase soon and markets should become healthier for it.

Nigeria, which has the highest number of players in the mobile market, emerged as the fastest growing mobile market in the region, with a CAGR of 147.3 percent during 2002-2004. This rapid growth in the Nigerian mobile market has been the result of the liberalisation policy and consequent competition in the market, a demonstration of the power governments have in expediting such development.

Figure 5 shows the number of MNO competitors in each of the key mobile markets in Africa in 2008.

Figure 5: Key African Markets – Number of Operators (including MVNOs in RSA) (2008)



Source: Blycroft Ltd.

Key Players[13]

The key pan-African players in the market are MTN, Vodacom, Zain, France Telecom, Orascom, and Millicom.

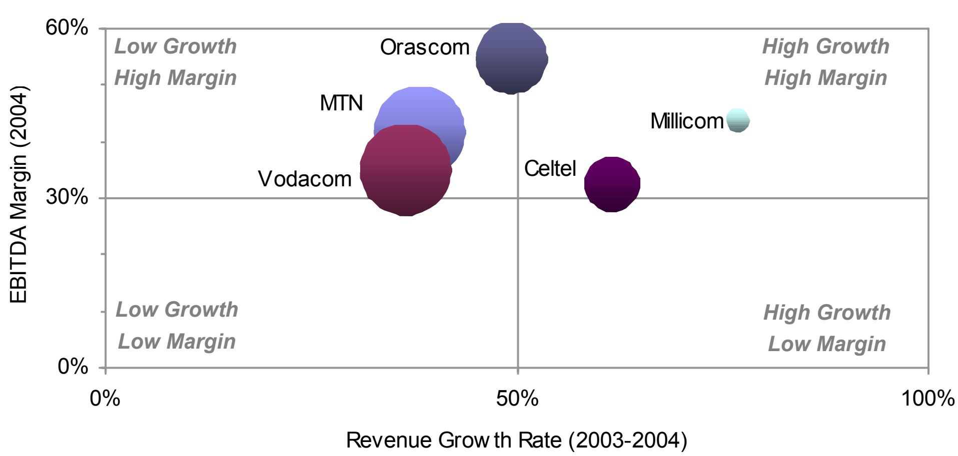
MTN dominates the African market with over 73.9 million subscribers in the region as of 4Q 2007 followed by Vodacom (33.4 million), Orascom (32.4 million), Zain (30.6 million) and Orange (27.7 million), respectively.

Millicom had the highest growth in revenues during 2003-2004, while the two biggest operators, Vodacom and MTN, reported low revenue growth.

Orascom had the highest EBITDA margin, primarily due to its strategy of investing in the emerging mobile markets and consequently, shift their focus from undeveloped mobile markets to the developing markets in the region.

Figure 7 compares five of the leading mobile network operators in Africa in terms of their subscriber base (size of the bubble), revenue growth rate and EBITDA margin for the latest completed financial year.

Figure 6: Africa – Performance Analysis of Mobile Network Operators



Source: Company Reports

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[13] Note: France Telecom is not covered due to lack of data availability.

Drivers and Inhibitors

In growth rate terms, Africa has been one of the fastest growing mobile markets in the world over the last 2-3 years. The African mobile industry has also shown a dramatic transition from the dominance of state-owned monopoly operators to more competitive market and has put pressure on operators to develop methods to retain their present customers as well as expand their market share. This section discusses the various opportunities present in the African mobile market and some of the threats that could be detrimental to the region's rapid growth.

Growth Drivers

- **Subsidisation of Handsets:** The subsidisation of handsets, or bulk supply of very cheap handsets, would encourage the low-income group (constituting the major proportion of the population in Africa) to start using mobile services and this would consequently boost the mobile industry in future.
  - The various operators, such as Orascom, Vodacom, MTN, Millicom and Celtel, are expected to engage with manufacturers to bring handset prices down.
  - Moreover, operators, such as Orascom might also move into the handset business and start bundling cheap, basic handsets with their offerings, which would eventually help boost the take-up of mobile services.
- **Pre-paid offerings:** Pre-paid billing will continue to be a major driving force for growth in mobile subscriptions right across Africa. This system of billing helps individuals with restricted budget gain access to mobile services by paying at their convenience. Pre-paid subscriptions have proved popular in all low per capita income regions around the world, and we expect pre-paid services to continue to form the mainstay of African mobile subscriber growth. Many operators have also started focussing on pre-paid offerings as it helps them to overcome problems, such as fraud and the shortage of personal bank accounts.
- **Liberalisation:** The liberalisation of the telecom sector and hence the privatisation of government owned telecom operators in many African countries, such as Kenya, Morocco, etc. has already set an example for others to follow.
  - For instance, Tunisia has already launched the tender to privatise Tunisie Telecom in August 2005 and bids have been received from major names, notably from Europe, such as France Telecom, Telecom Italia, etc.[14]
  - The Nigerian government has privatised NITEL (and its mobile-arm, M-Tel). Various operators, either in their own capacity or within consortia, have placed their bids for acquiring the government's stake in NITEL.

  Across the continent, within individual country markets, liberalisation should bring more competition to the market and boost growth of the mobile industry, and attract investment in the sector.
- **Low penetration:** Currently a large proportion of the region's population does not have access to mobile services. This provides a great opportunity for operators to expand their network coverage and increase their subscriber base. As we have already noted, mobile penetration across many African countries remained well below the 15 percent mark in 2004, barring advanced markets such as South Africa, Tunisia and Morocco. The average mobile penetration in the region stood below 15 percent mark even in 2005. With a low penetration rate of 21 percent for mobile services in the region, the market has been growing at a rapid pace as compared to other emerging markets. Barring few countries like South Africa, Nigeria, Algeria, Egypt, and Kenya, other countries have a penetration rates below 21 percent. There is a huge potential for development not only in the major markets in the region but also in other countries where penetration rates are very low. Particularly, Nigeria holds excellent potential owing to such a large population and low rate of penetration
- **Expected uptake of 3G services**: 3G services are still at a nascent stage in Africa, with 3G services being commercially available only in Mauritius and South Africa at the end of 2005. 3G services should help operators to stabilise their declining ARPU and thus a number of operators are expected to launch 3G services in the near future. For instance, Algeria and Tunisia were expected to see the launch of 3G services in 2006 and 2007, respectively, followed by Nigeria and Egypt.

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[14] Source: http://www.zawya.com/mtc/story.cfm/sidZAWYA20051202105959

Growth Inhibitors

- **Taxation –** Many African mobile markets, especially in East Africa, have a model of high tax charges which are being applied on both the usage and the sale of mobile phones. This could seriously hamper the growth of the mobile industry in the region, forcing the cost of handset ownership to a prohibitive level for many individuals. Currently, East Africans pay taxes of between 25% and 30% on mobile phone services, compared with an average of 17% across Africa. Kenya, Tanzania and Uganda have levied excise taxes at 10%, 7% and 12%, respectively.[15] According to an ITU report, Tanzania, Uganda, Kenya and Zambia are among the top ten markets in the world with the highest taxes for the mobile industry. Moreover, it also highlights the fact that Tanzania and the Democratic Republic of Congo are the only countries in Africa that still impose customs duty on imported mobile handsets.[16]
- **Low income group:** In short, many countries in Africa are largely poor, and the low income per capita will seriously hamper the growth of any kind of advanced mobile industry. If there are not enough subscribers to make value-added services viable, operators will not invest in network upgrades, which in turn will hold back market development. SMS growth continues to be hampered as has been observed that SMS traffic falls dramatically when operators close free-trial periods and begin charging for these services. As such, there might not be adequate backbone infrastructure across Africa to support the growing subscriber base.
- **Widespread illiteracy**: The high illiteracy rate in the region is also a deterrent to the growth of mobile services. The illiterate population find it difficult to use even basic data services, such as SMS.

Further obstacles, such as unreliable electricity supplies and corruption in local government, could suppress the momentum with which the mobile market is growing in Africa, at least in certain country markets.[17]

[15] Source: http://www.bizcommunity.com/Article/414/78/19428.html

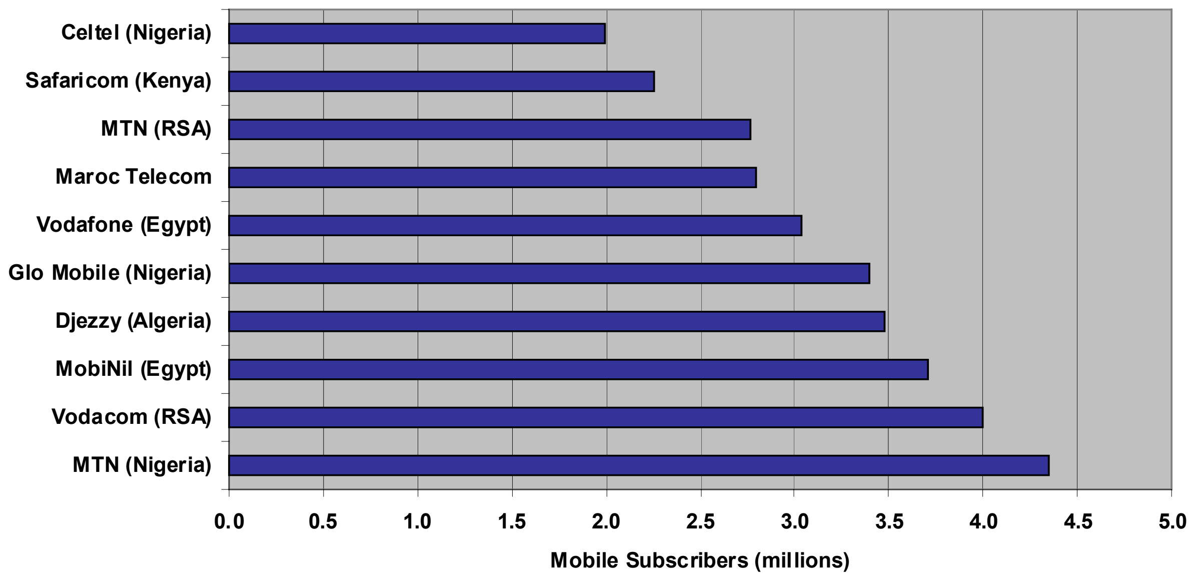
[16] Source: http://allafrica.com/stories/200512130534.html

[17] Source: http://english.people.com.cn/200506/23/eng20050623_191876.html

1 Top 10 Operators by Net Additions y-o-y 1Q 2007

MTN	Nigeria	4.4
Vodacom	South Africa	4.0
MobiNil	Egypt	3.7
Djezzy	Algeria	3.5
Glo Mobile	Nigeria	3.4
Vodafone	Egypt	3.0
Maroc Telecom	Morocco	2.8
MTN	South Africa	2.8
Safaricom	Kenya	2.3
Celtel	Nigeria	2.0

Mobile Subscribers (millions)

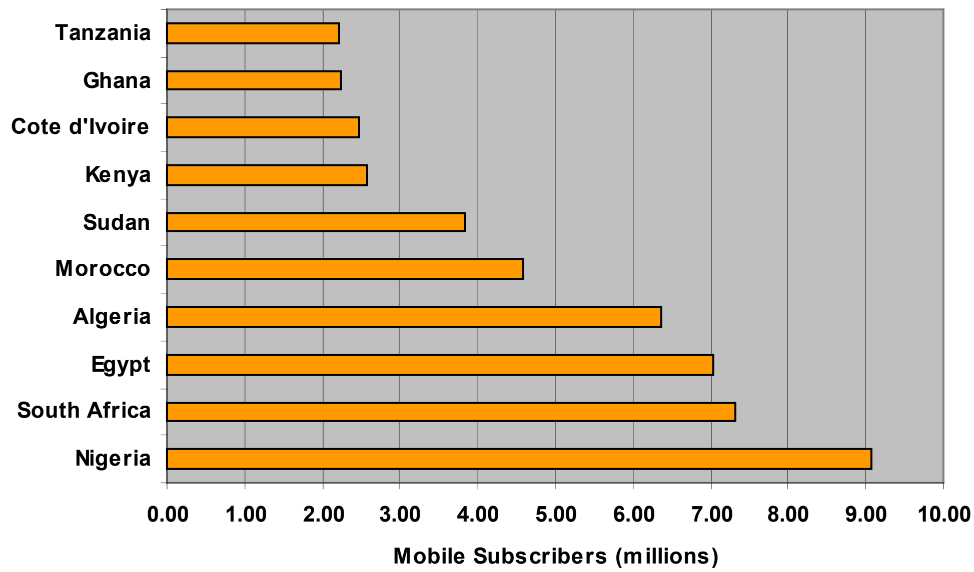


Source: industry sources, Blycroft estimates © Blycroft 2008

2 Top 10 States by Net Additions y-o-y 1Q 2007

Nigeria	9.07
South Africa	7.32
Egypt	7.04
Algeria	6.37
Morocco	4.58
Sudan	3.83
Kenya	2.57
Cote d'Ivoire	2.48
Ghana	2.23
Tanzania	2.21

Mobile Subscribers (millions)



Source: industry sources, Blycroft estimates © Blycroft 2008

3 Mobile Subscribers by State 1Q 2007

State	1Q06	4Q06	1Q07	% q-o-q	% y-o-y	Mobile %
Algeria	14,859,477	20,321,850	21,228,950	4.5%	42.9%	64.3%
Angola	1,939,087	3,009,200	3,351,336	11.4%	72.8%	27.6%
Benin	637,570	997,305	1,073,000	7.6%	68.3%	13.6%
Botswana	824,000	1,036,000	1,095,000	5.7%	32.9%	65.0%
Burkina Faso	712,257	1,016,605	1,192,964	17.3%	67.5%	8.5%
Burundi	203,708	344,209	378,121	9.9%	85.6%	4.6%
Cameroon	2,468,000	3,136,000	3,317,000	5.8%	34.4%	18.9%
Cape Verde	150,000	181,900	188,200	3.5%	25.5%	44.6%
CAR	102,188	190,475	222,253	16.7%	117.5%	5.1%
Chad	385,670	534,700	635,119	18.8%	64.7%	6.4%
Comoros	20,000	28,477	30,676	7.7%	53.4%	4.4%
Congo Brazzaville	635,000	963,000	1,034,000	7.4%	62.8%	27.9%
Cote d'Ivoire	2,412,000	4,077,000	4,889,873	19.9%	102.7%	27.6%
DRC	3,155,528	4,719,712	5,249,667	11.2%	66.4%	8.3%
Djibouti	37,500	55,900	58,000	3.8%	54.7%	11.9%
Egypt	13,580,044	17,971,106	20,620,625	14.7%	51.8%	26.0%
Equatorial Guinea	102,000	199,500	220,500	10.5%	116.2%	40.6%
Eritrea	43,400	62,000	68,000	9.7%	56.7%	1.4%
Ethiopia	550,814	971,456	1,215,032	25.1%	120.6%	1.6%
Gabon	608,000	816,000	865,130	6.0%	42.3%	66.8%
Gambia, The	236,000	389,550	465,980	19.6%	97.4%	28.2%
Ghana	3,182,026	4,874,581	5,413,820	11.1%	70.1%	24.0%
Guinea Republic	195,237	677,657	760,614	12.2%	289.6%	7.8%
Guinea-Bissau	84,644	140,618	160,927	14.4%	90.1%	11.1%
Kenya	5,957,000	7,309,000	8,524,000	16.6%	43.1%	24.2%
Lesotho	261,477	326,250	346,656	6.3%	32.6%	16.9%
Liberia	333,810	482,798	498,778	3.3%	49.4%	16.2%
Libya	1,167,400	2,680,000	3,212,375	19.9%	175.2%	54.1%
Madagascar	577,475	975,000	1,085,000	11.3%	87.9%	5.8%
Malawi	396,320	554,570	600,000	8.2%	51.4%	4.6%
Mali	881,000	1,386,905	1,569,556	13.2%	78.2%	13.3%
Mauritania	731,160	930,687	1,135,000	22.0%	55.2%	35.5%
Mauritius	679,656	763,843	795,274	4.1%	17.0%	64.0%
Mayotte	90,231	105,583	108,056	2.3%	19.8%	53.2%
Morocco	12,762,169	15,865,000	17,337,700	9.3%	35.9%	52.0%
Mozambique	1,540,000	2,456,000	2,693,000	9.6%	74.9%	13.5%
Namibia	485,000	609,700	645,900	5.9%	33.2%	31.6%
Niger	336,759	483,885	551,489	14.0%	63.8%	4.4%
Nigeria	22,502,500	28,553,200	31,570,500	10.6%	40.3%	23.8%
Reunion	719,960	815,350	844,326	3.6%	17.3%	105.9%
Rwanda	293,200	402,723	447,300	11.1%	52.6%	5.0%
Sao Tome/Principe	20,000	26,000	28,900	11.2%	44.5%	14.8%
Senegal	1,937,693	2,981,617	3,380,000	13.4%	74.4%	27.9%
Sierra Leone	403,021	735,562	867,678	18.0%	115.3%	14.4%
Somalia	323,465	500,821	560,154	11.8%	73.2%	6.3%
South Africa	32,166,650	37,598,000	39,484,000	5.0%	22.7%	84.3%
Sudan	2,301,000	5,110,000	6,131,000	20.0%	166.4%	14.9%
Swaziland	224,000	268,000	286,000	6.7%	27.7%	25.2%
Tanzania	3,978,400	5,640,874	6,192,156	9.8%	55.6%	16.3%
Togo	426,555	595,574	668,086	12.2%	56.6%	12.0%
Tunisia	5,121,018	6,334,314	6,412,278	1.2%	25.2%	62.9%
Uganda	1,795,013	2,576,384	2,864,000	11.2%	59.6%	10.0%
Zambia	1,011,000	1,592,000	1,744,000	9.5%	72.5%	15.2%
Zimbabwe	5,213,400	7,500,874	8,222,156	9.6%	57.7%	67.1%

Source: industry sources, Blycroft estimates © Blycroft 2008

4 African Mobile Operators 1Q 2007

Operator	Standard	Launch	1Q06	4Q06	1Q07	% y-o-y
Algeria						
Mobilis	GSM900	Apr 1998	5,400,000	6,800,000	7,040,000	30%
Djezzy	GSM900	Feb 2002	7,791,731	10,530,826	11,265,045	45%
Nedjma	GSM900	Aug 2004	1,667,746	2,991,024	2,923,905	75%
Angola						
Movicel	CDMA 800	Sep 2002	536,087	960,500	1,030,336	92%
Unitel	GSM900 /1800	Apr 2001	1,400,000	2,048,700	2,321,000	66%
Benin						
BBC	GSM900 /1800	Dec 2003	84,425	128,601	138,409	64%
Benin Telecom	GSM900	May 2000	84,107	92,704	100,591	20%
MTN	GSM900	Jul 2000	298,739	476,000	514,000	72%
Moov	GSM900	Jul 2000	170,299	300,000	320,000	88%
Botswana						
Mascom	GSM900	Sep 2005	497,000	600,000	648,000	30%
Orange	GSM900	May 1998	327,000	436,000	447,000	37%
Burkina Faso						
Celtel	GSM900	Jan 2001	345,000	518,000	614,000	78%
Onatel	GSM900	Dec 1996	290,726	400,000	411,000	41%
Telecel	GSM900	Jan 2001	76,531	98,605	167,964	119%
Cameroon						
MTN	GSM900	Feb 2000	1,409,000	1,783,000	1,857,000	32%
Orange	GSM 900	Jan 2000	1,059,000	1,353,000	1,460,000	38%
Cape Verde						
Cabo Verde Telecom	GSM 900	Dec 2007	150,000	181,900	188,200	25%
Chad						
Celtel	GSM900	Oct 2000	244,000	348,000	412,000	69%
Tigo	GSM900	Oct 2005	141,670	186,700	223,119	57%
Congo Brazzaville						
Celtel	GSM900	Dec 1999	413,000	683,000	754,000	83%
MTN	GSM900	May 2000	222,000	280,000	280,000	26%
Cote d'Ivoire						
Telecel	GSM900 /1800	Jul 2005	1,068,000	1,625,000	1,975,000	85%

Orange	GSM900 /1800	Oct 1996	1,344,000	1,752,000	1,888,000	40%
Moov	GSM900	Jul 2006		700,000	1,026,873	
Dem. Rep. of the Congo						
Celtel	GSM900	Dec 2000	1,285,000	1,833,000	1,849,000	44%
CCT	GSM900 /1800	Dec 2001	179,880	437,190	506,464	182%
Oasis	GSM1800	Mar 2001	56,963	50,337	193,618	240%
Supercell	GSM900 /1800	Nov 2002	62,685	67,185	68,585	9%
Vodacom	GSM900	Apr 1999	1,571,000	2,332,000	2,632,000	68%
Egypt						
MobiNil	GSM900	Nov 1996	6,965,398	9,266,815	10,668,927	53%
Vodafone	GSM900	Nov 1998	6,614,646	8,704,291	9,651,698	46%
Etisalat Misr	GSM900 /1800	Feb 2007			300,000	
Ethiopia						
ETC	GSM900	Apr 1999	550,814	971,456	1,215,032	121%
Gabon						
Celtel	GSM900	Jun 2000	393,000	514,000	543,000	38%
Libertis	GSM900	Mar 1999	180,000	250,000	264,170	47%
Telecel	GSM900	Jun 2000	35,000	52,000	57,960	66%
Ghana						
One Touch	GSM900	Sep 2000	556,000	877,106	960,000	73%
Kasapa	CDMA800	Sep 2005	96,400	200,104	225,000	133%
Millicom	GSM900	Jul 2002	610,803	1,211,904	1,304,820	114%
Scancom	GSM900	Nov 1996	1,918,823	2,585,467	2,924,000	52%
Guinea Republic						
Intercel	GSM900		6,800	6,825	6,850	1%
Investcom	GSM900 /1800	Apr 2006	0	276,000	342,000	
Sonatel	GSM900	Sep 1997	20,000	19,421	19,784	-1%
Sotelgui	GSM900	Dec 1997	168,437	375,411	391,980	133%
Guinea-Bissau						
Guinetel	GSM900		35,000	42,618	44,927	28%
Spacetel	GSM900	Jun 2004	49,644	98,000	116,000	134%
Kenya						
Celtel	GSM900	Aug 2000	2,013,000	1,939,000	2,284,000	13%
Safaricom	GSM900	Mar 1997	3,944,000	5,360,000	6,200,000	57%
Telkom	CDMA 2000 1x	Feb 2007		10,000	40,000	
Libya						
El Madar	GSM900 /1800	Dec 1996	367,400	675,000	709,125	93%

Libyana	GSM900	Sep 2004	800,000	2,005,000	2,503,250	213%
Madagascar						
Celtel	GSM900	Dec 1997	229,475	331,000	356,000	55%
Orange	GSM900	Feb 1998	348,000	644,000	729,000	109%
Malawi						
CelTel	GSM900	Jun 1999	240,000	357,000	376,000	57%
Telekom	GSM900	Nov 1995	156,320	197,570	224,000	43%
Mali						
Ikatel	GSM900	Feb 2003	691,000	1,165,000	1,335,000	93%
Malitel	GSM900	Oct 2000	190,000	221,905	234,556	23%
Mauritania						
Mattel	GSM900	Oct 2000	331,160	418,000	448,000	35%
Mauritel	GSM900	Nov 2000	400,000	512,687	687,000	72%
Mauritius						
Emtel	GSM900	Oct 1999	229,531	279,193	296,499	29%
Cellplus	GSM900	Oct 1996	447,000	480,000	493,000	10%
Morocco						
Maroc Telecom	GSM900	Apr 1994	8,576,169	10,710,000	11,372,000	33%
Méditel	GSM900	Mar 2000	4,186,000	5,155,000	5,632,700	35%
Wana	CDMA	Feb 2007			333,000	
Mozambique						
mCel	GSM900 /1800	Nov 1997	1,050,000	1,600,000	1,705,000	62%
Vodacom Mozambique	GSM900 /1800	Dec 2003	490,000	856,000	988,000	102%
Namibia						
MTC	GSM900 /1800	Apr 1995	485,000	609,700	639,900	32%
Cell One	GSM900	Jun 2006			6,000	
Niger						
Celtel	GSM900	Sep 2001	265,000	397,000	460,000	74%
Sonitel	GSM900	Aug 2002	39,000	39,606	39,810	2%
Telecel	GSM900	Dec 2003	32,759	47,279	51,679	58%
Nigeria						
Bourdex	CDMA 800		12,500	13,200	13,400	7%
Glo Mobile	GSM900 /1800	Aug 2003	6,700,000	9,100,000	10,100,000	51%
Intercellular	CDMA 800	Mar 1998	44,000	53,500	60,000	36%
MTN	GSM900	Aug 2001	9,036,000	12,281,000	13,384,000	48%

	/1800					
M-Tel	GSM900 /1800	Oct 2001	1,160,000	200,000	175,000	-85%
Multilinks	CDMA800 /1900		50,000	80,000	100,000	100%
Prestel	CDMA 800			2,000	2,100	
Reliance	CDMA 1900		92,000	98,000	100,000	9%
Starcomms	CDMA2000 1xEV-DO		100,000	320,000	340,000	240%
Visafone	CDMA	Feb 2008	6,000	7,500	8,000	33%
Celtel	GSM900 /1800	Aug 2001	5,300,000	6,396,000	7,288,000	38%
Reunion						
Orange	GSM900/1800	Dec 2000	199,960	256,000	287,000	44%
SFR	GSM900	Sep 1995	520,000	559,350	557,326	7%
Senegal						
Senetel	GSM900	April 1999	694,693	894,617	923,555	33%
Sonatel-Mobiles	GSM900	July 1996	1,243,000	2,087,000	2,456,445	98%
Sierra Leone						
Celtel	GSM900	Sep 2000	190,000	243,000	278,000	46%
Comium	GSM900 /1800	Mar 2005	74,000	174,781	198,111	168%
Datatel	GSM900 /1800	Dec 2005	11,370	17,156	17,797	57%
Africell SL	GSM900	Feb 2005	100,000	258,570	311,427	211%
Millicom	GSM900	May 2001	27,651	42,055	62,343	125%
South Africa						
Cell-C	GSM900 /1800	Nov 2001	2,900,000	3,300,000	3,350,000	16%
MTN	GSM900	Jun 1994	10,261,000	12,483,000	13,030,000	27%
Virgin	GSM900 /1800	Jun 2006	0	30,000	100,000	
Vodacom	GSM900	Jun 1994	19,005,650	21,785,000	23,004,000	21%
Sudan						
MTN	GSM900 /1800	July 2001	350,000	1,066,000	1,179,000	237%
Mobitel	GSM900	Feb 1997	1,951,000	2,754,000	3,192,000	64%
Sudatel			400,000	1,290,000	1,760,000	340%
Tanzania						
Celtel	GSM900 /1800/400	Dec 2001	1,067,000	1,517,000	1,678,000	57%
Tigo	GSM900	Sep 2000	590,000	760,874	801,456	36%
TTCL	CDMA	Apr 2006	400	30,000	40,000	9900

						%
Vodacom	GSM900 /1800	Aug 2000	2,091,000	2,973,000	3,247,000	55%
ZanTel	GSM900 /1800	Aug 1999	230,000	360,000	425,700	85%
Togo						
Telecel	GSM900	Mar 2000	51,000	77,000	99,000	94%
Togocel	GSM900	Oct 1997	375,555	518,574	569,086	52%
Tunisia						
Tunisiana	GSM900	Dec 2002	2,388,443	3,069,314	3,112,278	30%
Tunicell	GSM900	Mar 1998	2,732,575	3,265,000	3,300,000	21%
Uganda						
Celtel	GSM900	May 1995	299,000	471,000	590,000	97%
MTN	GSM900 /1800	Oct 1998	1,128,000	1,595,000	1,757,000	56%
UTL Telecel	GSM900	Feb 2001	368,013	510,384	517,000	40%
Zambia						
Celtel	GSM900	Dec 1998	812,000	1,325,000	1,432,000	76%
MTN	GSM900	Oct 1995	109,000	187,000	227,000	108%
Zamtel	GSM900	Jan 2003	90,000	80,000	85,000	-6%
Zimbabwe						
Econet	GSM900 /1800	Dec 2004	457,228	563,084	634,414	39%
Net.One	GSM900	Sep 1996	210,000	300,000	310,000	48%
Telecel	GSM900	Jul 1998	129,597	148,785	219,753	70%
Others #			2,499,979	3,626,727	3,973,118	59%
Totals			**147,944,782**	**196,624,101**	**215,730,085**	**46%**

Source: industry sources, Blycroft estimates © Blycroft 2008

‘Others’ consists of those states with less than 600,000 subscribers and includes Burundi, Cape Verde, Central African Republic, Comoros (Union of the), Djibouti, Equitorial Guinea, Eritrea, Gambia (The), Lesotho, Liberia, Mayotte, Sao Tome and Principe, Seychelles, Somalia, Swaziland and Rwanda.

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The Worldwide Directory of Mobile Network Operators

2nd Edition, September 2008

Volume 1 – Africa and the Middle East

140 Pages - 203 Operators - 944 Named Contacts - 73 Countries

Afghanistan | Algeria | Angola | Bahrain | Benin | Botswana | Burkina Faso | Burundi | Cameroon | Cape Verde | Central African Republic | Chad | Comores | Congo Brazzaville | Democratic Republic of the Congo Djibouti | Egypt | Equatorial Guinea | Eritrea | Ethiopia | Gabon | Gambia | Ghana | Guinea-Bissau | Guinea-Conakry | Iran | Iraq | Israel | Ivory Coast | Jordan | Kenya | Kuwait | Lebanon | Lesotho | Liberia | Libya Madagascar | Malawi | Mali | Mauritania | Mauritius | Mayotte | Morocco | Mozambique | Namibia | Niger Nigeria | Oman | Palestine | Qatar | Reunion | Rwanda | São Tomé and Príncipe | Saudi Arabia | Senegal Seychelles | Sierra Leone | Somalia | Somalia (Puntland) | South Africa | Sudan | Swaziland | Syria Tanzania | Togo | Tunisia | Turkey | Uganda | United Arab Emirates | Yemen | Zambia | Zimbabwe

Volume 2 – The Americas

122 Pages - 199 Operators - 799 Named Contacts - 47 Countries

Anguilla | Antigua and Barbuda | Argentina | Bahamas | Barbados | Belize | Bermuda | Bolivia | Brazil British Virgin Islands | Canada | Chile | Colombia | Costa Rica | Cuba | Dominica | Dominican Republic Ecuador | El Salvador | Falkland Islands | French West Indies | Grand Cayman | Grenada | Guatemala Guyana | Haiti | Honduras | Jamaica | Mexico | Montserrat | Netherlands Antilles | Nicaragua | Panama Paraguay | Peru | Puerto Rico | Saint Kitts and Nevis | Saint Lucia | Saint Pierre and Miquelon | Saint Vincent and the Grenadines | Suriname | Trinidad and Tobago | Turks and Caicos Islands | Uruguay | US Virgin Islands | USA | Venezuela

Volume 3 – Asia Pacific

92 Pages - 130 Operators - 667 Named Contacts - 52 Countries

Australia | Bangladesh | Bhutan | Brunei Darussalam | Cambodia | China | Cook Islands | East Timor | Fiji French Polynesia | Guam | Hong Kong | India | Indonesia | Japan | Kiribati | Laos | Macau (China) | Malaysia | Maldives | Micronesia | Mongolia | Myanmar | Nepal | New Caledonia | New Zealand | Okinawa Region (Japan) | Pakistan | Palau | Papua New Guinea | Philippines | Republic of South Korea | Saipan | Samoa Singapore | Solomon Islands | Sri Lanka | Taiwan | Thailand | Tonga | Vanuatu | Vietnam

Volume 4 – Europe, CIS and Russia

142 Pages - 211 Operators - 884 Named Contacts - 63 Countries

Abkhazia | Åland Islands | Albania | Andorra | Armenia | Austria | Azerbaijan | Belarus | Belgium | Bosnia and Herzegovina | Bulgaria | Croatia | Cyprus | Czech Republic | Denmark | Estonia | Faroe Islands | Finland France | Georgia | Georgia (Abkhazia) | Germany | Gibraltar | Greece | Greenland | Guernsey | Hungary Iceland | Ireland | Isle of Man | Italy | Jersey | Kazakhstan | Kosovo | Kyrgyzstan | Latvia | Liechtenstein Lithuania | Luxembourg | Macedonia (FYROM) | Malta | Moldova | Moldova (Transdniester) | Monaco Montenegro | Nagorno Karabakh Republic (NKR) | Netherlands | Norway | Poland | Portugal | Romania Russia | Serbia | Slovakia | Slovenia | Spain | Sweden | Switzerland | Tajikistan | Turkmenistan | Ukraine United Kingdom | Uzbekistan

New for September 2008 is the 2nd edition of The Worldwide Directory of Mobile Network Operators (The MNO Directory 2008).

More than 730 mobile network operators are illustrated over 490 pages of research. This year's edition was completed September 2008 following a complete update of our active operators list, extensive individual operator, regulator and mobile group research, repeated data proofing and verification stages which were also followed by further research to supplement our original research stages.

The directory is available as a four volume regional set based upon our research of 235 countries and territories. Each volume comes in PDF format deliver via e-mail directly to the end user. Licences are available for single user, 1-5 user, departmental usage and full corporate use. Departmental and corporate users are also entitled to an Excel supporting file which allows for your own data manipulation or for importing into your own systems.

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The Worldwide Directory of Mobile Network Operators

2nd Edition, September 2008

Research Process

Research for the new edition began July 2008 starting with a complete up date of the list of active mobile network operators profiled by the directory. We expanded the directory from 708 operations as profiled in the May 2007 edition to the current 743 mobile networks profiled in the 2nd edition. This process was largely done by a comprehensive review of multiple telecoms news sources including both of our in house titles (Africa & Middle East Telecom Week and Eastern Europe Telecom Week) as well as alternative mainstream resources.

When the mobile network operators list had been updated we tasked our team of telecoms researchers to profile each network again. This main research phase was completed without referring back to the 1st edition. This means that all data found was sourced for the current edition and not simply copied from the old edition into the new edition. During this stage our researchers interrogated operate websites, annual and interim reports, regulator data, professional bodies, parent companies, mobile groups, corporate press releases and many sources of mainstream and local media.

With our completed database we began the proofing, verification and enrichment stages. Throughout this process we added subscriber data, network information and named contacts wherever possible. We then sought to provide individual operators and their parent companies the opportunity to verify their data. We received a good response to this campaign and were subsequently able to add data which is not available elsewhere.

Contents

This directory profiles GSM, CDMA (cellular) and iDEN mobile network operators.

WLL operations are not included in this directory. MVNOs are profiled in an alternative directory, The MVNO Directory.

Profiles

The following data points are included in the directory (*information is provided where possible*)

- Network Name - Brand name of the operation, such as MTN, T-Mobile, Vodafone
- Area of Operation - Generally the country (state) or countries of the licensed network
- Company Name - Local trading name of the network, such as MTN Rwandacell SARL
- Brand URL - Website of the branded operation
- Postal Address
- Switchboard Telephone and Fax Number
- Owner Data - Information about parent companies, % share and website
- Named Contacts - Up to 14 named contacts per profile, average of over 4 contacts per profile
- Network Technology - Standards utilised, licence date and launch dates
- Subscriber Data - Q107-Q208 totals. Pre-paid and post paid data included where possible.
- Q208 Market Position - Position in local market based upon subscriber base.

Accuracy of Data

We chose to research the 2nd edition from a zero starting point. This means that we researched everything from the beginning again. Doing this means that we have provided the most up to date data we could find - fresh for this edition. We utilised professional sources of information during the data gathering process and reviewed the data for errors in house and completed a verification campaign with many network operators. The MNO Directory 1st Edition and The MVNO Directory have been warmly received by the telecoms industry. We are looking to build upon this further with the 2nd edition of The MNO Directory. Please note that Blycroft Ltd accepts no liability for any losses resulting from erroneous data.

If you have concerns before purchasing the directory then contact us. We will do our best to ensure your peace of mind before you commit to buying our directory.

Using the Directory

The most popular licence purchased is the PDF licence. Upon purchasing a PDF licence we e-mail the PDF volume(s) directly to your inbox so you can begin using the directory immediately. Our PDFs are delivered unlocked; this allows you to print from, copy out of and edit the document using a compatible PDF viewing or authoring tool. We are unable to provide technical support for PDF issues and suggest that you visit www.adobe.com for further information.

The directory is also available in Excel format. The same data is presented in the Excel file as found in the PDF file, but with the added advantage of being able to easily sort, mail merge and profile the data.

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Blycroft Ltd, PO Box 2, Craven Arms, SY7 9WL, UK

The Worldwide Directory of Mobile Network Operators

2nd Edition, September 2008

Coverage

This is a global directory in which we have sough to cover every territory with an active mobile operation. In doing so we have covered 235 territories over 4 regions. This information is presented in a 4 volume set (Africa and the Middle East | The Americas | Asia Pacific | Europe, CIS and Russia).

Mobile networks profiled offer cellular services. WLL operations may be included in the directory but not if they only provide fixed wireless services. The directory will provide you with profiles of almost all GSM, CDMA and iDEN cellular operators.

Management Contacts

This directory provides the names and job titles of over 3,200 individuals working within senior positions within over 740 mobile networks. Predominantly the contacts are of a chief officer level with an average of over 4 contacts per profile. Job titles include President, Chairman, CEO (Chief Executive Officer), CTO (Chief Technology Officer), CFO (Chief Finance Officer), Senior and Executive Vice Presidents, Directors, Heads of Marketing, Sales, Finance, Regulation, Human Resources, Investor Relations and Public Relations. The focus has been on the most senior managers so key titles such as CEO, CTO and CFO are the best covered. Direct telephone numbers and e-mail addresses are not provided.

Subscriber Data

To assist our users' understanding of each operation we have sought to include subscriber data where possible. March 2008 total subscriber data is provided for 473 operations which is based on approximately 3,289,023,000 subscribers. Although the publication was published September 2008 we have also managed to include June 2008 total subscriber data for over 300 operations made up of 2,614,844,290 subscribers. The majority of subscriber data has been sourced directly from the operators and parent companies. We have also included data taken from our 'Africa & Middle East Telecom Week' and 'Eastern Europe Telecom Week' subscription titles as well as data based on our analysts' market estimates. Please be aware that no subscriber data can be 100% accurate due to the different reporting policies of each individual operator and regulator.

In total for the 743 networks covered we have been able to find at least one instance of subscriber data information for 535 operations during the Q107-Q208 period (March 2007 - June 2008).

We have also included some pre-paid and post-paid data where we have been able to obtain this information.

Q208 Market Position

In researching the directory we gained a great understanding of many mobile markets and came across many operations which did not report subscriber data but due to our research knowledge we have been able to estimate their current market position as at June 2008. Based upon this we have ranked 520 operators based upon their subscriber numbers compared to their local competition, for most countries we have been able to rank at least the top operators.

Samples

PDF sample pages have been taken from each volume of the directory and are included with this brochure.

You can also request the same sample data in Excel format.

Ravi Pothan (General Manager of Sales)
Bassam Rifai (General Manager of Business Risk)

NETWORK TECHNOLOGY

GSM 900/1800 launched July 2006
GPRS active for postpaid customers, soon for all customers

SUBSCRIBERS

March 2007 – Total:	354,000
June 2007 – Total:	527,000
September 2007 – Total:	877,000
December 2007 – Total:	1,200,000
March 2008 – Total:	1,462,000

June 2008 Market Position: 3

Roshan (Telecom Development Company Afghanistan Ltd)

Afghanistan

CONTACT INFORMATION

Telecom Development Company Afghanistan Ltd
House # 13
Main Street
Wazir Akbar Khan
Kabul
Afghanistan

Tel: +93-79-997-7755

http://www.roshan.af

OWNERSHIP INFORMATION

Aga Khan Fund for Economic Development (AKFED) (51%) | Monaco Telecom International (MTI) (36.75%) | TeliaSonera (12.25%) (http://www.akdn.org | http://www.monaco-telecom.mc | http://www.teliasonera.com)

MANAGEMENT

Karim Khoja (Chief Executive Officer)
Altaf Ladak (Chief Operating Officer)
Robert Bowles (Chief Marketing Officer)
Amiruddin Ahmad (Chief Technology Officer)
Wojciech Ploski (Chief Customer Officer)
Karim Punja (Finance Director)
Samir Satchu (Legal Counsel and Head of Government Affairs)
Farah Kurji (Public Relations Specialist)

NETWORK TECHNOLOGY

GSM 900 launched June 2003

SUBSCRIBERS

March 2007 – Total:	1,291,310
June 2007 – Total:	1,454,060
September 2007 – Total:	1,617,000
December 2007 – Total:	1,779,750
March 2008 – Total:	1,814,000
June 2008 – Total:	2,070,000

June 2008 Market Position: 1

March 2008 – Total:	579,000

Clear Talk (NTCH, Inc.)

USA

CONTACT INFORMATION

NTCH, Inc.
703 Pier Ave.
Suite B PMB 813
Hermosa Beach
CA 90254
USA

Tel: +1-310-798-7110
Fax: +1-877-367-6824

http://www.cleartalk.net

OWNERSHIP INFORMATION

NTCH, Inc.

MANAGEMENT

Glenn Ishihara (Chief Executive Officer)
Adilia Aguilar (Chief Finance Officer)
Jon Gurbag (Chief Technology Officer)
Mike Feigenbaum (Vice President of Business Development)

NETWORK TECHNOLOGY

CDMA2000 1X EV-DO (PCS 1900 MHz) launched December 2004

SUBSCRIBERS

March 2007 – Total:	27,486
June 2007 – Total:	26,827
September 2007 – Total:	26,637
December 2007 – Total:	27,650
March 2008 – Total:	26,363
June 2008 – Total:	24,512

Commnet (Commnet Wireless, LLC)

USA

CONTACT INFORMATION

Commnet Wireless, LLC
400 Northridge Rd
Suite 130
Atlanta
GA 30350
USA

Tel: +1-678-338-5960
Fax: +1-678-338-5961

http://www.commnetwireless.com

OWNERSHIP INFORMATION

Atlantic Tele-Network Inc (100%) (http://www.atni.com)

MANAGEMENT

Laksi, Bangkok 10210
Thailand

OWNERSHIP INFORMATION

TOT Public Company Limited (100%) (http://www.tot.co.th)

MANAGEMENT

Varut Suvakorn (Senior Executive Vice President - Marketing and Product Development)
Naengnoi Vananuvetchapong (Senior Executive Vice President, Corporate Audit and Assurance)
Kittipong Tameyapradit (Senior Executive Vice President - Enterprise Effectiveness)
Vatcharee Tupcharoen (Senior Executive Vice President - Finance)
Arsa Satayut (Senior Executive Vice President of Metropolitan Sales and Customer Service)
Noppanat Hutacharoen (Senior Executive Vice President, Regional Sale and Customer Service)
Chakree Subprawong (Senior Executive Vice President for Core Network)
Wichien Naksrinual (Senior Executive Vice President of Universal Telecom Services)
Arnon Tubtiang (Senior Executive Vice President of Human Resources)
Suthep Srisuwan (Senior Executive Vice President of Invesment Management)
Tharnee Sricharoen (Senior Executive Vice President of Property Management)
Yingsak Srisuksawad (EVP Metropolitan Sale and Service 1 - Metropolitan Sale and Customer Service)

NETWORK TECHNOLOGY

GSM 1900 active
GPRS active
EDGE active

SUBSCRIBERS

June 2007 – Total:	70,000
March 2008 – Total:	45,000
June 2008 – Total:	40,000

June 2008 Market Position: 5

True Move (True Move Company Limited)

Thailand

CONTACT INFORMATION

True Move Company Limited
18 True Tower
Ratchadaphisek Road
Huai Khwang
Bangkok 10310
Thailand

Tel: +66-2-643-1111
Fax: +66-2-643-1651

http://www.truemove.com

OWNERSHIP INFORMATION

True Corporation Public Company Limited (http://www.truecorp.co.th)

MANAGEMENT

Dhanin Chearavanont (Chairman)
Supachai Chearavanont (President and Chief Executive Officer)
Vichaow Rakphongphairoj (Managing Director and Chief Operating Officer)
Noppadol Dej-Udom (Chief Finance Officer)

NETWORK TECHNOLOGY

Elena Serban (Director)
Liliana Solomon (Chief Executive Officer and Director Corporate Communications)
Marian Velicu (Senior Director Regulatory, Legal and Corporate Affairs)
Aurelia Dragomirescu (Legal Director)

NETWORK TECHNOLOGY

GSM 900 launched April 1997
GPRS active
HSDPA partial launch June 2007
HSPA active

SUBSCRIBERS

March 2007 – Total:	7,954,000	(Pre-paid: 5,266,000 | Post-paid: 2,688,000)
June 2007 – Total:	8,223,000	(Pre-paid: 5,419,000 | Post-paid: 2,804,000)
September 2007 – Total:	8,579,000	(Pre-paid: 5,654,000 | Post-paid: 2,925,000)
December 2007 – Total:	8,808,000	(Pre-paid: 5,743,000 | Post-paid: 3,065,000)
March 2008 – Total:	8,921,000	(Pre-paid: 5,718,000 | Post-paid: 3,203,000)
June 2008 – Total:	9,256,000	

June 2008 Market Position: 2

Zapp (Telemobil SA)

Romania

CONTACT INFORMATION

Telemobil SA
Str Tipografilor 11-15th
Building B3-B4
5th floor, Sector 1
Bucharest
013715
Romania

Tel: +40-21-402-4444
Fax: +40-021-206-3356

http://www.zapp.ro

OWNERSHIP INFORMATION

Telemobil SA (http://www.zapp.ro)

MANAGEMENT

Chris Bataillard (Chief Executive Officer)

NETWORK TECHNOLOGY

CDMA2000 1X (Cellular, 450 MHz) launched December 2001
GPRS active
CDMA2000 1xEV-DO (Cellular, 450 MHz) launched October 2004
HSDPA launched May 2008

SUBSCRIBERS

March 2008 – Total: 720,000

June 2008 Market Position: 4

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Full Address: E-mail:

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