

Argentina: Telecom Services Fixed-Mobile Convergence 2007

Silvia Yaber 11/2007

Summary

The Argentine telecommunications sector has shown significant investments and growth from 2004 to date. The sector as a whole grew over 20% in 2006 and 2007. The market is expected to grow at 19% in 2008. Total sector revenues, including equipment and services, reached \$5.2 billion in 2005 and \$6.3 billion in 2006. Wireless solutions, cellular services, broadband Internet access and IP-based solutions are the fastest growing areas of the telecom services industry. The highlight of 2007 was the launching of 3G services by cellular operators. Additionally, a new trend caused by several mergers and acquisitions over the last three years, has increased competition in the local market. The constant offering of new services and technologies make the market very dynamic and present interesting opportunities for U.S. exporters, investors and service providers. The move towards the convergence of technologies and services in Argentina should offer new opportunities in the telecom sector in 2008 and 2009 as the price of the hardware and terminal devices fall.

Market Overview

After years of low interest, investment in the telecom sector has been soaring since 2004. Argentina's economic recovery since the crisis of 2002 has been striking with 9% GDP growth in 2004 and 2005 and 8.5% in 2006. Growth is projected to be in the 8% range in 2007. The economy has also been experiencing a rise in consumption based on rising real income levels and industrial output in the last two years. Although the trade surplus fell in 2006 as imports maintained double-digit growth, the country continues to earn hard currency and boost its reserves. The consequence of strong economic recovery has been increased inflationary pressures, officially reaching 9.8% in 2006 and around 9% in 2007. The charges for telecommunications services, however, have remained stable. This has stimulated increased consumption. Argentina is considered an early adaptor of technologies and has a tech savvy population. This significantly contributes to a rapid increase in the demand for new telecom services resulting from the convergence of technologies.

Total revenues in the telecom services sector in 2006 were \$ 6.3 billion dollars, 20% over 2005. Total revenues are expected to reach \$ 7.2 billion in 2007 and \$ 8.5 billion in 2008. These include local telephony, national and international long distance, mobile telephony, data transmission, Internet and others.

In 2007, the leading sub sectors in the telecom industry were cellular telephony, with a 35% growth in revenues (and over 42% in number of subscribers) and broadband access with 90%

¹ ROE: U\$S 1 = \$ Arg 3.1

growth. Internet access (free dial-up, dial-up and broadband) grew 37%. Wi-Max is the fastest growing sub-sector, growing 140% last year.

The highlight of 2007 so far has been the launching of 3G services over cellular networks by Telecom Personal, Movistar and CTI. At the moment, the transmission rate is 1.2 Mbps and is expected to reach 3.2 Mbps in the near future. Over the next few months, operators plan to incorporate new services and new models of cellular phones with 3G capabilities. Samsung and LG are the leading providers of 3G cellular phones.

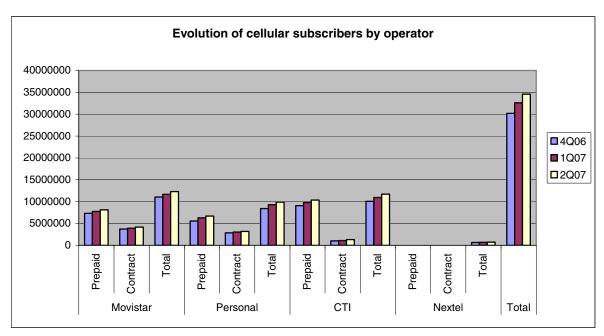
Personal was the first operator to launch 3G featuring the video-call service. Movistar differentiated its offering by marketing it as 3.5G, supported in the fact the technology deployed is HSDPA, the evolution of UMTS in 3G. Movistar targeted its offer to notebook users with a basic charge of \$58 dollars per month per 2 Mbps. CTI, Telmex's cellular operator, launched the service as Mobile High-Speed Internet Access for as low as \$38 dollars, with no usage limit. CTI went a little further, launching a PC USB devise for internet access, entering into the fixed broadband access business and becoming an alternative to ADSL and cable modems, with speed limitations but with an interesting coverage.

Other new services were announced in 2007. Telecom and Telefónica launched SMS services for fixed telephone lines, which had been so far exclusive to cellular services. The companies announced the launching of new services for 2008, which may include video-calls from a fixed line to another or to a 3G mobile phone.

These new services prepare the user to get more and more familiarized with multiple applications from multiple devices through multiple networks, i.e, to NGN (New Generation Networks) and to the convergence of technologies. The major competition in the local market rests, not among telecom operators, but on telecom versus cable operators.

Fixed-Mobile Convergence

The concept of Fixed-Mobile Convergence (FMC) is a single portion in the world trend of convergence of technologies. While the usage of cellular phones has been booming over the last three years, the number of fixed lines has remained stagnant. As of November 2007, there are approximately 37 million cell phone subscribers and around 9.5 million fixed telephone lines, (of which 6 million belong to households and 3.5 million to companies). In Argentina, FMC started several years ago with a service called "Movicom en Casa" (Movicom At Home) offered by the former operator Movicom-Bellsouth. "Movicom At Home" was Home Zone technology, ie, a differentiated rate for a certain area or cell range. This service is being replaced and offered now with UMA technology (Unlicensed Mobile Access), which requires a bi-standard telephone set that connect to both cellular networks and wi-fi or bluetooth so that the communication is routed over the Internet. Fixed lines have not been quickly replaced by cellular use due to the cost of cellular communications, which is still high despite its booming penetration.



Source: INDEC - Through July 2007

This chart shows the evolution of cellular lines featuring the number of pre-paid and post-paid accounts by operator. The pre-paid subscribers account for 60% of the total.

UMA is at present FMC's most established technology, used in Europe over the past two years and recently tested in Argentina. UMA is more appropriate for fixed broadband networks, therefore, it presents opportunities for partnerships or agreements between operators that only have a cellular network and operators that only have fixed broadband networks and vice versa. This will complement and expand the portfolio of services and incorporate additional competition in the market. In Argentina, the major operators, Telefónica and Telecom have both the largest cellular and fixed networks. For some industry consultants, this may slow the pace/process of convergence in Argentina vis-à-vis other countries in the Region. However, there are operators such as the cable operators that do not have cellular networks and cases such as Telmex that does not have a fixed network. As in other parts of the world (eg. Nextel/Sprint, Cingular or Comcast/Cox), we expect more partnerships and/or acquisitions in the local market in order to form new Integrated Operators that will eventually offer Quadruple Play.

In all of its areas, FMC is in its primary stages in Argentina but will be the means of the future. The ultimate point of convergence will take place when there is a real convergence of applications switching from one network to another (either fixed, cellular or wireless –wi-fi/Wi-Max networks) without any changes being perceived by the end-user. The goal is "any time, anywhere, any content" that is to say, any service, over any network, via any device. The levels of FMC are a) Network convergence (infrastructure sharing between fixed and mobile networks), b) Service Convergence (single service provider offering a variety of services), c) User/Terminal convergence (one terminal for all the applications in any location), d) Commercial Convergence (pooling of resources of the service provider for cost-efficiency and cost –reduction purposes). The benefits in the simplicity and cost-savings both for the user

and the operator are quite significant (integrated services, single bill, single number, single device, value added services, over any network, among others). At the moment, there are still many technical, operational and administrative difficulties to overcome for this to happen since the services are not all the same, the networks are not all IP yet and the end-user terminals are not ready. The future of FMC is IMS architecture and it will not be ready until 2010.

In the meantime, in Argentina, the large operators (which offer fixed, cellular and broadband) are already merging their administrative operations, IT, commercial and other business units into one. In the technology area, at the recent local Telecommunications Conference and Trade Show, Expo Comm 2007, vendors like Alcatel-Lucent, Motorola and Nokia-Siemens, presented the concept of Femto Cells. Femto Cells is a homezone GSM cell connected to the broadband access (ADSL or cablemodem). They allow multiple users, mobility within a 50-meter range and allow for new applications in the path to FMC. This technology will prompt users to transmit more data from their cellular phones over broadband networks freeing up the cellular network. From the operators' perspective, this will increase the ARPU, save in CAPEX and OPEX and contribute to client fidelity.

America Movil and Telefónica are expecting to lead the implementation of Femto cells in Mexico and Brasil in 2009, followed by Argentina and Chile. The advantage that Latin America has is that the technology and the applications have been already tried and tested in the U.S. and Japanese markets, learning beforehand about the services that work better, people's preferences and the pros and cons of the implementation.

In a recent conference, an executive of a major telecom vendor explained that the ideal for the company is to offer access with a variety of technologies according to the operators and users' needs/demands, through a combination of Wi-Max, Mesh, Indoor and Fixed. He added that by 2015, Internet traffic will be 100 times greater than current levels, meaning that the networks will have to be re-defined. For Argentina, telecom vendors anticipate a household broadband penetration of 45% for 2011, triggering opportunities for new services such as IPTV, mobile TV and interactive games.

Convergence of services

FMC is a broader concept than the actual convergence of services by one service provider and a further one when it comes to actual implementation. In terms of services, Dual Play has been offered in Argentina for the last few years in a variety of combinations. Triple Play, however, is still in progress and moving in slowly into Argentina compared to other countries in Latin America. This is due to strong competition among the largest players in the industry. There are a few cable operators in the interior of the country, supported by third parties such as Crossphone (LatinNode) and BBT, that are offering both Internet and telephone services, but there are still no major cable operators offering residential telephony. One of the largest providers, Telecentro, offers public telephony through "Locutorios" - - centers with phone cabins and Internet access. The major cable operators are making investments in digitalization and are currently offering broadband and digital cable TV. Telephone services will come last. According to a recent study conducted by Prince & Cooke, more than 5 of 10 households would be willing to contract only one service provider for fixed telephony, Internet and paid

TV/cable TV (Triple Play). The study also projects that Argentina could have nearly 3 million households with Triple Play by 2012. The average monthly expense/charge of a high-income household (ABC1 segment) in telephony, broadband Internet access and paid TV is around \$95 dollars while in lower income segments the average is \$46 dollars. The weight of this expense on the salary of a lower income segment is double than that in higher-income families.

There is no doubt that mobility and broadband availability are the leading features that will define/drive the rest of the services. The development of high-speed data services on mobile devices has increased their competitiveness. However, there are still many questions unanswered about the pace of the success of mobile broadband technologies in the Argentine market. According to Convergencia Telemática, some of the pending issues include:

- How will 3G and Wi-Max investments work out at the same time?
- Is the Argentine market ready and willing to pay for value added services and content?
- Are the cellular terminals too expensive still for the economy?
- What will be the most appealing services to Argentine consumers?

These questions will be answered as supply and demand evolves and the market matures. This will set the pace at which these technologies will gain market share in the country. Furthermore, as the mobile Wi-Max with the standard 802.16e evolves in its implementation, the competition will become even much more interesting and intense. For the moment, cellular operators expect to have 2 million users of 3G by the end of 2009. As of November 2007, there are over 37 million cell phone subscribers, representing 85% of the total population. that one of the highest usage rates in the region greater than Chile (78%), Brazil (53%) and Mexico (50%).

The players and the new scenario

In addition to increased demand, several mergers and acquisitions greatly altered the scenario in the last three years, generating competition, as well as new opportunities for U.S. exporters. In 2005, the Mexican telecom group Telmex acquired one of Argentina's largest cellular operators, CTI, formerly owned by Verizon. Region wide, Telmex acquired AT&T Latin America and AT&T Argentina. On the other hand, Telefonica's buyout of Bellsouth Latin America's assets significantly strengthened Telefonica's position in the region. This resulted in the merger of two of the four largest cellular operators in Argentina, Telefonica's cellular company Unifon and Bellsouth's Movicom into one, even-larger player, Movistar.

In the case of the other major telecom operator Telecom Argentina, the Argentine Werthein Group acquired 50% of Telecom Argentina from France Telecom in 2004. The other 50% was owned by Telecom Italia, which recently sold its assets in Latin America to Telefónica de España. This acquisition produced an unclear situation for Argentine regulators and anti-trust authorities which will have to carefully analyze the issue in order to avoid the creation of a de facto monopoly in the sector. Industry sources have expressed concern that if Telefónica keeps and executes its power in Telecom Argentina, Telefónica might end up getting 95% of the fixed telecom market and 65% of the cellular market. This acquisition is very recent and there are still a number of issues to consider related to it.

In 2005, the Clarín Group acquired Cablevision/Fibertel, the leading cable operator and cable modem service provider, from the U.S. fund Hicks Muse Tate & Furst. In 2006, Clarín Group and the U.S. fund Fintech Advisory announced the full acquisition of Cablevision and the merger with Multicanal, the second largest cable company in the country, owning 60% and 40% respectively. The acquisition and share swap resulted in a new holding that includes Cablevision, Fibertel, Multicanal (Clarín's own cable company), Prima (Clarín's dial-up ISP Ciudad Internet, broadband ISP Flash and free ISP Fullzero) and Teledigital, a cable operator in the interior of the country.

In late 2006, Telmex bought Ertach (formerly Milicom Argentina – wireless network operator-WiMax) for \$22 million dollars, acquiring frequencies in 3.5 GHz for additional services and last mile solutions. Ertach is a well positioned company with over 5,000 clients throughout the country and a wide network of 121 Wi-Max base stations distributed in 18 provinces with 15,000 subscribers for voice and data services. The company grew 40% in 2006.

Following the same strategy of Sprint Nextel in the United States, Nextel Argentina acquired Velocom, a wireless service provider. Velocom has a wireless network in Argentina with many nodes using Wi-Max technology (fixed Wi-Max) in 3.5 Ghz. After the recent acquisitions, the 3.5 GHz frequency bands for wireless local loop (WLL) are shared by the following companies: Nextel, Telmex, Telecom, Telefónica, Datacoop and Alphatel.

In the region, the stiffest competition is between Telefónica and the Carso Group (Telmex and America Movil). In Argentina, Telefónica is very strong but Telmex is expanding rapidly in the mobile and wireless markets. The greatest competition now could be considered to be between major telecom operators (Telefónica and Telecom) and the major cable operators (Clarín Group). Given the operators' need to increase the ARPU (Average Rev. per user), coupled with increasing competition and the increasing demand for mobility and broadband, the telecom companies are incorporating new solutions where wireless technologies play the key role in their expansion plans to meet the growing demand for connectivity with converging technologies.

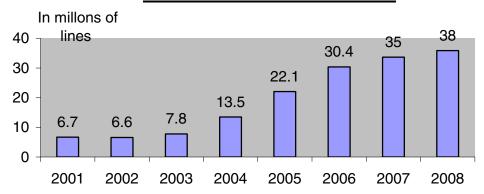
Market Trends

Cellular Services

In Argentina, cell phones are used by people of all socioeconomic backgrounds. In terms of number of subscribers, the cellular market grew 45% in 2006 and around 40% in 2007. According to telecom specialists, the Argentine cell phone market will grow 25% in 2008 exceeding a 100% level of penetration. In revenues, the cellular market grew 35%. Value added services (data transmission over cellular) accounted for 25% of the revenues. Text messages (SMS) represent the largest share of mobile data transmission revenues (75%), as well as email and Internet access, which are rapidly growing. Ring-tones, wallpapers, games, videos and other multimedia content represent 8 to 10% of revenues. These services will continue to increase as new models of handsets allow for heavy downloads of multimedia

applications and as network operators expand their 3G networks (UMTS) and expand to 3.5G (HSDPA) or higher. There is still much work to be completed in migration to 3G in the Argentine market, considering that around 60 to 65% of the cellular lines are pre-paid.

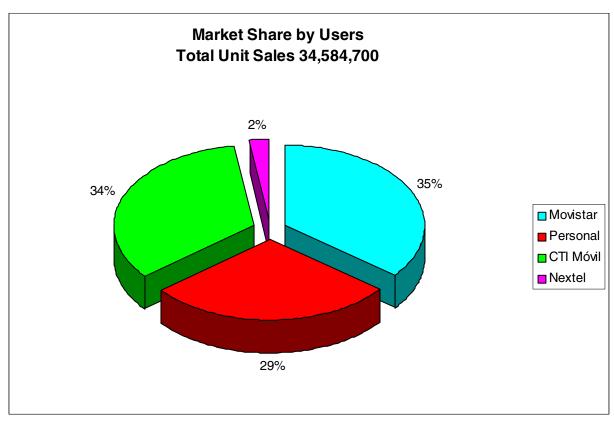
Evolution of cellular lines 2001-2008



According to Latin Panel, the average price of a cell phone acquired in Argentina during 2006 was US\$45 (\$136 pesos). At this price, only low to mid-range phones that do not support multimedia can be purchased. The cell phones with 3G capabilities including smart phones are approximately \$ 300+ dollars. There are very few dual models with GSM/Wi-Fi in the local market but more models will be appearing over the next few months. Only 5% of devices sold in 2007 contained "bluetooth" technology.

In terms of telecom infrastructure and equipment providers for cellular operators, the major suppliers to the Argentine market are Alcatel-Lucent, Ericsson, Nokia Siemens and Nortel.

Movistar (Telefónica de España) leads the market with over 12.1 million subscribers, followed by CTI (Telmex) with approximately 11.7 million and Personal (Telecom Argentina) with approximately 10 million. Measured by market share per number of subscriptions, Movistar accounts for 35% of the market, CTI Movil 34%, Personal 29% and Nextel 2%. Nextel has about 700,000 subscribers to their radio-cellular service.



Source: INDEC

Wi-Fi

As of 2007, Argentina has 17 million Internet users and over 2 million broadband subscribers (almost double the number 18 months ago). Taking into account that there was a 48% increase in the sale of laptops in 2007, wi-fi has become a technology in high demand and also one of the fastest growing technologies in the telecom sector. The Buenos Aires City Government expects to have free broadband wireless access to Internet from any point within the city by 2010, the year in which Buenos Aires celebrates its Bicentenial.

The continuously increasing number of households with more than one computer, the financing options from the large retail chains and the increasing number of broadband installations also resulted in significant growth in the number of wi-fi networks in homes. The impact of financing by retail chains is expected to expand to other IT/Telecom products and thus, services. According to Pyramid Research, between 2007 and 2010, wi-fi connections will increase 60%. The most preferred brand of access points in Argentina is Linksys for price and performance, followed by D-Lynk and Trendnet.

Wi-Max

Wi-Max has been recognized as 3G by the ITU and will be the first native mobile IP technology. The main telecom operators in the Argentine market have also found in Wi-Max technology

(802.16d and e) a major ally to expand existing or build new telecom networks given the characteristics of the market and of the technology. Major telecom operators are investing in this technology in its fixed version and even more so in its mobile version.

In its fixed version, Wi-Max allows operators to offer VPNs, Telephony (IP) and wireless broadband internet access in one package, targeting the SMEs and corporate segment. Most analysts, such as Carlos Blanco of Signals and Ariel Barlaro of TVTelco, agree that the expansion of this technology to the residential market will not occur until the price of the user terminal CPE (Customer Premise Equipment) falls below \$ 100 dollars. This technology is easy to deploy and requires low investment. In theory, it covers 40 kms at line of site at 72 MBps. In fact, telecom companies report that the performance is much lower. In Argentina, fixed Wi-Max is offered in licensed frequency bands at 2.5 and 3.5 Ghz.

Mobile Wi-Max is rapidly gaining territory and is expected to heat-up the competitive scenario. The mobile version of Wi-Max (802.16e) has the same characteristics as Wi-Max networks adding mobility. The mobile version is expected to attract the majority of the investments in this technology. Fixed Wi-Max is quickly being surpassed by the mobile version and likely will be discontinued soon. The major telecom operators consider that this version will be able to compete in urban areas as well, while fixed Wi-Max is more apt for rural and suburban areas.

In Argentina, most major cities have projects using Wi-Max. Cities like Buenos Aires, Rosario and Mendoza and the Municipalities of the Coastal resorts have all announced plans for the deployment of wireless infrastructure to support governments, schools and businesses.

The main Wi-Max operator in Argentina is Ertach, owned by Telmex. Ertach was the first company to deploy Wi-Max network in Latin America, in Argentina. In 2006, Ertach installed the most Southern Wi-Max node in the world in the Patagonian city of Rio Gallegos, Province of Chubut. In September 2007, Ertach/Telmex and Motorola announced the initial tests of mobile Wi-Max in Argentina and other Latin American countries. The company plans to offer mobile broadband in the semester of 2008. Ertached announced that they already have CPE without line of sight available. On the other hand, Nextel, which acquired Velocom in 2006, announced investments in Wi-Max following the announcements of Nextel/Sprint in the United States where the company plans to migrate the Motorola proprietary Iden technology to Wi-Max

British Telecom through the local subsidiary of Comsat (which BT acquired) is planning to migrate its 2.5 GHz network to the metropolitan area to offer fixed-mobile services with e-Wi-Max. The company would move the WLL network currently in that frequency to another province.

The major telecom operators, Telecom and Telefónica, also have plans to implement Wi-Max technology in the near future to expand their network to rural areas where their fixed line networks do not reach. The main services they will offer include wireless mobile broadband access to Internet, IP telephony and VPNs.

In Latin America, 63% of WiMax clients are corporate while the world trend shows that 57% are residential clients. The main providers of Wi-Max technology in Argentina are Airspan, Alvarion, Alcatel-Lucent, Nokia-Siemens, Ericsson and Nortel. The local market expects Notebooks with Wi-Max chips included/built-in in 2008. The Wi-Max chip is expected to be available in automobiles and digital and video cameras by 2010.

Market Access

The regulatory framework for telecom services in Argentina is quite open. Presidential Decree 764/2000 establishes the basic requirements to offer telecommunications services. The decree includes the Regulations on Interconnection, the Licensing regime, Spectrum Allocation and Universal Service.

Telecom service providers have to have one single license from the Argentine Secretariat of Communications to offer any or all telecom services. The license application must include a technical plan and a business plan. The technical plan must state the technology that will be used to offer the service. This is mandatory and has to be transparent to the regulator and to the end user. The technical plan also includes a timeline of the implementation and a full description, location and coverage of the network, with maps. The Business plan has to contain the investments to be made for the first three years. The Presidential decree allows for "freedom of technology."

Broadcasting is regulated in Argentina. Telecom operators are not allowed to offer broadcasting services (cable operators however, are allowed to offer telephony). To clarify the concept, the telecom companies can offer services such as IPTV, but only of content that is digitally stored, such as Video/Movie on Demand, i.e., content required by the client (not offered with no choice). The Regulatory body that rules the broadcasting industry is the COMFER – Comité Federal de Radiodifusión (Federal Broadcasting Comission). The law of "Bienes Culturales" also sets a limit to foreign ownership of 30% maximum to broadcasting companies/networks in Argentina. In the case of the U.S. the Bilateral Investment Treaty protects the existing U.S. owners/shareholders of broadcasting companies.

The Government body in charge of frequency allocation is the CNC, National Communications Commission. In a recent public appearance the Head of the CNC acknowledged the need to review several regulatory issues on important topics such as fixed-mobile convergence, the telecom-broadcasting issue and on the need to clean the 3G spectrum to set/prepare the market for the new services. Many industry analysts believe that the pace of the convergence, though natural and irreversible, will depend largely on Government input/intervention

There are no barriers to importing equipment for telecom services, though the products have to be certified by the Argentine Regulator (CNC – National Communications Commission). CNC approvals may at times take longer than is ideal for optimum time-to-market delivery by equipment providers. Import duties for telecom equipment into Argentina from non-Mercosur countries varies from 2% to 20%. Import duties on products from Brazil, as a member of Mercosur, are 0%. Brazilian made products are very competitive.

As for Electrical security, there are three basic requirements:

- mandatory provisioning of national standard plug (IRAM2073/2063).
- local certification
- market surveillance, applicable to products certified locally.

Market Entry

For telecom equipment providers, the most effective method for entering the Argentine market is through a local representative, distributor or partner. For service providers, there are several alternatives depending on the service. In some cases, the companies might need to establish an office in country. For government projects, tenders usually require companies be incorporated in Argentina, and have a number of years in the market with prior experience in similar projects. It is always advisable to have a local company that can communicate in the same language and that is able to provide technical support in an expedited manner.

Key Contacts

Government

Secretariat of Communications

Sarmiento 151 4th floor (1001) Buenos Aires, Argentina

Phone: (54-11) 4318-9410 Fax: (54-11) 4318-9432

Web Page: www.secom.gov.ar

Comments: Secretary of Communications

CNC - Comisión Nacional de Comunicaciones

Peru 103

(C1067AAC) Buenos Aires, Argentina Phone (54-11) 4318-9427/4347-9540/9542

Fax: (54-11) 4318-9408/4347-9546

Web Page: www.cnc.gov.ar E-mail: lawalos@cnc.gov.ar

Comments: National Communications Committee (FCC equivalent for telecom services and

products)

COMFER - Comité Federal de Radiodifusión

Address: Suipacha 765

(1008) Buenos Aires, Argentina Phone: (54-11) 4320-4900 Fax: (54-11) 4320-4950

Web Page: www.comfer.gov.ar Email: info@comfer.gov.ar

Comments: Equivalent to the FCC for Broadcasting services

Trade Associations

CICOMRA - Camara de Informatica y Comunicaciones de la Republica Argentina

Address: Av. Córdoba 744 2P. "D"

(1054) Buenos Aires Tel: (54-11) 4325-8839 Fax: (54-11) 4325-9604

Contact: Alfredo Ballarino, Executive Director

Email: cicomra@cicomra.org.ar

Comment: Argentine Association of Information Technology and Communications

CESSI - Camara de Empresas de Software y Servicios

Informaticos

Address: Paraguay 541 6th floor

(1035) Buenos Aires

Tel/fax: (54-11) 5217-7802 Contact: Carlos Palloti, President

Email: info@cessi.org.ar

Comment: Association of Software and Information Technology Services

CABASE - Camara Argentina de Bases de Datos

Address: Suipacha 128 3 Piso "F" (1008) Buenos Aires

Tel. y Fax: (5411) 4326-7352/0777 Contact: Mr. Patricio Seonane, President

Email: info@cabase.org.ar

Comment: Argentine Chamber of ISPs, ASPs, and other International carriers.

The Argentine NAP is located in its premises.

CaDMI – Camara Argentina de Distribuidores Mayoristas de Informática

Address: Avda. Belgrano 1217 piso 5 oficina 57 Código postal C1093AAA, Buenos Aires, Argentina

Tel/Fax (011) 4381-8671 Email: cadmi@cadmi.org.ar

www.cadmi.org.ar

Comment: Trade Association of Wholesale Distributors of Information Technology Products

CASEL - Camara Argentina de Seguridad Electrónica (Argentine Trade Association of

Electriconic Security)

Address: Moreno 957 7 floor, Of. 4

Buenos Aires, Argentina Tel: (5411) 5128-0026 Email: info@casel.org.ar

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Prince, Cooke y Asoc. S.A. Address: Ayacucho 1435 - 1°. B. (1111)Buenos Aires, ARGENTINA

Te/Fax: 54-11-4811-5522

Contact: Mr. Alejandro Prince, President

Email: info@princecooke.com

www.princecooke.com

Comments: Consulting and Market research firm. The company organizes a series of sector

events throughout the year of relevant topics of the sector

TVTelco Latam

Address: Viamonte 454 5to 9 (1053) Buenos Aires, Argentina

Tel: (54911) 6869-2068 Contact: Ariel Barlaro, CEO Email: arielb@tytelcom

www.tvtelco.com (IPTV and Mobile TV in Latam)

Signals Telecom Consulting Address: Lavalle 1675 4th Of. 10

(C1048AAM) Buenos Aires, Argentina

Tel/Fax: 54-11-5246-6690

Contact: Carlos Blanco, President Email: info@singalsconsulting.com

www.signalsconsulting.com

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Phone: 54-11-4899-2149

Contact: Enrique Carrier, Director Email: info@carrieryasoc.com

www.carrieryasoc.com

Trends Consulting

Address: Rivadavia 413 4th floor. Of. 6

(1002) Buenos Aires - Argentina

Phone: 54-11-4343-8899 Contact: Raul Bauer, President Email: <u>trends@trends.com.ar</u> http://www.trends.com.ar/

For More Information

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