

Telecommunications in  
Uruguay

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## Uruguay

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Uruguay is the Latin American country with the highest United Nations human development index, an indicator of the quality of life based on education, earnings, and life expectancy. It is also considered one of the most politically stable, despite a quite turbulent history. Economic development has been retarded by heavy government regulation and high inflation. With some 3.2 million people (July 1994 estimate) and an area of about 176,000 square kilometers, Uruguay is a small country. Although the population is over 80 percent urban, agriculture forms the base of the economy, with large shares of industrial production and exports related to processing wool and beef.

Telecom services are quite good, at least by Latin American and developing country standards. The teledensity -- 17 in 1994 -- has for some time been the second highest in Latin America (after French Guyana). About half the population live in metro Montevideo, the capital, and most of the modern equipment is concentrated there.

Elections in November 1989 brought Luis Alberto Lacalle of the Blanco

party to the presidency, with a plurality but not a majority of seats in the General Assembly. Inaugurated in March 1990, Lacalle spearheaded a broad economic reform, including plans to privatize many companies. However a referendum in December 1992 overturned key portions of the legislation intended to achieve this. In regular elections held in November 1994, Julio María Sanguinetti of the Partido Colorado was chosen president, a position he had held from 1985 to 1989. A coalition of the Colorado and Blanco parties controlled the legislature.

The Partido Colorado favors continued state ownership of enterprises that offer a significant source of income to the state or are seen as strategic or natural monopolies. The new government is willing to transfer to the private sector activities that need a strong injection of funds to increase capacity or productivity, or that the state does not have the funds to support. As an example June 1995 private interests acquired 51 percent of PLULNA, the troubled national air carrier.

## 1 Early Telecommunications Development

The Constitution of 1830, the country's first, was based on a liberal and individualistic doctrine which confined state functions to protection of citizens

and the administration of justice. Thus the private sector initially freely participated in the provision of telecom services. However, as the 19th century came to a close, the state moved to a more activist stance -- assuming the roles of banker, insurer, tradesman, and direct promoter of economic development. As a result, the state has come to be in charge not just of what were long considered natural monopolies, and thus appropriate for a state to operate -- the post, telegraph and telephones -- but also electricity and public transportation, as well as port services (Schrumann and Coolighan 1966, p 492).

### 1.1 Telegraphy

Telegraph service was inaugurated in Montevideo in 1855. In 1865 the Compañía Telegrafía del Río de La Plata, a joint Uruguayan-Argentine company, began providing telegraph service between Montevideo and Buenos Aires. A direct connection between the two cities -- by submarine cable across the wide estuary of the Río de la Plata -- was approved in 1883 and completed in 1884 by foreign contractors.

Other, regional, private companies appeared, including Telégrafo Oriental, Compañía del Oeste, Compañía Platino Brasileiro (which initially provided service

to Brazil and subsequently expanded with Uruguay). These were owned or financed by Argentine, Brazilian, British, and US entities as well as by Uruguayans. By 1910 most of the country had service, with the principal towns connected to Montevideo. By 1920 they were connected directly to each other.

Reflecting the shift toward government involvement, the National Telegraphy was incorporated under the General Director of Postal Services in 1892.

## 1.2 Telephony

In 1882 the Compañía Telefónica de Montevideo (CTM) was founded with British capital to serve the capital. By the end of the 1880s Montevideo had two companies providing telephone services, CTM and locally owned Cooperativa Telefónica Nacional, which had been created because CTM was not providing service as quickly users wanted. Their service areas did not overlap. In 1889 there were 2700 registered users.

The first company outside the capital, La Sanducera, was founded in April 1891 to serve the Department of Paysandú, in the western part of the country. It was owned by members of the local elite. Subsequently, other small, local

companies were similarly formed. They generally had a single exchange and served only a few hundred or few thousand subscribers. They were not interconnected.

A government-operated telephone network for the police was established in April 1894, with the intention of its becoming nationwide. A year later, rules for construction of a national telephone network were approved. These rules were early steps in a process that had the publicly proclaimed purpose of converting telecommunications into a state monopoly.

In 1907 the government approved creation of a national telephone network, which took over the local private company in Paysandú. The next step in the government's move toward consolidating telephone service in state hands came in 1909 when a government commission was set up to study telephone service in Montevideo and explore ways to link the various telephone systems in the interior to the capital and to each other.

Finally, in December 1915, a law was passed creating a Dirección General de Correos, Telegrafos y Teléfonos with domestic monopoly rights regarding the post, telegraph, and telephones. However, the law did not immediately or automatically extinguish any concessions made to private companies by special laws, so the existing private companies remained in business. Moreover, new

concessions could be granted to private parties, including monopoly concessions for services in specific geographical areas. In other words, although the state was slowly creating a telecommunications system that it owned and operated, initially it was primarily asserting its right and power to determine who offered services. Service to foreign countries remained open to free enterprise (Resolution of 24 September 1918).

### 1.3 The First Monopoly Period: 1915-74

The 1915 law called for a nationwide government monopoly of telephone service. Steps toward achieving this began with nationalizing, under decrees of March 1916 and October 1917, a number of the small, independent telephone systems in areas outside Montevideo. These were added to the police network. In other words, the police network was being used to form the backbone of a government-run system. The two private Montevideo companies were allowed to continue in business, but regulation of their operations, and those of the other private companies, was begun. The government, through the Dirección General de Correos, Telegrafía y Telefonía (DGCTT), issued them operating permits revocable at any time.

In December 1916 the private domestic telegraph companies were purchased by the government, becoming part of the DGCTT. International service continued to be provided by several mostly foreign companies: Western Telegraph, All American Cables, Río de la Plata, and Compañía Telegráfica y Telefónica del Río de La Plata. However, in October 1931 international service was taken over by the state.

At the end of 1924 there were 29 privately owned telcos in Uruguay, including the 2 in Montevideo. There was no interconnection among them, except in Montevideo, so long-distance calling was not possible, except on the police network. (Police stations throughout the country were connected by radio and cable.) Subscribers to the private systems numbered 23,662, including 15,535 (66 percent) in Montevideo; average daily usage was 166,662 calls (Libro del Centenario 1925). For context, the population was about 1.6 million (45 percent in Montevideo).

From 1915 to 1930 parliamentary discussions abound regarding who would be awarded the contracts to construct the national network of trunk lines interconnecting the local companies. Finally, Law 8,767 of October 1931 gave Usinas Eléctricas del Estado (UEE) the job of constructing and operating the new telephone network as well as the right to exercise a monopoly in wired telephone



communications throughout the entire country.<sup>1</sup>

The Comisión de Obras Públicas, established by parliament, reasoned there was an indisputable convenience in having a body of electrical technicians supervise installation of a communication system based on the applications of electricity. In November UEE changed its name to Administración General de las Usinas Eléctricas y Teléfonos del Estado, generally referred to as UTE.

Law 8,780 of 20 October 1931 allowed UTE to buy or expropriate the various telcos in the country. The Montevideo companies, which represented the vast majority of telephones, were promptly nationalized at negotiated prices, as was provision of international service, but the other private companies were not taken over because there were limited funds to buy them. Instead, the government, through UTE, continued to build a trunk network to connect the most important cities of the country. The remaining private telcos were allowed to add subscribers -- although this was subject to revocation at any time.

In March 1932 UTE began installing cable and 10 central offices for automatic service in Montevideo. The system had a capacity of 22,000 lines. A decree of December 1933 ordered government agencies to cease using the private companies when UTE's new exchanges became operational. Only in 1936 did UTE start buying the remaining private companies. Because internal funding,

rather than debt, was used to finance the purchases, it was 1949 before the last one was acquired, unifying domestic telephone services in the hands of the government, where it has remained since.

## 2 ANTel

Telecom services - telephony and telex - were notoriously deficient during the UTE period. In 1974 there were almost 30,000 applications pending for service, compared to an installed base of about 188,000 lines. This was true even though there were enough central-office lines -- over 207,000 -- to handle a large percentage of the applicants.

Having a line did not mean having a working phone. For example, during 1974, on any given day as many as 17,000 of 140,000 subscribers had no working service. This was due to a number of factors, including lack of spare parts and obsolete equipment because of import quotas and limited repair budgets. In the face of this situation, the government proposed breaking up UTE, creating a new entity to be in charge of telephone and some broadcast services.

Thus, on 25 July 1974, under Decree-Law 14,235, Administración

Nacional de Telecomunicaciones (ANTEL) was created as a public company. It was formed by combining three entities that had had some control over telecommunications: the Dirección General de Comunicaciones, Dirección General de Telecomunicaciones and the telephone division of UTE. The new company was placed under the Ministry of Defense, and all of its acts are subject to approval of the executive branch. The Office of Planning and Budget (OPB) advises on tariffs, investments, and debt management.

ANTEL, as a monopoly, is responsible for the construction, provision and management of local service, as well as domestic and international long distance, telex, and telegraph. The law also gives ANTEL the power to "intervene and control any activity related to telecommunications, either public or private, unless such activities are assigned expressly to another state entity." It also acts as the Uruguayan party to international telecom agreements, including Intelsat and interconnections. Except for the armed forces and police, private networks are not allowed unless approved by ANTEL and the executive branch.

In the area of broadcasting, ANTEL initially controlled allocation of some frequencies (television, but not radio) and had technical oversight and operations supervision of television transmissions. Radio was under the control of the Dirección Nacional de Comunicaciones (DNC), also part of the Ministry of

Defense. In October 1984 control of television frequencies was transferred to DNC. DNC thus has general control of spectrum management, and oversees radio communications (including paging), broadcasting (TV and radio stations, and cable TV).

The 1984 law also made DNC responsible for Uruguay's relations with international communications organizations such as ITU, CCITT, and CCIR. They previously had been functions of the Dirección General de Telecomunicaciones.

DNC is charged by the 1984 law with coordination and execution of the national communications policy approved by the executive branch. However in practice it has done very little in this regard. DNC has not done any studies on service costs or tariff structure, so it is unable to assess the reasonableness of ANTel tariff requests.

Decree Law 14,235 of 1974 lacks a clear definition of what communications is. This has led to jurisdictional problems in assigning some services, especially the new value-add ones. For example, conflict arose in 1988 between ANTel and the private companies that offer facsimile equipment as well as, in 1991, the utilization of international services by companies located in "free zones" (designated areas where productive activities are free taxes other than the

income tax). In the 1988 case, to induce customers to buy fax equipment from it, ANTel offered to waive connection charges. Both cases were resolved by OPB as the executive branch organ having authority over tariffs. To preserve fair competition among suppliers, ANTel was prohibited from waiving connection charges.

Creation of ANTel did not change the poor quality of the country's telephone service. The system remained so antiquated and unreliable that into the 1980s firms often resorted to courier service within downtown Montevideo.

## 2.1 Investment and Quality Improvements

Motivated in part by the government's feeling that Uruguay would be the financial center of the Southern Cone and a future regional customs union, ANTel finally initiated a strong expansion program at the beginning of the 1980s. The goal was overall improvement in the range of coverage and the quality of services.

Investment during the decade was at a rate 5.1 times the depreciation on fixed assets in telephony. For 1986-91, average annual investment was US\$50 million, reached US\$76 million in 1992 and US\$123 million in 1993.

There were 615,000 central office and 530,000 primary subscriber lines at

the end of 1993, increases of 88 percent and 84 percent from 1985 and equal to 17 primary lines per 100 people. Over one-third of 1985 central office capacity had been replaced by digital switches by 1993 which, with the new lines, meant about 65 percent of central office exchange lines were digital (78 percent in Montevideo). From 1976 to 1990 domestic long distance links grew at an annual rate of 13.4 percent and international links at 11.6 percent. A microwave network linking the country was completed in 1990. By 1992, 90 percent of domestic trunks were microwave, and 86 percent of international links were by microwave or satellite.

Despite the impressive numbers of lines being added each year, unsatisfied demand remains high. It equaled 19.2 percent of the 530,000 primary lines in 1993, compared to 15.5 percent in 1975. Even though central office capacity is in place to satisfy most of the unmet demand, ANTel has been unable to generate enough revenue from its operating activities to reduce the backlog, and there have not been sufficient government resources available in the face of the public sector's need to reduce its deficits.

Still, the investment there has been has permitted ANTel to improve its service quality, although difficulties with digitalization led to increased problems during 1989. In Montevideo, the average number of subscribes with faults

decreased from 12 percent (over primary lines) in 1975 to just 0.3 percent in 1990. The average (maximum) time without service decreased from 12 days (32 days) in 1981 to 2 days (10 days) in 1993. These improvements notwithstanding, a large number of faults continue to exist in the network, primarily because of inadequate operations support and maintenance by ANTEL.

ANTEL has not kept statistics on such quality indicators as what percentage of the time a subscriber does not get a dial tone or is otherwise unable to complete a call, or how long a new subscriber must wait to have a phone installed. Public opinion polls have shown a steady increase in those saying they thought ANTEL service was "good" or "very good": from just 26 percent in 1988, to 32 percent in 1989, 40 percent in 1990, 45 percent in 1991, 65 percent in 1992, 70 percent in 1993, and 80 percent in 1994.

### 3 Services and Rates

ANTEL offers subscribers the basic package of telephone services as well as some value-added services. Digital technology was first incorporated into the system in 1985. The first household telephone set must be from the telephone company, but

additional sets and other equipment can be obtained from other sources. Direct lines, including analog lines for data (Urupac) and voice transmission, as well as specialized services such as background music, are provided only by ANTel.

Urupac includes electronic mail without additional charge.

Value-added services available by the 1990s include packet-switched data transmission, electronic mail, electronic information services and electronic fund transfers (EFT). There are providers other than ANTel for all of these except packet-switching.

In December 1990 ANTel put mobile terrestrial service up for bid. The winner bidder was Movicom Cellular Service (MCS), owned by Uruguayans and Argentines. Bidders were competing for the right to construct the infrastructure (including obtaining transmission sites). MCS provides service directly to users and is required to provide capacity to ANTel's cellular subsidiary (ANCel) under a 10-year leasing arrangement. ANTel then acquires ownership of the equipment. Service, available in the department of Montevideo and part of the coast, including Punta del Este, began in December 1994 with about 15,500 subscribers.

### 3.1 Rates



ANTel submits proposed tariffs to the government's executive branch for approval. Because the company does not have cost accounting and demand studies were not undertaken until 1991, its tariff structure is somewhat arbitrary. Since 1974 tariffs have been adjusted based on recommendations by the International Consulting Committee for Telegraphy and Telephony (CCITT) and the Conferencia Interamericana de Telecomunicaciones (CITel).

As in most countries, residential users pay less than others for establishing service and basic monthly service. The exception to this is that rural subscribers are generally charged substantially more for installation than urban ones, generally because these lines are radiotelephones. Thus, in 1995 (1992) the charges were US\$4210 (US\$3655) for a rural line, compared to US\$395 (US\$260) for an urban non-residential line and US\$260 (US\$160) for an urban residential line. (There is also a surcharge, refunded with interest when service is discontinued, of US\$50 (US\$120) for a residential, and US\$120 (US\$240) for a non-residential line.)

Local calls are charged on a message-unit basis. Where central office equipment allows, rates vary by day and time of day, with peak (11:00-18:00), shoulder (7:00-11:00 and 18:00-22:00), and night rates (22:00-7:00) on Monday through Friday. Saturday from 7:00 to 15:00 the shoulder rate is applied, and the

night rate is in effect during all other times. Typically, in 1995 (1992) residential subscribers received 50 units as part of a US\$6.30 (US\$4) monthly rate, while others paid US\$14.40 (US\$10).

As small as the country is, until January 1993 there were seven area bands for long distance. There are now three bands. Rates are high and, for most calls, have increased from their levels of the early 1990s when they ranged from US\$0.045 per minute (0 to 25 kms) to US\$0.60 per minute (over 400 kms). In 1995 per minute rates varied from US\$0.12 (to 50 kms) to US\$0.40 (over 100 kms). There is a 60 percent reduction for off-peak calls.

International long distance rates historically have had little to do with physical distance. Thus, in 1992, while rates to immediate neighbors Argentina and part of Brazil were the lowest, it cost less to call the United States, Australia, and the United Kingdom than to call most of the rest of Latin America. Charges have been reduced since 1990, but calls originating in Uruguay still generally are more expensive than inbound ones. In 1995 calls to Argentina and the Brazilian state of Rio Grande do Sul were US\$1.50 per minute; to the United States, US\$1.50 plus US\$1 per minute; US\$2 to Chile and Paraguay, US\$2.50 to Canada, Australia, New Zealand, the United Kingdom, and Spain; US\$3 to the rest of the Americas; and US\$3.50 to the rest of the world.

#### 4 Changes in ANTel

Midway through 1987 ANTel began to redefine its mission and philosophy, as well as the company's management style. The new mission and philosophy were approved by the Board of Directors on 15 May 1988. Thus, even though the overall policy of the government is for the company to continue to operate as a monopoly, there are plans to develop and use some services from private companies. These include electronic information services (such as Reuters, Delphi, Telerate, and CMA), international electronic messaging services (such as AT&T Easylink), and teleprocessors (such as Infonet). In addition to provision of cellular phone service, support services such as cleaning and security are already being performed by private companies.

This change was partly in response to the policies of the government of President Julio María Sanguinetti (1985-89), which considered telecommunications a basic component of creating a more open and internationally oriented economy. Management also recognized a need for change, in part reflecting the relatively young ages of the managers -- averaging around 40 -- compared to other public companies.

The company's self-image was to be modified from that of an engineering

firm to a company oriented to the customer and service. In that sense the philosophy changed to "the client is the reason for the existence of ANTel." Management style was to change accordingly. Three basic principles were incorporated: delegation of authority, decentralization, and management by objectives within a centrally determined global plan. Operations were decentralized in 1989, creating 5 zones -- Montevideo (with half of the population), Periphery, East, Center and West) -- divided into 32 regions and (for Montevideo) 4 districts. Still, a technology focus has continued to predominate because most of the managers, including all the General Managers, have been engineers, not marketers or administrators, by training.

The proclaimed customer orientation has not changed the fact that in case of a controversy over billing or service problems, the burden of proof still falls on the customer, not the company. Credit is not given customers without service until the tenth consecutive day.

## 5 Conclusion

Although attempts to privatize ANTel have been rebuffed, some political leaders

are trying to build a consensus for more competition and reform of state-owned enterprises. Returns on investment in telecommunications are high, so, whatever happens in that regard, the future is promising for the availability of funds to make the investment necessary to improve quality, expand service, and lower of prices.

#### ENDNOTES

1. UEE was the government-owned successor to the private company, created in 1885 by Marceliano Díaz y Garcia, to provide Montevideo with public lighting and electricity. Banco Nacional gained control in 1889, the year electricity was first provided, because of its owner's financial problems and restructured it as Compañía de Alumbrado a Gas y Luz Eléctrica SA. The government gained ownership in 1896 when Banco Nacional was liquidated because of its financial problems. Renamed Usina de Luz Electrica de Montevideo in 1906, in 1913 the company began to expand into the interior of the country. Until 1913 the only other town with an electric utility (established in 1900) was Paysandú. Initially privately owned, it was taken over by the state company in February 1919. The electric utilities had 3000 subscribers in 1905, 12,700 in 1910, and 26,500 in 1915. In 1920 the enlarged UEE served 47,700 subscribers, and in 1925, 75,000.

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