AMERICAS TELECOMMUNICATION INDICATORS 2000

A DECADE OF REFORMS

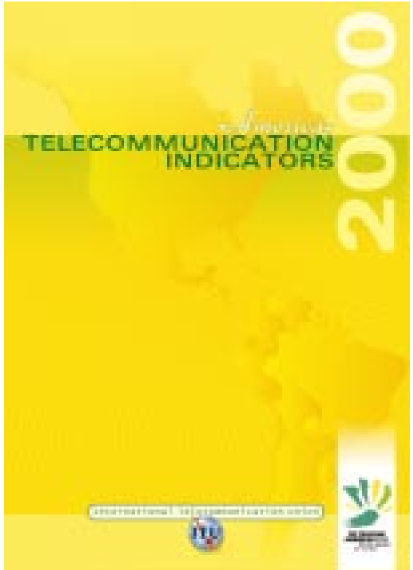
This new report by the International Telecommunication Union (ITU) focuses on how the telecommunication reform programmes of the last decade are shaping the market of the coming decade.

No region of the world has embraced the privatization of telecommunications as enthusiastically as Latin America. Of 89 incumbent public telephone operators worldwide that had been privatized by the end of 1999, one quarter were in the Americas region. Even more impressive is the degree of private participation in the sector. While more than two-thirds of the countries of the Americas region have either partially or fully privatized their telecommunication companies, in other regions like Africa and the Arab States, this percentage drops to 28 and 33 per cent respectively.

So begins the Executive Summary of the ITU's most recent regional indicators report, *Americas Telecommunication Indicators 2000*. The report was published on the occasion of the ITU TELECOM AMERICAS 2000 Exhibition and Forum, held in Rio de Janeiro in April of this year. The report reviews telecommunication developments in the emerging economies of the western hemisphere.

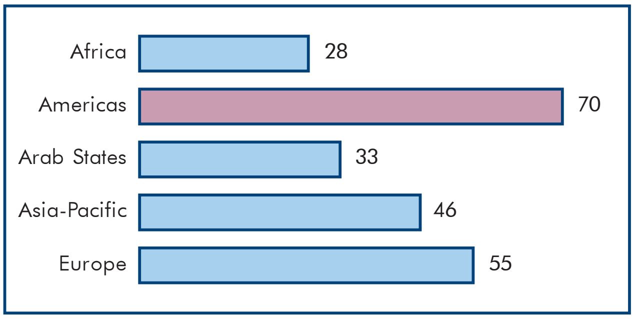
Mobile communications in Latin America has grown strongly over the last decade, rising from just 100 000 subscribers in 1990 to over 39 million in 1999. The number of new mobile users has exceeded new fixed telephone subscribers every year since 1997. Today, one in every four telephone users in the region depends on a mobile phone. In Paraguay and Venezuela, there are more mobile subscribers than traditional fixed telephone line customers. The rapid rise in mobile subscriptions is attributed to private ownership and competition, the implementation of calling party pays and the introduction of pre-paid cards.

Growth of the Internet in Latin America has been as equally, if not more, impressive than mobile. The number of Internet host computers grew faster there than in any other region of the world in 1999 and reached a significant milestone, surpassing one million during that year. The number of users is estimated at 9 million. Falling prices have contributed to increased Internet access in Latin America. Equally important has been the rise of Spanish Web content, the world's fourth largest linguistic group with some 300 million speakers.

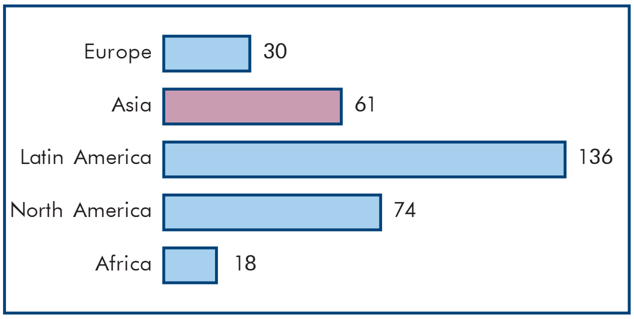


Americas Telecommunication Indicators 2000 contains 140 pages of text, reference information, statistics and directory of telecommunication operators in the region and is published in English and Spanish. Information about ordering the publication, including free access to the Executive Summary, is available at http://www.itu.int/ti/publications/americas/2000/index.htm.

PERCENTAGE OF COUNTRIES THAT HAVE PRIVATIZED, 1999



GROWTH IN INTERNET HOSTS (PERCENTAGE) IN 1999



TELECOMMUNICATION INDUSTRY AT A GLANCE

MOBILE DRIVING GROWTH OF TELECOMMUNICATION MARKETS

The world market for telecommunications (services and equipment) doubled between 1990 and 1999 and was worth over USD 1000 billion in 1999. The services segment accounted for almost three quarters of global telecommunication revenues or some USD 800 million.

Mobile communications is driving growth and now accounts for 24 per cent of the total service revenues, up from just 3 per cent in 1990. Although revenues from the fixed telephone network continue to dominate the total market, its share has fallen significantly, from 90 per cent in 1990 to 61 per cent in 1999.

KEY INDICATORS FOR THE WORLD TELECOMMUNICATION SERVICE SECTOR

(USD billions)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2002
Telecom market revenue (current prices and exchange rates)												
Services	396	419	461	491	530	615	673	702	744	792	840	925
Equipment	112	119	132	138	161	182	213	237	260	290	320	375
Total	508	539	593	630	691	797	885	939	1004	1082	1160	1300
Telecom services revenue breakdown (current prices and exchange rates)												
Services Telephone [1]	356	373	394	410	444	497	508	500	500	480	460	410
International [2]	33	37	43	46	47	53	53	54	56	58	60	60
Mobile	11	15	23	33	47	75	104	129	154	192	230	315
Other [3]	29	31	44	48	39	43	61	73	90	120	150	200
Telecom services capital expenditure (current prices and exchange rates)												
Total [4]	115	124	131	134	138	155	166	161	167	171	175	180
Other statistics												
Main telephone lines (millions)	520	546	574	606	644	691	740	792	844	905	970	1115
Mobile cellular subscribers (millions)	11	16	23	34	55	91	145	214	319	472	650	1000
International telephone traffic minutes (billions) [5]	33	38	43	48	56	62	71	80	90	100	110	130
Personal computers (millions)	120	130	150	170	190	230	260	320	370	430	500	670
Internet users (millions)	2.6	4.4	6.9	9.4	16	34	56	92	145	257	385	600

Notes: All data in millions of current USD converted by annual average exchange rates. Country fiscal year data aggregated to obtain calendar year estimates.

1 Revenue from installation, subscription and local, trunk and international call charges for fixed telephone service.

2 Retail revenue.

3 Including leased circuits, data communications, telex, telegraph and other telecom-related revenue.

4 Note that the data of the growing number of new market entrants are not always reflected in national statistics.

5 From 1994 including traffic between countries of former Soviet Union.

Source: ITU, 2000.

THE MOBILE MESSAGE EXPLOSION

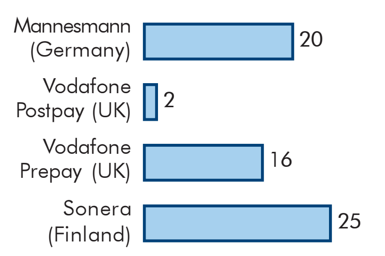
Electronic messages sent by mobile telephones are exploding in Europe. The GSM digital mobile system, the standard in Europe and also used in some 100 countries around the world, supports text exchange (up to 160 characters) between mobile handsets through the short message service (SMS) feature.

The GSM Association http://www.gsmworld.com/news/press_releases_55.html announced that "G-Mails" (GSM-Mail or SMS) totalled five billion around the world in the month of March 2000, with European nations accounting for the bulk of the mobile text traffic. The GSM Association predicts that 10 billion messages a month will be transmitted by year-end 2000.

In a recent report, *Cellular Mobile Pricing Structures and Trends*, http://www.oecd.org/dsti/sti/it/cm/prod/e_99-11.htm the Organisation for Economic Co-operation and Development (OECD), a grouping of the world's wealthiest economies, has reviewed and benchmarked SMS in its member countries. Most operators charge for each SMS message sent. The OECD found that the average price of an SMS message in the OECD is 16 US cents with the lowest being 3 cents and highest 25 cents.

Another interesting finding of the OECD report is the difference in SMS usage between postpay and prepay users with the latter using it significantly more. For example, the prepay customers of the UK mobile operator Vodafone send 8 times as many SMS messages a month as postpaid clients. This is because the heaviest SMS users tend to be young and thus more likely to not qualify for postpay service. This is confirmed by recent research from Amárach http://www.amarach.com/news/press7.htm in Ireland showing that 85 per cent of mobile users aged 15-19 use SMS compared to 40 per cent for those aged 35-49. The research also found that one third of those aged 15-24 years old sent over 20 SMS messages a week.

AVERAGE SMS PER CUSTOMER PER MONTH

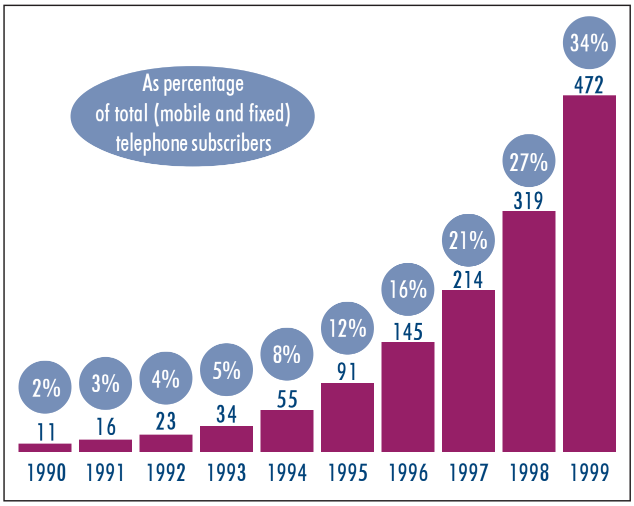


Source: OECD.

THE MOBILE CELLULAR BOOM

The global boom in mobile cellular communications has been truly astounding. At the end of 1999, there were more than 450 million subscribers around the world, up from just 11 million in 1990. That is a compound annual growth rate of more than 50 per cent per year. In other words, the number of mobile subscribers worldwide has been doubling every 20 months since the start of the decade.

WORLDWIDE MOBILE CELLULAR SUBSCRIBERS (MILLIONS)



Source: ITU, 2000.

TOP 20 ECONOMIES RANKED BY MOBILE CELLULAR PENETRATION, 1999

Rank	Economy	Penetration (%)	Mobile cellular subscribers (000s)
1	Finland	66.7	3 445
2	Norway	61.8	2 745
3	Sweden	57.8	5 125
4	Hong Kong SAR	57.7	3 973
5	Italy	52.8	30 296
6	Taiwan-China	52.1	11 541
7	Korea (Rep.)	50.4	23 443
8	Denmark	49.9	2 650
9	Austria	48.9	4 000
10	Luxembourg	48.7	209
11	Singapore	47.5	1 532
12	Portugal	46.8	4 671
13	Israel	45.9	2 800
14	Japan	44.9	56 849
15	Netherlands	43.5	6 900
16	Switzerland	42.0	3 000
17	United Kingdom	40.8	23 944
18	Iceland	39.2	109
19	Ireland	37.8	1 400
20	France	36.4	21 434
	TOP 20	46.1	210 066

Source: ITU, 2000.

MORE MOBILE THAN FIXED

Finland made headlines at the end of 1998 when it became the first nation to top 50 per cent mobile penetration. Along with Cambodia, it was one of only two countries in the world where the number of mobile subscri-bers surpassed that of fixed-line subscribers.

At the end of 1999, seven more countries joined the club. The most recent members are the Republic of the Congo (Brazzaville) and Hong Kong Special Administrative Region (SAR) where mobile surpassed fixed in the first half of 2000. The ITU forecasts that by the middle of this decade, there will be more cellular subscribers worldwide than fixed-line subscribers.

The mobile boom could be far from over. For example, in Nordic nations, where every other person now has a mobile phone, the cellular penetration rate is forecast to top 100 per cent. It is likely that other developed countries will follow this pattern. Meanwhile, in emerging economies, there is considerable pent-up demand for telecommunications. Mobile is a perfect fit since wireless networks can be installed quickly and pre-paid provides rapid access for those who would not normally qualify for a subscription service.

For more information on mobile cellular, see http://www.itu.int/ti/publications/wtdr_99/wtdr99.htm.

ECONOMIES WITH MORE MOBILE THAN FIXED TELEPHONE SUBSCRIBERS AT END OF 1999

Economy	Date mobile overtook fixed	Mobile subscribers (000s) in 1999	Fixed-line subscribers (000s) in 1999	Total telephone mobile subscribers (%)	Mobile density	Fixed density	Total density
Cambodia	1993	89	28	76	0.81	0.25	1.07
Finland	Dec. 1998	3 445	2 856	55	66.70	55.29	121.99
Paraguay	May 1999	436	297	59	8.13	5.54	13.67
Uganda	July 1999	87	59	59	0.40	0.27	0.68
Venezuela	Aug. 1999	3 400	2 586	57	14.34	10.91	25.25
Italy	Sept. 1999	30 296	26 500	53	52.83	46.21	99.05
Portugal	Sept. 1999	4 671	4 230	52	46.81	42.39	89.20
Côte d'Ivoire	Oct. 1999	257	219	54	1.77	1.51	3.28
Korea (Rep.)	Nov. 1999	23 443	21 250	52	50.44	45.72	96.16

Source: ITU, 2000.

COUNTRY PROFILE: UGANDA

The Republic of Uganda, covering an area of 235 885 km, is an agricultural country with a population of about 22 million. Over 85 per cent of its citizens live in rural areas; the capital Kampala has almost 900 000 inhabitants but accounts for just 4 per cent of the country's population. Although land-locked, Uganda is in the Great Lakes region of eastern Africa with some 15 per cent of its area consisting of water. A significant portion of Lake Victoria, the largest fresh water lake in Africa and source of the river Nile, is found in Uganda territory.

REFORMED, PRIVATIZED AND LIBERALIZED

Uganda's Gross Domestic Product (GDP) per capita is less than USD 300, making it a least developed country. It has historically had one of the lowest levels of telephone penetration in the world. However, government initiatives to boost the economy through privatization and foreign investment are starting to pay off. Nowhere is this more evident than the telecommunications sector, which is now one of the most liberal in Africa. Steps taken over the last five years to foster growth in telecommunications include:

- Licensing of a private GSM mobile operator, CelTel, in May 1995
- Creation of a regulator, the Uganda Communication Commission, in 1998
- Introduction of a second national operator, MTN Uganda, in October 1998
- Partial privatization of incumbent telecommunication operator, Uganda Telecom Limited (UTL), in February 2000.

MOBILE MANIA

The results of these changes have been dramatic. Uganda's overall telephone density tripled between 1995 and 1999 rising from 0.21 telephone subscribers per 100 people to 0.67. This rapid growth is a direct result of MTN's entry into the market. Although MTN full service licence allows it to offer all telecommunication services including fixed telephony, it has focused on mobile. One reason is that wireless networks are quick to install. Another is the use of prepaid cards since most Ugandans would not meet the financial criteria for a subscription-based service.

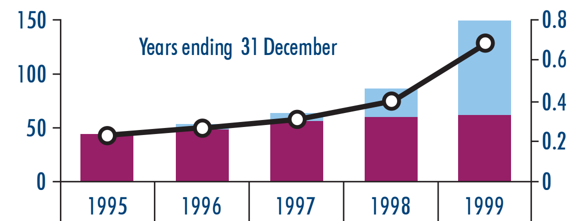
In a little over one year, MTN emerged as the largest network operator in Uganda surpassing not only CelTel but also the incumbent, UTL, in terms of number of clients. In July 1999, Uganda became the first African country and only one of a dozen in the world where there were more mobile than fixed telephone customers. MTN has not rested on its laurels. It has been aggressive in expanding the network into what Ugandans refer to as "up-country", that is the rural part of the nation. Over 50 per cent of the population is now covered by mobile cellular and some 40 towns have service. What is remarkable is that the number of mobile subscribers widely exceeds earlier forecasts of a potential mobile market of some 10 000! The planned entry of UTL into the mobile market should further spur growth with some estimates putting the potential mobile client base at half a million.

INTERNET CASE STUDY

The Internet market is also liberalized in Uganda. There is no limit on the number of Internet Service Provider (ISP) licences. Furthermore, ISPs can provide their own national and international infrastructure. Eight ISP licences had been issued as of February 2000. There are some 4000 Internet subscribers and an estimated 25 000 users in the country. Demand is high as evidenced by an explosion of cybercafés in Kampala over the last year. There is considerable scope to expand Internet usage in the country since almost all users are currently in Kampala. Furthermore, ISP charges of USD 50 a month for unlimited access are relatively high compared to income especially considering that telephone usage charges must be added to this.

Uganda is one of the countries participating in the ITU Internet Case Studies through its Ministry of Works, Transport and Communications. For more information on the case studies, please visit the website at www.itu.int/ti/casestudies.

TELEPHONE SUBSCRIBERS, UGANDA (000s)



	1995	1996	1997	1998	1999
Mobile	2	4	7	26	87
Fixed	39	46	54	57	59
Penetration	0.21	0.25	0.29	0.39	0.68

Source: ITU, 2000.

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