

Telecommunications Sector For Bahrain

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Bahraini telecoms offer fewer opportunities to the foreign investor than other regional states, due to the comprehensive monopoly held over the sector by part publicly-owned operator, Bahrain Telecommunications Company (Batelco). There are no plans to introduce competition in the near future, and therefore significant openings for investors will revolve around tenders emerging from Batelco's investment programme and strong consumer demand for the latest telecoms equipment. The lack of competition has not inhibited the development of the communications network due to Batelco's enlightened policy of modernisation and diversification, aided by its close links to Cable & Wireless, a strategic partner with a 20% stake in the company. Investment has recently focused upon the development of a high-tech network capable of supporting the wireless, multimedia and data services required in support of the government's aspirations for Bahrain as a regional financial and communications hub.

Key Statistics and Facts

General

	1999	2000(f)
Telecoms revenue (US\$m)	354.6	N/A
Telecoms investment (US\$m)	72.3(1998)	70
No. fixed lines (m)	165,369	170,000
PSTN capacity	210,000	220,000
Fixed lines per 100/pop.	24.9	25
No. payphones	1,840(e)	2,100
Cellular subs.	133,468	230,000
Cellular analogue to digital	100%	100%
Cellular subs. per 100/pop.	20.1	34.84
Human resources	Employees	2,250(e)
	Main lines/employee	1.4(e)
		N/A
		N/A

Source: ITU Database August 2000

Industry Overview

Fixed-line digitalisation (%)	100
Fixed network subs. growth (%)	4.9 (1998-1999)
Fixed-line waiting time (av.)	5 Days
Fixed-line repair waiting time (av.)	24 Hours
Cellular subs. growth (%)	45.0 (1998-1999)

No. internet subs.	40,000 (1999)
No. fixed network operators	1 (state telco)
No. cellular operators	1 (state telco)
No. payphone operators	1 (state telco)
No. data service providers	1 (state telco)
Standards	TACS, GSM 900 (Operator: Batelco)

	1994	1995	1996	1997	1998	1999
Telecoms Revenue (US\$m)	229.2	242.7	264.2	294.9	338.5	354.6
Telecoms Revenue as % GDP	4.1	4.1	4.3	4.6	5.5	N/A

Current Situation

The Bahraini telecommunications sector is in the unusual position of being run by a part publicly-owned, but efficient telecommunications monopoly, with no private sector competition allowed in any sector. Batelco achieved the British Standard Institute's ISO 9002 accreditation in 1996, becoming the first telecoms company in the Middle East to receive such international recognition. This reflected the high level of technological development and quality of service achieved since the Bahrain Telecommunications Company (Batelco) assumed responsibility for the telecoms network from Cable & Wireless in 1981. Batelco's earnings growth in recent years has been most notable in the areas of mobile phone usage on Batelco's GSM network, internet usage and sales of pre-paid telephone cards. Sales of leased circuits are also increasing.

Batelco has been raising the level of its investment in the telecom network in recent years, reaching US\$119m by 1999. This includes US\$6.6m invested annually in staff training and development as part of efforts to develop a technically proficient core of Bahraini telecoms employees. Since 1999, the company has also focused on making Bahrain a regional centre for e-commerce, with the establishment of a platform: <http://www.altijara.com/>.

The basic infrastructure of the telecommunications network includes:

- Eight main local exchanges
- 36 remote line units
- Four satellite earth stations
- Marine communications centre
- GSM mobile telephone exchange
- Public pager exchange
- Internet platform
- Two digitalised international gateways
- Intelligent Network (IN) platform
- Inter-exchange Fibre Optical Ring

Other services and projects being developed by Batelco include:

- Enhanced internet access and services
- Global messaging services such as EDI, X400 and enhanced Fax
- Multimedia applications such as Video on Demand, Cable TV, Telecom, Teleview, Premium Audiotext Services, LAN/WAN and Global Networking

- A computerised customer service and billing system

Potential Growth

In view of the state telco's monopoly over all services, the major opportunities for foreign investors are in equipment supply and installation - particularly of new high-tech facilities in the areas of cellular and satellite communications, internet and data services, and multimedia applications. Investment is guaranteed by both Batelco's enlightened approach to technological development, and the government's overriding concern with establishing Bahrain as the Gulf's regional financial centre, with the telecommunications links to match.

Market expansion is being driven by demand from the following areas:

- The banking sector and Bahrain Stock Market - with their requirement of data and multimedia services.
- The hydrocarbons sector - demanding cellular and satellite communications links and data services.
- A developing tourist sector - Bahrain is often described as the 'playground' for Saudi Arabians escaping the more conservative cultural climate on the Gulf mainland.
- Large consumer appetite for new technology - such as cellular telephony, internet and multimedia applications. Batelco's policy of charging low tariffs for its services by regional standards has boosted demand amongst low to middle income households, while the primarily Sunni minority wealthy business community are a substantial market for high end services and consumer equipment.
- Bahrain's largely youthful population profile guarantees a growing market amongst a new generation familiar with the advantages of new technology, and increasingly educated to use and develop its products and services.

However, demand will have its limits due to the small size of the population - at only just over 600,000 - for which there is already a fixed telephone line for every household. The economy also still exhibits a high degree of dependence on the oil and gas industry and is therefore always liable to a downturn when oil prices fall sharply, as they did in 1998. This will affect consumer demand for telecoms products more than Batelco's infrastructure investment programme. The latter is supported by revenues and easy access to international credit - not (as is the case with some regional telcos) on a government budget allocation dependent on hydrocarbons revenues.

Bahrain is unlikely to become the regional centre for the telecoms industry, a position already taken by its major rival, the UAE. Most of the major telecoms suppliers have established offices in the UAE, attracted by its larger market and growing reputation as a trading hub. However, Bahrain does have the advantage of its proximity to the Saudi market and lower labour costs.

Fixed-line (Voice)

	1994	1995	1996	1997	1998	1999	2000(f)
Telecommunications Investment (US\$m)	48.6	48.6	61.1	54.4	72.3	118(e)	70
No. Fixed Lines (m)	135,853	140,850	144,391	152,303	157,619	165,369	170,000
PSTN Capacity	150,540	160,224	169,547	175,000	198,000	210,000	220,000
Fixed Lines per 100/pop.	24.3	24.2	24.1	24.6	24.5	24.9	25
No. Payphones	878	996	1,101	1,321	1,589	1,840(e)	2,100

Source: ITU Database August 2000

The Bahrain Telecommunications Company - Batelco - is the state telco and has a complete monopoly over the PSTN. However, unlike many states in the Middle Eastern region, this has not led to under-investment in fixed-line services, as statistics of 25 telephone lines per 100 population and an average of at least one telephone per household show. Bahrain was one of the first countries in the world to achieve 100% digitalisation of its national and international switches in the early 1990s.

A US\$60m project is underway for the upgrade of all telephone switches, enabling Batelco's network to support more advanced services and facilities such as:

- Its Integrated Services Digital Network (ISDN).
- Centralised Extension Services (Centrex).
- Centralised Operation and Management System (COMS).

Fixed Line Telephone Tariffs - US\$ (1999)				
Residential Connection Charge	Residential Monthly Connection Charge	Business Connection Charge	Business Monthly Charge	Local Call (3 mins)
53.05	3.1	53.05	5.8	0.1

Source: Batelco Website August 2000 - <http://www.batelco.com.bh/incall-1.htm>

International Calling

Batelco cut the cost of international calls for the fifth time in three years from 1 March 2000, at a cost to the company of an estimated US\$5.3m in annual revenues. Tariffs were scheduled to drop between 2% and 62% for calls to 217 countries from 1 March 2000, and rates are now half their levels four years ago. Rates to non-GCC Arab states have fallen 18% and rates to GCC states have fallen by 8%. Meanwhile, calls to popular destinations such as the US and UK are at an all-time low, with the latest round of cuts reducing off peak calls to the US by 23% and the cost of peak rate calls by 39%.

The move was announced as a measure both to improve services to residential customers and to nourish the investment climate for hi-tech and e-commerce firms in Bahrain. However, it will also address the need for accounting rate change required to comply with the new benchmark rates set by the International Telecommunications Union (ITU). The ITU has forecast that revenues from international traffic will eventually fall as low as 10%, as tariffs increasingly reflect costs rather than the premium rates previously used to subsidise local call rates. Batelco will seek to compensate for the revenue shortfall through the increase in internet subscriptions and the introduction of new value added services on both fixed and wireless networks.

The previous round of tariff cuts on both international telephone calls and international leased circuits occurred in 1 March 1999, with reductions ranging between 4% to 59% covering 138 countries. The tariff changes - themselves the third reduction in a year - were applied to all international direct dialled calls made from all types of communication apparatus including fixed telephones, facsimile, mobiles, pre-paid cards and payphones. International Leased Circuit monthly charges were reduced by between 5% and 25% for speeds of 64Kbps and above.

Tariff details for international calls to most countries are available from the Batelco website, www.batelco.com.bh/incall-1.htm.

Local Networks

New regulations mean that private companies can now install and commission PABX's of up to 1000 lines. A sample of any new system must be provided to the Ministry of Transportation in order to receive approval and a licence. All equipment must carry an FCC or equivalent European testing body certificate to be considered for licensing.

Fibre-Optics

Batelco is a significant investor in Fibre Optic Gulf (FOG), a BD80m (US\$212m) project linking Bahrain, Kuwait, Qatar and the UAE via an undersea cable network. The cable permits connectivity at high bandwidths to other global cable systems such as Fibre Link Around The Globe (FLAG).

Batelco also participated in the launch of the SEA-ME-WE international cable, which links Far Eastern countries with Europe through the Middle East.

Leading Players

- Bahrain Telecommunications Company - Batelco

Batelco is Bahrain's part-state owned monopoly telecommunications company. It became a Bahraini shareholding company in 1981, listing on the Bahrain Stock Exchange with an authorised paid-up capital of US\$265m.

Batelco's current shareholders are:

- Shareholders on the Bahrain Stock Exchange - 41%.
- Government - 39%.
- Cable & Wireless - 20%. C&W provides technical and marketing support under a support services agreement.

During the past five years, Batelco's return on invested capital has averaged 16.5% per annum, with annual profits over the same period averaging 30%. The company registered profits of US\$127.6m in 1999, up 11.6% on its performance the previous year. The rise in profits was substantially higher than the rise in total operating income from 7.5% to US\$377m, suggesting an improvement in efficiency as costs were cut during the year. The company's total assets rose 6.5% to US\$502m.

Batelco officials have put the rising revenues down to a rapid rise in cellular and internet subscriptions and usage, enabled by a healthy investment programme in new technology and low prices. Sales of pre-paid telephone cards and leased circuits also increased.

Apart from basic fixed-line services, Batelco offers a full range of services including GSM cellular, paging, internet, FaxMail, Integrated Services Digital Network (ISDN), maritime communication, International Direct Dialling (IDD) and a number of other voice, data and value added services. A full list is available on the company website at www.batelco.com.bh/pro-serv.htm. Meanwhile, Batelco has negotiated one-stop shopping agreements with a number of telecommunications administrations around the world to meet the needs of Bahraini based multinational conglomerates for the provision of international circuits with single-end ordering and billing.

In October 1996, Batelco became the first telecommunications company in the Middle East to receive the prestigious ISO 9002 Certificate of Quality from the British Standards Institute. In 1999, Batelco's customer support systems were added to the list of ISO approved services.

Company financial information for the last three years can be obtained on the company website, at www.batelco.com.bh/finhigh.htm.

Cable Communications

Cable services have yet to take off, with subscription relatively static at between 4,000-6,000 (1998-1999). At present, cable telephony is not permitted when services are broadcast, given Batelco's monopoly over the fixed telephone network.

Mobile

Paging

Although the pager market has reportedly been hit by the increased popularity of mobile phones, and an already high paging density, there is still some growth in subscriptions. Sole operator Batelco cut connection fees to US\$13 from US\$26 in early 2000, while the charge for changing pager numbers fell to US\$13 from US\$39.

	1994	1995	1996	1997	1998	1999	2000(f)
No. Paging Subscribers	55,524	61,016	65,934	70,629	74,000	77,000(e)	80,000

Cellular

MobilePlus, Batelco's GSM 900 Mhz service was launched in 1995, and reached a subscription base of 150,000 lines by the end of 1999. Batelco aims to reach 230,000 lines by 2001. Subscriber uptake has been maintained through a dual policy of investing in new technology to enhance network coverage and capacity, whilst reducing prices to enable lower income groups to purchase phones. Tariffs are now around the lowest in the region.

	1994	1995	1996	1997	1998	1999	2000(f)
Cellular Subs.	17,616	27,600	40,080	58,543	92,063	133,468	230,000
Digital Cellular Subs.	0	8,000	20,529	49,615	92,063	133,468	230,000
Analogue Cellular Subs.*	17,616	19,600	19,551	8,928	0	0	0
Cellular Subs. per 100/pop.	3.1	4.7	6.7	9.4	14.3	20.1	34.8

Source: ITU Database August 2000. *Batelco's analogue cellular network, on the TACS standard supplied by NEC, began operations in 1986, reaching 28,100 subscriptions in January 1996, before falling away on the introduction of GSM services. The service was phased out in the second half of 1998.

Technical standards on the network are well above the international average and probably the best in the region, with less than 0.5% of calls unsuccessful, and under 2% of calls suffering interruption. There are now 48 transmission stations distributed around the island, offering coverage in remote areas and inside large complexes such as Seef Mall, Bahrain International Airport and hotels where micro stations have been installed. There are plans to add another six stations in the near future. Capacity reached 180,000 by the end of 1999. A mobile phone line can be obtained in as little as 15 minutes, according to Batelco.

Batelco has developed a number of different value added services, including:

- SimSim, its pre-paid card service - current capacity is 130,000 users, accounting for 60% of the company's subscriber base.
- Short Message Service (SMS), launched in June 1999, allowing mobile phone users to send and receive ready made information, such as weather forecast or stock prices.
- Fax Messaging service to personal voicemail.

Consumer Equipment Market

Following the decision to liberalise the telecommunications equipment market, the cost of mobile phone sets are now decided by the traders without any intervention from Batelco. Batelco has currently contracted the Swedish telecommunications giant Ericsson for the supply of equipment.

GSM Roaming

Agreements for GSM international roaming currently exist between Batelco and a total of 100 operators in 55 countries around the world, and agreements are also planned with China, the Philippines, Sudan, Libya and networks in the US. Bahrain was the first country in the Middle East to implement a roaming agreement with the US in December 1997, and still has the largest roaming coverage there.

Batelco provides GSM1900Mhz handsets - required when roaming in the US - on a rental basis. However, dual mode and tri-mode handsets are already available on the local market.

GSM Rates In Selected Regional States (1999)								
	Destination							
	National	GCC	UK	US	North Africa	Europe	Far East	Australia
Bahrain	0.11	0.76	1.34	1.34	1.34	1.87	1.64	1.87
Jordan	0.26	0.99	1.90	1.90	0.99	1.90	N/A	2.11
Kuwait	0.13	0.98	1.63	1.79	1.63	3.09	N/A	2.60
Lebanon (LibanCell)	0.40	1.95	2.34	2.34	1.95	2.34	4.27	4.27
Lebanon (FTML)	0.40	1.57	1.96	2.34	1.57	1.96	3.92	2.35
Oman	0.39	0.78	2.59	2.59	1.95	2.59	1.95	2.59
Qatar	0.17	0.77	1.87	1.81	1.59	2.36	1.90	2.36
Saudi Arabia	0.43	0.88	2.13	2.15	1.60	2.93	2.93	2.93
UAE	0.22	0.78	1.26	1.26	1.26	1.48	1.69	1.26

Leading Players

- **MobilePlus**

MobilePlus is Batelco's GSM service, with 150,000 subscribers by the end of 1999, following on from a 57% rise in subscription in 1998. Tariff and package details can be found at the Batelco website, www.batelco.com.bh/mobile.htm. There is considerable scope for further growth in cellular earnings, with Batelco investing to increase capacity to meet high-subscription demand. The company aims to reach 230,000 lines by 2001.

Satellite

Bahrain was the first Middle East country to employ satellite communications when it opened its first earth station in the 1960s. In 1984, the Bahraini earth station launched the first commercial operation of links to Arabsat 1, and Batelco has remained a leading player in the Arab league's Arabsat organisation since that time. It is also involved in a number of other international satellite projects.

Leading Players

- Al-Thuraya

Batelco is a shareholder in the UAE-originated al-Thuraya geomobile satellite system, which will cover much of Asia, Africa and Europe when it starts operations in Q3 2000. It will also be the domestic 'service provider', under one of a number of agreements al-Thuraya has reached with regional national telecommunication organisations. This gives it the right to distribute and market user terminals and SIM cards, and handle pricing, billing and other customer care aspects. Options available will include voice, fax and data services, and will be offered via handheld, vehicular and fixed terminals to users throughout the coverage area.

Al-Thuraya is due to launch its first satellite in Q3 2000 and will then begin to offer dual mode satellite and GSM telephone services, using handsets from US company Hughes Space and Communications International (HSCI) and the Swiss ASCOM Corporation. HSCI has been the main contractor and supplier of the mobile satellite system in a deal worth US\$1bn. Thuraya will provide 1.8m connections in 99 countries in the Middle East, North Africa, southern Europe, Central Asia and the Indian subcontinent. A second Thuraya satellite is due to be launched in 2002.

- ICO Global Communications

ICO signed a roaming agreement with Batelco in mid-1998, its first in the Middle East. When the ICO satellite network starts commercial operations in the year 2000, there will be bilateral roaming between it and Batelco's domestic GSM network. Dual mode handsets will be required by roaming subscribers, to enable them to receive signals from satellite, cellular and PCS networks.

- INTELSAT

Batelco also holds equity in the International Telecommunications Satellite Organisation (INTELSAT), which provides telecommunications services between different countries across the world. Bahrain enjoys permanent representation on INTELSAT's Board of Governors.

Data

	1994	1995	1996	1997	1998	1999	2000(f)
No. Leased Circuits	391	361	369	392	388	400(e)	420
No. ISDN Subs.	0	0	70	173	381	684	1,200

Batelco has appointed Canadian firm Newbridge Networks to consolidate its asynchronous transfer mode (ATM) network infrastructure. The ATM technology will operate alongside the existing frame relay and leased line services currently comprising the Bahrain Digital Data Network, and will modernise the high density circuit switching capacity of the international Digital Cross Connect service. At the same time, it will

provide a platform for the delivery of a range of new value added services. 'This development will consolidate our current data network infrastructure onto a single, fully-managed, multiservice platform,' according to Batelco's manager of Network Transmission.

Leading Players

- Batelco

Batelco holds a monopoly over all data communications, value added and multimedia services. It has also acquired a majority holding in two Jordanian internet service providers (ISPs), taking a 51% stake in First Telecommunications Group (FTG) and National Equipment & Technical Services (NETS) (see [Jordan](#)). Batelco Middle East (BMEC), a wholly owned subsidiary of Batelco, will own the venture, and the two ISPs will be merged into one.

Internet

	1994	1995	1996	1997	1998	1999	2000(f)
No. Personal Computers	N/A	29,250	40,000	50,000	60,000	70,000(e)	78,000

Leading Players

- Inet

Inet is Batelco's internet service provider, with around 40,000 subscribers in 1999. Batelco invested US\$4m during the year to extend the network and build up-to-date value added service and e-commerce capability into the network. A US auditing company has been evaluating Inet equipment and systems, focusing on user capacity capabilities, operational status, upgrades and electronic messaging. Inet's homepage is located at www.inet.com.bh/.

Inet was introduced in 1995 (early by regional standards) - with neighbouring Saudi Arabia only offering public net access for the first time in early 1999. Internet usage rose 53% in 1998, a growth rate expected to be equalled or bettered in 1999 - particularly with Batelco's US\$4m investment.

In June 1999, Batelco announced a deal with US firm 3Com for its Total Control multiservice remote access platform, which will form the basis of future network access infrastructure. The deal also included the purchase of 3Com's CoreBuilder 3500 for its internal high speed LAN to serve its 2,000 employees.

In July 2000, Inet announced plans to reduce its internet access fees by two-thirds. The reduction covers monthly fees, installation and usage charges.

The following connection packages are currently offered:

- Dial-up - to Inet's pack modem network.
- Dial Direct - dedicated modems and numbers for small local area networks (LAN).
- ISDN
- Dedicated Leased Access - at speeds of 64kbps and 128kbps.
- Frame Relay - using Batelco's 'LAN Connect Network'.

Value added internet services currently offered include:

- Internet roaming.
- ISDN Internet Access.
- Inet 900.

Connections: Modem connections, ISDN connections, leased lines

Services: Web hosting, email

Fax: +973 885 050

Tel: +973 531 453

Email: helpdesk@batelco.com.bh

www.batelco.com.bh/

- Computec

Connections: Modem connections, leased lines

Services: Web hosting, email, site design, consultancy

Tel: +973 712 011

Fax: +973 716 191

Email: computec@computec.com.bh

www.computec.com.bh/

- GCC Online

Connections: Modem connections, leased lines

Services: Web hosting, email, site design, consultancy, e-commerce

Tel: +973 297 766

Fax: +973 292 496

Email: <mailto:info@gcconline.com>

www.gcconline.com/

- Arabian Network Information Services (ANIS)

ANIS is a Microsoft Solutions Provider offering turn-key Information Technology and Software engineering solutions. It provides servers, workstations, software, LAN and WAN communication needs, and deployment and support personnel to meet organisational networking requirements.

The company has a website at www.arabian.net/.

E-Commerce

Batelco began carrying e-commerce services on its newly developed e-commerce platform in September 1999. It has made available applications for business-to-business, business-to-consumer, business-to-government and consumer-to-government commerce from its website at www.altijara.com. It thus became the first ISP in the region to introduce a complete electronic commerce service, with online and real-time electronic payment and settlement between buyers, merchants and financial acquirers, which the government hopes will boost the island's status as a regional finance and trading hub. Three web-development companies have assisted Batelco with its platform: International Information technology (IIT), Al Nadeem Information Technology and Arabian Net Information Technology. Batelco's role will now be limited to being the electronic intermediary between the customer, merchant and the financial institution involved in each transaction.

A number of local businesses have already made plans to offer e-commerce services:

- **Bahrain TradaNet: Bahrain TradaNet (BTN) is a service from Gulf TradaNet EC, a joint venture between General Electric subsidiary GE Information Services and**

NESMA - a Saudi conglomerate and ISP. The e-commerce site will focus on supply chain management for business, and business to business commerce - with a facility for processing trade documents such as orders, invoices, shipping documents, and securing electronic payments. BTN also hopes to serve government agencies. Company Chairman, Ousama Najjar, stated that the choice of Bahrain as a location was down to its 'highly advanced technical infrastructure, government support and sophisticated business community'. TradaNet has already formed an alliance with Bahrain Civil Aviation Affairs to develop an e-commerce site offering services to the air cargo industry. The new service - to be called logistics.com - opened for business in February 2000.

- Bank of Bahrain and Kuwait: Holding a 70% share of the credit card market in Bahrain, electronic trading was an obvious opening for the Bank of Bahrain and Kuwait (BBK), which has followed up its prototype e-commerce shopping mall, launched in 1999 on the new Batelco platform.
- Jashanmal & Sons: Jashanmal & Sons is to establish an online bookshop - <http://www.booksplus.com.bh/> - aiming to service the local Arabic market and demand for English titles.
- Awal Stationery: Awal Stationery will offer office supplies, stationery, books and even furniture from its site.
- American Express: American Express launched its Bahraini site in March 2000, providing on-line payment services over its own platform.
- Al-Ahli Bank: Al-Ahli Bank became the first Bahraini commercial bank to offer online banking services in November 1999, after an investment of US\$250,000 in network and content development.

Batelco now plans an e-commerce promotional blitz in neighbouring Saudi Arabia, UAE and Egypt along with other Gulf countries, in an attempt to steal a march on its regional rivals still struggling to establish an e-commerce presence.

Equipment

Since telecommunications equipment trading was liberalised in 1993, the hardware market has been characterised by consistently high demand for hi-tech products, due to both Batelco's positive investment strategy and impressive consumer appetite for communications devices. Two telecommunications-related products (co-axial cable and telecommunications parts and accessories) were listed in Bahrain's top 25 imported commodities for 1996.

Major recent suppliers include:

- Siemens: Switch and base stations for GSM, and GSM subscriber capacity expansion project - adding 150,000 lines between 1994 and October 1999.
- Ericsson: The current supplier of cellular phones and GSM network equipment.
- 3Com: Supplier of internet infrastructure.
- Marconi: Supplier of SDH transmission equipment, and internet and cellular infrastructure.
- Harris Corporation: Management systems.
- Newbridge: ATM infrastructure

Recent Contract Announcements and Tenders:

- May 2000: Batelco announced plans to roll out wireless application protocol-based internet services (WAP) by the end of 2000, in preparation for the introduction of third-generation services on the International Mobile Telecommunication-2000 (IMT-2000) network in 2001.
- March 2000: Canadian firm Newbridge Networks won an order from the Bahrain Telecommunications Company (Batelco) to supply asynchronous transfer mode (ATM) network infrastructure. The contract is valued at US\$3.18m.

- February 2000: Ericsson was awarded a further US\$20m contract by Batelco for the expansion of the GSM cellular telephone network, including the construction of 27 relay stations.
- January 2000: Marconi won a contract to upgrade Batelco's synchronous digital hierarchy (SDH) network management system in a US\$2.6m deal announced on 24 January. The UK company was responsible for the initial roll-out of the network.
- January 2000: Marconi signed a US\$2m deal with Batelco for the supply of equipment for its internet and mobile phone capacity expansion projects.
- December 1999: Ericsson signed deals with Batelco for the expansion of its cellular subsidiary's GSM network, and the supply of a pre-paid calling platform for the mobile phone service. The deals are reportedly worth US\$20m and US\$3.7m respectively, and will see Ericsson install the stand-alone system by March 2000.

Leading Players

- Marconi

Marconi supplies Batelco with equipment for its internet and mobile phone capacity expansion projects, and won the contract for the roll-out of Batelco's SDH network in 1999. The Coventry-based telecoms manufacturer has a long-standing business relationship with Batelco, which is attested to by the presence of Marconi's Gulf region office in Bahrain, from which the company has developed business in the Middle East totalling US\$491m.

- Bahrain Advance Technology Company (BATEC)

BATEC is a general supplier of telecommunications products, including data communications systems and services, internet systems, and ISDN equipment.

- Bahrain Communications Systems

Supplier of telecommunications switching equipment and terminals.

- Bin Hindi Informatics Company

Supplier of general telecommunications equipment and computer systems solutions.

- Intercom (Gulf)

Communication equipment and systems supplier and electronic engineering consultant.

- International Information Systems

Supplier of telecommunications network equipment, communications systems, and computer services and systems.

- Manama Telecom

General telecommunications equipment supplier and computer wholesaler.

- Telematics Company

Supplier of general telecommunications equipment and TV antennae and networks.

- **Aeradio Technical Service**

Supplier of GSM telephones, equipment and accessories, structured cabling systems, and general telecommunications equipment and data systems.

- **Mohammed Fakhroo and Bros**

Supplier of GSM telephones, equipment and accessories, and paging, calling and signalling equipment and systems.

- **Telecommunications Technology Marketing Company**

Supplier of GSM telephones, equipment and accessories.

Regulatory Environment

Regulator

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Tel: +973 534534
Fax: +973 533 544*

Government Strategy

There is no genuine separation of regulatory powers from operational responsibilities in Bahrain, given the close links between Batelco and the government. Batelco is given a large degree of freedom to develop the telecoms network, but is responsible to the Telecommunications Directorate for the overall direction of policy - particularly where issues such as private sector participation in the industry are concerned.

There are no current plans to license private or foreign operators to provide services, or open any sector to competition. The only direct foreign interest in the sector is UK firm Cable & Wireless' 20% stake in Batelco, playing the role of strategic advisor.

Important Regulations

- **Batelco holds a monopoly over all public telecommunications services.**
- **Private sector firms may operate closed user groups.**
- **The customer equipment market was liberalised in 1994.**
- **All tenders are subject to Bahrain's unified rules, giving priority to Bahraini and GCC companies and products of Bahraini origin up to a price differential of 10%, and provided that standard specifications of kind and quality are met.**
Government procurement contracts require the bidding company to be registered in order to be eligible to receive government tender documents. To be registered, a company must have 51% Bahraini ownership.

Type Approval Procedures

All equipment must carry an FCC or equivalent European testing body certificate to be considered for licensing.

Foreign Investment

Overview

The government has a mixed attitude to foreign investment, encouraging overseas involvement in the financial, services and export sectors, while maintaining a public monopoly over the utilities and major industries where foreign competition could threaten local firms. The majority of businesses in Bahrain continue to be owned by the state or by large private families or local corporations, and foreign firms wishing to enter their markets generally fail to obtain a licence. Although the government discussed encouraging foreign private ownership in infrastructure projects, it has not yet chosen to go ahead with it.

- Firms being established as industrial investments in Bahrain may be 100% foreign-owned, as long as they are not in competition with local firms.
- 100% foreign-owned companies may be set up for regional distribution services, or representation within the domestic market and offshore.
- Joint ventures are permitted with Bahraini companies, but a 100% purchase of an existing Bahraini company would not be permitted.

The situation improved with a government decision to open the entire stock exchange to non-resident foreign investors in March 1999. Non-GCC nationals will be able to own up to a 49% interest in a listed company, while GCC nationals can now own up to 100% (previously 49%). Non-GCC foreign investment was previously only allowed in a small number of listed stocks, where exceptions to the rule have been granted. A requirement for all business ventures involving foreigners to be sponsored by a local firm is also to be removed by the end of 2002. However, plans to privatise the water and electricity sectors were again postponed in early 1999, suggesting that telecoms privatisation is highly unlikely in the short to medium-term.

All tenders are subject to Bahrain's unified rules giving priority to Bahraini and GCC companies and products of Bahraini origin up to a price differential of 10%, and provided that standard specifications of kind and quality are met. Government procurement contracts require the bidding company to be registered in order to be eligible to receive government tender documents. To be registered, a company must have 51% Bahraini ownership.

Beyond the ownership restrictions, Bahrain offers several advantages to foreign investors, including no personal or corporate taxation, no restriction on capital and profit repatriation, a developed infrastructure with excellent transportation and communication facilities, and duty-free access to GCC member states for products manufactured in Bahrain. Procedures for obtaining commercial licences have also been streamlined, and all the necessary formalities can usually be accomplished within one week for representational offices.

Structural Factors

Batelco dominates the market for telecoms services, and its strong footing will make entry difficult even if it loses its monopoly in moves to liberalise the sector. However, a voracious demand for telecoms services, particularly in the cellular, value added, private network and data communications sectors will continue to drive demand for equipment and expertise to high levels, albeit in a market of small overall size.

The market is largely stable, with Batelco's profits sufficient to fund its investment programme without recourse to general government finances. This has continued to be the case despite the oil price crash that hit public revenues from hydrocarbons in 1998 and threatened other areas of infrastructural investment. The crisis pushed the government to reinforce its efforts to diversify the economy away from oil, which should

itself increase demand for telecoms products and services amongst the expanding private sector.

Economic Conditions

Bahrain is still vulnerable to oil price fluctuations, but has benefited from a concerted government effort to diversify the economy, particularly in the area of financial services and trade. Business enjoys relatively low costs and proximity to large Gulf markets and international trade routes. For telecoms, in particular, the high-tech nature of the infrastructure surrounding Bahrain's key sectors - hydrocarbons, financial services, and, increasingly, tourism - will also ensure a constant demand for the latest technology. The growth of internet commerce usage will play a major role in future demand, and so too will the development of the Bahraini stock exchange, with electronic connections to major international centres vital to future development.

Demographics

Bahrain has a fast growing, young population, which should sustain telecom growth, particularly in cellular technology and value added services. The new professional generation has a marked interest in new technologies, particularly GSM and the internet, and has confidence in its development, building on access to an excellent basic infrastructure. However, there is substantial unemployment amongst the Shi'a majority, restricting the number that can afford high-end services. Nevertheless, the size of the middle and upper classes and prospect for rising incomes should prove sufficient to sustain a high level of service uptake over the next 10 years. The trend towards lower tariffs, as the market becomes competitive, will also attract lower income subscribers and increase usage.

Financial Markets

Bahrain's financial markets are well developed, with credit allocated on market terms and available to foreign investors. Credit terms are variable in the main, but are often limited to 10 years for loans under US\$50m. For major infrastructure investments, banks will often offer to assume a part of the risk and are often willing to organise the syndicating of loans for larger risks. The banking system is sound, under the highly effective regulation of the Bahrain Monetary Agency (BMA). Portfolio investments are increasingly encouraged with the opening of the stock market to foreigners in early 1999.

Level of Foreign Investment

Beyond Cable & Wireless' 20% stake in Batelco, foreign direct investment in the telecoms sector is limited, given the lack of ownership opportunities caused by Batelco's operational monopoly. Most foreign involvement in the local market is through partnership, distribution and licensing agreements with local suppliers of telecommunication products.

Outlook

Trends

Unlike the less developed telecoms sectors of Bahrain's large Arab neighbours, growth in the domestic market is set to be driven by demand for advanced, value added, and data services over the medium to long-term, given that fixed line and even cellular subscriptions are reaching maturity. These developments will continue to occur in the context of Batelco's fixed line monopoly, with no liberalisation expected in the near future.

If it does occur, private sector involvement is only likely to reach as far as limited value added services and niche service providers, due to both government policy and the nature of the Bahraini market. Given the small physical size of the population, there may not actually be room for a cellular or fixed line competitor - particularly given Batelco's massive advantage in terms of its well-developed infrastructure and its profitability at already relatively low tariff costs. The telco's demand for high-spec telecommunications systems will therefore remain the major source of opportunities in the sector.

External Factors

GCC

Bahrain's membership of the Gulf Co-operation Council allows investors from member countries equal treatment with Bahraini firms. The organisation has also worked to harmonise regulations and standards in the telecoms sector to encourage the development of communications between member states.

WTO

Bahrain is a member of the World Trade Organisation (WTO), but not a signatory to its Agreement on Basic Telecommunications Services. While government policy is to sustain Batelco's monopoly over basic telecoms, this situation is unlikely to change, given the agreement's required commitment to competition within the sector and the formation of an independent regulatory authority.

Upcoming Developments

- 2000: ICO introduces satellite roaming services.
- Q3 2000: al-Thuraya satellite roaming services begin.
- 2001: 230,000 cellular subscribers.

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