

Telecommunications Sector For Argentina

Last revised Wednesday 18th October 2000

The telecommunications sector will become increasingly liberalised over the next few years. The most important up-coming development is the ending of the exclusivity period in November 2000 for the two fixed-line companies that have operated a duopoly in basic services since privatisation in 1990. After a series of delays, President Fernando de la Rúa finally signed a decree to fully liberalise the telecoms market in September 2000, a move that it is hoped will trim down costs and attract billions of dollars in foreign investment. Although basic services are to be fully liberalised in 2000, the two incumbents are likely to continue to dominate the market, limiting the interest of potential market entrants. However, the development of wireless local loop technology will eventually allow for increased competition. In the short term, mobile technology will continue to drive growth. The telecoms market, estimated to be worth US\$11bn in 2000 is expected to jump in value to US\$18bn-US\$19bn by the end of 2004.

Key Statistics and Facts

General

Telecommunications revenue	US\$6.61bn (1998)
% of GDP	2.21 (1998)
Fixed-network growth	3.15% (1998-1999)
Cellular subscription growth	75.3% (1998-1999)

Source: ITU (2000)

Industry Indicators

Main lines in service	7,356,774 (1999)
Main line capacity	7,585,034 (1998)
Main lines/100 pop	20.1 (1999)
Main line waiting list	58,207 (1998)
Cellular subscriptions	4,434,000 (1999)
Cellular penetration	12.1% (1999)
Digitalisation	100%

Standards	DECT, PMS, CDMA, MMDS, LMDS, ISDN, AMPS, DAMPS, NAMPS, X25, Frame Relay, ATM.
Local loop	Telefónica and Telecom operate local services
Human Resources	Number of employees: 21,234 (1998)
Main lines/employee	344 (1998)

Source: World Telecommunication Indicators, ITU (2000)

Telecommunications Equipment (US\$m)			
	1996	1997	1998
Total Market Size	1,765	1,973	2,150
Total Local Production	1,287	1,420	1,600
Total Exports	12	12	13
Total Imports	490	565	550

Source: US State Department

Industry Overview

Current Situation

The Argentine telecommunications system has undergone a significant amount of modernisation since privatisation began in 1990. At the beginning of the decade, the industry was highly antiquated, having been poorly managed under the state-owned company, ENTel. Manually operated telephone exchanges dating back to the middle of the century were still in operation. Payment procedures were unfeasible for many people, in that there were no provisions for subscribers to pay for equipment (worth US\$500) in instalments. Main-line waiting time in some areas was as much as 14 years. Consequently, piracy proliferated, above all in major urban areas such as the capital, Buenos Aires.

The privatisation programme has led to a rapid growth in the number of subscribers, which is currently more than seven million. Teledensity, at 12 lines per 100 habitants in 1990, was considered to be well below normal levels for a middle-income country such as Argentina. Between 1990 and 1996 it increased to 20/100 and has since been improved to 25/100 (1998). Digitalisation of the main-line system increased from 18% in 1991 to almost 100% in 1998. Most areas of the industry, including cellular, paging, trunking and satellite services, have recorded dynamic growth over the past few years, particular the cellular market. Cable services began in 1993, and, by the end of 1997, there were almost 10,000km of cable throughout the country.

Privatisation began in 1989, with the granting of four licences for data transmission. When ENTel was privatised it was divided into two regions (north and south), which were granted to two consortia - one headed by France Telecom/STET (central/north) and the other by Telefónica Internacional/CEI (central/south). In 1997, each consortium extended their licences for a further two years.

At the end of 1997, fixed line penetration in the south reached 22.8, but only 17.7 in the north. Rather than reflecting disparities between the performance of the two companies, the figures represent more a difference in wealth between the two regions: the north includes some of the country's most marginalised areas, such as Chaco Province.

The cellular PCS licensing which took place in mid-June 1999 has set the scene for intense competition in all sectors of the telecommunications sector. The winning joint bidders for one of the licences, Telecom Argentina and Telefónica Argentina, already have extensive regional landline operations; the other successful bidder, GTE, and its CTI Holdings consortium, were recently licensed to supply local service as well as national and international long distance wireline service, starting in November 1999.

Potential Growth

Whilst there is still considerable potential for growth, in the short term, it may be restricted by the significant difficulties facing the economy, principally as a result of the currency crisis that took place in Brazil in January 1999, which forced the Argentine government to revise its economic targets for 1999. Nevertheless, the underlying fundamentals of the economy are stable, and overall GDP growth is expected to reach 3% in 2000. The current economic slowdown will inevitably include a drop in consumer spending, and is most likely to affect the cellular telephony market. Growth in cellular subscribers during 1998 had already showed a slowdown. However, once the situation for emerging markets begins to improve, growth in most areas of the sector will pick up, particularly in the cellular mobile sector.

At least 14 companies are expected to launch local or long-distance services on 9 November 2000 and de-regulation should cut costs, improve service demand and bring in billions of dollars of investment. Hopes are that fixed-line teledensity will rise from 21% to 35% between 2000 and 2004, and cellphone penetration should rise from 12% to 20%-25%. Similarly, internet penetration should increase from 2% to 25% over the same period. The telecoms market, which is currently worth approximately US\$11bn, is expected to jump in value to US\$18-US\$19bn by the end of 2004.

Projected Growth (1999-2001)			
	1999	2000	2001
GDP growth (%)	-2.0	3.0	3.5
Main line subscribers (bn)	8.132	8.991	10.187
Cellular subscribers (bn)	3.280	3.960	4.600
Population (bn)	36.705	37.237	37.777
Fixed-line density (%)	22.16	24.15	26.97
Cellular density (%)	8.94	10.63	12.18
Cable subscribers (bn)	6.080	6.410	6.750

Estimated revenue for 2001 (US\$ bn)	
Basic telephony	7.150
Cellular mobile services	4.700
CATV	2.624
Data transmission	1.039
Paging and Trunking	0.135
Satellite	0.352
Total	15.600

Fixed-Line (Voice)

Market Organisation

Since 1990, fixed-line communications in local, national and long-distance sectors have been operated exclusively by two companies: Telecom and Telefónica, which replaced the state company, ENTel. The exclusive seven-year deals were extended for a period of two years in November 1997. In November 1999, the organisation of the fixed-line sector moved into a new phase of liberalisation, whereby both companies were allowed to begin competing in all regions. Wireless Local Loop (WiLL) will play an important role in developing networks in new areas.

Up until now, Telecom has been operating in the north, Telefónica in the south, and the two companies have divided up between them the all-important region of Greater Buenos Aires. Long-distance and international services were operated by the company Telintar (joint-owned by Telecom and Telefónica) until April 1999, when Telecom and Telefónica took over the company's operations. Telintar's assets were divided between the two companies in May 1999. Telintar's discontinuation is part of the government's plans to deregulate the telecommunications sector by November 2000. Competition is due to occur towards the end of 2000 in this sector with the granting of licences to independent data carriers Comsat, Impsat and Keytech. In November 1999 another data transmission company, MetroRED, was granted a licence.

The issue of rates arose in December 1999 when Economy Minister Jose Luis Machinea was expected to sign a deal with Telecom and Telefonica which would see the companies' revenue decline by some US\$138.1m. This government involvement in pricing affected fixed monthly fees and local call costs, both areas that the government felt were insufficiently competitive. Long-distance rates were left unaltered, as the introduction of competition was expected to prompt cuts organically. According to a study by the Communications Department at the end of April 2000, prices for domestic and international long-distance telephone calls had on average fallen by half as a result of greater competition. Prices for long-distance calls from December 1999-March 2000 dropped by 56% on average, and by up to 75% under a number of calling plans. Prices for international long-distance calls also fell during the same period, with the cost of calls to the US and Brazil decreasing on average by about 50% and calls to Europe by some 55%. Since the long-distance market was opened up in October 1999, there have been a number of rate-cutting call plans on offer from Telefonica, Telecom and Movicom. About 80% of calls made between January and March 2000 were made under a calling plan. Prices are expected to drop further in November 2000, when more companies are allowed to compete in the sector.

The public telephony sector was liberalised in 1998, allowing other companies to compete with Telefónica and Telecom. Two new licences were awarded, to the local company OCA and Dakota. Both incumbents have moved to consolidate their position against increased competition. As of November 2000, Impsat - the country's leading data transmission provider - will provide long-distance and local telephone services.

In preparation for the deregulation of the telecoms sector in November 2000, the government announced in mid-May that it will cut the interconnection rate and set new conditions regarding universal service. The interconnection rate will fall from US2.35c per minute to US1.1c as of November 2000. The rate had previously been scheduled to fall to US2.15c in November. In addition to this measure, the government has set contributions to a universal service fund at 1% of gross revenue. Although the funds will be managed by the operators themselves, the government will determine how the money will be used. Before the decree, the government was to raise the contribution from 0.6% to 1.0% by 2004. The government decision took into account pressure from potential new entrants to impose a level playing field after liberalisation.

Fixed-line teledensity is expected to rise from 21% to 35% between 2000 and 2004.

Leading Players

- **Telefónica de Argentina**

In 1990, Telefónica de Argentina (jointly owned by Spain's Telefónica Internacional SA and CEI Citicorps Holdings) won the exclusive seven-year rights to operate fixed-line services in the south of Argentina, as well as central Buenos Aires. These areas - including the financial district of the capital - are the most dynamic in the country. It is a joint owner of the international operator, Telintar. Telefónica has enjoyed considerable profit margins over the past few years, thanks to its regional monopoly. However, increased liberalisation is forcing the company to reposition itself, in order to maintain its market dominance. Between 1990 and 1997, it invested almost US\$8.5bn in the telecommunications system, and by 1998 it had 4.2m fixed-line subscribers.

Telefonica claims also to have invested US\$150m in the northern concession, including laying out 4,000km of fibre-optic cable, setting up transmission equipment and installing switches. The investment formed part of the company's preparations for the deregulation of the fixed-line market in November 1999. In October 1999, the company announced a further investment of US\$4.4m to boost its operations in the region. The cash injection will finance the installation of basic infrastructure, public telephones and call centres. Then in November 1999, Telefonica announced plans to invest more than US\$900m in the local market in 2000. The investment projections channel 50% of that sum to fixed telephony, between 36% and 40% to the cellular market, and 10% to 14% for international telephony, data transmission and the internet.

In December 1999, Telefonica announced plans to inject US\$260m into two subsidiaries to consolidate them financially and provide a platform for future growth. US\$220m will be funnelled into its cellular phone unit Telefonica Comunicaciones Personales, and US\$40m into its internet venture Advance. The consolidation will act to shore up the company's position vis-a-vis rivals ahead of deregulation.

- **Telecom Argentina**

Telecom Argentina (backed by France Telecom and Italy's STET) operates the fixed-line network in the north of the country, as well as the outer parts of Buenos Aires. Given the poorer nature of the region, it has less market share than its rival, Telefónica. However, its market dominance puts it in a strong position to begin competing in Telefónica's area when the next phase of liberalisation gets under way in November 1998. It has already begun positioning itself for this, including the installation of a US\$30m fibre-optic ring in the financial centre of the capital by its data subsidiary. Although national data transmission is open to competition, the network will provide Telecom with a platform to offer basic telephony services.

On 19 July 1999, France Telecom and Telecom Italia outbid their competitors, paying US\$530m together to secure a 60% stake in the company through their takeover of Nortel Inversora. In theory, this sale will secure the future of Telecom Argentina, although in practical terms the two European companies are likely to be divided over strategy.

Telecom is investing heavily in constructing a fixed wireless telephone network to enable the provision of digital services, including voice, data, ISDN and high speed internet. The company has stressed the importance of fixed wireless access in relation to the development of advanced services, principally in the area of data communications. The network is being supplied by Alcatel in a deal valued at US\$100m.

In mid-November 1999, it was revealed that the company had posted a fall in profits and stagnant revenues in its fiscal 1999 results. Telecom recorded a 4% fall in net profits to US\$358m in the year to 30 September 1999, and a slight rise in revenues from US\$3.17bn to US\$3.18bn. The company's middling fortunes are being attributed to the introduction of lower price caps on fixed-line tariffs, which shaved 6% off its long-distance and 14% off its international revenues.

- **Co-operatives**

In addition to the two above operators, there are a total of 288 co-operatives in rural areas throughout the country, which make up 4.4% of the market.

- **Nortel Inversoral (NTL)**

France Telecom and Telecom Italia hold their 60% share of Telecom Argentina through Nortel Inversoral (NTL). After initiating the takeover of NTL in July 1999, they acquired the outstanding 35% of shares at a cost of US\$530m the following month. The purchase was split evenly between the two, with shares being brought from Perez Companac and JP Morgan.

- **Telefónica Larga Distancia de Argentina (TDLA)**
<http://www.tcint.com.ar>

Telefónica Larga Distancia de Argentina (TDLA) was created after Telintar's operations were taken over by Telecom and Telefónica in April 1999, as part of the government's plans to deregulate the telecommunications sector by November 2000.

On 15 September 1999, US-based ICG Satellite Services (ICGSS) - a subsidiary of ICG Communications - announced that it had signed a service agreement with TDLA to supply satellite circuits. The deal - which is the third service agreement between ICGSS and TDLA - will provide the operator with three separate asymmetric 34/8 Mbps satellite circuits on Intelsat 801 and 707 satellites. The 34/8 Mbps connection will be supplied through ICG's gateway teleport in Holmdel, in the US. The agreement with ICGSS will allow TDLA to improve on its new range of services, particularly increasing the level of its internet business.

- **MetroRED**

MetroRED Telecomunicaciones SA, majority owned by Fidelity Investments, set up operations in the country in 1997. Predominantly a data transmission company MetroRED was granted a licence in mid-November 1999 to provide basic telephony services in three cities, as of November 2000. The company will provide local service in the capital Buenos Aires, Rosario and Cordoba. The company will be required to submit new investment plans to the government should it wish to expand its coverage area. MetroRED expects to invest US\$50m over the next 18 months, in order to create fibre-optic and wireless networks in the three cities, where it will continue to focus service provision on the corporate sector.

- **Diveo Broadband Networks (formerly Diginet)**

Diveo Broadband Networks (formerly Diginet) is the Argentine subsidiary of Diginet Americas, itself rebranded as Diveo in April 2000. In late November 1999, the company announced that it had won a licence to provide domestic and international long-distance telephone services. The licence will come into effect in November 2000 when the telecommunications market will open to an unlimited number of carriers in the long-distance sector.

Cable Communications

Market Organisation

Although there are about 1,200 cable operators in Argentina, there is a tendency towards sector concentration, with five dominant companies (including market leader TCI, which has 30% of the market). Cable Pay TV has the highest penetration in the Latin American region - 55% of homes with TVs have subscribed. By comparison, penetration in the US is just over 60%. Although basic telephony services have not yet been offered, such services are likely to be introduced, particularly given that added services are the key to development in the sector over the next few years, as opposed to increased penetration.

Leading Players

- **Multicanal**

Multicanal began in 1992 as part of the CLARÍN Group, although in 1996 the Telefónica Internacional and CEI alliance acquired a 30% stake. It has around 1.25m subscribers in Argentina, with operations throughout the country (20% market share) and recorded revenues of US\$474m last year. The operator's coverage does not extend to the whole of Argentina, but to the following provinces: Capital District, Greater Buenos Aires, Buenos Aires Provinces, Santa Fe, Corrientes, Formosa, Chaco, Córdoba, La Pampa and Costa Atlantica.

In mid-April 2000, the CLARÍN group revealed that it was in negotiations with a number of companies, including Spanish Telefonica's media unit Telefonica Media, to sell a stake in Multicanal. A 51% stake sale would be expected to raise US\$1.35bn. However, CLARÍN has stated that it does not want to lose control of the company and will therefore not be selling more than 50%. In early July 2000, CLARÍN announced that it was in negotiations regarding the sale with Brazilian media group Organisações Globo. Globo would expand Multicanal's coverage and modernise its network with fibre-optic cable in order to offer telephony, internet and data transmission services.

- **Cablevision-TCI**

Cablevision-TCI is the leading cable TV supplier in Argentina, with a 30% market share. It is owned by Spain's Telefónica Internacional SA (32.3%), CEI Citicorps Holdings (32.3%) and TCI (26.2%). It operates mainly in Telecom's central-northern concessionary area. Cablevision is looking to increase its value-added services (seen as the key for greater margins in the cable sector).

Mobile

Radio Paging

At the end of 1997 there were 14 companies offering paging and data transmission services, including MTEL, Radiollamada, Indicom and Movicall.

Leading Players

- **RadioMensaje**

Owned by Mtel (Mobile Telecommunications Technologies Corp.) since the merger of Mtel Argentina and RadioMensaje in 1997, it is now the largest paging company, with 70,000 users. It sells SkyTel and RadioMensaje one-way products, such as numeric and alphanumeric paging.

- **Radio Llamada SACI**

Operates national paging services in Buenos Aires and other major cities.

Cellular

Market Organisation

Argentina has the highest cellular density in Latin America. The cellular mobile communications market is divided into three regions: Greater Buenos Aires, and northern and southern Argentina. There are two operators in Greater Buenos Aires - the privately-owned Movicom and Miniphone (owned jointly by Telecom and Telefónica). In the interior, Telecom and Telefónica have offered cellular services in their respective regions since 1996. In addition, the private consortium CTI Móvil (headed by GTE) has been operating throughout the whole interior region

since 1994. The cellular industry has been the fastest growing over the past few years, fuelled in 1997 by the introduction of calling-party-pays (CPP), although this was not applied by all mobile operators. Nevertheless, this helped to give the country higher utilisation rates than the US and Europe (400 minutes/month). Towards the end of September 1999, the Communications Ministry in Argentina ordered all mobile service providers to adopt the practice of 'calling party pays'.

However, the economic slowdown in 1998 reduced growth. Increased competition, including the auction of two new 40 MHz PCS licences in Buenos Aires in mid-June 1999, won respectively by joint bidders Telefónica Argentina and Telecom Argentina for US\$350m, and GTE Corp for US\$301m, is likely to reduce the considerable margins enjoyed by mobile service companies over the past few years. Outside Buenos Aires, cellular operator Movicom paid out US\$99m for a pair of 40 MHz PCS licences, also in June 1999, and then later in the year signed a deal to set up a CDMA wireless network throughout the interior of the country.

Cellphone penetration is expected to rise from 12% in 2000 to between 20%-25% in 2004.

Leading Players

- **Telefónica de Argentina**

On 16 June 1999, Telefónica Argentina - a joint venture operation run by Telefonica de Espana and Argentina's CEI Citicorp Holdings - teamed up with Telecom Argentina for a successful joint bid for one of two 40 MHz PCS licences to cover the Buenos Aires area, valued at an estimated US\$350m. The partnership also acquired a 40MHz licence covering the country's northern area, for US\$56m, and paid US\$22.25m for another 20 MHz in the southern region of the country. The company plans to invest 36%-40% of its US\$900m projected investments for 2000 in its cellular operations.

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- **Movicom**

Movicom operates in the Buenos Aires region. Its principal shareholders include BellSouth (60%), Motorola (25%) and BGH (10%). Movicom was the first mobile operator in Argentina, starting in 1989. It held a monopoly in the sector until 1993, and has since then maintained its position as the market leader.

In mid-June 1999, the company paid US\$99m for a pair of 40 MHz PCS licences outside of Buenos Aires and US\$162.75m for additional Buenos Aires bandwidth. It has been rolling out a CDMA system to operate at 800 MHz in Buenos Aires. The company plans to spend an additional US\$600m on its PCS build-out.

In September 1999 Movicom signed a deal with Transistemas, the Argentine affiliate of Canada's Newbridge Networks, to expand and upgrade its infrastructure. Principally this will allow the development of broadband services to support advanced voice and data services. Movicom reported revenue of US\$750m, which is expected to rise to over US\$800m for this year.

In November 1999, Movicom and Lucent Technologies signed a three year contract to set up a Code Division Multiple Access (CDMA) wireless network throughout the interior of the country. The deal will allow Movicom to extend its existing services and should extend its reach in the

mobile telephony market, whilst also providing a springboard for the introduction of new services such as long distance.

- **CTI Móvil**

CTI is owned by GTE Corp. of the US and Argentine media group Grupo Clarin. CTI began operating in 1994. In 1997 it had a turnover of US\$326m. It operates in the interior of the country. In mid-June 1999, GTE successfully bid for the one of the 40MHz licenses up for auction, paying an estimated US\$301m.

CTI struck a deal with Lucent to provide a Personal Communications Service (PCS) CDMA network for CTI Móvil in Buenos Aires. CTI Móvil launched the system in Buenos Aires and the surrounding area, giving the company nationwide wireless coverage. Services include short messaging, voice mail, caller ID, conference calling and call waiting.

US private investment bank, the Blackstone Group, announced at the end of June 2000 that it had bought up 12.5% of CTI for US\$150m. The stake has been acquired from two investment partnerships and GTE Corp.

By July 2000, CTI had attracted 890,000 subscribers in the interior of the country.

- **Miniphone**

Miniphone is joint owned by Telecom (50%) and Telefónica (50%), and began operating in 1993. Operating in the Buenos Aires region and Grand Buenos Aires area, it became the country's second largest mobile communications company, with 820,000 subscribers by the end of September 1999. However, as of early October 1999, the company's customers were split into two, with half going to Unifon and the other half going to Personal (see below).

- **Telecom Personal**

Telecom Personal is 100% owned by Telecom, operating in the northern region of the country. It began operations in 1996. Its turnover for 1997 was US\$223m.

At the beginning of August 1999, Telecom Personal announced plans to invest US\$450m over the next two years to develop a service network in the south of the country, previously monopolised by Unifón. The Director General of Telecom Personal confirmed that the investment would cover licence fees to operate in the southern region (estimated at US\$43m) and the use of the Personal Communications Services (PCS) frequency in the north. Over the next two years, it is expected that, at the bare minimum, the company will provide services to the province capitals, where Band A PCS performs better than in rural areas. In October 1999, Telecom Personal completed a US\$1.2m upgrade of its network infrastructure based on NET multi-service platforms. The expansion programme was carried out by the Argentine affiliate of Swedish giant Ericsson, which also manages the 180 node network. The system will carry traffic to outlying rural areas in northern Argentina as well as the cities of Cordoba, Rosario, Tucuman, Formosa, Santiago del Estero and Salta.

In early October 1999, Personal took 50% of Miniphone when the latter was split up ahead of the partial deregulation of the telecommunications sector in October 1999. As a result of the split, Personal is expected to reinforce its position within the cellular market, aiming to hold just over 32% of the 3.3m cellular users. In mid-November 1999, it was revealed that the company had posted a 7% rise in revenue, increasing subscriber numbers from 506,000 at the end of 1998 to 685,000 by the end of September 1999.

- **Unifon**

Unifón is 100% owned by Telefónica. It began services in 1996 and in mid-May 2000, the operator had more than 1.3m subscribers - a market share of 26%.

On July 29 1999, Unifon announced that it had signed a US\$230m contract with Ericsson to build its Personal Communications Services (PCS) using Time Division Multiple Access (TDMA) technology. Following Unifon's successful acquisition of three PCS wireless telephone licences in June 1999 (services were launched in October 1999), the company pledged to invest some US\$200m between 1999-2001 in upgrading and developing its services.

Until October 1999, Unifon operated in 10 provinces in the southern area of the country and since that date, it has also been operating in the Buenos Aires and Greater Buenos Aires areas, taking over half of Miniphone's subscribers when the latter broke up ahead of the partial deregulation of the telecommunications sector.

In mid-May 2000, the company announced that it had invested US\$50m in the installation of its PCS network in Cordoba Province. Unifon has earmarked investment of US\$1.7bn to be used to expand service to Cordoba by the end of the year.

Aside from cellular phone services, Unifon also provides trunking services in Cordoba, Rosario, Santa Fe, Parana, Mendoza, Mar del Plata and Buenos Aires and will soon extend this service to other cities. The operator invested some US\$25m over two years to install the trunking network.

- **Nextel**
<http://www.argentina.nextel.com/>

Nextel is the domestic unit of US-based Nextel International (NXTL) and started operations in the country in January 1998, investing more than US\$300m since that time. The operator plans to move into the data communications market by early 2001.

At the beginning of March 2000, Nextel announced plans to expand its wireless communications network in the interior of the country. Approximately 1,400km of new network will connect Buenos Aires to the coastal town of Mar del Plata and the western province of Mendoza, and Rosario in eastern Santa Fe will connect to the cities of Cordoba and Mendoza. Roll-out is set to be completed by the end of 2000. Penetration targets of 75% in the area of coverage have been set for 2000 to double the operator's existing subscriber base of 70,000. The operator announced the launch of a prepaid service, targeting small businesses and professionals, in May 2000.

Nextel also provides local trunking, telephony and paging services and claimed to have 80,000 subscribers for the trunking service - 50% of the domestic market - in May 2000.

Satellite Communications

Market Organisation

The main providers of satellite services are Intelsat, PanAmSat and Nahuelsat. Government regulations give Nahuelsat a competitive advantage over the foreign-based satellite providers (Intelsat is considered to be non-Argentine).

There has been an increase in demand for VSAT services over the past few years, with companies seeking a quick solution to data, voice and video communications needs.

Iridium and Globalstar are to offer global mobile personal communications services (GMPCS) from 2000. However, the high costs of GMPCS - handsets cost US\$4,000 and calls US\$3.30 per minute - mean that growth in the sector will be restricted to a limited number of users, amongst them business executives, shipping companies, journalists in remote regions and civil defence officials.

In mid-October 2000, the governments of Argentina and Canada signed a 'reciprocity agreement' to allow for commercial satellite exchanges between the two countries. According to the deal, 'landing rights' will be established by companies from both countries, in order that satellite companies can provide service to telecoms operators, such as ISPs and cable companies. Telesat South America - a subsidiary of Canada's Telesat (www.telesat.ca) - will be one of the first to benefit from the deal when it launches a private satellite for commercial use in Argentina and other countries within Latin America in November 2000. The satellite is scheduled to be ready for service in January 2001.

Leading Players

- **Nahuelsat**

Nahuelsat was formed in 1993 and its largest stakeholder is currently GE American Communications. Nahuelsat acquired two in-orbit satellites in 1993 to offer coverage to Argentina, Chile, Uruguay, Paraguay and Brazil. Its spacecraft provide telephony, data and DTH television services. Its own satellite was launched in January 1997 to cover services to the whole of South America, thus enabling access to the more remote regions of the sub-continent.

- **PanAmSat**

PanAmSat offers extensive satellite services, despite regulatory restrictions. Argentina is one of only three administrations throughout the world that insist on regulating PanAmSat as an operator of a foreign-licensed satellite. PanAmSat provides connectivity for many telecommunications networks, including Citibank, Amoco, Reuters, Impsat (a regional carrier) and Telintar.

Data

Fixed-line

Market Organisation

The number of data network companies in Argentina is increasing, thanks to strong internet growth and demand from multinationals for faster, more efficient datacommunications. Using both wireless technology and fibre-optic networks, datacoms is on course to take the lead in the Argentine telecommunications sector as it becomes increasingly liberalised over the next few years. Incumbent telephone operators are also trying to develop their infrastructure, in order to provide datacoms services, although over the past few years they have focused more on improving voice transmission, and lack the capacity and quality that is likely to be needed as demand increases. Revenue growth from data services is set to outstrip that for voice services over the next few years more than two-fold.

The leading data transmission provider is Impsat. The company began in 1987 and has a market share of 38%. It also has extensive operations throughout the Latin American region. On 26 July 1999, the company was licensed to offer local telephone services. The licence, granted by the Communications Secretariat, is due to come into effect in November 2000 and will make the operator a full service provider. Following the recent deregulation of the telecoms sector, Impsat will now be in a position to contend with Telecom Argentina, Telefónica SA, Movicom and CTI for a share of the market.

On 17 August 1999, ImpSat won a contract to provide Global Crossing Ltd with infrastructure for the Trans-Andean terrestrial link of its Global Crossing network to South America's major cities, which will be operational by early 2001. It was also announced that ImpSat will buy an estimated US\$46m in capacity on the Global Crossing Network and will enter into a 'co-marketing agreement' to join the Pan American distribution network of ImpSat with the Global Crossing Network. The deal will allow ImpSat to offer a better level of service to corporate

clients in Latin America, whilst also raising its profile world-wide. ImpSat agreed on a US\$244m contract with Nortel to develop the network.

On 27 October 1999, ImpSat announced that it had finalised a deal for up to US\$298m in 'long-term vendor financing', from Nortel Networks. The deal is part of an agreement signed by the companies in May 1999 for the construction of the Argentine and Brazilian branches of ImpSat's high-speed fibre-optic network across the Latin American region, called IMPSAT 2000. The funding will be utilised to build infrastructure for the network and will be paid out over a two-year period 'with final maturity in 2006'.

Close on ImpSat's heels, however, is multinational Movilpage Communications Inc., which secured an agreement to acquire a 90% stake in an Argentine company holding a nationwide 38Ghz broadband wireless licence. The deal will enable the wireless service provider to offer a range of high-speed data delivery products to a potential market of 18m, in an area covering Buenos Aires and five of the country's largest cities.

Total annual revenues from data transmission at present exceed US\$500m, and are expected to grow at 25% to 30% per annum over the next five years.

Leading Players

- **ImpSat**
<http://www.impsat.com/>

ImpSat began in 1987 and is the leading data transmission provider, with a market share of 38%. It also has extensive operations throughout the Latin American region. On 26 July 1999, the company was licensed to offer local telephone services. The licence, granted by the Communications Secretariat, is due to go into effect in November 2000 and will make the operator a full service provider. Following the recent deregulation of the telecoms sector, ImpSat will now be in a position to contend with Telecom Argentina, Telefónica SA, Movicom and CTI for a share of the market.

On 17 August 1999, ImpSat won a contract to provide Global Crossing Ltd with infrastructure for the Trans-Andean terrestrial link of its Global Crossing network to South America's major cities, which will be operational by early 2001. It was also announced that ImpSat will buy an estimated US\$46m in capacity on the Global Crossing Network and will enter into a 'co-marketing agreement' to join the Pan American distribution network of ImpSat with the Global Crossing Network. The deal will allow ImpSat to offer a better level of service to corporate clients in Latin America, whilst also raising its profile worldwide. ImpSat agreed a US\$244m contract with Nortel to develop the network. At the beginning of November 1999, electronic supplier Corning Inc. announced that it would be the principal optical fibre supplier for the Global Crossing network. Corning will provide optical fibre for ImpSat's networks in Brazil. ImpSat announced on 20 June 2000 that it had already launched its new broadband network linking the capital, Buenos Aires, and Rosario. The link was completed ahead of schedule. After trials on the backbone were completed early, ImpSat began transmitting data traffic from May 2000.

- **Comsat Argentina**

Comsat Argentina is the Argentine unit of Comsat, based in the US. Although Comsat Argentina currently renders data communications services to corporate customers, the company has signed a licence to operate long-distance services from November 2000, when the telecoms sector will be deregulated. Comsat has so far invested US\$20m in the domestic telecommunications market and has operations in seven Latin American countries. Its Argentine unit has 800 clients and earned US\$43m in 1999.

Comsat Argentina announced at the beginning of April 2000 that it plans to upgrade its existing networks for broadband data transmission, internet and telephone services in the capital Buenos Aires and throughout the interior of the country. The expansion project is expected to be completed in November 2000. The upgrade will target four main areas: the development of a terrestrial long-distance network, expansion of Comsat's metropolitan network in Buenos Aires, development of a 'competitive solution' for the last mile and the development of internet-hosting and e-commerce services. The company did not disclose an investment figure for the project, although figures are expected to be released in June 2000.

Internet

Market Organisation

Internet services were introduced in 1995, but a number of difficulties obstructed development in the sector. These included the high costs of international links charged by Telintar, the international operator, the isolation of networks from the principal Internet Service Providers (ISPs), and limited band-width. The resolution to a number of these problems led to a growth in internet subscribers in 1998 from 100,000 to 250,000. Nevertheless, internet usage remains below 3% of the population. However, internet penetration should increase from 2% in 2000 to 25% in 2004.

In mid-August 1999, government authorities confirmed that they were pushing the 'digital form law' through Congress, which if passed will give the legal go-ahead to documents signed on the internet. The legislation - which will become the first of its kind in Latin America - will allow documents to be signed online with a high security electronic identification system. The revolutionary system, which will allow customers to sign official documentation at home and access state-run databases, will also fight corruption. The project, which has received the government's attention over the last two years, is also expected to save the authorities millions of dollars in bureaucratic red tape and boost the struggling e-commerce industry, which has been the source of online data security concerns.

In an effort to boost internet use, the government has placed a US\$11m order with Japanese equipment provider NEC for the provision of 500 public internet booths in the northern region of the country. Siemens is to supply similar equipment in the southern region. The free access network should go online during October 1999; if the project is a success, NEC hopes to win additional orders for more booths.

Targeting internet service growth in the provinces - which suffer from a particularly low web penetration - US-based internet portal Yupi.com (<http://www.yupi.com/>) launched services in mid-November 1999. The company is seeking to become the market leader by tapping into the under-exploited internet sector.

Free Internet Access

Although none of the major internet providers had previously shown interest in providing free access, the situation changed at the start of 2000. Icerocom became the first free provider in the country, after launching operations on 10 January 2000. Since then some 72,000 people have signed up. ICFP Corp. of the US planned to offer free access in a number of Latin American countries, including Argentina, from February 2000. Red Alternativa was the latest to offer free access at the beginning of February 2000 and the trend looked set to continue.

However, despite the offer of free access, internet use in the country faces a major obstacle in the form of phone charges. Unlike in the US and other countries, telephone companies charge per minute and not per call, and the phone bill is by far the largest consideration when using the internet.

Leading Players

- **Movicom**

Motorola and Movicom announced the launch of the nation's first wireless internet service in mid-May 2000. Movicom's service is powered by Motorola's Mobile Internet Exchange (TM) communications platform. The network is based on Movicom's PCS CDMA infrastructure.

- **Indigo Mobile**

Indigo Mobile SA - a domestic company specialising in wireless internet access - launched operations at the beginning of May 2000. Indigo focuses on Wireless Application Protocol (WAP) technology, which enables mobile communications devices to connect to the internet and transfer data. The company aims to invest US\$1.2m in the country by the end of the year, with funding from its three founders and also from a private domestic investor. Indigo Mobile hopes to finalise agreements with phone carriers by the end of June. The company's income will be generated by agreements with carriers, from website operators and from developing software for companies. After launching operations in Brazil and Chile, by the end of the year, the company says it may consider expansion into Mexico.

- **El Sitio**

El Sitio is an Argentine internet company formed in 1997, based in Buenos Aires. The operator purchased three internet service providers (ISPs) from ImpSat in August 1999, giving the firm an additional 80,000 connections. The deal gave El Sitio a presence in Brazil (through Mandic, the country's third largest ISP) and Colombia, as well as in Argentina. El Sitio intends to become the market leader ISP in Latin America - hence its entrance to the Brazilian market, which accounts for half of all subscribers in the continent. As well as entering Colombia, El Sitio will also launch an ISP in Mexico. The company has further operations in Venezuela, Ecuador and the US. In November 1999, ImpSat Corp. finalised the sale of its Argentine retail internet operations to El Sitio for US\$6.2m.

In mid-January 2000, El Sitio decided to deploy Akamai Technologies Inc.'s FreeFlow servers. El Sitio expects the servers to improve the speed of its two web properties. Akamai provides internet content and applications delivery services.

- **Telecom Personal**

Telecom Personal announced in early July 2000 that it planned to launch wireless internet access from its phones in August, following Movicom's lead. Although Personal's wireless internet system - which includes its own wireless application protocol (WAP) portal - is already set up, the operator is awaiting WAP-ready handsets from Nokia.

- **Telecom Argentina**

Telecom Argentina announced in late September 2000 that it had struck a US\$1.4m deal with data networking solutions group Global One - owned by France Telecom - in response to increasing demand for internet access from subscribers. As a result of the deal, Telecom will benefit from a turnkey solution that will provide an asymmetric 40-megabit-per-second satellite link for IP traffic. Global One will install modems and routers in Telecom Argentina's earth station in Cordoba.

- **World Wide Wireless Communications Inc. (WLGS)/Infotel**

WLGS signed a letter of intent with Infotel, a group specialising in finding integrated solutions to telecommunications, in mid-October 1999 to start up operation of a wireless

internet network. A new company, majority owned by WLGS, will be set up to which licences will be dispensed to cover eight of the country's largest cities, including Bahia Blanca, Rosario, Santa Fe, Mendoza, Cordoba, Neuquen, Corrientes and the capital, Buenos Aires, making use of the WLGS's MDS (Mobile Data Server) frequencies.

- **UOL Argentina**

UOL is a newly launched internet portal owned by Brazilian web giant Universo Online. In mid-November 1999, the domestic publishing consortium Perfil announced that it has bought up a 25% stake in UOL Argentina. UOL Argentina is expected to begin offering internet service towards the start of 2000. The company did not release the financial details of the deal.

- **Yupi.com**

Targeting internet service growth in the provinces - which suffer from a particularly low web penetration - US-based internet portal Yupi.com (<http://www.yupi.com>) launched services in mid-November 1999. The company - founded in 1996 and comprising a number of portals including Spanish Ciudad Futura and Colombian Bogota.com - provides search engines, chat and electronic mail services and is in the process of developing e-commerce facilities.

- **Terra Networks**

Terra Networks is the internet branch of Spain's Telefonica and has been established in the country in order to extend Telefonica's reach into the Spanish-speaking market. The parent company will offer internet access services through Advance and internet contents via Terra until it reaches agreement with its local partners. In October 1999, Terra acquired two portals, Gauchonet and Donde, for which it paid US\$10m. In late November 1999, the company penetrated deeper into the internet market with the launch of its portal, though it did not create an internet service provider (ISP) at the time. The company aims to become the leader in the national portal market before the end of 2000 - capitalising on the country's potential of more than a million users. Although Terra Networks has launched the site without an ISP, it expects to offer internet service provision as part of its long-term growth strategy.

At the end of April 2000, Terra Networks was reportedly moving either to buy, or at least form a partnership with StarMedia, the company that pioneered the internet in the Latin American region. Details of the negotiations, which were said to be continuing in secret, were not disclosed.

- **Yahoo!**

US internet company Yahoo! launched its Argentine portal in mid-March 2000. The portal and search engine is expected to expand its Argentine audience past the 600,000 local users registered at the time of the launch. The site will start with links to 7,000 local sites, domestic news and financial information, and give access to Yahoo!'s global database of webpages. Yahoo!'s launch follows a number of high-profile ventures by local and foreign internet players, all jostling to corner the domestic internet portal market. Nonetheless, Yahoo! - which already has operations in Brazil and Mexico - believes that it will be a cut above the competition, given that it is offering integrated options like free e-mail, instant messaging, agendas and personalised pages, among other features.

- **VeloCom**

US-based telecommunications company VeloCom is presently offering voice and internet services in Brazil - with partners Bell Canada International and Qualcomm Inc. -

and has licences to provide services in Peru and Colombia. In mid-March 2000, the company announced that it is to offer internet access, investing US\$300m in the country over the next five years. In the first phase of the initiative, the company will provide internet access through wireless modem in greater Buenos Aires. The wireless network will allow VeloCom to expand more quickly at a lower cost, while supplying more reliable connections than traditional wirelines. The company then expects to expand into Cordoba, Rosario and La Plata by mid-2000 and plans to offer wireless data transmission in the future. In addition to larger corporate clients, the company also seeks to attract residential customers, professionals and small and medium-sized companies. VeloCom is also seeking to provide voice services in the country, although it does not yet have a licence to do so. As of November 2000, an unrestricted number of companies will be able to provide voice services under licence as the telecoms market opens up.

- **Alphatel**

Alphatel is a start-up ISP based in Buenos Aires. In mid-March 2000, Spike Technologies - a leading provider of broadband fixed wireless access solutions - announced that it had signed a deal with Alphatel. The agreement will allow the ISP to offer up to 85% of the Argentine population high-speed broadband internet access. Alphatel has been granted radio spectrum licences in eight major cities in Argentina, including Buenos Aires, Cordoba, Rosario, Mendoza and Mar del Plata. The deal will allow Alphatel to launch its broadband wireless internet access service for both business and residential locations in these locations. Applications include internet access, streaming video and video conferencing. Argentina is the second country in South America to install Spike's broadband wireless internet access systems, after Venezuela (in Caracas and Merida) in 1997.

- **Millicom Argentina**

Millicom Argentina is 65%-owned by Millicom International, based in Luxembourg, and 35% held by Argentine conglomerate Sociedad Comercial del Plata.

Millicom International Cellular announced at the beginning of April 2000 that Millicom Argentina was to launch the first phase of service roll-out, providing wireless internet services to Buenos Aires city and Great Buenos Aires. Millicom Argentina will also provide wireless internet services to the country's most densely populated cities, Cordoba, Vendozo, Rosario and Tucuman, during the year. The network is based on Fixed Wireless Technology and will offer greater bandwidth capability than traditional telecommunications wireline services.

The two principal services on offer are internet and intranet services (VPN - Virtual Private Networks). Both services use the Advanced Digital Wireless Network. The intranet service is aimed at small and medium-sized businesses and individuals looking for a high-speed connection to a company intranet or Wide Area Network (WAN). The company expects to invest US\$20m in Argentina between 2000 and 2001. It also hopes to attract 6,000 customers before the end of 2001 and foresees annual revenue for 2001 of US\$20m.

- **Cable Servico**

Cable Servico SRL is an ISP based in Buenos Aires. The operator had some 50,000 subscribers in August 2000 and through relationships with other ISPs has access to a further 400,000 subscribers.

At the end of August 2000, Cable Servico signed an agreement with US-based wireless internet company c Spectra to provide fixed-wireless broadband system to improve the quality of service to its subscribers. The new system will initially provide

coverage to the Buenos Aires area and will allow point-to-multipoint broadcasting of data and media, through a satellite connection leased from c Spectra's strategic partner USA Teleport. The service is designed to by-pass potential traffic jams on the terrestrial networks.

- **Unifon**

Unifon began offering internet access to its mobile subscribers in mid-July 2000. The service will allow subscribers to send and receive emails, surf the web and carry out online transactions.

- **Advance**

Advance is the data unit of Telefonica de Argentina. At the end of January 2000, the company announced that it had signed an agreement with Patagon.com, the Latin American financial services site, to distribute financial products to its internet customers. Under the terms of the deal, Advance will feature Patagon.com's financial services and products - such as mutual funds and shares - on its homepage, as well as e-mail and other services. In addition, subscribers to Advance's internet access or e-mail services will be able to pay bills through accounts offered by Patagon.com. The financial terms of the agreement were not disclosed.

By mid-February 2000, the operator had attracted 100,000 dial-up customers. The company also has some 200,000 users of its TopMail free e-mail service.

Free Internet Access Providers

- **Icero**
<http://www.icero.com/>

Icero, a new company, was the first to offer free internet access in Latin America and is set to launch operations in Brazil, Mexico, Colombia and Ecuador in 2001. The firm was set up with private domestic capital and no group has a controlling stake. The company went online on 10 January 2000 and is targeting an audience between 14 and 30 years of age, making money from advertising and eventually e-commerce. Icero aimed to attract 60,000 clients in the first eight months of operation and did better than that, snapping up 72,000 in the first few weeks. The company forecasted revenue of US\$2m from the domestic market from publicity, e-commerce, sponsorships and joint ventures.

- **Red Alternativa**
<http://www.alternativagratis.com>

New market entrant Red Alternativa SA - controlled by a fund linked to international financier George Soros - launched free internet access for residential users at the beginning of February 2000. The company disclosed that it will invest US\$2m initially and up to US\$30m to expand its service from greater Buenos Aires into the interior of the country through 2000. In addition, the company hoped to develop its service throughout Latin America through associations with local companies. Red Alternativa will give clients unlimited time to browse the net and free e-mail. It hopes to attract 200,000 users by the end of the year, and 10,000 in the first month.

Equipment

Traditionally, most equipment has been supplied by three multinationals operating in Argentina: Siemens, NEC and Ericsson. However, privatisation has allowed for increased competition in the sector and has led to the arrival of new international suppliers. In mid-July 2000, the

government announced that it had abolished plans to raise duties on imported technology and telecoms equipment, from 8% to 16%.

Leading Equipment Suppliers

Public Switches

Siemens S.A.; NEC S.A.; Alcatel Techint S.A.; Italtel; Ericsson.

Transmission Systems

Siemens S.A.; NEC S.A.; Alcatel Techint S.A.; Nortel S.A.; Italtel; Mach Electronics; Eastel S.A.

Mobile Equipment

Ericsson S.A.; Motorola; Lucent.

Fibre-Optic Cable

Siemens S.A.; Pirelli; Lucent; Alcatel.

Copper Cable

Pirelli; Badar; Indelgui; TFC; CommScope

Cable TV Network Equipment

Sc. Atlantic; Gral Instruments; Texscan; Philips; Xiden; Alcatel Techint; Siemens S.A.; Pouyet; Proway S.A..

Data Networks

Newbridge; Cisco; Bay Network; 3Com; Lucent; Itochu; Alcatel.

Internet

Cisco; Newbridge; 3Com; Alcatel Techint; Bay Network; IBM; Intersoft.

Paging and Trunking

Motorola; NEC; Philips; E.F. Johnson.

Regulatory Environment

The telecommunications industry is overseen by the quasi-independent National Commission of Telecommunications (CNT by its Spanish acronym). It was created by Decree 1185 in 1990 in order to act as the regulatory agency for the newly privatised sector, and it operates as a decentralised entity of the Communications Ministry. Specific functions include:

- Granting licences, authorisation and permits.
- Dictating the norms and regulations of both telecommunications and postal services.
- The control and inspection of services.
- The administration of the radio spectrum.
- Standardising equipment and materials for specific use.
- The conduct of technical investigations.

- Imposing penalties on companies not complying with regulations.

However, a lack of transparency in the laws and rules of the sector has made the CNT restricted in its ability to regulate effectively.

Government Strategy

Argentina began the process of privatising its telecommunications services at the end of 1989. The government opted to establish a temporary duopoly - made up of Telecom and Telefónica - for seven years (with a possible extension of up to three more years) for fixed-line telephone operations. This aimed to expand basic telephony services, to improve costs, and to carry out the laying of a public telecommunications network, allowing for the development of other telecommunications services. The monopoly was also extended for international services (including data transmission, telex, direct rented lines and value-added services, in addition to voice transmission).

This model was chosen because the government wanted to realise a large-scale/short-term investment in a bid to catch up with developed nations' technology.

In exchange for exclusivity, the winning bidders were obliged to meet certain requirements in relation to quality of service and penetration, as well as a programme to provide public and semi-public services in those areas that had none.

The country has been divided into two regions, thus creating a duopoly, with the hope that the two roughly equal-sized companies will be able to compete in the other's region once the period of exclusivity ends (November 1999).

In addition to the two regional operators, a number of independent operators (roughly 2% of the sector and mainly co-operatives) have been given exclusive licences for the same period of time.

The next phase of liberalisation took place in November 1999, when two new consortia entered the market to compete with the incumbents (Telecom and Telefónica). One consortium is led by GTE (the operator of CTI Móvil) and the other by BellSouth (controller of Movicom). The government has stipulated that the consortia must consist of international telecommunications providers, along with local cellular, CATV and provincial telephone operators. In addition, three companies - Comsat, Impsat and Keytech - have won licences to operate data transmission services. Their entrance will effectively take the number of operators in the basic telecoms network to seven.

Although the government has not announced whether any further licences will be awarded, under WTO (World Trade Organisation) commitments, basic services will be fully liberalised by 2000, allowing any new operator to enter the market.

Important Regulations

Regulators in Argentina are limited in relation to their position and power. This is based upon the fact that different services that have recently entered the national telephone market have been, upon entry, innovative in nature, and therefore no specific legislation governing their operation has yet been enacted. However, some of the key regulations in existence are:

- The regulation on universal service establishes the need for a basic telephone service entailed by equitable social and economic development within the country. Customers should have access at fair and reasonable prices and have the option to choose different services.
- In a bidding process, licences are granted directly, without any requirement other than evidence of experience in rendering the service or, in the case of companies, that their

corporate purpose includes rendering the service. Licences to grant a frequency service must be subject to a public bidding process.

- Interconnection among networks is subject to the General Interconnection Regulation, approved by Resolution #49/97 issued by the Secretariat of Communications. This Regulation is based upon the US Telecommunications Act.
- No rules have been established to resolve conflicts among competitors.
- The Telecommunications Law dates back to 1972 and has been regulated via decrees and resolutions passed by the National Government. Essentially, the Law is only relevant in terms of its general guidelines, given the changes that have occurred both in relation to technology and liberalisation since 1989.
- The regulatory authority only sets guidelines to determine the prices charged for basic telephone services.
- Reselling will be guaranteed once the industry becomes fully liberalised.
- Interconnection agreements must be implemented and subsequently approved by the regulatory authority in order to have access to the resources of shared networks. This aims to ensure the application of the principles of transparency and non-discrimination in permitting such access.
- Cross-subsidies are expressly banned.
- A resolution in 1997 approved the Fundamental Plan for National Numbering. The plan is now in its initial stage of development, with the implementation of the changes in the area code for Buenos Aires having taken place at the beginning of 1999.

Inevitably, the liberalisation of telecommunications services is subject to a number of problems and conflicts of interest. These include:

- A dispute between the two main operators (Telecom and Telefónica) and new players. The incumbents are demanding that a 3.5% tax on services be applied in order to cover the costs of services provided to loss-making rural areas (estimated at US\$200 million). The new market entrants are arguing for a much lower tax at 0.5%.
- A possible delay to liberalisation plans. For instance, rural telephony and data transmission within the Mercosur trading area (Argentina, Brazil, Paraguay and Uruguay) were intended to begin in January 1998, but were subject to delays.
- Both the fixed-line incumbents have faced protests for failing to comply with interconnection rules with mobile companies.

Type Approval Procedures

Cellular mobile units used in Argentina must conform to the Argentine technical standards. A unit may also be used if approved by a recognised government agency of another country (i.e., the US Federal Communications Commission).

Industry Organisations

Chamber of Information Technology and Communications (CICOMRA)

Chamber of Satellite Users

Cable Television Operators Association

International Organisations

World Trade Organisation (WTO)

Inter-American Telecommunications Commission (CITEL)

CITEL is an entity of the Organisation of American States (OAS), responsible for facilitating the development of telecommunications in Latin America.

Foreign Investment

Overview

The privatisation of the industry was interpreted as the first and most important sign from the government to the international community in relation to its reform policy. During the 1990s, Argentina has implemented reforms perhaps more than any other country in the region. Although the telecommunications sector has not been fully liberalised, the government has opted for a gradual process, whereby - and according to its WTO commitments - it will gradually allow for increased competition. Although the presidential elections in October 1999 brought an end to the Menem years, his structural policies, which are essentially unchallenged by the major political parties, will continue. This is particularly the case in relation to telecommunications, where there is still a need for increased development in order to achieve universal service.

The fledgling government of President Fernando de la Rúa revealed at the end of March 2000 that it planned to renegotiate a 1998 deal with telecoms companies to help double prospective investments to US\$5.4bn. The plans to reduce rates paid by newcomers to established firms and inject more transparency into the market were claimed to have the potential to double investments in the twelve months after June 2000 - originally projected at US\$2.7bn. The telecommunications industry will be fully deregulated in November 2000 and many interested companies are already lining up to participate. However, a number of them stated recently that they would like to see more clarity in the industry and 'better deals' from Telefonica de Argentina and Telecom Argentina. The government is in agreement with potential investors that charges negotiated with Telefonica and Telecom in 1998 to provide access to cables are too high and could deter investors. The two operators have already lowered interconnection rates to US2.35c from US3.5c, and under their agreement with the government should further cut their rates to US2.15c in November 2000.

Structural Factors

There are few significant legal restrictions for foreign investors. In the satellite sector, Argentine-based providers are given preferential treatment over those defined as non-Argentine.

Outlook

Trends

- High margins in the national and international long-distance market will offer strong potential for competition from the new players.
- Although the new operators will be allowed to compete in local telephony from November 1999, they are unlikely to feature significantly until they have been able to construct their networks.
- New entrants are less likely to invest in fixed-line services given the market dominance enjoyed by the two incumbents.
- Interconnection disputes are likely to emerge frequently.
- Increased competition in long-distance services will lead to a fall in costs.

External Factors

At the 1994 Summit of the Americas, the presidents of the region endorsed the following regulatory requirements (some of which had already been embarked upon by Argentina):

- Universal access in existing and emerging technologies.
- Clear and stable laws, regulations and safeguards.
- Allowing competition in (intra-country) telecommunications no later than 2005.
- Separation of regulatory entity from main operator.

- Adaptable legislation in order to protect changing demands in relation to intellectual property rights, privacy and security of information.
- Rate re-balancing in order to move gradually towards cost-based rates.

In addition to the Summit of the Americas, the Argentine government is bound to the principles of the 1997 World Trade Organisation (WTO) agreement. This includes:

Competitive safeguards; prevention of anti-competitive practices.

- Prevention of anti-competitive cross-subsidisation.
- Prohibition on use of information obtained from competitors with anti-competitive results.
- Provision of technical information to other service suppliers.

Interconnection:

- Interconnection guarantees
- Non-discriminatory terms
- Provided in a timely fashion.
- Terms and conditions must be transparent, reasonable and unbundled.
- Provided at points in addition to network points upon request.
- Public availability of negotiations procedures.
- Dispute settlement at any time or after a reasonable, publicly known period of time.
- Universal service.

Mercosur

The Southern Cone Market (Mercosur) trading block comprises Argentina, Brazil, Paraguay and Uruguay, and has two associate members (Chile and Bolivia). Mercosur is seeking to increasingly integrate the telecommunications infrastructure throughout the region.

Upcoming Developments

Perhaps the key industry development relates to the expansion of the PCS market:

- **October 2000:** Auction of two PCS licences in the interior.
- **9 November 2000:** End of period of exclusivity for Telefonica de Argentina and Telecom Argentina.

Multi-carrier dialling (whereby subscribers choose carriers on a call-by-call basis) is planned for November 2000.

Directory of Contacts

Alcatel Telecom Argentina

Avenida Belgrano 327
1092 Buenos Aires
Argentina
Tel: + 5411 4 3491100
Fax: + 5411 43433939

Ascom International

Thames 91
1642 San Isidro
Buenos Aires
Argentina

Tel: + 5411 4 7667702
Fax: + 5411 4 7667704
<http://www.ascom.com.ar/>

AT&T Argentina

Corriente
1615 Buenos Aires
Argentina
Tel: + 5411 4 3790420
Fax: + 5411 4 3108700
http://www.att.com/latin_america/argentina.html

ATVC (Argentinian Cable TV Association)

Avenida de Mayo 749, Piso 2
1084 Buenos Aires
Argentina
Tel: + 5411 4 3423362
Fax: + 5411 4 3431716

Aydin SA

Avenida Leandro N. Alem 690, Piso 21
1001 Buenos Aires
Argentina
Tel: + 5411 4 3127788
Fax: + 5411 4 3110503

Baiwo SA

Avenida Rivadavia 1367, Piso 1
1033 Buenos Aires
Argentina
Tel: + 5411 4 3810888
Fax: + 5411 4 3845058
<http://www.baiwo.com.ar/>

Bay Networks de Argentina SA

Carlos Pellegrini 1427, Piso 3
Buenos Aires
Argentina
Tel: + 5411 4 3273883
Fax: + 5411 4 3273790

Cablevision-TCI

Bonpland 1773
1414, Buenos Aires
Tel: 5411 4 778 6060
Fax: 5411 4 774 1016
<http://www.cablevision.com.ar/>

Carvajal SAIC

Saenz Pena 4153
Lomas del Mirador
1752 Buenos Aires
Argentina
Tel: + 5411 4 6529764
Fax: + 5411 4 6528125

Coasin Comunicaciones SA

Avenida Roque Saenz Pena 648, Piso 8
1035 Buenos Aires

Argentina
Tel: + 5411 4 3450675
Fax: + 5411 4 3450677
<http://www.coasinarg.com/>

Compañía Telecomunicaciones Interior (CTI)

Avenida Roque Saenz Pofia B832, Piso 1
1388 Buenos Aires
Argentina
Tel: + 5411 4 8098814
Fax: + 5411 4 8098814
<http://www.cti.com.ar/>

Comsat Argentina

Carlos Pellegrini 1363, Piso 6
1011 Buenos Aires
Argentina
Tel: + 5411 4 8191400
Fax: + 5411 4 3259719
<http://www.comsat.com.ar/>

Datacom International

Marcelo T. de Alvear 624, Piso 5
Office 35
1058 Buenos Aires
Argentina
Tel: + 5411 4 3156086
Fax: + 5411 4 8142819
<http://www.dcint.com/>

Ericsson SA

Casilla De Correo 3550
1000 Correo Central
Buenos Aires
Argentina
Tel: + 5411 4 3195500
Fax: + 5411 4 3150629
<http://www.ericsson.com/>

France Telecom Argentina

Avenida Leandro N. Alem 690, Piso 3
1001 Buenos Aires
Argentina
Tel: + 5411 4 3133750
Fax: + 5411 4 3121859
<http://www.francetelecom.fr/>

GE Capital Spacenet Services

Avenida Leandro N. Alem 619, Piso 4
1001 Buenos Aires
Argentina
Tel: + 54 305 594 0933
Fax: + 54 305 594 1065

General Instrument

Florida 142 61
1337 Buenos Aires
Argentina

Tel: + 5411 4 3937108
Fax: + 5411 4 3267921

Global One Argentina

Pje. Carabelas 241, Piso 6
1009 Buenos Aires
Argentina
Tel: + 5411 4 3940789
Fax: + 5411 4 3940831

Impsat

Alferez Pareja 256
1107 Buenos Aires
Argentina
Tel: + 5411 4 3624240
Fax: + 5411 4 3625041
<http://www.imsat.com.ar/>

Infonet Argentina

25 de Mayo 637
1001 Buenos Aires
Argentina
Tel: + 5411 4 2294178
Fax: + 5411 4 3186261
<http://www.infonet.net.ar/>

Intersoft SA

Av. Córdoba 883 - Piso 9
(1054) Buenos Aires
Argentina
Tel: + 5411 4 318-8900
Fax: + 5411 4 318-8999
<http://www.isoft.com.ar/>

ITS Argentina

Calle Piedras 383, Piso 6
1070 Buenos Aires
Argentina
Tel: + 5411 4 3490849
Fax: + 5411 4 3490812

Keytech SA

Avenida del Libertador Gral San Martin 2
Vicente Lopez
1638 Buenos Aires
Argentina
Tel: + 5411 4 7968000
Fax: + 5411 4 7968080
<http://www.keytech.com.ar/>

Marconi Instruments

Tacuman 858, Piso 6L
1049 Buenos Aires
Argentina
Tel: + 5411 4 3110424
Fax: + 5411 4 3122799
<http://www.marconicomms.com/>

MCI Argentina

Maipu 1300 19 □A
1006 Buenos Aires
Argentina
Tel: + 5411 4 3125335
Fax: + 5411 4 3151435
<http://www.mci.com/>

Movicom

Tucuman 744, Piso 8 (1049)
Buenos Aires
Argentina
Tel: + 5411 4 321 5006
Fax: + 5411 4 321 0334
<http://www.movi.com.ar/>

Nahuelsat

Lavalle 472, Piso 3
1047 Buenos Aires
Argentina
Tel: + 5411 4 3272292
Fax: + 5411 4 3272319
<http://nahuelsat.com.ar/>

National Communications Commission

Sarmiento 151, Piso 4
1000 Buenos Aires
Argentina
Tel: + 5411 4 3311203
Fax: + 5411 4 3344935
<http://www.cnc.gov.ar/>

NextLevel Systems SA

Juaramento 2089, Piso 5V
1428 Buenos Aires
Argentina
Tel: + 5411 4 7884567
Fax: + 5411 4 7880525

Nokia Argentina (NTC)

Paraguay 1178 7/FA
1057 Buenos Aires
Argentina
Tel: + 5411 4 8138100
Fax: + 5411 4 8117259
<http://www.nokia.com/>

Nortel Argentina

Avenida Leandro N. Alem 712, Piso 9
1001 Buenos Aires
Argentina
Tel: + 5411 4 3145400
<http://www.nortelnetworks.com/>

Proyecto Wamani

Centro de Comunicacion de Info.
Talcahuano 325, Piso 3
1013 Buenos Aires
Argentina

Tel: + 5411 4 3826842
Fax: + 5411 4 7931502
<http://www.wamani.apc.org/>

Radiosistemas

Avenida Wheelwright 1683 C
2000 Rosario
Argentina
Tel: + 54 412 18373
Fax: + 54 4132 18313

Red Científica y Tecnológica

Nacional RECyT
Avenida Cordoba 831, Piso 3
Buenos Aires
Argentina
Tel: + 5411 4 3128917
Fax: + 5411 4 3124142

Satelnet SA

Florida 537, Piso 5
1005 Buenos Aires
Argentina
Tel: + 5411 4 3265229
Fax: + 5411 4 3941235
<http://www.satelnet.org/>

Secretariat of Communications

Peru 103, Piso 19
1067 Buenos Aires
Argentina
Tel: + 5411 4 3479544
Fax: + 5411 4 3479546
<http://www.secom.gov.ar/>

Sema Group SA

Avenida Alicia Moreau de Justo
1780, Piso 2
1107 Buenos Aires
Argentina
Tel: + 5411 4 3158811
Fax: + 5411 4 3152310
<http://www.sema.com.ar/>

Siemens SA

Avenida Pte. Julio A. Roca 516
1067 Buenos Aires
Argentina
Tel: + 5411 4 3408476
Fax: + 5411 4 3408560
<http://www.siemens.com.ar/>

Siscotel SA

Maipu 24, Piso 1
1084 Buenos Aires
Argentina
Tel: + 5411 4 3316249
Fax: + 5411 4 3425437
<http://internet.siscotel.com/>

Super Cabel SR

Neuquen 838
1405 Buenos Aires
Argentina
Tel: + 5411 4 43324267
Fax: + 5411 4 4330897

Technology Bureau SA

Maipu 1300, Piso 21
1006 Buenos Aires
Argentina
Tel: + 5411 4 3122020
Fax: + 5411 4 3122024

Telecom Argentina

Avenida A Moreau de Justo 50
10th Floor
Capital Federal 1107
Argentina
Tel: + 5411 4 968 3743
Fax: + 5411 4 968 3128
<http://www.telecom.com.ar/>

Telefónica de Argentina

Suipacha 150, Piso (1008)
Buenos Aires
Argentina
Tel: + 5411 4 325 9984
Fax: + 5411 4 394 4089
<http://www.telefonica.com.ar/>

Telemedia Internacional

Paraguay 610, Piso 8
1350 Buenos Aires
Argentina
Tel: + 5411 4 3150440
Fax: + 5411 4 3150660

Telintar

25 de Mayo 457, Piso 6
1002 Buenos Aires
Argentina
Tel: + 5411 4 3180452
Fax: + 5411 4 3180552
[http://www.tcint.com.ar%20\(south\)/](http://www.tcint.com.ar%20(south)/)
[http://www.telintar-norte.com.ar%20\(north\)/](http://www.telintar-norte.com.ar%20(north)/)

Texscan SA

Avenida Juan de Garay 840, Piso 3
1153 Buenos Aires
Argentina
Tel: + 5411 4 3070280
Fax: + 5411 4 3000083

Times Fiber South America SA

San Lorenzo 888 Oficina 'H'
Corrientes
Argentina

Tel: + 5411 4 783 29300
Fax: + 5411 4 783 22774