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Lebanon - Telecoms Market Overview & Statistics**1. SYNOPSIS**

This report provides an overview of the telecommunications market in Lebanon, accompanied by relevant statistics. The political turmoil in Lebanon has delayed reform of the telecom sector for many years. Breakthroughs have occurred in 2007 with the appointment of a regulatory authority and the introduction of DSL broadband services but further progress will be difficult. Efforts at privatisation and liberalisation have long been delayed in the implementation phase, leaving monopoly fixed-line and duopoly mobile networks all in government ownership.

2. KEY STATISTICS**Table 1 – Country statistics – 2006**

COUNTRY STATISTICS	
Population (e)	3.7 million
Number of households (e)	0.8 million
Land area	10,230 sq km
Capital	Beirut
Local currency	Lebanese pound (LBP)
GDP (e)	US\$22.6 billion
GDP per capita at current prices (e)	US\$6,110
GDP real growth rate (e)	0%
Government	Republic

Table 2 – Telephone network statistics – 2006

TELEPHONE NETWORK STATISTICS	
Fixed telephone lines in service (e)	820,000
Fixed-line teledensity (e)	22%
Major public telecom operators	Ogero Telecom

Table 3 – Internet user statistics – 2006

INTERNET USER STATISTICS	
Internet users (e)	800,000
Internet penetration (e)	22%

Table 4 – Broadband statistics – 2006

BROADBAND STATISTICS	
DSL subscribers	0
Cable modem subscribers (e)	100,000

Table 5 – Mobile statistics – 2006

MOBILE STATISTICS	
Mobile subscribers	1.09 million
Annual growth	9%
Mobile penetration	28%
Major mobile operators	<ul style="list-style-type: none"> • MTC • Alfa

Table 6 – National telecommunications authorities

NATIONAL TELECOMMUNICATIONS AUTHORITIES	
Regulatory authorities	Telecommunications Regulatory Authority (TRA)

(Compiled by BuddeComm, various industry sources)

3. TELECOMMUNICATIONS MARKET

3.1 OVERVIEW OF LEBANON'S TELECOM MARKET

The July 2006 war between Israel and Hizbullah destroyed large quantities of telecommunications infrastructure, adding further problems to Lebanon's already troubled telecoms industry. However, despite the political turmoil that has followed the war, there have been some moves towards reform.

Economic developments have been shaped by the major changes in the political landscape. The assassination of former Prime Minister Rafik Hariri in February 2005 plunged the country into a period of political and financial turbulence.

GDP growth slowed considerably in 2005. In the wake of the political crisis, public and private demand contracted. Rising oil prices, the economic slowdown and payments of arrears all weakened public finances and government debt rose to 175% of GDP. The political instability slowed economic reforms much needed to reduce the debt, standing at US\$36 billion in early 2006. International donors made it clear that Lebanon must make important economic reforms if it was to receive any foreign aid.

The telecom sector is the largest single source of much-needed revenue for the government. In late 2006 it was stated that telecommunications revenues account for 38% of the state budget. All tariffs, including in the data services sector, are set by the government.

The Lebanese telecommunications market is highly regulated with both fixed-line and mobile networks government owned. Plans to liberalise the market have been continually delayed. Partly this has been due to political upheaval and continued political instability and partly to government members involved in the decision making having financial interests in telecommunications operators. In addition, pro-Syrian President Emile Lahoud has been a strong opponent of privatisation.

Ogero Telecom, a wholly government-owned organisation controlled by the Ministry of Telecommunications (MoT), owns and operates the fixed-line telephony network. It is responsible for billing, maintenance, and connecting telephone subscribers. Plans to privatise Ogero were agreed upon in December 2004 but there is no prospect of them being implemented in the near future.

During the same period, the government agreed to create an industry regulator, the Telecommunications Regulatory Authority (TRA), to replace the MoT. Surprisingly, given the ongoing constitutional crisis, the members of the TRA were at last appointed in early 2007. The TRA is said to be the first regulatory body created in Lebanon since the Central Bank was established in 1964.

The data communications and Internet service provision market is more competitive with a number of operators offering services but tariffs are government controlled. Digital Subscriber Line (DSL) broadband services were much delayed, with one reason cited being the lack of international bandwidth, but were at last launched in May 2007. Previously broadband services were available only through the wireless data operators and the black market cable modem Internet Service Providers (ISPs).

Mobile services are provided by Alfa (a consortium led by Detecon International of Germany) and MTC of Kuwait on the government owned networks. They began operating the networks in June 2004 after winning a tender for management rights. The tender followed a protracted on-off licence auction process that was eventually cancelled, which itself followed the early cancellation of two Build-Operate-Transfer (BOT) contracts. The process of cancellation, auction and ongoing legal battles further distracted governments from other reforms.

Plans have been discussed for the privatisation of the mobile operators but will probably require some resolution of the political stalemate before they can be implemented. The government has been encouraged by the high prices realised for sales of other mobile operators and new mobile licences in the region.

Lebanon has a thriving TV industry although signal piracy is a huge problem for the pay TV operators. Lebanon has been in negotiations to join the World Trade Organization (WTO) for many years but one of the biggest hurdles to entry is the frequency of violation of intellectual property rights in the country, particularly cable TV piracy.

3.1.1 InvestCom

InvestCom was established in 1982, starting with the retailing of telecom equipment and accessories, and was a partner in the former Lebanese mobile operator Cellis, see chapter 9.

In July 2006 South African group MTN completed its US\$5.5 million acquisition of InvestCom. The new company is to operate under the MTN name. InvestCom's biggest shareholder was M1, an investment firm controlled by the Lebanese Mikati family (who in the past have occupied Ministerial positions in the government and,

briefly, the PM position), with a 70.6% shareholding. M1 has become MTN's biggest shareholder, with a seat on the board.

InvestCom brought a presence in ten countries in Asia, Africa and Europe to the merged group, with GSM-based networks, mostly under the Areeba brand, in Syria, Ghana, Yemen, Benin, Liberia, Cyprus, Guinea Bissau, Sudan and Afghanistan and a licence to operate in Guinea. In addition it owned a stake in Mediterranean Network (Med Net), which provides international carrier services to third-party telecommunications operators as well as its own mobile operations.

3.1.2 Saudi Oger / Oger Telecom

Saudi Oger Ltd was incorporated in 1978 and is a private company. It is Lebanese-owned but founded in Saudi Arabia. Its founder was Rafik Hariri, who later returned to Lebanon and became Prime Minister. It is still owned and managed by the Hariri family. Originally a construction company, Saudi Oger has grown into a multi-company, multi-divisional organisation with numerous subsidiaries and affiliates in Saudi Arabia and abroad in construction, engineering and maintenance, real estate development, IT, utilities and telecommunications.

Saudi Oger's subsidiary Oger Telecom is based in Dubai and has major interests in Turkey and South Africa. In 2005 it won the tender for a 55% share of Turk Telekom for a total of US\$6.55 billion (for more information see separate report [Turkey – Key Statistics, Regulatory & Fixed Line Telecoms Overviews](#)). In South Africa Oger Telecom owns a 60% share in mobile operator Cell C (for more information see separate report [South Africa - Mobile Market - Overview & Statistics](#)). It also owns the ISP Cyberia, which operates in Lebanon in addition to Saudi Arabia and Jordan.

4. REGULATORY ENVIRONMENT

4.1 BACKGROUND

At the end the July 2006 war one of the first items the Prime Minister included on the agenda for the cabinet was the appointment of candidates for the TRA. However, whilst the current government is committed to telecoms privatisation and liberalisation (and has hired investments banks JP Morgan and Citibank as advisors), these measures are likely to require approval by Parliament, which is not possible due to the current political stalemate: the Speaker refuses to convene Parliament because he views the current government as illegitimate. Consequently the deadlock of the past seven years is likely to continue.

The Telecommunications Act, prepared by the then Minister of Post and Telecommunications, proposing a complete re-organisation of the telecom sector to create a distinction between the operational function and the regulatory function, was first published in the Official Gazette in May 2000.

The law provided the framework for a new telecommunications operator to replace Ogero to be called Liban Telecom. Liban Telecom would initially be state-owned but

eventually be privatised, bringing in a strategic investor and offering shares to the public. It would operate fixed international and local lines, Internet and data services plus a third GSM mobile phone network. The law also outlined the responsibilities and format of an independent regulator.

After a long gestation period, the legislation was formalised as 'Law No 431 dated 22 July 2002, relating to telecommunications law and to the establishment of a telecommunications company in Lebanon'. The act introduced the concept of Significant Market Power (SMP). A SMP operator was defined as one that has the ability to control the price and supply of services due to its control of essential facilities or its position in the market. An essential facility was defined as a public telecommunications service or infrastructure that is exclusively or predominantly provided by one or a number of service providers and cannot feasibly be economically or technically substituted to provide a telecoms service.

4.2 REGULATORY AUTHORITY

In early 2007 the cabinet at last approved members of the Telecommunications Regulatory Authority (TRA), replacing the Ministry of Telecommunications (MoT), formerly the Ministry of Post and Telecommunications, and all five members have been appointed including the Chief Executive.

Telecommunications Law No 431 of 2002 required the establishment of an independent regulatory authority to replace the Ministry. On 2 December 2004, the Council of Ministers approved the decrees for the creation of the TRA. The TRA was to have a number of responsibilities:

- Telecom operator licensing and monitoring licence condition compliance;
- Management of the radio frequency spectrum;
- Matters in relation to interconnection, numbering, standards, type approval and Quality of service;
- Economic matters in relation to policy, market analysis and tariffs.

For years the TRA board remained unappointed, partly due to political infighting over nominations, including objections by President Lahoud.

4.3 TELECOM SECTOR LIBERALISATION IN LEBANON

No progress has been made on ending the monopoly of the government-owned Ogero in the fixed-line market. The Law of 2002 made provision for a three-year exclusivity period for Liban Telecom after its formation before the introduction of competition into the market.

The fixed-line sector has had some of the highest tariff rates in the world, driving fierce competition in the fixed wireless sector, but significant reductions were made in 2006.

4.4 PRIVATISATION

4.4.1 Ogero Telecom

The privatisation of Ogero Telecom has been planned for some years, starting with its conversion into a government-owned company Liban Telecom. Creation of the Liban Telecom would then allow the privatisation phase to commence. This privatisation is on indefinite hold.

The Council of Ministers approved the decrees in December 2004 for the creation of Liban Telecom from Ogero. Ownership was to be in the form of 1,000,000 shares with a total value of US\$663 million.

Part VIII and Part IX of Telecoms Law no 431 outline the establishment of Liban Telecom and procedures for privatisation.

It stipulates that up to 40% of Liban Telecom could be sold by means of an international tender to an investor of the private sector who possesses substantial experience and competence in the telecoms sector. The sale would occur within a two-year time frame from the establishment of the company. It did not specify a date or price for the sale of the remaining 60% government share. Liban Telecom can be granted the exclusive right to provide local and international fixed-voice service for a period of five years commencing from the date of establishment of the company.

4.4.2 Mobile operators

The privatisation of the mobile operators is a further contentious issue. For the background and further details of the present situation see chapter 9.2.

Announcements on the privatisation of the mobile operators come and go, with the most recent plans for a sale September or October 2007, with expectations of raising US\$5-7 billion. This is most unlikely to take place.

4.5 INTERCONNECT

Under the Telecom Law as passed, operators possessing SMP would have a duty to establish interconnection with other providers, establish and provide facilities and arrangements for that purpose, and establish charges for the service. The TRA would have the authority to set a deadline by which an interconnect agreement must be concluded. If an agreement was not concluded, the TRA would have the authority to establish the terms of interconnection. The TRA would also have the authority to order modifications to any interconnection agreement between two operators.

For more information on:

- regulatory issues in Broadcasting, see chapter 8.4.1;
- regulatory issues in Mobile communications, see chapter 9.2.

5. FIXED NETWORK OPERATOR IN LEBANON

5.1 OGERO TELECOM

Organisme de Gestion et d'Exploitation de l'ex-société Radio-Orient (Ogero Telecom) was created in 1972 to run the network of the previously established Franco-Lebanese Radio-Orient company. Since 1993, Ogero has financed and managed Lebanon's fixed-line network for the government. In 1994 the maintenance duties for pre-existing MoT facilities were also handed over to Ogero.

6. TELECOMMUNICATIONS INFRASTRUCTURE

6.1 NATIONAL TELECOM NETWORK

Fixed-line numbers have been steady for several years due to mobile substitution. Ogero claimed to have 750,000 subscribers as at end-2004. According the International Telecommunication Union (ITU), 37% of households had a fixed-line connection in 2004.

Illegal Voice over Internet Protocol (VoIP) connections are widespread. In May 2006 Ogero cut the cost of international calls by between 40% and 60% in an attempt to end illegal calls. Ogero announced that overseas voice traffic had increased by 115% after its cuts.

Table 7 – Fixed lines in service and teledensity – 1996 - 2006

Year	Fixed lines	Teledensity
1996	461,000	14.9%
1997	562,000	17.9%
1998	566,000	17.7%
1999	571,000	17.6%
2000	576,000	17.5%
2001	626,000	18.7%
2002	679,000	20%
2003	700,000	20%
2004	750,000	20.2%
2005 (e)	800,000	22%
2006 (e)	820,000	22%

(Source: BuddeComm based on ITU data)

Note ITU statistics for 2005 give the number of fixed lines as being 990,000, with penetration at 27.7%. On reflection this seems an unlikely large rise from 2004. Some reports have put the number of fixed lines at only 600,000 in early 2007.

In 1990 Lebanon's telecommunication infrastructure was reduced from 450,000 to 150,000 unreliable telephone lines, long-distance lines lost 85% of their previous capacity, the three Intelsat satellite earth stations were completely destroyed and the microwave links to Cyprus and marine cables to Marseille, Cyprus and Egypt partially destroyed. Substantial government investment has repaired the infrastructure although there has been a concentration on the cities and services are less good in rural areas. In October 2000, a five-year plan 'Program for the Rehabilitation of the

Telecommunication Network in Lebanon and its Development' was drafted, with US\$785.8 million allocated for the program. Achievements of the program include the installation of 971,600 lines, 313 telephone exchanges, three international exchanges, eight national exchanges and 30,476 Integrated Services Digital Network (ISDN) lines. By 2005 network capacity had been increased to 1.2 million lines.

A backbone network with 2,000km of fibre optic links based on Synchronous Digital Hierarchy (SDH) is also present as well as a gigabit Ethernet Metropolitan Area Network (MAN), implemented by Ericsson in 2001, with 57 core sites and 36 access sites.

6.2 INTERNATIONAL INFRASTRUCTURE

The lack of capacity in Lebanon's international connections was given as a reason for the delays in introduction of DSL broadband services

6.2.1 Submarine cable networks

Until recently Lebanon has had insufficient quantity of international bandwidth with one of the lowest international cable capacities in the region, reported as only 3Gb.

In order to rectify this, the Ministry signed up in April 2007 to join the new I-ME-WE (India-Middle East-Western Europe) cable. This cable project was announced in 2006 and is being constructed by STC of Saudi Arabia, Etisalat of the UAE, Telecom Egypt, Telecom Italia Sparkle and India's Videsh Sanchar Nigam Ltd (VSNL). The Ministry also signed a second agreement with Telecom Italia and Cypriot operator Cyta concerning a cable between Cyprus, Italy and New York.

Existing international connections are by the Cadmus cable, linking Lebanon with Cyprus, Egypt and Syria installed by Alcatel.

6.2.2 Satellite networks

Two Intelsat earth stations (one Indian Ocean and one Atlantic Ocean) are in operation – in Arbanieh and Jouret el Ballout.

7. BROADBAND AND INTERNET MARKET

7.1 OVERVIEW

Internet services began in 1991, when the American University of Beirut (AUB) assumed the responsibilities of planning, engineering, implementing and running the first serious Internet node in the country. The AUBnet Internet connection via InterEunet was opened to the users in 1993.

Prices are high, legal services are slow and there is a huge black market. It is hoped that the newly available DSL services will significantly reduce the black market.

7.1.1 Internet statistics

Statistics are difficult to obtain as ISPs do not publish subscriber numbers and because of the black market. In late 2006 estimates from legal and illegal ISPs put the number of residential Internet subscribers at around 300,000, at least a third of whom connected illegally. The Arab Advisors Group estimated the number of Internet subscribers at approximately 195,000 in September 2005, equating to a penetration rate of 5.3%. The figure was inclusive of an estimated 70,000 subscribers who accessed the Internet via black market ISPs. Arab Advisors expected the market to grow during 2005 - 2009 by a Cumulative Annual Growth Rate (CAGR) of 14.8% to reach 400,000 subscribers, equating to a penetration rate of 10.1%, and 1 million Internet users. PC penetration was estimated by the ITU at 11.27% and in mid-2005 was forecasted by the Madar Research Group to increase to 15.8% by 2008, compared with the regional average of 7%.

Table 8 – Internet user and penetration estimates – 1995 - 2006

Year	Users	Penetration
1995	2,500	n/a
1996	5,000	n/a
1997	45,000	n/a
1998	100,000	3%
1999	200,000	6%
2000	300,000	9%
2001	260,000	8%
2002	400,000	12%
2003	500,000	14%
2004	600,000	17%
2005	700,000	19%
2006	800,000	22%

(Source: BuddeComm based on ITU and industry data)

Note: estimates to 2005 are by ITU, 2006 by BuddeComm

Table 9 – Internet subscribers – 2001 - 2006

Year	Subscribers
2001	85,000
2002	130,000
2003	140,000
2004	170,000
2005	230,000
2006 (e)	300,000

(Source: BuddeComm based on ITU and industry data)

Note: Users are those accessing the Internet from their school, university, work account as well as from their individual household or business accounts. Subscribers

are the number of individual paid Internet access account, eg a work account is just one subscription but can have many users within that one subscription.

7.2 DATA SERVICE PROVIDERS

7.2.1 Overview

Data service provision is one of the few areas of the market with any competition. Private operators are allowed to compete with Ogero in non-voice services although they are limited to using wireless technologies. In 1996, Datasat was granted the right to create a radio data transmission network and to link it with the global network. It was authorised to install VSAT equipment over its network and had the exclusive right to deal with such global operators on behalf of the Ministry of Telecommunications. In 1997 Cable One was also granted the right to create a radio data transmission network with the right to interconnect such a network to the Ministry's international network for a period of five years renewable annually. The same right was granted to Pesco Telecom and Cedarcom. Some argue that these decrees were granted in violation of the state monopoly and that there should have been a proper privatisation.

7.2.2 Cable One

Cable One is a member of the Comium Group and has operated in Lebanon since 1997. It provides wireless access, data networking and last-mile solutions to corporate customers and ISPs.

7.2.3 Cedarcom

Cedarcom provides data services to ISPs, Application Service Providers (ASPs), banks, universities, large organisations and small-to-medium enterprises services. It received its licence in April 1997 which was renewed in September 2003. However it did not commence wireless services until mid-2004. The company is 70% owned by MEA Telecom, which also owns Fiberlink Networks, see chapter 7.3.4.

Its core MPLS network was built using Cisco equipment with Point of Presence (PoPs) connected wirelessly and within Beirut in a ring topology, providing 99.99% uptime. The access network consists of point to multipoint links built using World Interoperability for Microwave Access (WiMAX) equipment from Aperto Networks. The network operates in the licensed 2.6GHz, 3.5GHz and 7.5GHz spectrum bands. The wireless access network provides transmission speeds of up to 80Mb/s per node.

Cedarcom holds a wireless data networking licence allowing the deployment and operation of a countrywide broadband wireless network. It holds concessions for spectrum in the 1.9GHz, 2.5GHz, 3.5GHz and 7.5GHz frequency bands, and provides secure wireless access, data networking and last-mile solutions to banks, ISPs, ASPs, insurance companies, universities, multi-branch offices and other customers.

In June 2005 the operator held 20% of the wireless access market.

7.2.4 GlobalCom Data Services

GlobalCom Data Services (GDS) is a wireless data transmission provider licensed to install and operate a public WAN. Coverage is available over 75% of geographic territory and for 90% of the population. It supports Internet Protocol (IP), Frame Relay, Ethernet over Asynchronous Transfer Mode (ATM) and X.25 based connections. Starting in 2001 with the Beirut region and since extended nationwide, it provides fixed wireless access services using Local Multipoint Distribution System (LMDS) technology. All Lebanese ISPs are interconnected through GlobalCom's backbone. InvestCom owns a major share of GlobalCom.

7.2.5 Pesco Telecom

Pesco Telecom was established in 1992 and built most of Lebanon's satellite earth stations for the Ministry of Telecommunications and private TV stations. In 1997 it obtained a wireless data transmission licence and built a dedicated X.25 network for financial transactions, which grew to a nationwide multi-protocol network. Its emphasis is on providing services to the business community but also provides Internet services for residential customers, using indoor wireless modems, in partnership with the major ISPs. It claims 40% of the market.

7.2.6 Sodetel

Société de Développement des Télécommunications du Liban (Sodetel), is owned half by the government, the rest by France Telecom (40%) and Telecom Italia (10%). It was originally founded in 1968 to maintain an underwater cable between Beirut and Marseille.

In 1991, Sodetel set up Libanpac, a national packet-switching X25 data network, which it continues to maintain and operate. It set up an Internet network in 1996 and launched Frame Relay services in 1999, in collaboration with France Telecom and Equant. It also offers ISDN services. Its main focus now is as a provider of Internet services.

7.3 ISP MARKET

Significant developments in Internet service began in 1996. ISPs on-sell services from the data service providers.

7.3.1 IDM (Netlink)

IncoNet and Data Management, merged in January 2002 to create IDM, which claims a strong position in both the corporate and consumer markets. IncoNet and Data

Management were among the first ISPs in Lebanon. Data Management was established in 1984. In 1995 it expanded its services to become the first company in the country to provide value-added Internet services.

Services include dial-up services including prepaid cards, high-speed connections, ISDN and WiFi services.

7.3.2 Cyberia

Pan-regional Cyberia was launched in 1996. Cyberia was acquired by Oger Telecom in 1999. Oger also offers services under the Cyberia brand in both Saudi Arabia, see separate report, [Saudi Arabia - Telecoms Market Overview & Statistics](#) and in Jordan (see separate report, [Jordan - Telecoms Market Overview & Statistics](#)), where Cyberia acquired International Data Exchange (INDEX), a Jordanian ISP in 2002.

7.3.3 TerraNet

Launched in 1999, TerraNet offers a range of Internet solutions including high-performance Internet, intranet, and extranet solutions to its customers. It provides dial-up access connections and dedicated leased line connections. Its Internet portal, TerraNet Plus, offers various information channels in English, French and Arabic. TerraVision, a sister company to TerraNet, is an emerging pioneer in web design and development.

7.3.4 LYNX / Fiberlink Networks

LYNX Net is a subsidiary of MEA Telecom and has been in the market since 1999. LYNX Net was established in 2004 as a unit of Fiberlink Networks. Fiberlink Networks reached a strong positioning the corporate segment, working for a limited period under the brand of PSI, a US-based group.

7.4 BROADBAND OVERVIEW

There is considerable unsatisfied demand for broadband Internet services, part of which finds an outlet in black market suppliers. Black market connections via illegal satellite providers were said to constitute around 30% of the market in early 2007.

7.5 DIGITAL SUBSCRIBER LINE (DSL)

ADSL services, brand named 'Blink', were finally launched in Lebanon in May 2007, with competitive prices, but initially available in limited areas. Initially ISPs and Ogero offered ADSL with a variety of packages up to 1Mb/s. However, there were concerns that Ogero would have insufficient resources to install connections at a sufficient speed to satisfy demand.

The long wait for ADSL services, which were ‘imminent’ for over five years, was blamed variously on constraints in the capacity of the international cable, the lack of a functioning TRA to set and enforce prices, the difficulty of enforcing the ban on VoIP once DSL arrived (potentially having a disastrous effect on the state budget), and the protection of wireless broadband providers.

7.6 CABLE MODEMS

According to ITU statistics there are substantial numbers of cable modem subscribers. It is presumed that these must include black market subscribers and the figure must be estimated.

Table 10 – Cable modem Internet subscribers – 2002 - 2006

Year	Cable modem subscribers
2002	35,000
2003	70,000
2004	80,000
2005 (e)	90,000
2006 (e)	100,000

(Source: BuddeComm based on ITU data)

Note: Latest ITU data is for 2004.

7.7 WIRELESS BROADBAND

7.7.1 Local Multipoint Distribution System (LMDS)

Both Cedarcom and GDS provide broadband wireless access services to business in all major cities.

Residential services began in October 2004, working in conjunction with major ISPs after the MoT allowed a reduction in tariffs. Previously the MoT had set the minimum tariff at too high a point for the provision of a residential service to be practical. All ISPs charge an identical fee for three levels of service – 128kb/s, 256kb/s and 512kb/s. Complaints have been made that actual speeds are much lower.

7.7.2 WiFi

The ISPs have installed hotspots in hotels, coffee shops, restaurants, clubs and Beirut International airport.

7.7.3 WiMAX

In May 2006 it was reported that Solidere, a major Lebanese real estate group, had signed a BOT agreement with France Telecom’s Equant to deliver wireless broadband

services to the Beirut CBD. GlobalCom has also conducted trials, beginning in November 2006, using equipment from Alcatel.

7.7.4 iBurst

Cedarcom launched iBurst mobile broadband wireless in December 2006, branded MOBI, initially available within Greater Beirut but with Tripoli and Mount Lebanon to follow. Cedarcom partnered with ISPs Cyberia, IDM, Sodetel, LYNX and Broadband Plus. Several Internet access plans are available with a choice of downlink speeds of 256kb/s, 512kb/s and 1Mb/s.

7.7.5 Internet via satellite (Ku band services)

High-speed Internet access is available along the footprint of NileSat and other satellites. All requests for data are routed through the public telephone network but the downloaded information is routed directly to the user via satellite.

8. CONVERGENCE

8.1 OVERVIEW OF MEDIA CONVERGENCE

The convergence of voice, video and data applications into the integrated business model known as triple play is happening in Lebanon but in a typically ‘unofficial’ manner.

8.2 TRIPLE PLAY

The burgeoning black market cable modem industry supplies TV, Internet services and frequently VoIP.

GDS contracted Alcatel in early 2006 to supply it with a triple play broadband solution to allow high speed voice, data and video services.

8.3 VOIP

VoIP services are officially illegal in Lebanon but the ban has not been effective. An attempt to prevent VoIP services is reported as a reason behind the limitations on upload speeds for residential wireless access broadband subscribers. The black market cable industry is of course free of such restrictions.

8.4 OVERVIEW OF BROADCASTING MARKET

Television in Lebanon is well developed with numerous Free-to-Air (FTA) channels, some of them with a pan-Arab footprint. The large scale piracy in the pay TV sector is a considerable impediment to further investment in the industry.

The Lebanese media landscape is highly politicised, with every TV channel, radio station and newspaper having a political connection of some form or other.

Table 11 – TV equipped households – 1996 - 2006

Year	TV Households
1996	550,000
1997	590,000
1998	600,000
1999	620,000
2000	640,000
2001	660,000
2002	675,000
2003	713,000
2004	750,000
2005 (e)	761,000
2006 (e)	772,000

(Source: BuddeComm based on ITU data)

8.4.1 Broadcasting regulation

The Ministry of Information regulates radio and TV broadcasting. Under the provisions of the Audio-Visual Media Information Law (AVIL), most of the 40 or so wartime stations were closed down from 1994 onwards and the nominal monopoly held by the national official TV station, Tele-Liban, was cancelled. Most stations now on the air were set up after the civil war by Muslim and Christian factions.

In March 2001 Tele-Liban was closed. Founded in 1959, it had been on the brink of bankruptcy for years. Whilst Lebanon does not have the strict programming and advertising restrictions of many Arab countries, stations have been closed either temporarily or permanently for screening politically sensitive or propaganda material. The 1991 Treaty of Brotherhood, Co-operation, and Co-ordination between Syria and Lebanon forbade the broadcast of any material harmful to the security of either state.

Al-Manar, which is run by the Shi'ite organisation Hizbullah was classified by the USA as a terrorist organisation in late-2004. Its studios were destroyed in the 2006 war.

8.4.2 Free-to-Air (FTA) and satellite TV

Despite the significant number of stations available, stations are aligned on religious and political lines. Major stations include Lebanese Broadcasting Company International (LBC), Future TV (owned by the Hariri family), Murr Television

(MTV), Al-Manar TV, New TV; and City TV (formerly National Broadcasting Network (NBN)). LBC1 and Future TV controlled around 65% of the country's advertising expenditure in early 2007.

To survive, all Lebanese stations need to also compete successfully in the pan-Arab satellite TV market, which has over 300 free to air channels all vying for advertising spending. LBC and Future TV are among the most powerful FTA satellite TV players in the Middle East broadcasting scene. Both have transmitted via Arabsat-2A since 1997. As a result of Lebanon's more relaxed censorship, the stations have benefited, attracting many millions of viewers from neighbouring countries. Future TV was founded in 1993. It began satellite broadcasting in late 1994, broadcasting to the wider Arab region, using Arabsat's 1D and 2A. Future TV has formed a co-operative relationship with the third member of the top three, Saudi-owned but Dubai-based MBC.

Much TV production also takes place in Lebanon, despite the rise of Dubai. MBC, for example, produced eight shows in Lebanon, two in Dubai and four in Cairo as at late 2006.

8.4.3 Pay-TV

Pay-TV usage is widespread through Lebanon although few households subscribe through official channels. Signal piracy is the norm. The distribution of illegal TV cable to households is usually done by an individual gathering a variety of subscriptions from Pay TV sources and retransmitting them as a package to neighbouring houses. There are hundreds of such cable operators providing their services illegally all over the country, without paying taxes, in the absence of any laws governing the sector.

Most Lebanese have subscriptions with such illegal operators costing from LBP10,000 to LBP15,000 per month. An independent market research study by Statistics Lebanon reported in early 2004 found that an estimated 720,000 Lebanese households, more than 78% of the entire population, were subscribing to illegal pirate cable TV networks. The International Intellectual Property Alliance (IIPA) estimated a similar figure of 80%.

The only legal content providers are Econet and Cablevision. Econet is the exclusive official supplier of pan Middle Eastern satellite pay TV operators Showtime and Arab Radio & Television (ART) in Lebanon. Sheikh Saleh Kamel, owner of ART, invested in Econet in April 2001, resulting in a digital Multipoint Video Distribution Service (MVDS) network handling about 120 channels.

8.4.3.1 World Cup 2006

ART bought the regional rights for all four World Cup tournaments from 2002 until 2014. In 2002 terrestrial TV stations had paid a nominal fee to ART, in order to air the matches, but for 2006 only households that subscribed to Econet – the one satellite provider in the country that carries ART – would be able to watch. The move

threatened to make the Cup inaccessible to the majority of Lebanon's population, relying as they do on the illegal cable operators.

The move caused such a furore that intervention by the government was required. The illegal cable operators agreed to pay collectively some US\$500,000 to ART without imposing on their subscribers any extra charges for airing World Cup matches. In return, ART agreed not to take any legal action against the operators. It was stipulated, however, that the operators would not transmit ART to restaurants or hotels.

Cable operators who abided by the agreement and participated in the payment to ART were to later be granted temporary licenses until legislation on encoded digital transmission is passed. The Minister of Communications stated that such a law was being drafted and would organise the relations between satellite networks, cable providers and the state. If this law takes as long to come to fruition as laws to liberalise the telecoms industry, it could be a long wait.

9. MOBILE COMMUNICATIONS

9.1 OVERVIEW OF LEBANON'S MOBILE MARKET

Lebanon has two mobile operators, MTC and Alfa, operating government-owned networks in return for a management fee. MTC and Alfa took control of the networks, previously operated by LibanCell and Cellis respectively, in June 2004, concluding a long-running saga and beginning 20-year contracts.

Whilst the government has talked about privatisation of the networks this is not expected to happen in the near future. Political instability is likely to prevent it, particularly if pre-Syrian factions prevail.

9.1.1 High tariffs

The state holds control over revenue and all prices are set by the Ministry of Communication. An Arab Advisors Group report released in November 2006 found that Lebanon's operators charged the highest prepaid average minute rates in the Arab World. Lebanon also had the fourth highest postpaid average minute rates.

In addition to high prices set by the Telecommunications Ministry, subscription prices are further inflated by the distribution system. MTC and Alfa sell products to distributors approved by the Ministry of Telecommunications, and the distributors sell to local mobile dealers who then sell to the end customer. The 27 distributors authorised by the Ministry were said to be charging a 33% premium to dealers in early 2007. The dealers then further increase prices for consumers.

The high costs have also meant that mobile phones have been primarily used for business, with local newspaper the Daily Star stating that 62% of mobile communication was related to business in early 2006.

9.1.2 Mobile statistics

Growth in subscriber numbers was limited by system capacity to 400,000 users per operator. However, subscriber numbers have slowly increased.

Table 12 – Mobile subscribers and penetration – 1995 - 2006

Year	Subscribers	Penetration
1995	120,000	4%
1996	198,000	6%
1997	374,000	12%
1998	505,000	16%
1999	627,000	19%
2000	743,000	21%
2001	770,000	21%
2002	788,000	21%
2003	809,500	22%
2004	880,000	23%
2005	1,006,000	26%
2006	1,091,000	28%

(Source: BuddeComm based on ITU and Global Mobile data)

Table 13 – Mobile subscribers and annual change by operator – December 2006

Operator	System	Launch	Subscribers	Annual change
Alfa Telecom	GSM 900	1995	531,000	8%
MTC	GSM 900	1995	560,000	10%
Total			1,091,000	9%

(Source: BuddeComm based on Global Mobile data)

9.2 REGULATORY ISSUES

9.2.1 Overview

Lebanon's two mobile licences have been an issue of contention since mid-2000. Several factors have complicated the issue:

- The government's need to raise funds to cut its high public debt. Servicing the interest uses a large percentage of government revenue and it is affecting economic growth;
- However, revenues from the mobile operators form a large proportion of current government income;
- Differences of opinion concerning appropriate policy between the President, the present and former Prime Ministers and the Minister for Communication;
- The reported opposition of Syria to privatisation plans;
- Politicians involved in the decision making had financial interests in the original operators.

9.2.2 Lebanon's current mobile licences

A government tender for contracts to operate the two mobile networks on behalf of the state was concluded in April 2004. Alfa was invited to select one of the two mobile networks, as it submitted the lowest bid for both contracts but one company could not manage both networks. MTC submitted the next lowest bid and was awarded the other contract. The government was to pay Alfa around US\$201.3 million to manage Cellis and MTC US\$209.3 million to run LibanCell.

The licences are for four years, until 1 June 2008, although the government has the right to rescind either contract before this date. It must give six months' notice and pay six months' fees if it wishes to do so. The government agreed to pay for all capital expenditure, such as investment in the networks, while the operators would pay for operating expenses out of their monthly fees. The government receives all revenues.

9.2.3 Background – original BOT contracts

In 1994, the government awarded BOT contracts to two private companies, LibanCell and Cellis, both using GSM technology.

The contracts were to run for 10 years to 2004 with a possible extension of two additional years. At the end of the period, the networks and equipment would revert to the government. The contracts stipulated that LibanCell and Cellis would pay the government 20% of annual revenues in the first eight years of their contracts but this would double in the last two years. The ten-year agreements were extendable for a further two years, during which time the government would be entitled to claim 50% of turnover. The operators were obliged to charge identical tariffs for postpaid subscribers and a ceiling was set for prepaid charges. Under the terms of the contracts, the government was allowed to introduce a third mobile phone operator in 2002.

LibanCell was incorporated in November 1994. In June 2002 Lebanese Telecommunications Company SA bought a 14% share in LibanCell from Sonera of Finland for US\$22.5 million. Other Lebanese investors, including the Dalloul family, owned the remaining 86% share.

Cellis was a subsidiary of the group France Telecom/Orange, which owned 67% of the shares. The remaining shares were held by Lebanese group InvestCom.

9.2.3.1 Contract disputes

In mid-2000, the government entered into a bitter conflict with the two operators, claiming that the operators had not delivered the agreed proportion of revenue to the government and had broken government stipulations on the maximum number of subscribers each was permitted. Government legislation limited the total number of subscribers to 250,000, a limit exceeded during 1998. The government demanded LibanCell and Cellis pay fines worth US\$1 billion for breach of contract and then threatened to seize their assets when the firms refused. The state backed down, after the World Bank protested, and the two companies took their case for arbitration but continued to negotiate the issue of the fines.

Cellis and LibanCell offered the government US\$1.35 billion each to transform their BOT contracts into 20-year operating licences. The government rejected those bids, preferring to pursue the back taxes and fines it claimed the two companies owed.

9.2.3.2 BOT contracts cancelled but extended

In June 2001, Lebanon's Higher Council for Privatisation abruptly cancelled the two operators' BOT contracts following the long running feud. The termination was to take effect in December 2001, three years before the contracts were due to expire. Both companies continued to provide services after their contracts were terminated.

In early 2002, the government reached agreements with both companies to 'freeze' legal proceedings and resume talks with the aim of reaching a settlement before the auction of new licences. KPMG was hired to assess an appropriate level of compensation to be paid to Cellis and LibanCell for the premature cancellation of their BOT agreements.

Control of the networks and revenue reverted to the state at the end of August 2002.

The government stated that as part of Lebanon's drive towards full privatisation of the telecom sector, an open tender would be issued internationally for the licences, with both Cellis and LibanCell invited to bid for their own networks. A decree was passed in July 2002 preparing for an international auction of two 20-year licences, to be held before the end of August that year.

It was then decided to delay the auction and, after long discussions, the government and operators signed an agreement in August 2002 for Cellis and LibanCell to continue to operate the networks as a temporary measure until January 2003. The government paid Cellis and LibanCell management fees to operate the networks while all the revenues went to the government. These contracts were extended to June 2003.

In September 2003 the contracts of LibanCell and Cellis to operate the networks were once more extended, to the end of January 2004, with each paid US\$7.5 million per month to run the networks. In May 2004 the contracts were extended yet again, with each operator paid US\$4 million a month.

9.2.3.3 Auction attempted

In December 2002 the Higher Council for Privatisation invited interested parties to participate in an auction of two new 20-year mobile phone licences or a tender to manage the two existing networks for three years. The terms and conditions had been endorsed by the cabinet in October that year. Applicants were given until 10 February 2003 to submit expressions of interest.

Disagreements continued between the Telecommunications Minister and the Prime Minister, with the Telecommunications Minister preferring to delay the auction and tender.

In mid-May 2003 the Higher Privatisation Council announced a short list of six firms who were to be invited to participate in a tender and auction at the end of June, from sixteen firms that registered an interest by the 10 February deadline. They were named as incumbent LibanCell, Orange, Greece's OTE, MTC and National Mobile Telecommunications (Wataniya) and Investcom Holding SA, registered in Luxembourg. A seventh company, Detecom, part of Deutsche Telekom AG, qualified for participation in the tender only.

Even while the six short-listed firms were supposedly preparing their bids, the Minister for Telecommunications proposed the creation of two state-owned joint-stock companies to run the mobile networks. Each of them would own one of the cellular networks with all assets and contracts.

In September the government announced that it would restart the privatisation process on 1 October 2003 and expected to complete the process within four months. The auction and tender process was officially launched by the Higher Council for Privatisation in mid-October 2003 with HSBC as adviser. A shortlist of participants was invited to begin a 60-day review period.

The process was not helped by a more public split between the Lebanese President, who opposed privatisation of state companies, and the Prime Minister.

In December 2003 the deadline for bids was extended to 7 January 2004. Shortly after the expiry, it was announced that only existing operator LibanCell and local finance company and Cellis affiliate Investcom Holdings had submitted bids. Both were said to have indirect connections with the Prime Minister. It was proposed that a ministerial committee should be appointed to investigate why other companies had withdrawn from the bidding. Given the history of the process however, perhaps it didn't need much investigation. Finally, the government voted to postpone the privatisation once again.

9.2.3.4 The management tender

Following the cancellation of the privatisation process, a tender was launched to manage the two networks. It was reported that the government required bids below US\$5.5 million per month, compared with the fees the government was paying of US\$7.5 million. However, the bank guarantee required was to be reduced from US\$100 million to US\$25 million.

Orange (France), Telenor (Norway), Detecon (Germany), Orascom (Egypt), Digicel (Ireland), Bouygues Telecom (France), Telecom Italia Mobile (Italy), MegaFon (Russia), WorldTel (UK and Sweden), Western Wireless International USA, Mobile Telecom Company of Kuwait, Sunday Communications Ltd (Hong Kong), American Telecom Group USA and Linkcell (Lebanon) all requested bidding documents. Nine companies submitted bids but Sunday Communications Ltd and American Telecom Group were disqualified, leaving seven bids.

It was reported that the bids received were on average 27% and 30% lower respectively than the fees the government was previously paying to run the networks.

9.2.3.5 On-going disputes

LibanCell continued its dispute with the government, suing in international courts for damages. International arbitrators ordered the government to pay LibanCell US\$266 million for revoking its contract two years early, an amount that a former Communications Minister reached a compromise agreement to reduce to US\$150 million. The government in early 2006 reduced this amount to US\$99 million, similar to the offer made to Cellis.

US courts in April 2006 insisted that the government should pay the US\$266 million and ordered the seizure of all Lebanese assets in the USA and Europe to force the government to pay.

In June 2006 Cellis also threatened to take its case back to the International Court of Arbitration.

9.3 MAJOR MOBILE OPERATORS

9.3.1 MTC

Mobile Telecommunications Company (MTC) of Kuwait operates the network formerly operated by LibanCell. MTC has clearly stated that it would prefer to own the network.

MTC uses the brand names 'Touch' for postpaid services and 'Magic' for prepaid.

In mid-2002 LibanCell managed a network with a capacity of 400,000 subscribers. MTC has been able to raise the number of subscribers through improved management of mobile numbers. It has also made investments in the network's GPRS capability and Intelligent Network platform to improve services to prepaid subscribers. MTC has added a number of sites to enhance coverage in certain areas of Lebanon.

9.3.2 Alfa Telecom

A consortium under the brand Alfa operates the network formerly operated by Cellis. The consortium is led by Detecon International, part of Deutsche Telekom AG, with a 51% share. Other partners in the consortium are Fal Holdings Arabia (45%) and Detecon Al-Saudiya (4%).

9.4 MOBILE VOICE SERVICES

9.4.1 Prepaid

According to ITU statistics, 70% of mobile subscribers were prepaid at end-2004. The ratio is unlikely to have changed much since. MTC offers prepaid services under the Magic brand and Alfa offers prepaid services under the Alfa Active brand.

Table 14 –MTC prepaid and postpaid subscribers – 2005 - 2006

Year	Prepaid	Postpaid	% prepaid
2005	383,000	126,000	75.25%
2006	428,000	132,000	76.43%

(Source: BuddeComm based on MTC data)

9.4.2 Satellite mobile

Regional mobile satellite operator [Thuraya Satellite Telecommunications Co Ltd](#) (see separate report) signed a service provider agreement in October 2000 with InvestCom whereby the latter became its provider in Lebanon, Ghana, Guinea and Benin.

Based in UAE, Thuraya owns and operates a mobile telecommunications satellite system, which spans over 120 countries in Europe, Africa, Middle East, Asia and India. Accessed through a special dual-mode satellite/GSM handset, users can switch over to satellite transmission whenever they travel outside the range of terrestrial GSM networks. The system can be used for voice, data, facsimile, Short Message Services (SMS) and location determination.

9.5 MOBILE DATA SERVICES

A range of mobile data services are offered. Both operators offer SMS, Multimedia Messaging Service (MMS), General Packet Radio Service (GPRS) and Wireless Application Protocol (WAP) for Internet access.

Both operators also offer mobile content and applications such as SMS-to-email messaging and mobile banking through WAP portals.

9.5.1 Mobiles at war

During the war in mid-2006 between Hizbullah and Israel the mobile phone became considerably more than a person-to-person communication tool, although this aspect also became doubly important to check on the safety of friends and relatives, causing both duration and frequency of calls to increase substantially. Mobile phones also became tools of journalism, fundraising and even psychological warfare.

Both Alfa and MTC Touch launched local and regional SMS fund raising campaign, asking subscribers to donate via text. In addition MTC set up a service whereby

customers of its Kuwaiti and Jordanian operations could recharge the prepaid phones of friends or relatives in Lebanon.

Other businesses used SMS to reassure clients. Mobile phones were also instrumental in the evacuation of many foreigners from Lebanon. Both the Swedish and French foreign ministries sent SMS evacuation updates to their citizens free of charge and informed them when and where to assemble to board ships through text messages.

As in other disasters around the world, phones also became tools of citizen journalism, with media ranging from local blogs to major networks like the BBC and CNN soliciting images captured by phones or digital cameras through SMS.

It was also claimed that Israel sent SMS alerts disguised as news updates intended to undermine Hizbullah's leadership.

9.5.2 PowerMeMobile

PowerMeMobile is a provider of mobile solutions and content for GSM network operators. It was formed in 2001 and is an affiliate of the Middle Eastern media group An-Nahar. It is headquartered in Beirut, Lebanon with a development office in Minsk, Belarus.

Business activities include global SMS services, mobile content and entertainment solutions, research and development, managed messaging services and mobile marketing platforms. PowerMeMobile is particularly active in the corporate SMS market. Its customers included 21 operators in 17 countries across the Middle East and Africa in early 2007.

In May 2007 PowerMe signed a content supply agreement with global music label, Universal Music Group International, acquiring rights to sell, communicate and manage all Universal Digital content in the MENA region, namely ringtones, ringback tones, wallpapers, videos and music downloads.

10. RELATED REPORTS

For information relating to:

- Other Middle Eastern countries, see: [The Middle East](#);
- Worldwide activities in the telecommunications industry, see: [Global Overviews](#);
- Technical information relating to the telecommunications industry, see: [Telecommunications Technologies Library](#).

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