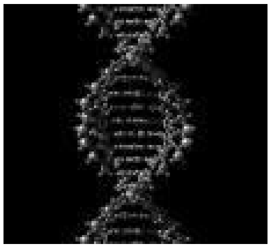
MEDICAL DEVICES



PHARMACEUTICALS

CHEMICALS

FOOD & BEVERAGE

ELECTRONICS

Latin America Mobile Services Market Outlook

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FROST & SULLIVAN

Market Engineering

Latin America Mobile Services Market Outlook I, 2011

3G Network Expansion and 4G Rollouts to Drive Fixed-mobile Broadband Substitution in Latin America

May 2012

Contents

Executive Summary

- Mobile services are expected to grow at a compound annual growth rate (CAGR) of x.x percent between 2011 and 2017, reaching $xxx.xx billion in 2017.
- The most relevant drivers for this growth are the increasing investments to expand 3G network coverage and to improve quality and the growing penetration of smart devices.
- According to the International Monetary Fund (IMF) estimates, all economies of Latin America are expected to grow in 2011, and this is a relevant driver for mobile services.
- However, regulatory delays on important decisions, such as spectrum auctions and policies to stimulate and regulate competition, are still restraints for development.
- In addition, lack of competition in some areas and market concentration in some countries are considered the main barriers.
- Currently there are xx mobile network operators in the top 6 economies in Latin America and 5 Mobile Virtual Network Operators (MVNOs).
- The top 3 groups, América Móvil, Telefónica S.A., and Telecom Italia, concentrate xx.x percent of the market in terms of revenue.

Executive Summary (continued)

- Three relevant Mergers and Acquisitions (M&A) transactions impacted the mobile services market in 2011:
  - América Móvil's acquisition of the remaining xx percent stake in Teléfonos de México, S.A.B. de C.V. that it did not own, in October 2011.
  - AES Atimus acquisition by TIM in Brazil on July 2011, helping to increase TIM's backhaul capacity, cost-reduction and the launch of convergent offerings.
  - A xx percent stake in Iusacell acquisition* by Grupo Televisa on April 2011, helping the expansion of quadruple play offerings.
- In 2011, 3G network deployment and coverage expansion continued to be a top priority.
- About xx.x million mobile broadband lines were provided by the first semester of 2011, and 2011 is expected to end with xx.x million lines. These include Machine-to-Machine (M2M).
- Upgrades of High Speed Packet Access (HSPA) networks to High Speed Packet Access Plus (HSPA+), and also Long Term Evolution (LTE) commercial launches are expected.
- This is likely to foster mobile broadband and to provide an alternative for fixed broadband.

*This acquisition is still being evaluated by Mexico's anti-trust bodies.

Market Overview—Fact Sheet

The gross domestic product (GDP) evolved in all countries*, and are expected to grow in 2011, according to the IMF estimates in June 17, 2011.

The currency of Argentina and Venezuela suffered devaluations in 2010 in relation to the U.S. dollar, while x economies had appreciation.

This trend continued in the 1H2011 for all countries, except in Venezuela, where the rate is fixed.

As a result of the revenue growth in local currency, associated with exchange rates, the revenue of the Latin American mobile services market increased by xx.x percent in 2011.

Mobile Services Market: Fact Sheet, Latin America, 2011

Population (millions of inhabitants)	**xxx.x**
Mobile lines (millions of lines in service)	**xxx.x**
Mobile penetration (% of population)	**xxx.x**
Mobile prepaid lines (% contribution)	**xx.x**

Note: Latin America figures include only Argentina, Brazil, Chile, Colombia, Mexico, and Venezuela figures

Note: All figures are rounded. The base year is 2011.

Market Overview—Methodology

Revenue – Revenue presented in the research service is net revenue obtained either directly from service providers' financial reports or in primary interviews with mobile operators conducted during this study.

Exchange Rates – The U.S. Dollar is the official currency used for this study to measure revenue. For each of the countries below, the exchange rates are given, which are applied for 1H2011 and are relative to 2010:

Argentina	1$ = ARG$x.xx	Brazil	1$ = BRL$x.xx	Chile	1$ = CHP$xxx.xx
Colombia	1$ = COP$x,xxx.xx	Mexico	1$ = MXP$xx.xx	Venezuela	1$ = Bs.F$x.xx

Forecasts – Revenue is given from the base year to end of forecast period, 2011 to 2017. The forecast is done using the base year exchange rates.

Research Methodology – Frost & Sullivan conducted primary interviews with key executives from different areas (marketing, strategic planning, market intelligence, product and content services) within the most important service providers in the six countries on the scope of this study. Extensive secondary research was conducted for two months throughout Frost & Sullivan's internal database and other public information sources, such as financial reports, industry associations, statistic agencies, and specialized Web sites.

Market Overview—Definitions

Mobile Services – Mobile services are telecommunication services that can be utilized from any location. These services are enabled with the aid of a mobile device. New mobile lines (prepaid and postpaid) and mobile broadband access to Internet are the key mobile services considered in this study.

Prepaid and Postpaid Mobile Services – In prepaid mobile services, the customer makes a payment called credits at the outset and then utilizes the services. In postpaid mobile services, the customer uses the services first, then makes payments at the completion of a period of usage, normally every month.

Mobile Content Services – For the purpose of the study, mobile content services comprise all download services, such as music, games, video/TV, images, and subscription services through SMS (excluding contests, operator promotions, and televoting services) provided by the mobile operator. Mobile content services, such as music, games, and video/TV are data-intensive and normally offered through 3G services such as High-Speed Downlink Packet Access (HSDPA) or High-Speed Uplink Packet Access (HSUPA).

3G Services – 3G is the third generation of mobile phone standards and technology after x.xG. It is based on the International Telecommunication Union (ITU) family of standards under the International Mobile Telecommunications program, 'IMT-2000'.

- Mobile broadband services in Latin America are mostly offered through 3G services, which allow network operators to offer subscribers a wider range of advanced services while achieving greater network capacity through improved spectral efficiency. Services include wide-area wireless voice telephony and broadband wireless data in a mobile environment.