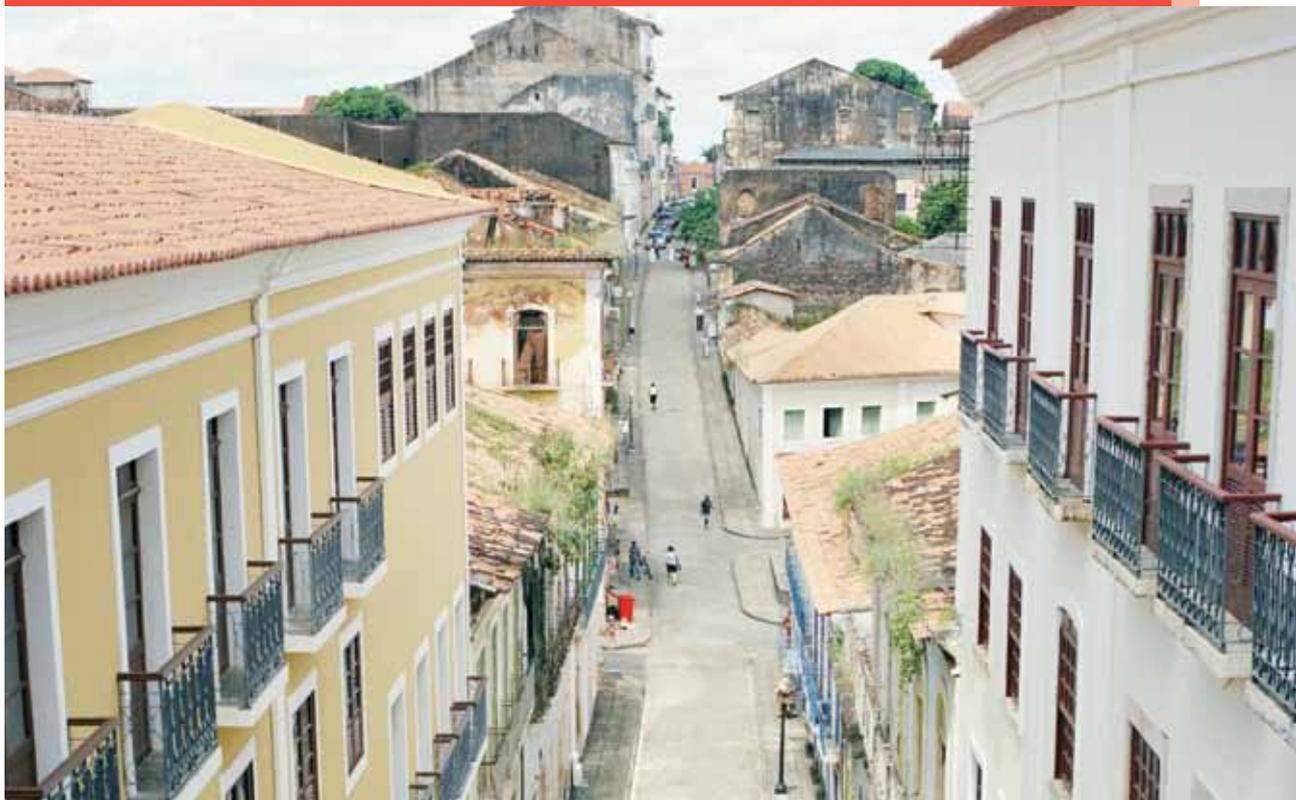


Communications Review

Exploring telecom markets in Latin America



pwc

A journal for telecom, cable, satellite and Internet executives
Volume 16, No. 2

Surveying the Latin American telecoms market
A closer look at:	
Brazil	
Chile	
Mexico	
Perspectives from telecom executives

Many would agree that most growth opportunities in telecoms today can be found in emerging markets. Latin America stands out as a region of diverse countries offering exciting opportunities, where the pace of change and development continues to flourish.

Communications Review

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Rapid growth heralds a bright future

For almost 20 years, the Latin American telecoms sector has undergone a transformation that is making it one of the most watched markets in the industry today. Fuelled by government privatisations and liberalisations throughout the region in the 1990s, the telecoms sector has been experiencing a growth spurt that just won't stop. The opportunities are attracting competition and investment not only from within the region, but also from operators abroad.

by Colin Brereton

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Market profile: Brazil

The political and economic stability in Brazil over the last few years has been critical in the growth of the telecom market. The increased purchasing power of the poorer classes of the population has significantly changed Brazilian consumption standards—both qualitatively and quantitatively—and has positively affected the industry. The National Broadband Plan, MVNO regulation, and new laws for cable TV provision are some of the recent changes that will bring even more opportunity and growth to this exciting market.

by Estela Vieira and Anderson Ramires

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Market profile: Chile

Despite the economic downturn and an earthquake in early 2010, the telecoms sector is performing better than are other sectors of the Chilean economy. The prepaid mobile sector is expanding, and more-positive government policies are encouraging investment in communication services and infrastructure. Although sector growth in Chile does face some hurdles, opportunities ranging from developing mobile apps in Spanish to outsourcing and sharing network infrastructure far outweigh the risks.

by Rafael Ruano and Dennis Mahorney

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Market profile: Mexico

Currently, the telecom market in Mexico is highly agitated. Competition among major players has increased, and some competitors have come together with the objective of opening competition in the sector. Mexico is highly urbanised, and its young, tech-savvy customers are stimulating greater demand for the latest products and services. With regulatory changes and government plans to help stimulate usage and penetration on the horizon, opportunities await operators in fixed and mobile broadband, bundling and cable TV services.

by Carlos López Cervantes and Ramiro Alaniz Martín

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Ernesto Gardelliano Movistar Argentina

Movistar's Chief Executive Officer Ernesto Gardelliano talks about where he sees value coming from in the future and what the new regulations mean for the market. He shares how innovation and a dynamic business model will help Movistar maintain its leading position in Argentina's increasingly competitive mobile market.

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Sergio Chaia Nextel Brazil

Its competitors are well aware that focusing on relationships is what differentiates Nextel Brazil. President and Chief Executive Officer Sergio Chaia discusses how the company will build on its relationships to continue growing rapidly into new segments—through new technologies, service offerings and social networking.

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Adrián Calaza Telecom Argentina

Being a fully integrated operator with a leading market position in fixed, mobile and broadband as well as information and communications technology brings competitive pressures from every front. Telecom's Chief Financial Officer Adrián Calaza discusses how the company uses differentiation to gain—and retain—customers as new services, operators and regulations change the market.

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Une croissance rapide est de bon augure pour l'avenir

Pendant près de 20 ans, le secteur latino-américain des télécommunications a entrepris une transformation qui en fait l'un des marchés les plus observés du secteur à l'heure actuelle. Dopé par les privatisations réalisées par l'État et par une politique de libéralisation dans l'ensemble des régions durant les années 1990, le secteur des télécommunications a connu une accélération de la croissance qui ne semble pas vouloir s'arrêter. Les opportunités attirent la concurrence et l'investissement non seulement à l'échelle régionale, mais également internationale.

par Colin Brereton

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Profil de marché : le Brésil

Au cours des dernières années, la stabilité économique et politique du Brésil ont constitué des facteurs primordiaux de la croissance du marché des télécommunications. L'augmentation du pouvoir d'achat des classes sociales les plus défavorisées de la population a profondément modifié les habitudes de consommation brésiliennes—tant sur le plan quantitatif que qualitatif—et a eu un impact positif sur le secteur. Parmi les récents changements qui renforceront encore les opportunités et la croissance de ce marché enthousiasmant, citons le National Broadband Plan (plan d'accès au haut débit), la réglementation MVNO, et les nouvelles lois régissant la télévision câblée.

par Estela Vieira et Anderson Ramirez

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Profil de marché : le Chili

Malgré le ralentissement économique et un séisme début 2010, le secteur des télécommunications affiche de meilleures performances que les autres secteurs de l'économie chilienne. Le segment de la téléphonie mobile prépayée se développe, et des politiques publiques plus favorables encouragent l'investissement dans les services et les infrastructures de communication. Bien qu'au Chili, la croissance du secteur soit confrontée à quelques difficultés, les opportunités allant du développement d'applications mobiles en espagnol à l'externalisation et au partage d'infrastructures de réseau sont largement supérieures aux risques.

par Rafael Ruano et Dennis Mahorney

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Profil de marché : le Mexique

À l'heure actuelle, le marché des télécommunications mexicain est en proie à une grande agitation. La concurrence entre les principaux acteurs s'est intensifiée, et certains concurrents se sont alliés avec pour objectif d'ouvrir le secteur à la concurrence. Le Mexique est très urbanisé et sa clientèle de jeunes rompus à la technologie stimule la demande des produits et services les plus récents. Avec à l'horizon des modifications réglementaires et des plans des pouvoirs publics destinés à doper l'utilisation et la pénétration, les opportunités ne seront pas des moindres pour les opérateurs de téléphonie fixe et mobile à haut débit, et pour les services de groupage et de télévision câblée.

par Carlos López Cervantes et Ramiro Alaniz Martín

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Ernesto Gardelliano Movistar Argentina

PDG de Movistar, Ernesto Gardelliano évoque les secteurs porteurs de valeur à l'avenir et les conséquences des nouvelles réglementations pour le marché. Il montre comment l'innovation et un modèle économique dynamique contribueront à préserver la position de leader de Movistar dans le marché argentin de la téléphonie mobile, où la concurrence fait rage.

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Sergio Chaia Nextel Brazil

Ses concurrents ont bien compris que la priorité que Nextel Brazil accorde aux relations constitue le facteur de différenciation de la société. Sergio Chaia, PDG de la société, analyse la façon dont Nextel exploitera ses relations pour poursuivre sa croissance rapide dans de nouveaux segments, grâce à des technologies et des services nouveaux, et aux réseaux sociaux.

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Adrián Calaza Telecom Argentina

Le fait d'être un opérateur totalement intégré occupant une position de leader sur le marché de la téléphonie fixe, mobile et du haut débit, ainsi que dans le domaine de la technologie de l'information et de la communication est à l'origine de pressions concurrentielles sur tous les fronts. Adrián Calaza, Directeur financier de Telecom analyse la façon dont la société s'appuie sur la différenciation pour gagner—et fidéliser—des clients dans un contexte d'évolution du marché induite par les réglementations, les services et les opérateurs nouveaux.

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El rápido crecimiento anuncia un futuro brillante

Durante casi 20 años, el sector de las telecomunicaciones de América Latina ha experimentado una transformación que le ha hecho uno de los mercados más observados de la industria actual. Impulsado por las privatizaciones y liberalizaciones del gobierno en la década de los 90, el sector de las telecomunicaciones ha experimentado un rápido crecimiento que no se detendrá. Las oportunidades están atrayendo a la competencia y a inversores, no sólo de la propia región, sino también del extranjero.

por Colin Brereton

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Perfil de mercado: Brasil

La estabilidad política y económica en Brasil de los últimos años ha sido fundamental para el crecimiento del mercado de las telecomunicaciones. El aumento del poder adquisitivo de la población más pobre ha cambiado de manera significativa el comportamiento de consumo en Brasil—tanto cualitativa como cuantitativamente—y ha repercutido de forma positiva en la industria. El Plan Nacional de Banda Ancha, la regulación MVNO y nuevas normativas para la prestación de televisión por cable son algunos cambios recientes que aportarán más oportunidades de crecimiento en este mercado.

por Estela Vieira y Anderson Ramires

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Perfil de mercado: Chile

A pesar de la recesión económica y un terremoto a principios del 2010, el sector de las telecomunicaciones se está desarrollando mejor que otros sectores de la economía chilena. El sector de telefonía móvil de prepago está en expansión, y las políticas gubernamentales más favorables están fomentando la inversión en servicios de comunicaciones e infraestructura. Aunque el crecimiento del sector en Chile se enfrenta a algunos obstáculos, las oportunidades que van desde el desarrollo de aplicaciones móviles en español a la externalización y el uso compartido de infraestructura de la red superan ampliamente los riesgos.

por Rafael Ruano y Dennis Mahorney

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Perfil de mercado: México

El mercado de las telecomunicaciones en México está inquieto. La competencia entre los principales actores ha aumentado, y algunos *players* se han unido con el objetivo de abrir la competencia en el sector. México está muy urbanizado, y sus jóvenes consumidores, expertos en tecnología están demandando los últimos productos y servicios. Con cambios normativos y planes del gobierno para ayudar a estimular el uso y la penetración, las oportunidades para los operadores se encuentran en banda ancha fija y móvil, en paquetes y servicios de televisión por cable.

por Carlos López Cervantes y Ramiro Alaniz Martín

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Ernesto Gardelliano, Movistar Argentina

El CEO de Movistar Argentina, Ernesto Gardelliano da su visión de lo que aportará valor en el futuro y lo que la nueva regulación significará para el mercado, además de destacar que la innovación y un modelo de negocio dinámico ayudarán a Movistar a mantener su posición de liderazgo en el mercado de telefonía móvil de Argentina, cada vez más competitivo.

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Sergio Chaia Nextel Brazil

Sus competidores son conscientes de que Nextel Brasil se diferencia por dar mucha importancia a las relaciones. El presidente y consejero delegado Sergio Chaia considera éstas la base para seguir creciendo rápidamente en nuevos segmentos—a través de las nuevas tecnologías, ofertas de servicios y redes sociales.

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Adrián Calaza Telecom Argentina

Ser un operador totalmente integrado con una posición líder en telefonía fija, móvil y banda ancha, así como en tecnologías de la información y las comunicaciones implica una presión competitiva en todos los frentes. El director financiero de Telecom Argentina Adrián Calaza analiza cómo la empresa utiliza la diferenciación para atraer—y retener—a los clientes con nuevos servicios, los operadores y las regulaciones cambiando el mercado.

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Schnelles Wachstum bringt glänzende Zukunftsaussichten

Der Telekommunikationssektor in Lateinamerika hat einen fast 20-Jahre-langen Transformationsprozess hinter sich. Das macht ihn heute zu einem der interessantesten Märkte in der Branche. Angetrieben durch Privatisierung und Liberalisierung in den 1990er Jahren, erlebt der Telekommunikationssektor einen Wachstumsschub, der gar nicht enden will. Die sich dabei eröffnenden Möglichkeiten ziehen nicht nur Wettbewerber und Investoren aus der Region an, sondern locken auch internationale Telekommunikationsbetreiber

von Colin Brereton

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Markt im Fokus: Brasilien

Die politische und wirtschaftliche Stabilität in Brasilien war in den letzten Jahren der kritische Faktor für das Wachstum im Telekommunikationssektor. Die zunehmende Kaufkraft von den ärmeren Bevölkerungsschichten hat die Konsumstandards sowohl qualitativ als auch quantitativ signifikant verändert und die Branche positiv beeinflusst. Der nationale Breitbandplan, Regulierung von virtuellen Mobilfunkdiensten und neue Gesetze für Kabel-TV-Bereitstellung sind einige der neuesten Änderungen, die noch mehr Möglichkeiten und Wachstum auf diesen spannenden Markt bringen werden.

von Estela Vieira und Anderson Ramires

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Markt im Fokus: Chile

Trotz des wirtschaftlichen Rückgangs und des Erdbebens Anfang 2010, entwickelt sich die Telekommunikationsbranche besser als die anderen Sektoren der Chilenischen Wirtschaft. Der Prepaid-Mobilfunkmarkt wächst und die offenere Politik der Regierung fördert die Investitionen in Telekommunikationsdienste und -infrastruktur. Obwohl der Telekommunikationssektor in Chile vor einigen Herausforderungen steht, überwiegen die sich anbietenden Möglichkeiten—von Entwicklung mobiler Apps in Spanisch bis Outsourcing und gemeinsamer Nutzung von Netzinfrastruktur, bei weitem die Risiken.

von Rafael Ruano und Dennis Mahorney

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Markt im Fokus: Mexiko

Der Telekommunikationsmarkt in Mexiko ist aktuell sehr aufgewühlt. Der Wettbewerb zwischen den wichtigsten Marktplayern nimmt zu und einige Marktteilnehmer verfolgen das Ziel, den Sektor für weiteren Wettbewerb zu öffnen. Mexiko ist stark urbanisiert und seine jungen, Technik-affinen Konsumenten treiben die Nachfrage nach neuesten Produkten und Diensten. Mit den Regulierungsänderungen und Regierungsplänen zur Förderung der Nutzung und Breitbandpenetration am Horizont, warten zahlreiche Chancen auf Anbieter mobiler und stationärer Breitbanddienste, Paketlösungen und Kabel-TV.

von Carlos López Cervantes und Ramiro Alaniz Martín

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Ernesto Gardelliano Movistar Argentina

Der CEO von Movistar Ernesto Gardelliano erzählt, woher die Wertsteigerungen seiner Meinung nach in der Zukunft kommen werden und was die neuen Regulierungsvorschriften für den Markt bedeuten. Er berichtet, wie Innovation und ein dynamisches Geschäftsmodell Movistar zu seiner Marktführerposition im zunehmend umkämpften Mobilfunkmarkt in Argentinien verholfen haben.

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Sergio Chaia Nextel Brazil

Seine Konkurrenten sehen ganz klar, dass der Fokus auf Beziehungen das wichtigste Unterscheidungsmerkmal von Nextel Brazil ist. Der Präsident und CEO Sergio Chaia erörtert, wie das Unternehmen seine Beziehungen als Grundlage nutzen wird, um schnell in neue Marktsegmente—neue Technologien, Servicedienste und soziale Netzwerke, zu expandieren.

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Adrián Calaza Telecom Argentina

Ein vollintegrierter Telekommunikationsbetreiber mit Marktführerposition sowohl in Festnetz- als auch in Mobil- und Breitbanddiensten sowie in Informations- und Kommunikationstechnologie zu sein bedeutet Wettbewerbsdruck von allen Seiten. Adrián Calaza, CFO von Telecom, Argentinien geht auf die Frage ein, wie sein Unternehmen Spezialisierung nutzt, um trotz neuer Dienste, Anbieter und Regulierungsvorschriften Kunden zu gewinnen und zu halten.

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快速增长预示美好未来

近20年中拉丁美洲的电信行业经历着持续的变革，收益于此，时至今日拉美电信业已成为全球最受瞩目的市场之一。在贯穿于20世纪90年代的政府推进的私有化历程与区域开放浪潮的合力推动下，电信行业展现出永不停歇的井喷式增长。这片生机盎然市场所带来的商机不但促进了竞争，同时也吸引了地区乃至国际投资者的目光。

作者：Colin Brereton

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市场概况：巴西

近些年中巴西政局与经济的稳定对当地电信行业的增长的重要性不言而喻。贫民阶层日益增长的购买力在质与量层面上不断变化，很大程度上改变了巴西的整体消费水平，并且对其电信行业的发展起到了积极的刺激作用。而今诸如“国家宽带计划”，“移动虚拟网络运营商监管章程”以及部分为有线电视颁发的新法律章程等一批新的变革陆续出现，均将为这个充满活力的市场带来更多机遇与增长。

作者：Estela Vieira 和 Anderson Ramires

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市场概况：智利

尽管受到经济危机与2010年初地震的影响，智利电信行业的业绩表现还是要好于其国内经济中任何其他行业。预付话费的移动业务正在扩增，政府相关政策也积极地鼓励投资流向通信服务与基础构架建设领域。尽管智利电信领域的发展仍面临一些障碍，但新的商机诸如为发展基于西班牙语的移动应用程序及提供外包服务和共享网络基础设施等所带来的潜在收益势必远远大于其内在风险

作者：Rafael Ruano 和 Dennis Mahorney

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市场概况：墨西哥

墨西哥移动通信市场正经历动荡：主流运营商之间的竞争在加剧，一些竞争对手为了开放竞争的目的已经联合起来。墨西哥的城市化程度很高，其中年轻的、技术内行的顾客对最前沿的通信产品与服务有着强大的需求。随着政府为了提高通信应用率及普及率而制定计划的出台以及监管制度的改变，墨西哥在固定、移动宽带、捆绑运营及有线电视服务等领域存在着无限的商机。

作者：Carlos López Cervantes 和 Ramiro Alaniz Martín

行业展望

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Ernesto Gardelliano Movistar Argentina

阿根廷阿根廷移动通信运营商Movistar公司首席执行官Ernesto Gardelliano阐述了他眼中的未来价值来源以及新政策对市场的影响。同时他还分享了如何运营技术创新与充满活力的商业模式令Movistar在竞争激烈的阿根廷移动通信市场保持其主导领先地位的宝贵经验。

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Sergio Chaia Nextel Brazil

巴西竞争对手们已经充分意识到，专注于多边关系是Nextel公司在巴西能区别于其他公司的显著特点。公司主席兼首席执行官Sergio Chaia谈论了公司如何通过科技研发，服务提供与社交网络来建立属于企业自身的关系网络进而使公司在新领域里保持快速增长。

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Adrián Calaza Telecom Argentina

阿根廷作为一个在固定电话、移动通信与宽带以及信息和通信技术等领域处于市场领先地位的运营商，Telecom Argentina切实感受到行业里各方面的竞争压力。公司财务总监Adrián Calaza阐述了公司是如何利用差异化运营手段，在服务方式，运营特点及规章制度均不断变化的市场中有效留存老客户并发展新客户。

Message from the editor



Welcome to the latest edition of *Communications Review*. This issue is published on the heels of our annual Global Communications Forum, where speakers and participants engaged in lively, insightful debates on the event's overarching theme, 'Visualising 2015'. They discussed the opportunities, challenges and concerns communications operators face as they prepare for an always-on, globalised world dominated by digital technologies.

A recurrent topic at the Forum was the tremendous opportunity presented by emerging markets. Appropriately, we've dedicated this issue of *Communications Review* to a region whose emergence onto the world stage by 2015 is set to be nothing short of explosive.

Of course, I'm referring to Latin America: an area of the world that has decisively thrown off the shackles of over-regulation and economic stasis, and is now developing and growing apace, rapidly closing the gap on other regions. As in Asia, the communications industry in Latin America is in the vanguard of this transformation. Global and local operators are battling it out in a dynamic, competitive marketplace to become the providers of choice to the region's increasingly demanding digital consumers.

Looking closely at the growth opportunities for operators in this burgeoning market, we find its potential to be not only enormous but also barely realised to date. In our first article, "Rapid growth heralds a bright future," we examine the history and development of the telecoms industry in Latin America. We look at the forces that have shaped the market, including deregulation, privatisation and mergers and acquisitions. All those trends are continuing—heralding further growth and revenue opportunities in the future.

In the following three articles, we turn to the country level, analysing the developments and growth in three major national markets. First, in "Market profile: Brazil," our authors Estela Vieira and Anderson Ramires examine the industry in Brazil, a country poised to become a global economic force during the coming decade. Our authors describe how Brazil's government—ably supported by the country's independent and autonomous regulatory body, the National Telecommunications Agency (Anatel)—is working hard to foster a vibrant and competitive communications industry consistent with the country's rising global status.

Opportunities created by the increasing purchasing power of Brazil's population of almost 200m people, together with surging investment triggered by the 2014 World Cup and the 2016 Summer Olympics, will be partially offset by the challenges of a high tax burden. But no doubt Brazil's communications industry—like the country itself—is heading only one way, and that's upwards. The question is how fast.

In the next article, “Market profile: Chile,” authors Rafael Ruano and Dennis Mahorney switch the focus to a smaller but no less interesting national market: Chile. Having weathered the financial crisis in 2009 and the disastrous earthquake in February 2010, Chile’s telecoms industry is now showing signs of renewed growth. Its prepaid mobile sector is expanding and more-positive government policies are encouraging investment in communication services and infrastructure. Growth in Chile does face some significant hurdles—not least being the need to make Internet access more affordable and available to all. But more than outweighing the risks are opportunities that range from developing mobile apps in Spanish to outsourcing and/or sharing network infrastructure.

The third of our country-focus articles is on Mexico. Within the past few years, the Mexican market has seen intensifying competition between operators, keener pricing, rapid convergence and bundling of formerly separate services, and regulatory initiatives to encourage efficiency and competition. In “Market profile: Mexico,” authors Carlos López Cervantes and Ramiro Alaniz Martín highlight the importance of the country’s urbanised, comparatively young, tech-savvy population in fueling demand for the latest products and services. With mergers and acquisitions

and regulatory changes continuing to reshape the landscape, the industry there is both dynamic and energised. Intense interest surrounds forthcoming developments, such as the Mexican government’s plans to implement fibre links to all communities across the country, including in rural areas.

Finally, in our ‘Perspectives’ section, we meet three movers and decision makers who are moulding the future for Latin America’s communications providers and customers alike. Our first interview is with Ernesto Gardelliano, Chief Executive Officer of Movistar Argentina, part of Telefónica. He discusses where he believes value will come from in the future amid shifting industry regulation and business models. A recurrent theme is the vital importance of innovating and staying ahead of the competition. He comments: “Innovation is increasingly linked to growth and value in our company, and it is of vital importance to us to remain leaders.”

Next up is Sergio Chaia, President and Chief Executive Officer of Nextel Brazil, a company that differentiates itself through deep relationships with its customers, its employees and its parent company, NII. He points out that two-thirds of the company’s net growth in subscribers comes via referrals from existing clients, and only one-third from pure prospecting. That statistic is a testament to the depth of Nextel’s customer relationships.

Last but not least, we meet Adrián Calaza, Telecom Argentina’s Chief Financial Officer, who describes how his business differentiates itself to win and retain customers in a fast-changing market. He shares the interesting highlight that 10% of Telecom Argentina’s customer base now have smartphones, and adds: “Everything that creates more appetite among customers to use data or the Internet is an opportunity for us.”

As all our articles illustrate, Latin America is now one of the most exciting places—some would argue *the* most exciting place—to be in today’s global communications industry. In my role as managing editor of this publication, what especially excites me is hearing back from you with your views and comments, whether on this edition in particular or on *Communications Review* in general. My lines are always open. So please feel free to send any comments to me at colin.brereton@uk.pwc.com, or to call me on [44] 20 7213 3723.



Colin Brereton
Partner
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Rapid growth heralds a bright future

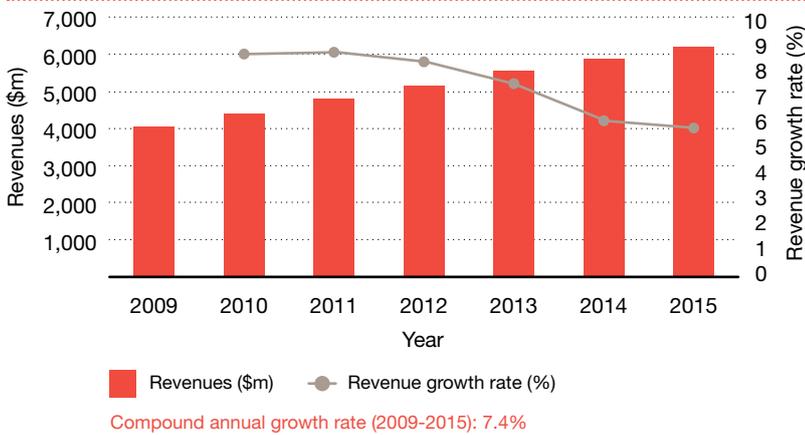
For almost 20 years, the Latin American telecoms sector has undergone a transformation that's making it one of the most watched markets in the industry today. Fuelled by government privatisations and liberalisations throughout the region in the 1990s, the telecoms sector has been experiencing a growth spurt that just won't stop. A combination of trends—economic growth, consumer demand and further regulatory changes—is moving countries across Latin America to continue investing and innovating to meet the communications needs of consumers and businesses. In most of the countries, mobile and broadband offer major opportunities and are attracting competition not only from local operators, but also from abroad.

By Colin Brereton

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Figure 1: Total data communications services market: Revenue forecasts for Latin America, 2009-2015



Note: All figures are rounded; the base year is 2009. Source: Frost & Sullivan

Today, Latin America’s communications market—and its mobile services sector in particular—is recognised globally as one of the industry’s highest-potential-growth markets. Alongside Asia-Pacific, Latin America is projected to lead the global expansion in communication services over the next few years. A combination of economic growth, rising consumer demand and regulatory changes should continue to foster competitive dynamics and the growth of usage and revenues.

The resulting forecasts speak for themselves. For example, Frost & Sullivan has projected that the total data communication services market in Latin America—led by strong growth in Brazil and Mexico—will grow from US\$4,023.7m in 2009 to US\$6,188.9m in 2015, giving a compound annual growth rate of 7.4% (see Figure 1).

The communications market in Latin America is recognized globally as one of the industry's highest potential-growth markets.

The foundations for this strong growth were laid in the late 1990s and early 2000s, when governments across Latin America profoundly transformed their telecommunications sectors. Until the early 1990s, communication services in Latin America, similar to many markets in Europe, were dominated by monolithic, often state-owned, monopoly providers.

But from around 1995, governments began to unshackle their communications industries. A wave of privatisations and liberalisations created the basis for today's rapid growth. By 2004, 18 of the 20 countries in the region had privatised and liberalised the industry.

In undertaking these reforms, the governments' primary objective wasn't always to unleash the industry's entrepreneurial and competitive spirit. In many cases, they were addressing strains on state finances, trying to tap into increasingly mobile capital around the world and responding to advances in technology. In combination, these factors gave politicians little choice but to adopt pro-market policies that favoured competition.

Regional giants arising from the competitive scramble

The resulting deregulation set the scene for an open and competitive market with various players vying for market share. Amid this competitive scramble, two major players seized the initiative and emerged as the primary consolidators and competitors in many countries in the region.

One was América Móvil, now the region's largest wireless carrier. In 2010, América Móvil merged with Telmex Internacional, gaining telephone, Internet and television networks in Brazil and the rest of South America. The billionaire Carlos Slim already owned both companies.

The other regional giant is the Spanish firm Telefónica, which is América Móvil's main competitor in many Latin American countries. Telefónica laid down a solid platform for growth throughout the region by purchasing BellSouth's mobile operations in ten Latin American countries in 2004. Today, Telefónica's Movistar is a major player in the region, being the largest provider in Chile, Venezuela, Brazil and Peru and the second largest in Mexico.

Convergence gathering pace

The strategic focus of communications service providers in Latin America—as the América Móvil/Telmex deal reflects—is to bring together formerly distinct services and channels to create a consistent, seamless experience for customers. With many economies in the region growing rapidly, especially Brazil's, consumers are increasingly able and willing to pay for communication services.

To capture these opportunities, operators are continuing to expand their 3G networks to support mobile data services. With the region having relatively low fixed broadband penetration rates, fixed and mobile operators are competing vigorously to become consumers' provider of choice for broadband services. Many Latin American consumers' first experience of the Internet is via mobile, and mobile operators are looking to capitalise on this fact.

A recent report from researchers Analysys Mason underlines the extent to which the impact of mobile subscriber growth on revenues will be magnified by the rising average revenue per subscriber. According to its study, *The Central and Latin American telecoms*



market: trends and forecasts 2009 -2014, mobile data revenue from handsets is set to grow more than twice as fast as subscriber numbers, from US\$4.5bn in 2009 to US\$10.6bn in 2014. Revenue from mobile broadband will rise even faster, from US\$1.4bn in 2009 to US\$6.4bn in 2014.

Handsets selling massively to the masses

Further evidence that digital communication services in Latin America should grow rapidly and advance over the next few years comes from the research house IDC. Released in June 2011, with its latest *Worldwide Quarterly Mobile Phone Tracker*, IDC's research indicates that smartphone sales in the ten Latin American countries it tracks will reach 34m units in the calendar year 2011. And the region's total smartphone sales in the first quarter of 2011 were up by two-thirds, or 66%, compared to the same period in 2010, at 6m devices.

The huge potential of the Latin American mobile communications market is visible in the headlong growth in sales of traditional handsets, as mobile communications become an increasingly mainstream part of people's lifestyles. IDC says that total sales of all types of mobile phones in Latin America reached 40m devices in the first three months of 2011, a rise of 28% from a year earlier.

This means that smartphones now account for 15% of Latin America's mobile device market by volume. IDC projects that by 2014, the region's smartphone market will grow to 100m devices a year—and that supporting the expansion will be decreasing unit prices, which are expected to drop by up to 50% in the same period.

This growth reflects the dual impact of strong economic growth and increased demand from consumers in many countries, especially Argentina, Mexico, Venezuela and Brazil. With people across the region increasing their use of mobile applications, social networking, gaming and multimedia messaging, Latin America is now closing the gap on other smartphone markets worldwide.

Announcing the latest growth projections, senior IDC research analyst Kevin Restivo commented: "The smartphone floodgates are open wide. Mobile phone users around the world are turning in their 'talk-and-text' devices for smartphones, as these devices allow users to perform daily tasks like shopping and banking from anywhere. The growth trend is particularly pronounced in emerging markets where adoption is still in its early days. As a result, the growth in regions such as Asia/Pacific and Latin America will be dramatic over the coming years."

Regulatory reform aiming to realise market potential

Governments in Latin America—and the communications regulators who implement their policies—are eager to create conditions favourable to the continued growth and development of the industry and its services. In doing so, they are drawing on regulatory lessons from more mature markets.

For example, in Brazil, the region's largest communication services market, the industry regulator Anatel has announced plans for an ambitious overhaul of the country's regulatory framework. Anatel's General Plan for Updating Telecom Regulations, known as PGR, includes plans to open up networks in the country to new entrants through local loop unbundling and regulations requiring structural or functional separation of networks and services. These regulatory changes echo approaches seen in Europe, Australia, New Zealand and Singapore.

Latin America's communications market has come a long way in the past two decades. But with market, social and regulatory factors all moving in the same direction, its potential for further advances is astounding.

In the following pages, we present more detailed information on the developments and opportunities in the communications markets in Brazil, Chile and Mexico.

Market profile: Brazil

Thirteen years after the Brazilian telecoms industry was privatised, its revenues for 2010 were US\$114bn, which represented 5% of the gross domestic product. The political and economic stability in Brazil over the last few years has been critical in the growth of the telecom market. The increased purchasing power of the poorer classes of the population has significantly changed Brazilian consumption standards—both qualitatively and quantitatively—and has positively affected the industry. The National Broadband Plan, regulation of mobile virtual network operators and new laws for cable TV provision are some of the recent changes that will bring even more opportunity to this exciting market.

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The Brazilian telecommunications industry, as it is today, results from a process of deregulation and the opening of trade that began in the second half of the 1990s. At that time, a series of laws were approved that redefined the principles of competition and universalisation for the telecoms industry, as well as allowed foreign companies to invest in Brazil.

Before privatisation, the Brazilian telecom market was operated mainly under a monopoly regime, with Telebrás being the central figure. Telebrás was a state holding company that controlled a group of 27 subsidiaries. Most of them operated local landlines and mobile lines, and one company operated national and international long distance calling.

Once the Mobile Law was approved in 1996, Brazil began to pave the way for deregulating the industry. In 1997, Brazil held its first auction. Nine licences to provide mobile telephony in nine distinct regions of the country were auctioned, creating competition to the state-owned mobile companies. But it was after the approval of the General Telecommunication Law in 1997 that the industry experienced deep changes. The National Telecommunications Agency (Anatel), an independent and autonomous regulatory body, was created as well as a new regulatory framework for the industry and, consequently, new guidelines for privatising Telebrás.

Reorganised in 1998, Telebrás got a new structure that included:

- three companies authorised to provide local landline service in three distinct regions of the country
- one company authorised to provide national and international long distance calling
- eight companies authorised to provide mobile service in eight distinct regions of the country.

With the privatising of Telebrás concluded in 1998, the Brazilian government, through Anatel, began to create regulatory conditions to stimulate competition in the industry in all the regions of the country. This involved licence auctions for new companies to operate in the landline, mobile and national and international long distance segments.

Thirteen years after privatisation, the Brazilian telecoms industry revenues for 2010 were R\$185bn (US\$114bn), which represented 5% of the gross domestic product (see Figure 1).

The market segments

Local landline

Reorganising Telebrás into three companies to provide local landline service accompanied the division of Brazil into three large regions. Each one of these regions was to be

served by one of the new incumbent companies. When the companies were sold to private investors in 2001, the regulatory body began the process of approving new authorisations so that competitors also could provide local landline services. Complementary regulatory initiatives—such as breaking a regional monopoly by the incumbent companies, implementing number portability and implementing (still in process) models to calculate regulated tariffs based on the real costs—aimed to create a more effective competitive environment for the segment.

After more than a decade, the regulatory efforts to create an effective competitive environment in the local landline segment were not enough. At the end of 2010, only two operators represented approximately 74% of the landlines in service.¹

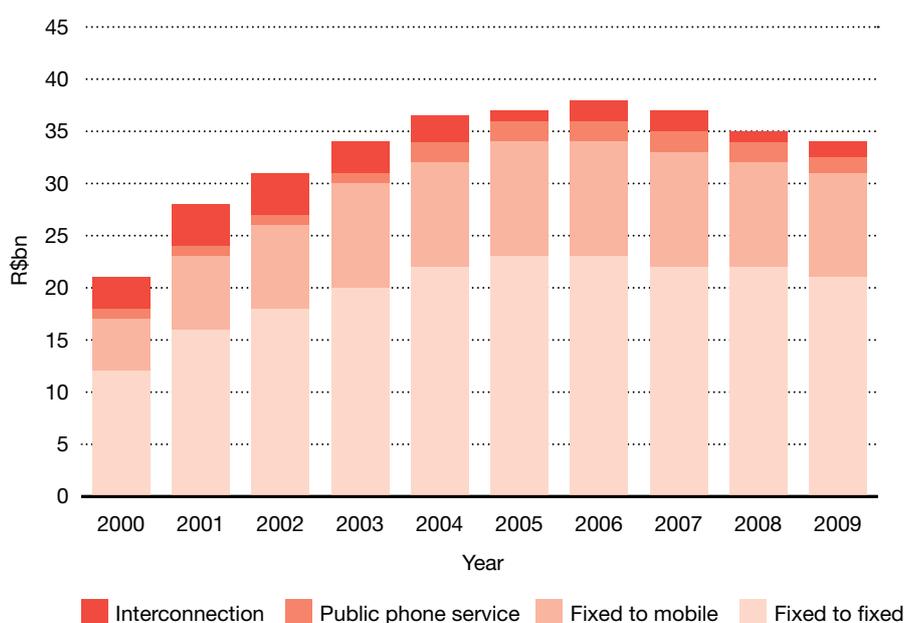
Following the global trend, the industry has been suffering consistent drops in revenues as a result of the reduction in the number of lines in service and in the traffic routed (see Figure 2).

Figure 1: Brazilian telecom revenue by segments, 2010

Segment	Operating gross revenue (change from 2009)	Users (change from 2009)	Accesses per 100 inhabitants
Equipment	R\$16.7bn (-9.0%)	N/A	N/A
Landline telephony (local, long distance and broadband)	R\$76.4bn (0.0%)	42.0m (1.2%) Telephony 13.8m (21.3%) Broadband	21.6 7.1
Mobile telephony (local and broadband)	R\$79.8bn (11.5%)	202.9m (16.7%) Telephony 20.6m (136.8%) Broadband	104.7 10.6
Cable TV	R\$12.0bn (12.7%)	9.8m (30.7%)	5.0

Source: O Desempenho do Setor de Telecomunicações no Brasil Séries Temporais—2010—Telebrasil/2011.

Figure 2: Growth of gross revenue for Brazilian local landline service



Source: O Desempenho do Setor de Telecomunicações no Brasil Séries Temporais—2010—Telebrasil/2011.

1 Sources: Anatel, DFP Telefonica and DFP Oi.

Long distance service

When the industry was privatised, one incumbent operator, Embratel, was authorised to provide national and international long distance service. Different from the local landline service, this segment reached such a high level of competition that the regulatory body began discussing, in early 2011, deregulating the pricing system for international calls as of 2016.

Although the national long distance segment has not reached the level of competition that—in the understanding of the regulatory body—permits implementing a free pricing regime, this market is more dynamic and developed than is the local landline market. At the end of 2010, four companies were responsible for 94% of the long distance

revenue, with individual market share varying from 12% to 48%. In comparison, at the end of 2009, the same companies were responsible for 93% of the segment revenue, but with individual participation varying from 17% to 27%.

Regulatory guidelines that contribute to successful competition in the long distance segment include:

- simplifying the approval process for providing long distance service
- requiring users to choose an operator for long distance calls for landline or mobile phones
- defining specific regulations for agreements and contracts of inter-operator traffic.

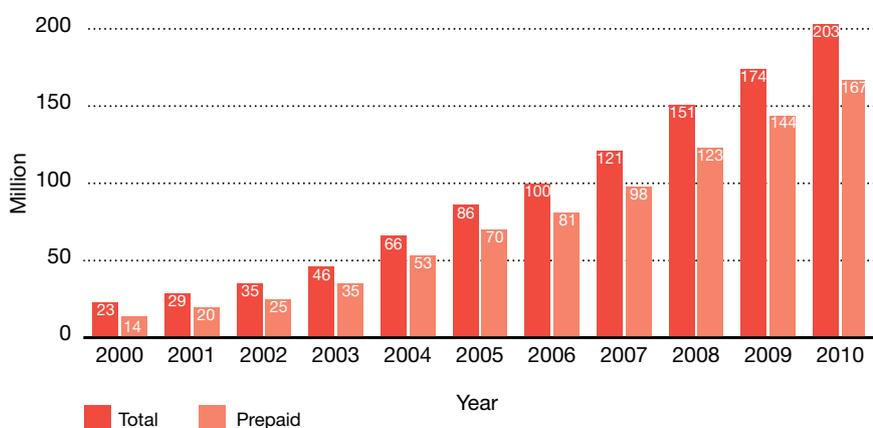
Mobile telephony

Initially, eight privatised companies operating in eight regions of the country formed the mobile segment. Four major companies now dominate the segment, and they offer service nationally to 97.2% of the Brazilian municipalities.

From the point of view of consumers, the segment closed 2010 with a density of 104.7 subscribers per 100 inhabitants and a base of 202.9m subscribers. That was 16.6% higher than in the previous year, when 82.3% were prepaid (see Figure 3).

The effectiveness of competition in the sector is evident in the reduced average price per minute of voice service. This has, of course, resulted in lower average revenue per user (ARPU) and a significant increase in minutes of use (MOU), as presented in Figure 4.

Figure 3: Growth of mobile subscribers in Brazil



Source: O Desempenho do Setor de Telecomunicações no Brasil Séries Temporais – 2010 – Telebrasil/2011.

Figure 4: Average revenue per mobile user compared to minutes of use

Mobile voice	2T08	4T08	2T09	4T09	2T10	4T10
Average price per minute (R\$)	0.26	0.27	0.28	0.20	0.18	0.17
ARPU (R\$)	24.9	24.5	21.4	21.4	19.0	18.9
MOU	94.1	89.8	75.6	104.6	106.1	114.0

Source: O Desempenho do Setor de Telecomunicações no Brasil Séries Temporais – 2010 – Telebrasil/2011.

MVNO: The challenge

Studies indicate that currently there are more than 202m mobile subscribers in Brazil, with more than 80% of those prepaid. It is expected that by 2015, the Brazilian market will have 10 to 16 million subscribers using MVNOs and the revenue of this new business model could reach R\$1bn.

MVNOs will have several positive effects on the overall Brazilian telecom market as they create an efficient cost benchmark in the industry and will help accelerate rollout and adoption of specialised data services. However, the Brazilian MVNO model is no different than any other business and must have a source of sustainable competitive advantage if it is to create value for investors.

Successful MVNOs achieve competitive advantage by effectively leveraging their existing assets to generate customer growth with low customer acquisition costs. It is this leverage that provides the basis for a good business 'story'. Traditionally, MVNOs seek to leverage the following assets:

- Existing customers—it is easier to sell a new service to existing customers than it is to win entirely new customers
- Brand—to be successful the leveraged brand must drive the purchase of mobile telephony
- Distribution—existing channels to market will help reduce the cost of customer acquisition
- Content—for some, mobile provides simply another media for the distribution of existing content
- Convergence—bundling of multiple communication services is increasingly common and has been shown to increase customer loyalty. Moreover, it is important for network operators to out-speed competitors in developing a portfolio of exclusive partners from the widest choice of potential brands.

The Brazilian mobile market is already very competitive with four main operators (VIVO, Claro, Oi and TIM). Thus, new MVNOs will need to apply and select multiple partners in order to operate in different areas of the country, making the selection of the network partner probably the most critical outsourcing decision for these new operators.

Anatel has focused its regulatory efforts mainly on matters related to scarce resources and quality of service. Those issues were the basis for the publication of the mobile virtual network operator (MVNO) rules at the beginning of 2011 to—in theory—increase market competition. This regulation creates new business opportunities for two groups. Established operators get the opportunity to capitalise their network and provide infrastructure to companies aiming to enter the market. And wholesale and niche companies gain the opportunity to capitalise, respectively, their established customer base and their experience in providing specific services to specific groups of customers (see sidebar).

Broadband

The growth of broadband in Brazil has accelerated, due mainly to mobile broadband. The 1.7m subscribers to mobile broadband in 2008 grew to 20.6m at the end of 2010, reflecting the increasing demand for content through mobile devices.

In landline broadband, the evolution has been less pronounced. Growth was low from 2008 to December 2010, when the base increased from 10.0m to 13.8m subscribers. That represents a density of 7.12 subscribers per 100 inhabitants. With landline operators providing 65% of the subscriber lines in December 2010, the low level of competition in the segment is one of the main factors that justify the low penetration of landline broadband in Brazil. Three major operators offer broadband, two over ADSL and one over cable modem.

Paralleling telecom operators that offer landline broadband, cable TV operators are offering broadband—and that's growing significantly. From March 2009 to December 2010, the cable broadband base increased by 43%, from 2.68m to 3.82m subscribers.

Cable TV

Brazilian cable TV reached 9.8m subscribers in 2010, representing a density of 5 subscribers per 100 inhabitants. That number is low compared to the potential market of 57.5m homes occupied, according to data from the 2010 census published by the Brazilian Institute of Geography and Statistics.

On the other hand, this market is expanding. The growth of 25% in 2010 was split almost evenly between cable and DTH technologies. DTH technology has been important in expanding the market because of its facility in serving cities and regions that don't have cable

infrastructure. The DTH market grew 61% from 2009 to 2010, from 2.8m to 4.5m. Cable TV subscribers, though, grew 15%, from 4.3m to 5.0m, over the same period (see Figure 6).

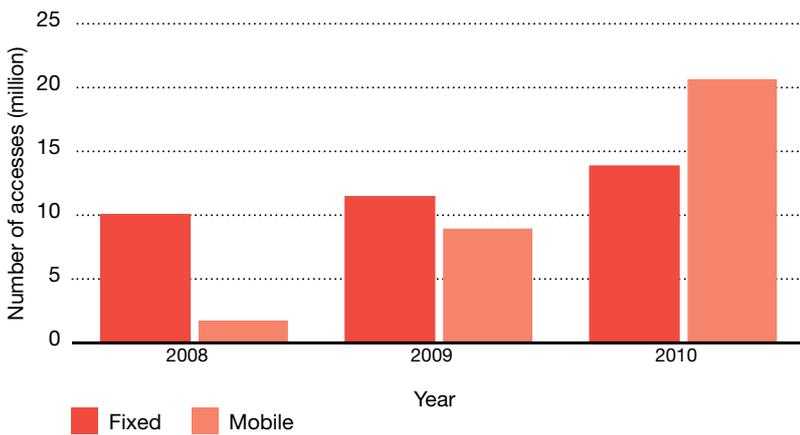
Looking ahead to hurdles and opportunities

The political and economic stability in Brazil over the last few years has been critical in the growth of the telecom market. The increased purchasing power of the poorer classes of the population has significantly changed Brazilian consumption standards—both qualitatively and quantitatively—and has positively

affected the industry. Brazilian economic development linked to investments related to hosting the World Cup in 2014 and the Summer Olympics in 2016 should prove promising for the telecoms industry.

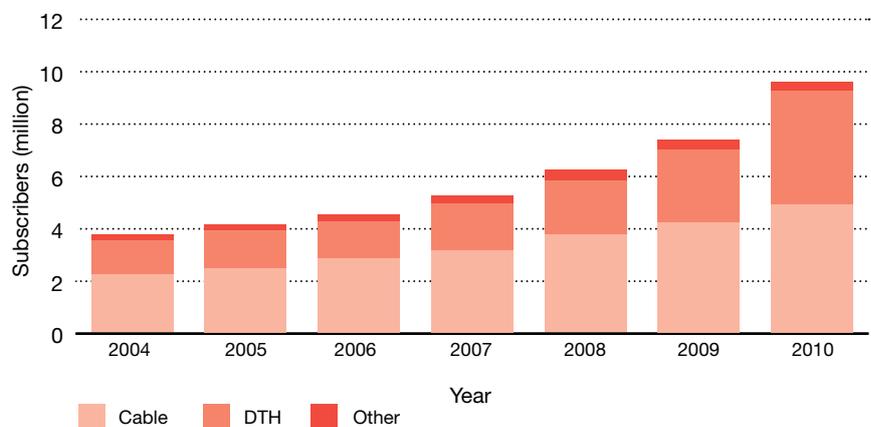
On the other hand, the high tax burden that the federal, state and municipal spheres are imposing on telecom services creates one of the industry's main challenges. Tax rates are negatively affecting the operators' investments and the prices consumers have to pay for services.

Figure 5: Growth of fixed and mobile broadband subscribers in Brazil



Source: Teleco (www.teleco.com.br).

Figure 6: Growth of cable TV subscribers in Brazil by technology



Source: Teleco (www.teleco.com.br).

In the landline telephony segment, the worldwide trend of reducing the access lines is a trend also in Brazil. It puts more pressure on operators to be more efficient, to decrease costs and to increase income through other services. This situation represents an important challenge for the companies, as the marginal EBITDA [earnings before interest, taxes, depreciation and amortisation] of voice revenue is higher compared to the marginal EBITDA of other services offered.

Those combined factors should cause operators to further diversify and refine their market strategies. And that effort should stimulate competition, mainly in the secondary markets that currently have lower penetration and less sophisticated products than the more mature markets have.

In parallel to e-market pressures, the General Plan of Competition Goals (Plano Geral de Metas de Competição, PGMC), expected to be published by Anatel in 2011, may put more pressure on companies that hold significant market power. Although the regulator is still analysing and discussing this proposal, the regulation involves a series of obligations that companies holding significant market power must meet. Examples include expanding transparency in wholesale data and reserving part of the network to offer to competitors, including the obligation to offer bitstream unbundling.

For the mobile telephony market, growth projections follow the economic development trend but—with a density of 108.3 accesses for each 100 inhabitants as of March 2011—forecast even more growth for this environment. Even if the trend negatively affects ARPU, the growing voice revenue is expected to be boosted by the growth of the client base and other factors favourable to the segment, which include:

- reduced prices of smartphones due to technology advances
- increased purchasing power for the lower and middle classes
- increased familiarity with technology
- increased demand for mobile broadband and consumption of related content.

From the regulatory point of view, the regulation of MVNO published in the beginning of 2011 isn't expected to bring relevant changes to the market. The first MVNO efforts in the market are based on collaborative and complementary business models involving mobile operators and companies with retail operations that have large client bases and strong distribution channels. Anatel, though, plans to reduce the costs of mobile interconnection, by 10% in 2011 and an additional 10% in 2012. Progress toward that goal will strongly affect the mobile and landline telephony segments, because this service represents mobile operators' second-highest revenue and is an important cost to the landline operators.

In the broadband segment, growth will come from an increasing demand for the service, both landline and mobile, in the mature markets that have solid infrastructure. Also aiding growth will be the National Broadband Plan (Plano Nacional de Banda Larga, PNBL). The federal government established the plan in 2010 with the main goal of increasing the number of broadband subscribers to 90m in 2014 (60m landline accesses and 30m mobile accesses).

Analysing the demand in mature markets, the publication and effective implementation of the PGMC by Anatel should create conditions more favourable to increasing competition and affecting the quality and cost of services. The PNBL expects additional public and private investments of R\$50bn until 2014. To motivate the private sector to invest in infrastructure in a competition regime, the state will match the investment. The plan aims to:

- reduce the tax burden levied on the industry, mainly in the broadband segment
- increase infrastructure through establishing goals related to the Third General Plan of Universalisation Goals (Plano Geral de Metas de Universalização III), expected to be published by Anatel in 2011;
- encourage competition in the broadband market through the PGMC.

Investments related to hosting the World Cup in 2014 and the Summer Olympics in 2016 should prove promising for the telecoms industry.

Within the context of PNBL, the government reactivated Telebrás in 2010 and assigned it the role of coordinating agent and backbone of the plan. But an objective read of the practical results obtained during the first year of the plan and of the reactivation of Telebrás put in doubt both the company's credibility and how effectively the plan would perform in the proposed term.

In the cable TV segment, the big growth potential is based on the prospect of Anatel liberalising the market and on the National Congress approving the Bill of Law No. 116 of 2010. The law allows operators that have licences to provide voice services to enter the cable TV market.

Liberalising the industry is part of the vision for cable TV: cable TV service is provided by private companies, doesn't involve the use of scarce resources and doesn't bear limiting the number of providers, as established in the effective law. Within this context, it is expected that in 2011 regulation will be approved that eliminates the need for a public bid for licences and that reduces the prices to be paid for licences, aiming only to cover the administrative costs.

The Brazilian telecom market in 2010: operators, segments and revenue

Operator	Main segments	Net revenue (US\$bn – FY10)
Telefónica (Spain)	Local landline	21.43
	Local mobile	
	Long distance	
	Broadband (fixed & mobile)	
	Pay-TV	
Telmex (Mexico)	Local landline	19.68
	Local mobile	
	Long distance	
	Broadband (fixed & mobile)	
	Pay-TV	
Oi (Brazil)	Local landline	18.67
	Local mobile	
	Long distance	
	Broadband (fixed & mobile)	
	Pay-TV	
TIM (Italy)	Local mobile	18.67
	Long distance	
	Broadband (mobile)	

Market profile: Chile

Despite the economic downturn and an earthquake in early 2010, the telecoms sector is performing better than are other sectors of the Chilean economy. Chile has a population of 16.7m and 19.8m mobile phones in the market. Its prepaid mobile sector is expanding, and more-positive government policies are encouraging investment in communication services and infrastructure. Growth in Chile does face some significant hurdles—not least being the need to make Internet access more affordable and available to all. But more than outweighing the risks are opportunities that range from developing mobile apps in Spanish to outsourcing and sharing network infrastructure.

By Rafael Ruano and Dennis Mahorney

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In the wake of the financial crisis in 2009 and the earthquake in February 2010, the Chilean telecoms industry is now showing signs of growth. For the year ending December 2010, Chile's telecom revenues were approximately US\$4.4bn. The continuing penetration of Internet use in homes and the widespread penetration of mobile services give us an indication that the industry will continue to grow, aided and motivated by the 4-5% rise in Chile's GDP [gross domestic product] forecast for 2011.

Having grown in the beginning of 2010 by 10.5%, the telecoms sector is performing better than are other sectors of the Chilean economy. That growth was attributed to the expanding mobile sector, specifically prepaid services. The kinds of structural changes in public policies that give greater dynamism to this sector are needed to support investments that will help substantially improve the quality of services and infrastructure in Chile.

For the rest of 2010, variations in GDP and telecom revenues were negative. The main reasons were the recovery efforts and the investments required after the earthquake. But investment in the sector hit a milestone in 2010. Owing to regulatory changes, network deployments and brand unification, investments were estimated at US\$1.6bn.

When Chile's telecom sector showed great deficiencies after the earthquake in February 2010, the government had to promote the development of infrastructure. The government gave the private sector subsidised funds to set up mobile infrastructure in parts of Chile where a cellular phone signal is hard to find. Not only did the earthquake prove that Chile was not completely prepared to cover a large-scale natural disaster, but continual accidents—specifically car accidents near the border between Chile and Bolivia—stressed the lack of proper communications infrastructure to support rescue efforts.

By improving communications, authorities hope to improve connectivity, education and, most important, the integration of all of Chile's regions. Both the private and the public sectors' efforts to extend current fixed lines and mobile infrastructure have slowly resulted in increased revenue. The government has also tried to modify current regulations to allow companies to focus efforts on expansion.

Although sales of smartphones and regular mobile phones have grown 20% in the past year, this explosive growth is mainly for prepaid phone service, not precisely subscriber service. Chile has a population of 16.7m and 19.8m mobile phones in the market. For the year 2010, the Chilean telecommunications authority, Subsecretaría de Telecomunicaciones (Subtel), estimated mobile penetration at 115.6%. Recently, VTR and Nextel joined the mobile operating service in competing with the three main

115.6% *Subtel's estimated 2010 mobile penetration rate for Chile.*

companies—Movistar, Entel PCS and Claro Comunicaciones S.A. VTR claims it will offer similar services at better prices, and Nextel will continue to expand its niche-based market.

Initially, in 2006, the three main operators Movistar, Entel and Claro were opposed to MVNOs (mobile virtual network operators). Subtel, though, viewed MVNOs as a possibility for expanding the market. In May 2007, Subtel received ten MVNO concession applications from the following companies: VTR, GTD Manquehue, Netline Telefónica Movil, OPS Ingenieria, Blue Two, Telecomunicaciones Dotcom, Finvest SA, Telecomunicaciones Nomade, Inversiones Toro Bayo and Telecomunicaciones Net Uno.

The first licences were granted in August 2007 to GTD Teleductos and to Telsur's subsidiary Blue Two Chile, a Wi-Fi and Bluetooth operator. In September 2007, another six MVNO licences were granted, to VTR Banda Ancha, local investment group Toro Bayo, VoIP provider Dotcom, Finvest SA, Telecomunicaciones Nomade, and Telecomunicaciones Net Uno. In July 2008, the Swedish company Sweedcom was granted a licence to operate.

The market continues to grow, and the MVNOs currently operating in Chile are niche-based companies that offer specific services for specific customers. The Chilean telecom market is highly regulated, and most decisions must be approved by Subtel. Although Subtel and the government promote expanding the market, the current and biggest telecom operators have put up a fight, making it harder for smaller companies to continue growing or to enter the market.

Along with saturation of the mobile phone market, we will begin to see users trying out IP (Internet Protocol) calling services. That method of communication will grow along with broadband penetration and better performance of broadband connections.

We will also begin to see IPTV expand. Telsur was the first company to conduct trials on this form of television distribution, and Movistar is now beginning trials. To guarantee good quality of service, IPTV requires high-speed Internet connections, which need to be offered. We also expect an expansion of SIP (Session Initiation Protocol) billing services, international VoIP (voice over Internet Protocol) wholesale provider services and data conferencing, among other IP-related services.

The mobile smartphone industry constitutes nearly 19% of the total mobile devices (according to Atelmo, an association for mobile telephone service). Smartphones will be companies' focus for the next couple of years, along with tablets and other mobile devices. Focusing on smartphones and tablets naturally will force companies to diverge efforts on value-added services in order to captivate customers.

Market segments

Fixed lines

Chile has approximately 3.5m telephone landline users, 56% of which are concentrated in the metropolitan regions. Santiago has 1.9m fixed line clients, followed by the Valparaiso region's 347,000. It is also important to mention that of this total, 1.2m are commercial fixed landlines.

The market leader for fixed landline services is Movistar-Chile (Telefónica), which holds 56% of the total market and does not have a close competitor (see Figure 1). Movistar also offers packaged services that include satellite TV, voice and broadband service through ADSL, ADSL+ and VDSL technology. Being the largest operator in the market and previously state owned, Telefónica must undergo tariff negotiations every five years with the Chilean telecom regulatory authority.

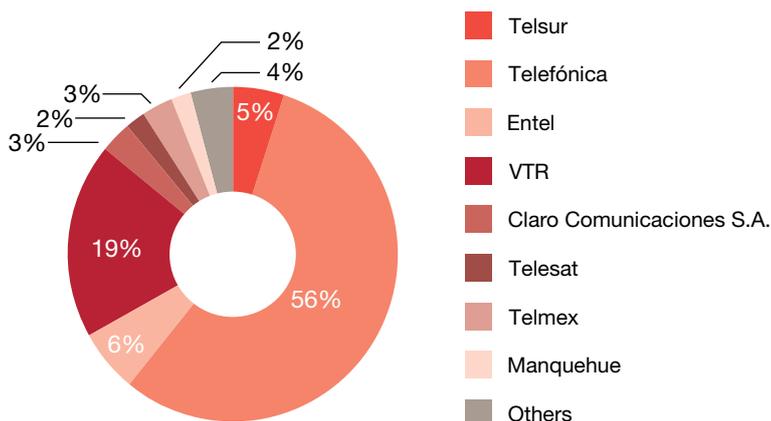
VTR is the second largest, with 19% of the market. VTR, like Movistar, offers packaged deals that include three main services: voice, coaxial cable and broadband. VTR began offering bundled services to help increase its market share and now, with 54% of the market, is the main cable operator in Santiago. But still it struggles with fixed line phone service. VTR will continue to focus their efforts on improving their cable services to offer high-definition television and on improving broadband connections.

One of the most important events in the market, on a business scale, occurred when GTD acquired 96% of Telsur in January 2010. That gave GTD 10.07% of the market and made the company the third largest operator. The acquisition also extended GTD's services from Concepción all the way to Coyhaique. Telsur was the leading service provider in the southern regions of Chile and the first company to introduce IPTV and other IP-related services in the south. By acquiring Telsur, GTD expanded its services to parts of Chile where service is hard to come by due to the rough terrain and the difficulty of extending cable lines.

The fixed line market in Chile is declining, due mainly to the high penetration of mobile service (see Figure 2). Residential fixed lines accounted for 62% of the market in 2009 but fell 6.2% in 2010. Commercial landlines account for 35% of the market.

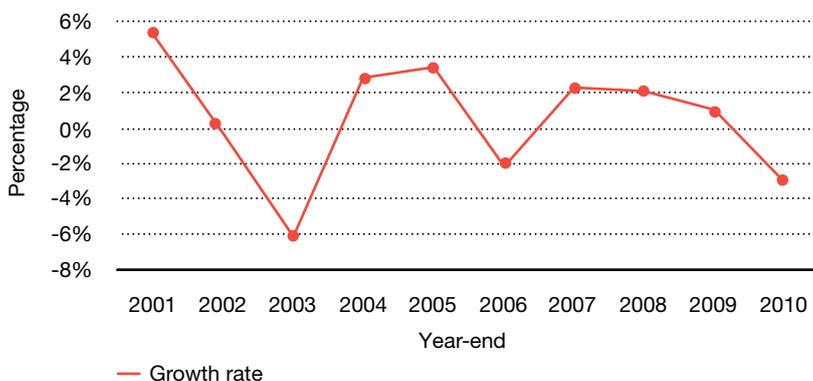
The declining rate doesn't mean fixed line service has no more opportunity to grow. In December 2010, the Chilean government enacted a law that will eliminate, gradually, long distance national rates and instead will charge customers local rates for any national long distance calls.

Figure 1: Market share of Chile's fixed line users



Source: Subtel.

Figure 2: Growth of Chilean fixed line service



Source: Subtel.

Persuading customers to switch from prepaid to fully contracted services appears to be a challenge for the coming years.

The phasing out of domestic long distance aims to improve national connectivity while promoting traffic in fixed networks. The term of this project is three years. In the first stage, the new law will reduce the primary areas from 24 to 13, fusing various districts into local areas. The second stage will remove all the primary areas, turning the country into a single local calling area. This change will make fixed line calling more convenient than prepaid mobile service and possibly will motivate customers to use fixed line calling.

Long distance

The growth of the long distance market is at an all-time low (-13.6%). It will continue to fall as consumers use their mobile phones to make long distance calls—despite such calls being more expensive using prepaid mobile service than fixed line service. Consumers have chosen to call from one city to another on their mobiles mainly for comfort and convenience.

Rates continue to fall as the termination of long distance national calling is imminent. The use of IP telephony service also has contributed to the decline in fixed-line long distance.

Mobile

As of December 2010, Subtel, the department in charge of regulating the Chilean telecom industry, calculated that the number of mobile lines operating in the market was 19.8m, significantly more than the 3.5m that the fixed line market has. This figure is significant when you consider that the population of Chile is approximately 16.9m.

A large portion of the mobile market is in prepaid service (see Figure 3) and the remainder in contracted service (both personal and corporate). Chile’s three main operators provide services to 14.05m prepaid phones and only 5.7m customers with contracts. Persuading customers to switch from prepaid to fully contracted services appears to be a challenge for the coming years.

Subtel estimates mobile penetration at 115.6%. Although recovering from the financial crisis and the earthquake during the first months of 2010 affected growth, which fell between 4% and 5%, it’s safe to say that the market recovered over the year and is expected to continue growing.

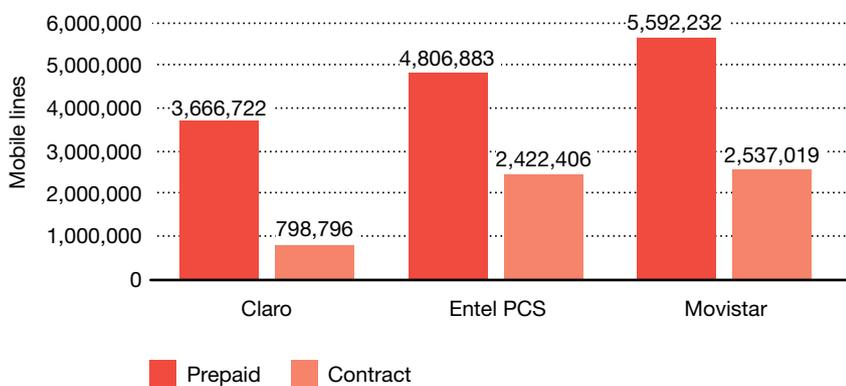
A portion of the population own two mobile phones, one for work and the other for personal use. The growing popularity of smartphones in Chile will contribute to growth. Mobile penetration should continue to exceed 100%, accounting for marginal growth in the future, but will decline in the long run as the market becomes saturated.

Of the three operators that dominate the mobile market, Entel PCS is local and Movistar (Telefónica of Spain) and Claro (América Móvil of Mexico) are controlled internationally. Movistar leads with 41% of the market, followed by Entel, 36%, and Claro, 23%.

Subtel has awarded the two new participants, Nextel and VTR, the 60 and 30 MHz band lines, respectively. Both should commence operating in the second half of 2011. Although a specific date has not been established, VTR has already begun its testing phase.

The mobile value-added services (VAS) market in Chile is still dominated by peer-to-peer short message service (SMS), not surprising in a market that is mostly prepaid mobile service. The entire VAS market has seen subscribers’ interest increase in other personalised services—including ring

Figure 3: Distribution of prepaid versus contracted mobile services



Source: Subtel.

At the end of 2010, Chile had one of the highest Internet penetration rates in Latin America.

36%

tones, horoscopes, jokes of the day, love messages, etc. The Ministry of Transportation is offering a service for bus riders that indicates where a particular bus, by number, is located and how long it will take to arrive at a bus stop.

In the near future, we will see customers choosing to consolidate their telecom services with one operator. Companies will begin to offer complete mobile services (minutes, SMS, Internet) for one flat fee. This in turn should attract and retain new customers.

Mobile regulation

Number portability. In December 2010, Chile amended its telecommunications law to establish an agency for number portability. A central entity, the agency will allow subscribers of different mobile

and fixed telephone companies to switch from one company to another without losing their subscriber number. In the initial phase, changes can be made only between companies operating within a network equivalent, for example, mobile to mobile. This system is expected to be operating at a national level during the second half of 2011.

Senders keep all. For some time, mobile operators and government regulators have been talking about eliminating access charges between mobile operators. The primary proponents of this are private service providers. They argue that it would directly benefit consumers purchasing prepaid phones, deterring them from crossing over to contracted service. Clearly, operators, the ones that would absorb the costs, are opposed. Government officials say that

eliminating connection costs between companies removed the entry barriers for other competitors, allowing for reduction in prices. Prepaid phone users, they also argue, will be more likely to use their phones as calling rates are reduced, and greater use should compensate for what companies claim to be additional operating costs.

Ley de Atenas (antenna law).

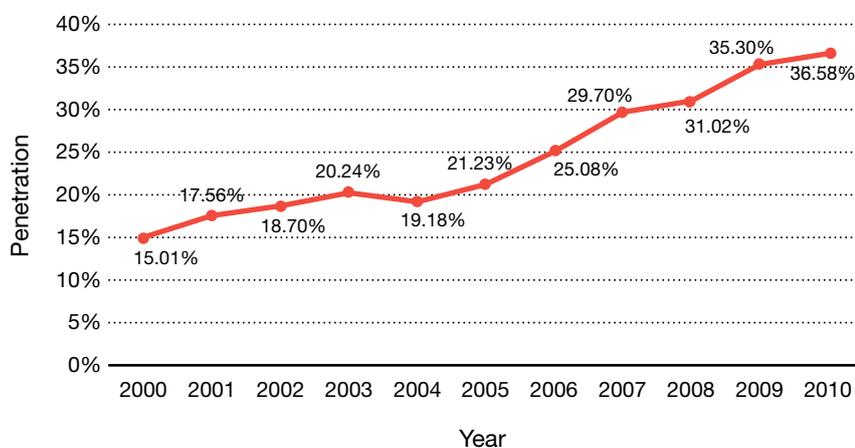
Chilean President Sebastian Piñera announced in December 2010 that he would make the antenna bill “urgent”. The bill—discussed in congress for the previous five years—regulates the installation of antennas to address concerns about health risks and the impact on landscapes.

Internet

Broadband connections in Chile have nearly displaced all forms of dial-up connections (1.8m vs. 1,319, respectively). Fixed Internet connections (residential and commercial) are dominated by two companies, Movistar (Telefónica) and VTR. They share 81% of the market, Movistar having 43% and VTR 38%. Grupo GTD and Claro Comunicaciones S.A. have 8% and 7%, respectively. The remaining share of the market is distributed among small companies that offer dedicated Internet services to small and medium-sized firms, universities, schools, etc.

Chile has one the highest Internet penetration rates in Latin America, with 36.6%, as of December 2010, and it is expected to grow due to government regulations and expansion programmes (see Figure 4). Growth is expected to begin decelerating in the future as the market for Internet connections in highly dense populations becomes saturated. Internet providers will look for ways to expand their services in areas where fixed connections aren't profitable. Companies will continue to pursue wireless connections in rural regions of Chile.

Figure 4: Growth of Chile's Internet home penetration



Source: Subtel.

Internet connections grew 7.3% in 2010 but by 17.8% in 2009. This substantial difference can be due in part to the 2009 financial crisis and the earthquake in 2010. Internet prices in Chile remain high, making it difficult for the middle- to lower-class segment to access this service. The government is working to make Internet connections more affordable.

Mobile Internet

Movistar was leading mobile Internet services, with a 51% market share as of the end of 2010, followed by Entel PCS (30%) and Claro (19%). Mobile Internet penetration will increase as customers keep crossing over to smartphones with 2G or 3G connections. Although still gaining popularity, those devices and plans continue to be expensive and available only to the upper-middle-class segment.

Of the 5.8m mobile Internet users, 4.6m connect via 2G with varying speeds. The remaining 1.2m use 3G technology. Mobile Internet plans are being offered as unlimited access plans, but companies offer full-speed connections until a certain amount of data has been transferred. After that, the speed of the connection diminishes significantly. Forty-five percent of

consumers, or 2.5m users, have connection speeds that reach up to 56 kbps (see Figure 5). Approximately 800,000 connections surf at speeds that vary between 56 and 128 kbps. The next big jump is concentrated between 128 and 256 kbps and accounts for 20% of the connections.

Regulation:

Net neutrality. Approved by the senate and enacted in August 2010, network neutrality aims to regulate conditions of Internet service providers (ISPs). It advocates no restrictions on content by ISPs or the government and no speed limitations. Its main goal is to guarantee rights to Internet users and free competition. Chile is the first—and so far the only—country in the world to enact net neutrality regulation.

Broadband access. Access to broadband and Internet penetration have slowed down in recent years, although Chile’s 36% penetration is still one of the largest among Latin countries. The government has tried to increase the number of ISPs and reduce access rates to home users. Many home users cite high cost as the main reason they have not accessed the Internet. The government is studying the possibility of subsidising poor families to improve their access. In 2011, a bill is expected to reach the senate for discussion.

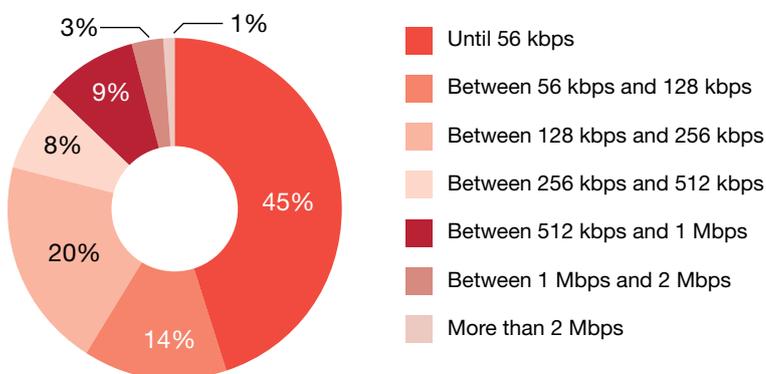
Rural Internet. An initiative in 2009 by the former administration sought to expand Internet access to the rural parts of Chile. The project involved more than US\$100m and benefitted three million Chileans, about 850,000 households, more than 800 schools and health posts and 90,000 small businesses associated mainly with agriculture and tourism. Allowing Chile to expand in network coverage and services, this project is progressing and has not come to term yet.

The government continues to offer funds to establish Internet connections in public schools. For instance, Chiloe, an island located in the south of Chile, was “connected” in early 2010 as a result of a government-funded programme. The initiative connected 280 communities and directly benefitted about 6,000 households.

Emerging trends

According to PwC’s estimations, Chile’s population should reach 17.4m by 2015; 8.1m people will be between the ages of 18 and 49, and more than 5m will be over 45. A large working population that has grown up with the latest technology will continue to demand better devices, faster connection speeds, more applications and improved services in general. We estimate that the current Internet penetration of 36% will reach nearly 71% by 2015.

Figure 5: Mobile Internet connections in Chile by bandwidth



Source: Subtel.

Chile is the first—and so far the only—country in the world to enact net neutrality regulation.

Regarding wireless subscribers, we estimate a total of 20m customers by 2015 and a total penetration of 20%. Although the market will begin to saturate in terms of the number of users, companies will look to improve services and mobile applications. Companies will also choose to convince prepaid customers to convert to a contracted plan.

Urban rollouts

With urban teledensity reaching 50% in some cities, there still is room for growth. Telecom companies will keep competing for new clients, primarily those who aren't connected. Companies will focus on developing better and cheaper services. They will continue offering packaged services that contain broadband Internet connections at varying speeds, fixed line phone service and cable or satellite television.

Considering that Telmex and Claro have united to form one unit of business, who is to say that companies won't start offering four packaged services, adding mobile cellular to the bundle? Companies will have to continue perfecting the service formula in order to gain market penetration.

Increased focus on rural rollouts

Connectivity has become an issue for the current government administration. It's focusing on taking broadband connections to the most remote parts of Chile, but profitability has become an issue. Companies not only will seek government funding to support their investments, but also they most likely will outsource tower services in order to offer Wi-Max service.

Governmental push for rural rollouts

In 2009, the Chilean government, along with a private initiative, invested US\$100m to push the Internet to rural areas. The idea is to connect 1,470 communities in both the southern and the northern regions of Chile. This will include public funding from the telecommunications development fund.

More competition

As VTR and Nextel join the mobile market in Chile, plan rates should begin to drop when other bigger companies like Movistar and Entel see the potential for their customers to flee. Number portability has been an issue for customers, making it hard for them to change companies. Now that number portability will be available, large operators will have to reduce prices and offer more value-added services in an effort to retain customers.

Introducing 4G

Entel was the first company to launch HSDPA 3G in 2006. Initially, Chile was slow to adopt 3G services in mobile phones and focused instead on selling mobile modems for portable computers. By 2010, 3G services accounted for approximately 1.2m connections, which is nearly half of dedicated and mobile Internet combined. The next step is 4G service. Although the authorities have not stated clearly when the spectrum will be auctioned, they have determined that the spectrum will be in the 2.6 gigahertz band in order to operate 4G connection speeds.

Hurdles and opportunities

While the Chilean telecom market continues to grow, it can benefit from several major opportunities—after clearing a few critical hurdles. Making Internet access affordable and improving connectivity to all consumers is the biggest hurdle. The current penetration (36%), although high for a Latin American country, is low on an international scale.

An opportunity for mobile revenue to grow lies in developing useful applications for Spanish-speaking consumers. Most applications currently available for smartphones are in English. Although the variety of applications targeted at all age levels has boomed in the past years, most are not available in Spanish. Language can be an entrance barrier for consumers who don't speak English.

Outsourcing tower installation and maintenance service and renting out tower service are both opportunities to help reduce operational costs. Operators can then transfer cost savings to consumers in the form of lower pricing. Eliminating connection fees between operators also will help reduce rates for prepaid customers and regular contracted customers.

Market profile: Mexico

Currently, the telecom market in Mexico is highly agitated. Competition among major players has increased. Some competitors have come together with the objective of opening competition in the sector and pushing authorities to reduce the interconnection costs that the incumbent imposes. The country is highly urbanised, and its young, tech-savvy customers are demanding the latest products and services. Against this backdrop come regulatory changes and government plans to help stimulate usage and penetration throughout Mexico—along with opportunities for operators across the industry, particularly in fixed and mobile broadband, bundling and cable TV.

By Carlos López Cervantes and Ramiro Alaniz Martín

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In recent years, the telecommunications market in Mexico has changed in several ways. Competition has increased. The technologies that deliver bundled services with better pricing and improved services have converged. And regulations have been reformed to promote efficiency and competition in various segments of the market.

With a 3.4% growth rate in 2009, telecom sector revenues increased to more than US\$25bn. According to Frost & Sullivan forecasts, sector revenues should continue growing at a compound annual growth rate of 3.9% and reach \$31.7bn in 2015. Influencing the increase are the adoption of 3G technology and Internet-Protocol-based applications and the expansion of pay-TV services.

Mexico's population is highly urbanised and has a large proportion of young people. These two characteristics are particularly important for the telecom market to continue developing, as young, tech-savvy customers help create demand for the latest products and services.

Currently, the telecom market in Mexico is highly agitated. Competition among major players has increased (see Figure 1). The incumbent forms a group (Carso Global Telecom) that controls more than 70% of the market, with Teléfonos de México (TELMEX) in fixed telephony and América Móvil (TELCEL) in mobile telephony. The incumbent is struggling to obtain a licence to offer TV services, but so far the government is resisting. So TELMEX has sought a partnership with other players, such as DISH, to be able to offer fixed telephony and Internet services, mobile services and pay-TV broadcasting.

Meanwhile, competitors have come together with the objective of opening competition in the sector and pushing authorities to reduce the interconnection costs that the incumbent imposes. It has been a battle of judgements and we do not know what will happen next.

An important event occurred in March 2011 when Grupo Televisa, a giant in public and pay television, acquired 50% of Iusacell, the fourth-largest mobile phone company. The company will now be able to offer quad-play services: public and private broadcasting through Televisa and its cable companies (Cablevisión and Cablemás), which also offer Internet services and fixed telephony, and mobile through Iusacell's network. Surprisingly, the owner of the remaining 50% stake in Iusacell also owns TV Azteca, the major competitor to Televisa for the public television market in Mexico.

70% of Mexico's telecom market is controlled by Carso Global Telecom with Teléfonos de México (TELMEX) in fixed telephony and América Móvil (TELCEL) in mobile telephony.

Figure 1: Telcos in Mexico: their services and territories

Operator	Services				Covering
	Fixed voice	Mobile	Data	Video	
Cablevisión	•		•	•	Mexico City and metropolitan area
Megacable	•		•	•	North and west regions
Cablemás	•		•	•	North, southeast and center
Cablevisión Mty	•		•	•	Monterrey City
Grupo Hevi (Telecable e Hypercable)	•		•	•	9 states of the country
Cablecom	•		•	•	16 states of the country
Marcatel	•		•		150 cities
Maxcom	•	•	•	•	62 cities
MCM Telecomunicaciones	•		•		Mexico, Guadalajara and Monterrey
Metrored	•		•		Mexico and USA
TELMEX	•		•		Whole country
TELCEL		•			Whole country
Iusacell (Unefon)		•			Whole country
Movistar		•			Whole country
Nextel		•			Whole country
Alestra	•		•		Whole country
Axtel (Avantel)	•		•		Whole country
Bestel	•		•		21 cities, including Mexico City
BTU Comunicación	•		•		Guerrero zone

The Mexican satellite service market, which is also part of this communications sector, is behind transnational competitors. Satmex, although undergoing restructuring due to its bankruptcy declaration in the U.S. courts, is working on the release of a new satellite (Satmex 8) to replace one of its existing satellites.

The battle between the largest companies in the sector continues. No one knows how it will end. It is certain only that users expect the result to be increased quality of telecom services and reduced costs to increase competition in the country.

Telecom policy and regulation in Mexico

The Federal Telecommunications Law was approved in May 1995 and went into effect in June 1995. The main objective was to limit foreign capital invested in Mexican telecom operators to 49%. Cellular telephony was made an exception to this rule. Although subject to approval by Mexico's Foreign Investment Commission (Comisión Nacional de Inversiones Extranjeras, CNIE), foreign ownership in cellular telephony is allowed up to 100%.

The law further mandated that:

- private investment was allowed in satellite communications
- partnerships between state and private companies must have majority state control
- TELMEX was required to institute separate accounting for long distance services, its tariffs were subjected to price caps and discriminatory tariffs for interconnection were disallowed
- competition was allowed in local and long distance services beginning 1 January 1997
- and the Comisión Federal de Telecomunicaciones (COFETEL, also known as the CFT) was created as the industry regulator.

The Ministry of Communications and Transport (Secretaría de Comunicaciones y Transportes, SCT) is the Mexican government agency principally responsible for regulating telecom services. Day-to-day regulation of the industry is delegated to COFETEL. The SCT's approval is required for any change in the bylaws of incumbent operator TELMEX. It also has broad powers to monitor operators' compliance with their operating concessions or licences and can revoke TELMEX's concession or temporarily seize or expropriate TELMEX's assets, if need be.

The Federal Competition Commission (Comisión Federal de Competencia, CFC) is responsible for ensuring that competition and anti-trust rules are respected and that competition between companies is facilitated and promoted. It draws its authority from the Federal Law on Economic Competition and from laws governing the various sectors of the Mexican economy. When dealing with issues relating to telecoms, the CFC must take into account the provisions of the Federal Telecommunications Law.

The CFC is responsible for investigating mergers and abusive practices and for supervising monopoly companies. It is required to prevent price fixing, restrictions on trade or the manufacture of goods, cartel behavior and domination of auctions for public works. The CFC also can determine which companies have a dominant position in any sector. COFETEL, though, is responsible for subsequent actions based on identifying companies with a dominant position in the telecoms sector.

The CFC answers to the Ministry of Trade and Industry Development (Secretaría de Comercio y Fomento Industrial, SCFI) but maintains operational and technical autonomy.

Regulatory issues

The 1995 telecommunications law distinguished concessions from licences. Concessions are required for public telecom networks for fixed, mobile and satellite communications. Licences are required for providers of telecom services and operators of terrestrial transmission stations.

Companies that want to offer value-added services must register with COFETEL. When a new law was passed in 2006, it stopped short of fully reforming telecoms, omitting the introduction of competition in the local telephony markets by cable television operators. But the law did change the operating rules of the SCT and COFETEL. It amended their structure, responsibilities and faculties. In particular, it allowed COFETEL to regulate the broadcasting sector as well as the telecoms sector.

COFETEL awards spectrum for mobile and other radio communications services through an auction process. Companies must register their interest and provide documentation before the auction. COFETEL issues concessions for a period of 20 years, and renewals may be requested.

The proposal to eliminate the limit on foreign investment has been under discussion in the Senate's communications committee and legislative studies committee since 2009. If the legislation is approved, it will go to the Senate for approval and also will need the go-ahead from the lower house before being finalised and officially introduced. Those supporting the proposal have argued that it would help enhance competition against the fixed line incumbent operator, TELMEX, which would reduce the cost of calls for smaller operators. If lawmakers approve the proposal, smaller operators—including Axtel, Megacable and Maxcom—likely would become targets for acquisition by larger international companies, such as Spain's Telefónica.

Although 3G services haven't taken off in Mexico as they have elsewhere in Latin America, mobile broadband has the potential to stimulate growth in the sector.

Previous media reports have indicated that COFETEL would support removing foreign ownership caps in the telecom market. Although foreign companies can't hold more than 49% of any operator, they may acquire non-voting shares in a Mexican company in amounts above the 49% cap.

Market segments

Fixed line

Fixed line penetration is expected to fall to 16.2% in 2015 (see Figure 2). In 2009, the number of Mexican fixed line subscribers fell by 5.4% over the prior year. This large decrease resulted from TELMEX discounting 1.2m lines from its reported subscriber numbers that were unpaid for more than two months. But that was only part of the reason. The fact that mobile services have vastly overtaken fixed lines is beginning to have a negative impact on the fixed line sector. In June 2010, 19.3m lines were in service.

Smaller alternative operators continue to report growth, partly through capturing subscribers and market share from the leading operator, TELMEX, and partly through promoting triple-play packages that bundle a fixed line with other services. Offering bundled services is a major boost for smaller operators. It is also a strategy that should help to slow the decline of fixed line numbers.

TELMEX's position in the market continues to decline. A victim of number portability, TELMEX is losing subscribers to rival operators. The company lost 1.7m lines in 2009, but that decline stabilised in Q1 of 2010 when the loss was 71,000 lines. As a result, TELMEX announced plans in October 2010 to keep tariffs constant in 2011.

Although alternative operators are currently the only ones providing growth in the segment, neither of the two largest competitors to TELMEX, Axtel and Maxcom, had strong growth in 2010. Those operators reported fixed line growth of 2.8% and 1.6%, respectively, during the year.

The General Communications Law, the Federal Telecommunications Law of 1995 and the telecom regulations provide the legal framework for all telecom services in Mexico. The 1995 law requires telcos to establish open network architectures that permit interconnection and interoperability.

TELMEX lost its monopoly in the domestic and international long distance telephony markets at the start of 1997 and in the local telephony market a year later. The SCT enacted legislation in October 2006 that allowed true triple-play voice, Internet and TV services to be launched. The bill allows cable companies to offer voice telephony and for wire line telcos to enter the TV arena.

Figure 2: Fixed line penetration in Mexico: history and forecast

	2008	2009	2010	2011f	2012f	2013f	2014f	2015f
No. of main telephone lines in service ('000)	20,491	19,333	19,266	19,117	18,917	18,709	18,499	18,301
No. of main telephone lines/100 inhabitants (%)	19.2	18	17.8	17.5	17.2	16.9	16.6	16.2

Source: BMI's Mexico Telecommunications Report 2011.

Mobile

The latest data on operators suggest that Mexico's mobile subscriber base grew by 5.9% in the first nine months of 2010. Stronger growth is expected in 2011, and the market is forecasted to reach 107m subscribers by the end of 2015. That number would mean a penetration rate of 95% and revenues representing 67% of the total telecom services market (see Figure 3).

Mobile faces two big challenges: the proportion of prepaid customers is high, and average revenue per user (ARPU) levels are falling. With ARPU falling, operators are finding it more difficult to expand. Generating higher revenues will continue to be an uphill struggle even as 3G services are expanded and a greater range of content is made available. Driving prices down will help push subscriptions up. But that isn't a long-term strategy, and operators will have to be conscious of the difficulties that fact presents.

The cost of services and the need to expand network coverage are two of the most pertinent issues operators face. Urban areas are largely saturated. Turning their focus to remote communities involves more expenditures for operators, which makes lowering prices more difficult. But operators will have to expand their networks anyway, and prices will need to fall if subscriptions are to increase.

Some reports are forecasting that 3G subscriber numbers will reach 5.4m by 2015. Although 3G services haven't taken off in Mexico as they have elsewhere in Latin America, mobile broadband has the potential to stimulate growth in the sector. Operators have reported good responses to their 3G offerings, but, as in the broader mobile market, price remains an issue in the take-up of 3G services. Lower prices help fuel faster growth.

The most recent mobile subscriber data published by Mexico's network operators is for the first nine months of 2010. During the year, more than 5.2m mobile customers were added to the sector.

TELCEL, controlling more than 70% of the subscriber base, continues to dominate the mobile market. In recent quarters, the operator may have even benefitted from number portability, which was introduced in July 2008.

Combating TELCEL's dominance is an ongoing struggle for operators in the market. Nextel is too small to make a serious impact on market dynamics. Iusacell, which has been more adversely affected by TELCEL's dominance, has revealed that it's implementing structural changes in the hope of improving its performance. The company plans to cut costs and emerge as a stronger operator in the future.

Figure 3: Mobile penetration in Mexico: history and forecast

	2008	2009	2010	2011f	2012f	2013f	2014f	2015f
No. of mobile phone subscribers ('000)	77,925	83,149	89,794	94,963	98,871	102,286	105,138	107,411
No. of mobile phone subscribers/ 100 inhabitants	73.3	77.4	82.7	86.7	89.5	91.9	93.7	95
No. of mobile phone subscribers/100 fixed line subscribers	380.3	430.1	466.1	496.7	522.7	546.7	568.3	586.9
No. of 3G phone subscribers ('000)	750	1,250	2,000	2,750	3,500	4,200	4,830	5,409
3G market as % of entire mobile market	1	1.5	2.2	2.9	3.5	4.1	4.6	4.5

Source: BMI's *Mexico Telecommunications Report 2011*.

The mobile market took its current form in 1989 when the country was divided into nine service regions, each subdivided into an A-band and a B-band. TELCEL, then the mobile arm of TELMEX and now part of América Móvil, was awarded ten-year B-band concessions in each area. Twenty-year A-band licences were sold to the country's first alternative operators.

Those operators have since consolidated, leaving just two companies—Telefónica Móviles Mexico (TMM, or Movistar) and Iusacell (including Unefon). The entrance of the digital trunking operator Nextel de México has been contentious. Nextel was the first operator licensed for push-to-talk (PTT) services in Mexico, and it launched wireless PTT services over an iDEN network in August 1998.

Fixed and mobile number portability (FMNP) has been introduced relatively smoothly compared to how some other regulatory issues have affected the mobile sector. At the end of May 2007, COFETEL published a final version of FMNP regulations. The service was successfully introduced not in the watchdog's original February 2008 time frame but in July 2008.

A requirement for prepaid mobile phone users to register their details with network operators became law in February 2009 and went into effect in April. In September 2009, the Senate passed a bill saying that service providers had one year (until April 2010) to register their existing customer base and collect proof of identity for all new sales. When many other countries have implemented the same, largely anti-crime, measure, often the result has been as much as a 10% drop in the overall subscriber base.

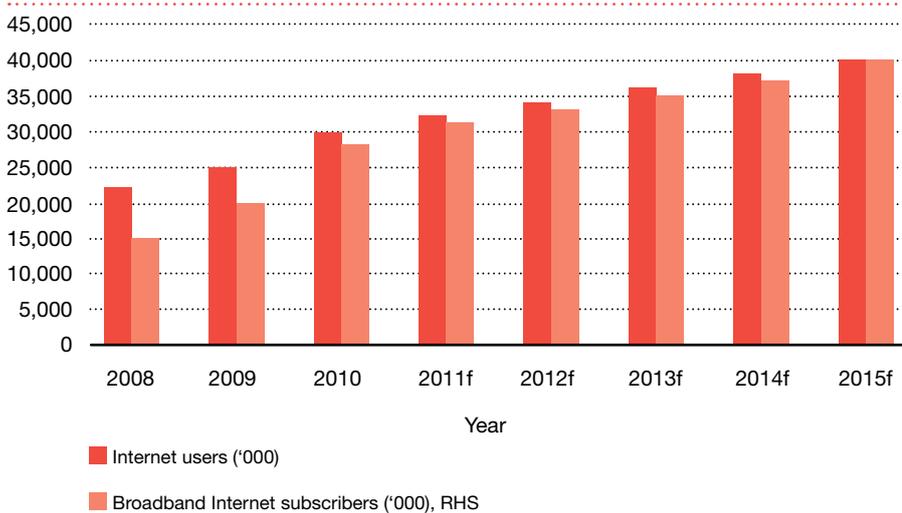
Broadband

Mexican Internet use continues to grow. Forecasts show sustained, year-on-year growth reaching 42.9m users by the end of 2015 (see Figure 4).

The latest regulatory data available for this segment is for year-end 2009, during which Internet use increased to 28.4m. The growth—more than four times faster than that of 2008—was particularly impressive because market growth had appeared to slow. The rise in home Internet connections reflects moves by several companies to lower their prices to attract more subscribers.

Based on subscriber data published by the leading broadband service providers, Mexico's broadband subscribers grew by 12.2% in the first six months of 2009, reaching 11.18m. Although Mexico's broadband subscriber penetration is currently about 14%, it is important to note that that figure reflects both business and residential subscribers. Broadband Internet services remain expensive for many Mexicans, and a significant number of PC owners lack home connections. In a 2008 report, the Organisation for Economic Co-operation and Development (OECD) criticised Mexican Internet services for being highly priced, which puts the country at a disadvantage.

Figure 4: Broadband Internet in Mexico: history and forecast



Source: BMI's Mexico Telecommunications Report 2011.

Fibre optic strands that the state power company, CFE, owns are to be tendered to enable new operators to enter the market, potentially providing even faster growth for broadband in Mexico.

Long-term growth in the broadband sector could take off if prices were lowered. The arrival of new entrants to the sector, through auctioning concessions to use the fibre optic network of the Comisión Federal de Electricidad (CFE), should begin to make a difference in the market.

In June 2010, it was announced that a consortium made up of the local media giant Grupo Televisa, the Mexican cable company Megacable and Spain's Telefónica had been awarded a licence granting them access to CFE's infrastructure. That access to already-existing cable infrastructure will reduce the companies' deployment costs. The hope is that they can offer high-speed services at a price affordable to the majority of the population. The new entrant should create considerable competition for TELMEX, as well as for the cable operators that have been growing particularly fast.

Industry reports forecast about 21.2m broadband subscribers in Mexico by the end of 2015. Most of the growth should occur after 2012, which is largely a reflection of the impact of mobile broadband services

on the market. Mobile broadband is expected to be increasingly important in expanding the reach of broadband services. Although the 3G subscriber forecast still depicts relatively slow growth, it is important to remember that mobile broadband subscribers include customers who use devices such as USB sticks, smartphones, notebooks, Apple iPods and tablets.

TELMEX's data illustrate how broadband continues to be the preferred Internet connection type among subscribers. The operator is responsible for the majority of ADSL subscribers in the market. TELMEX reported more than 6.5m Infinitum subscribers at the beginning of 2010, up by 30.2% from about 5m subscribers a year earlier.

TELMEX's Prodigy dial-up subscribers fell to just 127,000 in Q4 of 2009, down 38.6% from the previous year. In the first three quarters of 2010, the number of dial-up subscribers continued to shrink, falling to 98,000 by the end of September. The number of TELMEX Infinitum subscribers grew consecutively during the same three quarters, reaching 7.174m in September 2010. This figure was up by 13.8% from 2009.

Fibre optic strands that the state power company, CFE, owns are to be tendered to enable new operators to enter the market, potentially providing even faster growth for broadband in Mexico. Fibre optic cables cover 200,000 kilometres of the country. TELMEX, Alestra and Axtel offer broadband services in Mexico's 31 states plus Mexico City.

In 2003, the SCT expanded the provisions of the country's cable television providers' licences so that they could offer two-way data transmission. The following year, it began licensing cable operators to offer signal-transmission services to local fixed line operators, as well as data and broadband Internet services to the general public. As happens in mobile telephony, COFETEL regulates broadband services and controls the bands for technology, such as Wi-Fi and Wi-MAX. The Mexican cable TV operators' association, CANTEC, has fought with the incumbent to achieve triple-play services.

The fibre network will be 'lit' in 2011, which will bring new competition to the market. These operators are set to expand the reach of their services and meet President Felipe Calderón's coverage requirement. The Internet market was identified as a main focus for the Mexican competition commission, CFC.

Considerations for the market include opening TELMEX's network to competition, although the incumbent is likely to strongly oppose such a move. Meanwhile, a report from the OECD has noted the negative effects of the limited telecom services in the country. High-priced but low-quality telephone and Internet services put Mexican companies at a competitive disadvantage, according to the OECD.

Business (enterprise)

Small and medium-sized companies are likely to create the demand in the business segment. To keep revenue growing, market participants need to find innovative ways to promote data communications services. They need to offer integration between networks and other services, such as information technology, data centres and voice, and cloud computing. They need to imply the concept of the connected enterprise.

This trend demonstrates that convergence and bundling are not exclusively for the residential segment. The intensity of competition in the market highlights the importance of maintaining the quality of services offered and of paying attention to customers after the sale. The growth of mobile telephony will surge in the coming years as customers adopt mobile Internet solutions, specifically GPS and tracking. Some operators, such as Alestra, are focusing on local telephony in the business segment through aggressive programmes to commercialise their value-added services. Although there are multiple Internet service providers, TELMEX dominates the market, followed by Avantel and Alestra (see Figure 5).

Future steps to benefit telecoms and the country

As part of the Mexican government's efforts to increase access to broadband services, the Minister of Telecommunications has begun to design "Fibre to the X" projects. The aim is to bring fibre close to all communities across the country, even rural zones. To achieve this, they are looking to foment broadband deployment, either by the state or by operators that are interested. One project being considered is to install underground ducts at federal highways and then lease those ducts to telcos that want to deploy their own fibre optic cables through them. Such efforts complement the National Development Plan and E-Mexico programme, which aim to bring benefits to society, especially concerning health, education and the economy.

Figure 5: Internet service providers for Mexico's business segment

Provider	AT&T	Telmex	Avantel Axtel	Telefonica	i-Next	Iusacell	Totalplay
Main Enterprise Service	AT&T Internet Total	Internet Directo Empresarial	Internet Dedicado Axtel	Internet Dedicado	Internet Data Center	Internet de alta velocidad por fibra óptica	Hipernet
Covering (cities)	50	228	6 (Axtel) 59 (Avantel)	32	34	30	1 (D.F.)
Net availability	99.98%	99.00%	99.95%	99.80%	99.80%	–	–

Source: PwC analysis.

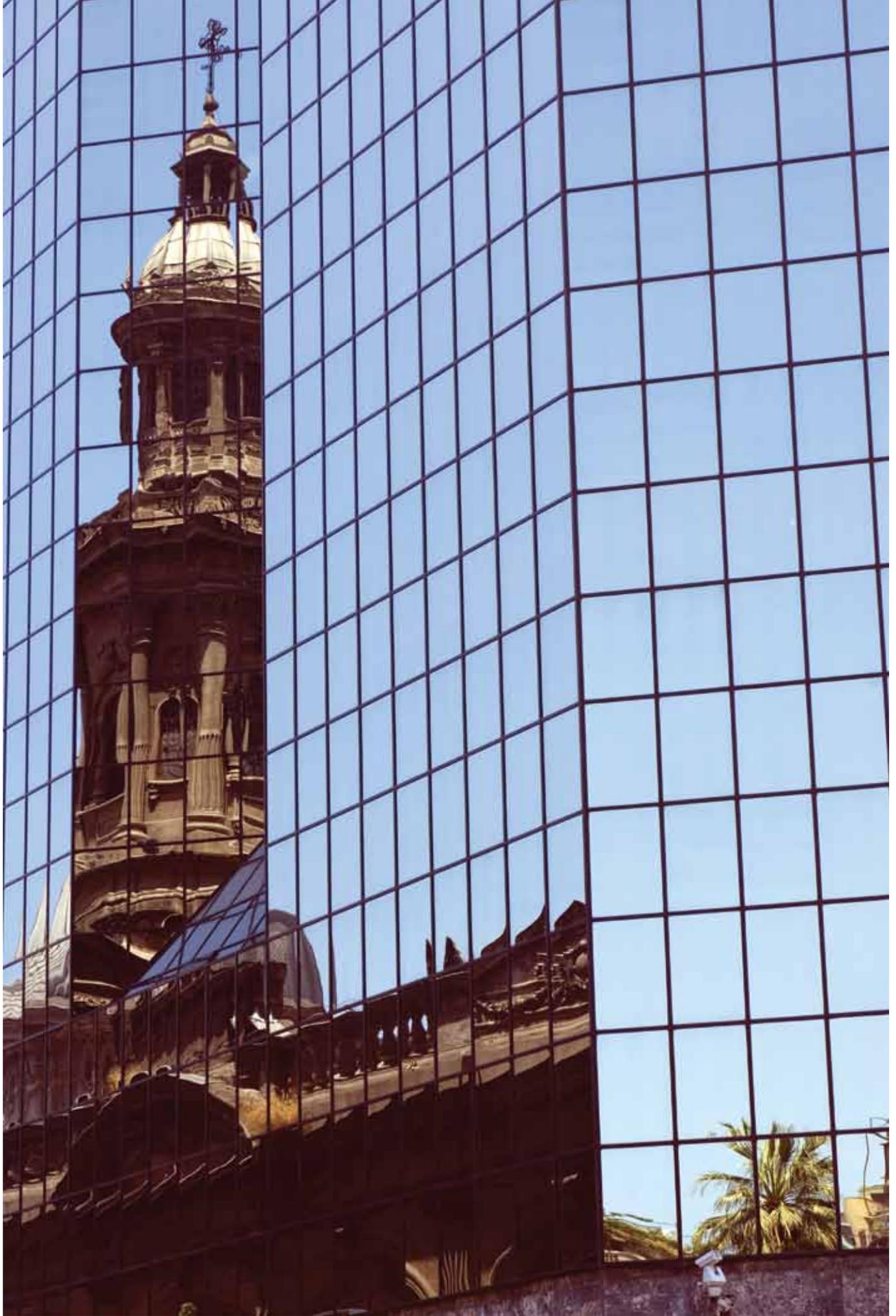
Hurdles facing telecoms in Mexico

- Strategic investors could be put off entering the market because of the local strength of América Móvil.
- The dominance of TELMEX has limited growth in the broadband sector; poor service quality has also been cited as a problem.
- Tight credit markets and global deleveraging could continue to have a negative impact on the flow of foreign direct investment.
- TELCEL's parent company, América Móvil, has its sights on battling it out with Telefónica Móviles on a regional level, which could mean that its Mexican unit loses out on investment.
- The size of Mexico makes rolling out fixed infrastructure difficult.
- Alternative operators are considerably smaller than TELMEX, with networks generally concentrated in major towns and cities.
- Mobile growth is relatively slow, given the high penetration rate; growth is almost all in the prepaid segment.
- Although there are four operators in the mobile market, TELCEL's massive lead is hindering competition with relatively high tariffs and alleged anti-competitive practices.
- TELCEL's lead over other operators could also mean that it overlooks some opportunities to grow.

Opportunities awaiting operators

- The government's focus on improving infrastructure should help the overall business environment in the longer term by making Mexico a more attractive location for foreign direct investment.
- The regulator is expected to issue additional 3G spectrum, as well as mobile reseller licences.
- The regulator is committed to reducing tariffs in real terms to stimulate usage levels in all sectors. COFETEL has also taken a stronger stance on competition in the mobile market.
- New legislation to open the mobile market to resellers should stimulate competition and lower prices.
- The issuing of new spectrum could shake up the market and bring in some much-needed competition.
- With penetration still relatively low, there are plenty of opportunities for growth in the mobile market, particularly in rural parts of the country.
- Bundled services have been instrumental in encouraging fixed line retention.
- Number portability should allow alternative operators to continue decreasing TELMEX's dominance.
- Operators continue to reduce the cost of broadband access while increasing download speeds.
- Cable TV operators are promoting cheaper service bundles that will stimulate growth.

The Metropolitan Cathedral reflected in modern building, Plaza de Armas, Santiago, Chile



Perspectives

Telecom executives in Latin America are in an interesting position. There is lots of opportunity for growth in their markets, which is good for them. However, it is also good for the competition. Managing through new regulations and government initiatives, technology and service innovations and changing customer demands is a challenge for any telecom executive, let alone one in a market where the pace of change has been so dramatic.

Here, some thoughts from several telecom executives across Latin America who are succeeding in balancing the dynamics of this exciting market.



An interview with:

Ernesto Gardelliano
Movistar Argentina

Movistar Argentina, a member of Telefónica Group, provides mobile communication services to more than 16m subscribers and is the leading provider of mobile broadband services in the country in terms of revenue generation. The mobile segment in Argentina is already very competitive. With MVNOs entering the market and mobile number portability being introduced, operators must keep their focus on the customer. Movistar's Chief Executive Officer Ernesto Gardelliano talks with us about where he sees value coming from in the future, what the new regulations mean for the market, and how innovation and a dynamic business model will help Movistar maintain its leading position.



Ernesto Gardelliano is the CEO of Movistar Argentina and Uruguay. Prior to joining Movistar, he was Executive Vice President of Finance, Planning and Control and Investor Relations Officer of Vivo, Vivo S.A., TCP, TC and formerly of TCO, Telerj, Telest, Telebahia, Telergipe, Celular CRT, TC, GT, Telegoiás, Telemat, Telems, Teleacre, Teleron and NBT.

Gardelliano has also been a director of Avista Participações Ltda., Tagilo Participações Ltda., Sudestecel Participações Ltda., TBS Celular Participações Ltda., Ptelecom Brasil S.A., Portelcom Participações S.A. and all affiliates of Brasilcel.

He joined Coopers & Lybrand in Argentina in 1984 where he developed his career in the Audit Department. During 1990, Gardelliano was transferred to Italy. In January 1993, he joined Movicom, the first mobile telecom operator in Argentina. The Company was a Joint Venture led by BellSouth and Motorola. Gardelliano acted as the Financial Controller until 1997, when he was promoted to Chief Financial Officer.

In 2005, and after the sale of the Latin American assets of BellSouth, he became Regional Director for Argentina, Chile and Uruguay for Telefónica Móviles and transferred to Brazil to take over responsibilities in the Finance area of the above mentioned companies, namely Vivo.

Gardelliano is a Certified Public Accountant, a graduate of the University of Buenos Aires and holds a degree in Upper Management from the Instituto de Altos Estudios at the Universidad Austral.

4% *is the approximate growth rate expected for Latin America's GDP, one of the highest GDP figures in the world.*

Communications Review:

What's your perspective on the role that telecoms has played in Latin America and, more specifically, in Argentina? Where do you think the market is headed?

Gardelliano: Telecoms have contributed to the development throughout the region and, unlike what happened in developed countries, the adoption of mobile communications took less time given the existing penetration of fixed lines. The growth in the new digital economy is a global process that inevitably involves our region, all industries and society in general.

As in the rest of the world, the dynamics of telecoms in Latin America and in Argentina result from new consumer behaviours and patterns that increasingly prioritise mobile and broadband connectivity over other needs. For example, recent surveys show that Argentinean consumers give priority to private health care, private education, Internet connection and mobile phones over recreational activities.

Add to that phenomenon the supply of innovative services, supported by devices, as well as storage capacity digital content and broadband connectivity. Devices such as GPS, smartphones, netbooks and tablets have become increasingly more powerful and of greater impact. What's more, devices with increased memory capacity are smaller and more economical—just look at the lower prices and larger capacity of pen drives, for example. And digital content has multiplied tenfold in five years. The exponential growth of social networks is a manifestation of this transformation process.

Telecom companies are at the center of all this. They can increase connectivity—tailoring it to the customer's needs at any given moment, no matter where—and they offer a wide variety of value added services.

Latin America offers a solid basis for the future of telecommunications. As a block, the economies in the region are getting increasingly stronger, and many of them are of investment grade. The regional gross domestic product is expected to grow at a rate of approximately 4% in the coming years, one of the highest GDP figures in the world. That kind of economic growth should sustain the evolution of the middle class in the region, thus enabling millions of people to join the market year after year.

This economic growth, added to the expanding capacity, network coverage and the development of more and better quality services, has led the telecom sector in the region to grow by approximately three percentage points above GDP.

Communications Review: Movistar has a widespread presence in Latin America. What benefits and challenges does that present to your business?

Gardelliano: One of Movistar's and Telefónica Group's assets is their global presence. In this regard, Latin America accounts for more than one-third of the business in terms of number of customers, revenues and EBITDA [earnings before interest, taxes, depreciation and amortisation]. This presence goes hand-in-hand with a volume of investments to position Movistar within the development of the economies in the countries where it operates.

Besides scale and growth, the region's contribution of human capital and know-how has been very important. The large number of Latin American executives in positions of responsibility in Spain and in the rest of Europe is quite relevant and has been growing steadily.

Experience in other markets shows that service penetration doesn't increase with the introduction of MVNOs and that industry profitability drops because of higher commercial intensity.

All across the region, Movistar faces the challenges to interpret the particularities of each market without losing the benefits of our regional scale and becoming a Telco 2.0. In spite of the tendency to look at Latin America as a whole, we know that the region has great diversity, even within each country and each market.

Communications Review: Even though MVNO [mobile virtual network operator] is still in a developing stage, do you believe it will have an impact on Argentinean mobile operators?

Gardelliano: There are multiple MVNO business models, each with its own particularities. The general business model seeks to encourage new entrants—to increase mobile market penetration—and to reduce prices. Experience in other markets shows that service penetration doesn't increase with this method and that industry profitability drops because of higher commercial intensity. Those factors don't necessarily translate into benefits for the customer.

In Argentina, competition is fierce and market quotas aren't significantly different among the players. So this type of operator has few incentives to enter the market. Nevertheless there is already one MVNO set in the interior of the country.

Communications Review: What's your view on how mobile number portability [MNP] will affect the wireless industry in Argentina?

Gardelliano: Portability is a customer's right. And it's a global trend. The regulatory authorities in various countries are using it as an initiative to boost market competition. Already many countries have implemented it, and most countries in the region currently are adopting it. In the countries that have already implemented MNP, experience shows that the accumulated annual rate of mobile customers with portability doesn't exceed 3% and rates decrease over time. With the use of the terminals' PDA [personal digital assistant] services, portability isn't as important now as it seemed to be in the past because of customer behaviour in relation to the use of digital agendas.

From an implementation standpoint, MNP is an additional pressure on the industry. It requires complex technical effort and perfect coordination between all those involved (mobile operators, database administrators, regulators, customers and other players in the market), adapting networks and systems necessary for mobile operators to process the transactions that portability requires takes more than a year of development. That involves both dedicated capital investments and operating expenses to catch up with demand.

Communications Review: Which types of services are likely to generate the most opportunities for your mobile businesses?

Gardelliano: Mobile market growth is due primarily to mobile Internet and value-added services. Mobile Internet will grow with the increased penetration of smartphones and dongles. The value-added services include content, social networks, advertising and many other services that we're developing with our suppliers and developers network, including mobile apps. The growth in the digital economy will rapidly create opportunities with a new business model that allows customers and suppliers to interact with each other through a telecom platform and thus transforming traditional procedures into a true Telco 2.0 reality.

Communications Review: What role does innovation play in Movistar, and how are you using it to compete?

Gardelliano: Innovation is increasingly linked to growth and value in our company, and it's vitally important to us among our leaders. We believe the concept of innovation often is bound to technology, but, beyond that, it means seeing things from a different point of view. That's why we want to challenge the traditional way of thinking by bringing fresh, innovative ideas into the business.

It's particularly important at Movistar to actively come up with new ideas and opportunities to innovate, and to learn and improve internally and in the ways we relate to other people and entities outside the organisation.

Sharing networks and platforms is an opportunity to create value at an industry level.

We have an innovation management model. The model helps us introduce new concepts in our daily work, looks for its effect on results and recognises those programmes that do succeed and spread throughout the organisation.

Communications Review:

How important are alternative business models—sharing networks/service platforms, outsourcing, shared services centres—to Movistar?

Gardelliano: Besides capturing growth, the telecommunications sector also faces the challenge of gaining efficiencies.

The speed at which technology is developing imposes an ever-growing need for the industry to generate new ways of using the infrastructure. Sharing networks and platforms is an opportunity to create value at an industry level. In Argentina, we've had positive experiences in this regard. Platforms give us new business models that allow us to find new methods of financing the communication needs of certain customer segments, for example, mobile advertising among pre-paid customers.

Outsourcing is generally misunderstood. The traditional economy is in a process of full transformation, so are value chains. So, we frequently notice that letting others carry out some of our processes is more efficient in creating more value for our customers, in the same way that it's better to buy bread at the bakery than to make it ourselves. Shared services centres capture an economy of scale in certain processes, and that advantage translates into greater efficiency. The new digital economy significantly reduces transactional costs, making this business model even more attractive. A number of operations and maintenance activities have already been outsourced, as well as Learning, Financial Reporting and Payroll.

In brief, these three models offer opportunities to achieve efficiency, as long as the focus on the customer is not affected.

Communications Review: How do you see competition in Argentina evolving over the next few years?

Gardelliano: Our industry is redefining its scope, and therefore its competitors. Competition that traditionally was among operators now includes device manufacturers and Internet companies. If we consider that operators increasingly tend to share their infrastructures, we see that—among all the players—there's a relationship of cooperation and competition. So, for the future we can imagine a dynamic relationship of collaboration and competition in every type of service.

Experience shows that competition comes from where we least expect it. Keeping our focus on the customer, then, is vital for us to maintain our leadership.

An interview with:

Sergio Chaia
Nextel Brazil

At the heart of Nextel Brazil lie relationships. The organisation has a strong and mutually supportive relationship with its parent, NII; deep relationships with its coveted loyal customer base; and strong relationships with its employees. Its competitors are well aware that focusing on relationships is what differentiates Nextel Brazil in a heavily competitive market. Here, President and CEO Sergio Chaia discusses how Nextel Brazil will build on its relationships to continue growing rapidly into new segments—through new technologies, service offerings and social networking—on its quest to create a better experience for customers, day after day.



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Sergio Borges Chaia was appointed president and CEO of Nextel Brazil in 2007. He oversees the company's operations in the market while focusing on fuelling company growth primarily through efforts to provide the most exceptional customer service in the industry.

Before joining Nextel Brazil, Chaia was president and CEO for Sodexho Pass Brazil, which he joined in 1996 as marketing director. During his time in the company, he contributed to its growth and committed and guided the entire organisation toward a new business ideal. His track record of success included his positions as human resources director and general manager.

Chaia worked with Pepsi Cola, as the marketing manager for both the Food and Drinks divisions, initially responsible for re-launching the Pepsi brand in Brazil. For Pfizer, he served as the company's senior product manager in charge of product launching and repositioning.

Chaia has a business administration degree and is a postgraduate in marketing and finance, both from Fundação Getúlio Vargas. He also participated in the INSEAD General Management Programme in France.

In 2010 and 2011, he received the Valor Magazine Executive award, in the telecommunications category, and the International Business Award, as Executive of the Year in South America, for his leadership at Nextel.

For more information, visit the company's website at www.nextel.com.br.

Communications Review:

What is your perspective on the role that telecoms has played in Latin America, and specifically within Brazil? And how do you see the market evolving in the future?

Chaia: If you compare the recent growth of GDP [gross domestic product] in Latin America to that of other continents—America or Europe or even Asia—you will see that it's really big: 4.8% growth in Argentina, 7.4% in Peru and 5.7% in Brazil. This growth creates an opportunity for investment.

I would say that within Latin America, Brazil is really the diamond. Everybody is discovering Brazil, including Hollywood. Two recent blockbusters were shot in Brazil: the films *Rio* and *Fast Five*. So, everybody is paying attention and believes that Brazil is a major player in Latin America and in the world.

I think telecoms contributes in two areas. The first is the social dimension of telecoms—expanding access to education and information to the entire population. I believe that having a more educated population is the best way to keep GDP growing. This is really important in Latin America, and we're forming building blocks for that with data and 3G.

The second area is the business dimension. Telecoms can bring a lot of investment to the country through building networks and equipment, establishing radio channels and providing more jobs. Look at us, Nextel, for example. We've been growing rapidly over the past five years, adding around 1,000 jobs per year. This year we're going to hire more, probably 1,500 people. In the last ten years, we've invested around R\$5bn [reais], which is approximately US\$3.2bn. And with 3G, we intend to continue investing heavily in Brazil.

Communications Review:

Nextel is one of the few pan-Latin-American service providers. What are the benefits to Nextel of having that reach across Latin America, and what sort of challenges does it present to your business?

Chaia: That's right. Nextel is the only pan-Latin-American service provider. NII, which is Nextel International Inc., is considered one of the fastest-growing operators in the world. We are top-notch, according to Merrill Lynch's metrics, when comparing figures for subscribers, revenue and EBITDA [earnings before interest, taxes, depreciation and amortisation] over the last five years. Nextel Brazil and NII really are showcases of telecom growth in Latin America.

So, why have we been growing and at such speed? I think it can be attributed to three major differentiators. The first one is that we are what we call the segment player. We are focused on corporate markets and high-end-usage subs. We don't compete with the biggest groups, like Telefónica, Telecom Italia or América Móvil. Indeed, we try to create our blue ocean and be very specialised in this ocean.

The second differentiator is our PTT [push-to-talk] technology. PTT 3G differentiates us through the way our users communicate. It's faster, it's direct to the point and it's really modern—because we consider what we offer to be spoken MSN or spoken BlackBerry messages.

The third differentiator is our customer service. We always say that in Latin America there is a huge opportunity for an operator to provide superior customer service. In every market where we compete, we strive to be number one in terms of customer satisfaction. I can talk specifically about Brazil, and we really are above all competitors when it comes to our customers being satisfied with their

experience. In 2010, Nextel Brazil had a Net Promoter Score that was six times higher than our closest competitor, which means we have more satisfied customers than the competitors. We continually strive for customer satisfaction.

These are the three pillars that differentiate us. These three pillars are responsible for the outstanding growth we've been enjoying in Latin America.

As far as challenges that we will face in the future, we're moving to 3G in all markets except Argentina. In May, though, we got the very good news that the government is establishing rules for a new 3G spectrum auction in Argentina, so there is a good possibility for Nextel Argentina also to enjoy 3G technology.

All our other markets either are already on 3G or are building the networks, which is the case in Brazil. That requires a reasonable level of investment. Now the challenge is, how can we deploy this investment in this marked way? How can we capitalise on best practices and lessons learned from inside our operations and from our competitors that are already on 3G? And that means looking not only at Latin America but all over the world as well to continue providing the best value proposition for our customers and to continue growing at the level we have been for the last five years.

Communications Review:

MVNOs [mobile virtual network operators] are now starting to take hold in Brazil. What do you think the impact will be on Brazilian mobile operators, and on Nextel?

Chaia: Yes, MVNOs are just starting in Brazil. The first MVNO, from an insurance company called Porto Seguro, was just announced. I look at the MVNO movement from the consumer's perspective. I think it's a good thing, because it provides more options for customers and pushes the existing players to improve their

territories in order to continue winning the battle for market share. However, I consider the MVNO in Brazil to be similar to what it is in Europe: a very niche and segmented operator targeting a very specific customer. For operators like Nextel, MVNOs create the possibility of playing in a different segment and of acquiring customers in an inexpensive way and without diluting our core business or core competencies. We've been analysing MVNO as an alternative but haven't made any decisions.

The other part of MVNO that we should consider in Brazil is data connection costs. I think they pose a challenge for Anatel [the Brazilian telecom regulator] and for the government because Brazil has one of the highest interconnection costs in the world. Interconnection costs could be greatly reduced and could play an important part in expanding the opportunities for consumers to expect more. MVNO also could benefit from reducing interconnection costs, which would make exploring some very specific niches in the consumer market more viable.

Communications Review:

When we spoke earlier about the social impact telecoms has had within the market, you mentioned some examples. If you look into the immediate future, where do you think the greatest service opportunities are for your mobile business? Will they be in content or mobile commerce, in banking or social networking? What do you see for the future?

Chaia: I think for Nextel Brazil, the link to social networking is the opportunity. The winners in this market are the ones that know their clients really well. That's why in Nextel Brazil we have 3,500 sales reps who visit and interact with and get to know our clients on a daily basis. That's very important to us, because by understanding the clients' needs we can provide good solutions. The way we grow in Brazil will be through social networking.

We consider ourselves a professional in a social network of clients or clusters of clients that are being connected through Nextel services. Data confirm that 66% of our growth net adds comes from our client base, from referrals. Or it comes from add-ons, when a client adds another radio or another handset or another service line. Only one-third of our growth comes from pure prospecting.

We have intended to grow inside out when we expand to 3G because we believe that connecting the right clients, at the right time, with the right services will shape the game in our favour for the segments that we're going to pursue for 3G. This social and professional network is important to us partly because it's like organic growth—inside out.

Our churn in 2010 was 1.36% a month, which is considered really low, not only in Brazil but all over the world as well. So, social and professional network applications could be a very good area of opportunity for us. That's one thing.

Another area we believe to be an opportunity is data, actually in two segments. The first segment is mobile broadband because it's one of the first services that 3G can support. In Brazil, we know that customers could be happier about the 3G services they've received so far. In 2010, Anatel received 30,000 formal complaints about the existing 3G mobile broadband services in Brazil. So we have an opportunity to provide a mobile broadband service that can match clients' expectations.

The other segment, as we have learned through the face-to-face interaction between our clients and our sales reps, is the data applications in the business performance environment. We can help our customers perform better, understand better what their sales people are doing and understand better what their clients want. Through 3G, we can offer customised applications that can help our customers improve their performance.

Communications Review:

Well, that leads us nicely into the next question about the role that innovation plays within Nextel. Is innovation very important to developing the business in the right direction? If so, how does innovation give you a competitive advantage?

Chaia: One of the main challenges that I have today in Nextel Brazil is to combat success. If you don't combat success, you get lazy. You get so comfortable that your chances to become more successful, or to sustain your success in the future, are dramatically reduced. When you push people to celebrate what you've achieved, it isn't only a celebration because really you're still striving for your next challenge.

Innovation plays a major role in trying to get the next success or the next level of increase in our performance. Innovation is in our company's DNA not because it sounds nice to say, but because we believe innovation to be a tool that enables us to keep delivering better performance year after year.

We play in the innovation environment in two ways. One way is by drawing on the best competencies and support from NII. We have what we call the innovation pool in NII. One recent innovation from this pool is HPTT, high-performance PTT on 3G handsets. This is high-speed Internet with the PTT button that improves the community effect that has been very important to NII's success in the past and, I believe, will be in the future. We did a demonstration in April to some investors in Peru, and this HPTT on the CDMA platform is real. It's working. It's live. This will be a major breakthrough when Nextel introduces 3G in our market.

The other innovation that we just launched in Brazil is push to Twitter. Twitter is another social network. It's very popular and, I would say, intrinsic in the Brazilian community, with both businesses and consumers. The way it works is that when you push the PTT button and speak, what you say goes directly to your Twitter page. I believe it's the first spoken application for Twitter. We are bringing emotion to the social networking phenomenon. Although we only recently launched push to Twitter, the success has been amazing because people can see behind what's written. It captures the emotion of a specific moment.

The other way we innovate is by relying on our people who interact on a daily basis with our clients. We have huge communication and interaction programmes for attracting suggestions and transforming them into innovations. We have employee meetings where I and all of the vice presidents here in Nextel Brazil interact with our employees. We have 6,000 employees meeting face-to-face at least two times per year to share strategy, priorities and results and to connect. From those in the field, we hear what our clients are saying, their suggestions and recommendations, how we can improve and provide a better experience for our clients.

I believe communicating with our clients is a very good source of innovation for us in improving our services, our rate plans and even how we interact with them.

Communications Review:

CEOs have differing perspectives on the importance of alternative business models. Some are sharing networks and service platforms with other providers, and some are outsourcing services or adopting shared service centres. Are these alternative business models something that you spend time considering? If so, which ones do you think might have some benefit for Nextel?

Chaia: Alternative business models are logical, from our perspective, because the battle for market share has changed. Brazil has more than 100% penetration, so it's very mature. And when the market achieves this level of maturity, it's a different game. Now, the game is about working in the middle of the P&L, trying to get the best CPU [cost per unit] and better scale. We really have to focus on the core business, which is serving the client—that's what we believe. So things like sharing networks and service platforms, outsourcing and shared service centres are, for us, a reality.

We have colocated sites with some of our competitors, and we receive good feedback from them. With 3G, we would like to increase that as well. In terms of service centres, we've just entered a partnership with HP on the IT side. And one with Nokia Siemens on the engineering side, relating to maintenance and the expansion of IT systems and applications and for maintaining, organising and managing our network. That isn't just Nextel Brazil, but in all markets where NII is present. Our reason is so that we can concentrate on our core business and focus our investments on providing a better customer experience, day after day.

Initially, some competitors that are much bigger than us were not considering the network as a differentiation point. But now everybody's trying to get the best of scale and the best partnerships or outsourcing arrangements so that they can concentrate on their core business—or, indeed, on the real, critical part of the value chain, the customer experience chain.

Communications Review:

Finally, with the global telecom market changing, everybody's business is evolving into newer markets and new companies are entering this arena. Who do you think are likely to be your main competitors in the next five years?

Chaia: The only thing I know is that in the next five years, competition will be tougher and more diversified than it has been in the past. For Nextel in Brazil, we already have a very competitive market with four big challengers, all with some multinational presence: América Móvil, Telecom Italia, Telefónica and Portugal Telecom. We believe competition will focus not on mobile but rather on triple play and quad play, through a combination of services to increase loyalty and share of the customer.

At Nextel, we have ARPU [average revenue per user] that is three to four times higher than the average in the market and a market that's much more mature. Everybody wants our clients. Everybody is trying to conquer Nextel's radio clients and to steal the members of our clubs. So, competition is very strong and has been increasing.

When I think about the future, I also see that a new player could be coming. All the Internet application providers and other new models that are just beginning in Latin America will try to get some share of the data revenue. This can appear in a very disruptive way. I think it's going to be interesting to see what Microsoft will do with Skype, how it's going to be a service on their Windows mobile operating system and what the connection with telecom companies will be.

There is also the MVNO threat. MVNO, if you have one, can be a partner but can be a competitor if your competitors have a very segmented and major-player MVNO. You can have competition from companies that may be your partners and competitors at the same time.

An interview with:

Adrián Calaza
Telecom Argentina



Telecom Argentina began operating in 1990 as a result of the local telecom market being privatised. Today, it is a fully integrated operator with a leading market position in all segments—fixed, mobile, broadband and ICT. Because Argentina is one of the fastest-growing telecom markets in Latin America, competitive pressures are building. Here, Telecom’s Chief Financial Officer Adrián Calaza discusses how the company focuses on differentiation as a way to gain—and, more important, to retain—customers as new services, operators and regulations change the market.

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Adrián Calaza holds a degree in Business Administration from the Universidad de Belgrano and an MBA from the Universidad del CEMA. He was appointed Telecom Argentina’s chief financial officer in August 2009. Mr. Calaza joined the Telecom Italia Group in January 1999, where he held various positions including chief financial officer of Entel Bolivia, a subsidiary of the TI Group, and corporate chief financial officer of Telecom Italia Latam in Brazil. Mr. Calaza returned to Argentina in 2007 as manager of the Corporate Administrative Services Department of the Telecom Group.

Everything that creates more appetite among customers to use data or the Internet is an opportunity for us.

Communications Review: What's your perspective on the role that telecoms has played in Latin America and, more specifically, in Argentina? Where do you think the market is headed?

Calaza: I think telecom companies in Latin America are ahead of other service companies. Telecom services in Latin America are dynamic and innovative, and that helps the evolution of the different countries, particularly in Argentina. Argentina leads Latin America in penetration of new mobile and Internet services, and the quality of telecom services in the country is very good. Of course, the development may not be on the same path as in the UK or in other developed countries, but I think we have very good service and competitive prices.

Telecoms has evolved very fast, and we have a good base in Argentina. I think the mobile market is nearing saturation in the growth of new customers, but we will have a few more years of growth fuelled by new services. The new growth in mobile will come from value-added services and the increasing penetration of smartphones. On the fixed side, the evolution of the Internet is critical, although the nearly 100% computer penetration may cause limitations.

Communications Review: On the Internet services side, do you think some of those limitations will be met through mobile? Forecasts of global developments suggest that 60% to 80% of the customers in developing countries access the Internet only through mobile.

Calaza: That isn't the case here in Argentina. Mobile Internet service is just starting to develop. We have very good penetration in fixed lines and in cable services, with around 10m fixed line customers and more than 5m customers with cable services, and broadband household penetration of around 40%. Broadband or Internet services still predominate in the fixed sector, but mobile Internet is growing very fast.

Communications Review: Even though MVNO [mobile virtual network operator] is still in an embryonic stage, do you believe it will have an impact on Argentina's mobile operators?

Calaza: Currently in Argentina, we have just one MVNO providing services. It comprises some cooperatives that offer basic telephony in the interior of the country, and they're offering a mobile service through MVNO. So, we don't see any impact yet. But the potential of having more MVNOs brings some uncertainties.

First of all, which network are they using? If it's our network, that's one thing; if it's the network of one of our competitors, that's something very different. What really matters is the totality of the customer.

Look at what's happening in other countries. If a big retail store starts an MVNO, the store knows the customer, can offer many other things to that customer and can direct the customer to various services. For us, if we lose the totality of the customer, we lose the opportunity to direct the customer to use services that may be more profitable for us. This is going to be more of a concern when number portability goes into effect in Argentina in November or December of 2011.

Communications Review: Indeed. From what we've observed around the world, the impact of number portability has varied enormously from market to market. In some places it seems to have made little or no difference, and in others the impact has been more pronounced.

Calaza: In the end, number portability means more costs for the operators. The benefit is clearly for the customer, which is fair. For Telecom Argentina or, in this case, for Personal [the company's mobile communications business], we're seeing more of an opportunity than a threat. An opportunity for us to gain more customers. But the timing is the thing; we will incur all the costs this year and reap the benefits next year or the following year.

If you don't have good innovation in infrastructure or in technology, then it's very difficult to be innovative in services.

Communications Review:

Of the new types of services for mobile, which do you think are the most exciting for the Argentinean market and are likely to generate the most opportunities for your mobile business—content, banking, social networking, advertising?

Calaza: Setting aside banking, all the services that you mention are what creates more Internet usage—more data usage—and that's our core business. Everything that creates more appetite among customers to use data or the Internet is an opportunity for us. Nowadays, 10% of our customer base have smartphones. If all these new services are attracting customers to new handsets or new smartphones or new data-enabled mobiles, that means new customers who are using data. So I don't look at them as individual new services or think about which service is better for us than another.

Today, clearly, social networks are delivering volume because the youth segment of the population is driving data usage. Mobile banking services in Argentina still have a very low penetration rate.

Mobile payments are something different, and a lot has been written about this area in the last year or two. It is a very difficult new service that we need to understand better.

Communications Review: Regarding advertising, there are two potential populations. One is the younger, less affluent people who are prepared to accept advertising to offset telecom costs. The other consists of those who are more interested in receiving targeted and tailored advertising based on location services and that sort of thing. What's your reaction to that? And, do you think advertising over telecom services is likely to increase significantly in the near term?

Calaza: Yes, I definitely think so. The thing is, though, that the customer accepts the advertising in exchange for something else. So telecom operators have to be very careful because a wrong move can result in losing customers. Here in Argentina, this way of advertising is still new and developing, but I think it will have a key role in mobile services in the future.

Communications Review: Various telcos around the world are innovating to try to get ahead of their rivals. How important is innovation to Telecom Argentina? How do you stimulate innovation in the company, and how are you using it to compete?

Calaza: We think that innovation is the main differentiator for competition. For us, it's a must. For example, in mobile, Personal was the first company to launch GSM services, the first to launch 3G services and the first to conduct trials for LTE services last year. Innovation is the most important differentiation point for us, so we always try to be ahead of changes.

Communications Review:

To what extent do you innovate in other areas, particularly the customer experience? Increasingly, younger generations are fairly technology agnostic. Those customers really don't mind how the telcos provide the service as long as they do so quickly and deliver to the customers what they want. So, tell us about your innovation in areas other than technology.

Calaza: I think it's all related. For example, two years ago we launched a new online music service that was very well received by the youth segment and is a huge differentiator for us with that market. If you don't have good innovation in infrastructure or in technology, then it's very difficult to be innovative in services.

Communications Review:

Will you roll out LTE because of the need for further capacity and increased speeds or because of the big increase expected in the bandwidth requirements for applications? Or a combination of the two?

Calaza: I think it's a combination of the two. We're not looking at a massive LTE launch next year, but we are discussing it. We're trying to deliver more new services because that's the future for us. At the same time, people always want something more. I expect that next year more than 20% of our customer base will have smartphones—double the number today. The tablet wave is growing very fast, so customers will be asking for more speed and more capacity. In the end, we have to fulfil those expectations because if not, then we're going to lose customers.

We share some sites with other operators. I don't recommend a full sharing scheme because, in the end, better infrastructure is a differentiator.

Communications Review: Most telcos have been working on cost reduction and efficiency, particularly in light of the massive costs involved in rolling out new technology. What alternative business models are you using, or considering using, to drive down costs and increase efficiency?

Calaza: Our cost structure is something we always try to be very mindful of, and we have a lot of controls on our costs. As for sharing networks and service platforms, we think we have a competitive advantage over other operators because of having a fully integrated company with fixed and mobile services running on the same network. The only different part of that network is that access can be mobile or fixed. We also share some sites with other operators. I don't recommend a full sharing scheme because, in the end, better infrastructure is a differentiator. Of course, everything that helps us reduce costs is a benefit—but has to be strategic. With outsourcing, the approach is the same: outsource services and parts of the business that don't add value.

Nowadays, operators have to be careful to avoid losing some flexibility in processes. We have to be very focused on processes but able to change what isn't working well. And we may run into problems if trying to reduce a cost in one place raises costs somewhere else not previously taken into account.

Communications Review: Given changes in the competitive environment and the increased importance of applications and smart devices, who do you think will be your major competitors in five years?

Calaza: I think this question is an industry discussion. Content providers are growing fast and delivering services that are stimulating growth in bandwidth and infrastructure usage. Today, telecom operators own this infrastructure, so for the new services the real question is, who will get the biggest portion of the revenues? Our industry has to be very careful and analyse deeply what's going on with the content providers. We're going to have the usual industry competition among operators, cable companies and mobile or integrated operators, but we also have to be aware of what the content providers are doing.

This evolution will happen very fast and I think that competition may be clearer in one or two years. We may see greater collaboration between content providers, equipment providers and the network operators. To provide the customer the best possible range of services at the right price, there has to be a greater level of collaboration than there has been in the past.

I think this discussion has just started. Of course, when a discussion starts, the first moves we see are companies trying to secure their position. In the next few years, we're going to have a revolution of this full business matrix between content providers, handset producers and network operators because the business is changing.

The change in competition, unfortunately, will have an impact on overall telco profitability. For years telecom companies have had strong profit margins, but profitability is going to be an issue in the coming years. There will be some margin dilution because competition is very tough. We're seeing the effect in Argentina already. Costs are rising and we aren't able to pass the costs fully to the customers, mainly because of competition. In Argentina we have another big issue, which is inflation. So, I think that the next few years will bring some dilution on margins mixed with a lot of growth. But in the end, telecommunications companies will still be profitable.

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Global entertainment and media outlook 2011-2015

With infrastructure under ever-increasing pressure from consumers' downloading and streaming activity, pipe owners need to know how content consumption patterns are changing in the coming years. The *Outlook* is a consistent, comprehensive source of global analysis for consumer/end-user spending. With like-for-like, 5-year historical and forecast data across 13 industry segments in 48 countries, the online *Outlook* makes it easy to compare and contrast regional growth rates and consumer spend. Visit www.pwc.com/outlook.

The new digital economy: how it will transform business

Based on both quantitative and qualitative global research conducted by Oxford Economics and sponsored by PwC, AT&T, Cisco, Citi, and SAP, this white paper identifies and delves into the six seismic shifts that are transforming the global playing field and outlines how they will affect companies in all industries. These shifts are:

- The coming of age of the global digital economy
- Industries undergoing digital transformation
- The digital divide reversing—moving from West to East
- The emerging-market customer taking centre stage
- Business shifting into hyperdrive—the pace of change
- Firms reorganising to fully embrace the digital economy

What should CEOs be doing to ensure their firms remain competitive in this disruptive environment? A set of imperatives and recommended actions are offered in the report. To read or download the PDF file, visit www.pwc.com/technology.

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Code: CRV16N2

