



Information Technology and Communications (ITC)

A Top Export Prospect for Colombia

September 2014

Overview

Colombia's IT Market Overview

The Government of Colombia (GOC) continues its efforts to move the country to the forefront of Information Technology (IT). But as international rankings in the table below show, Colombia still requires sustained efforts both at the regional and global level. As such the IT sector presents numerous opportunities for U.S. companies offering products and services, in everything from basic infrastructure, to hardware, to connectivity, to IT services, needed to help Colombia move forward with its ambitious goals.

WEF Network Readiness Index
(2013):

No. 66 / 144 countries

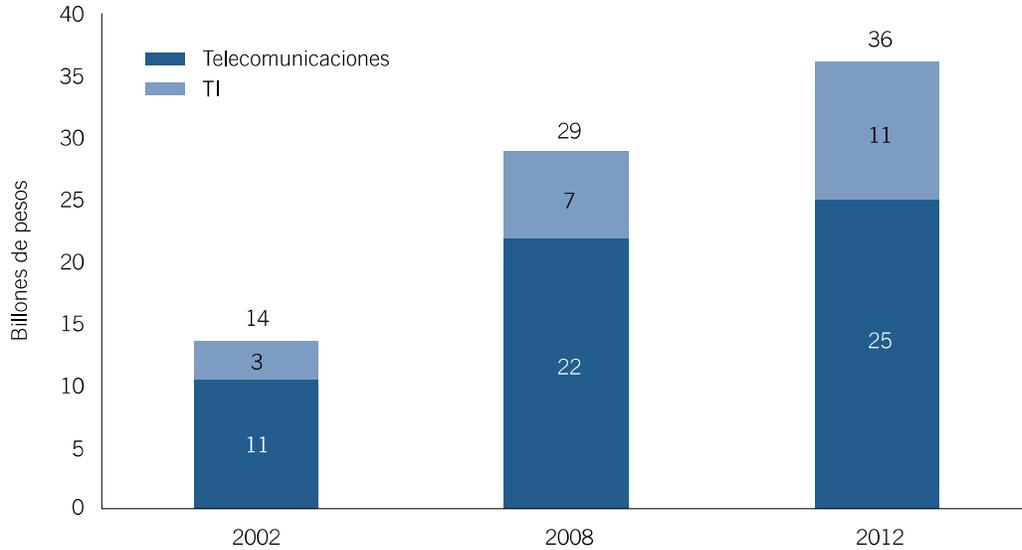
8th in region

Source: World Economic Forum, <http://reports.weforum.org/global-information-technology-report-2013/>

According to the latest study of the IT market in Colombia (June 2013) carried out by Fedesarrollo and the Colombian IT and Telecommunications Chamber of Commerce (CCIT), it is estimated that Colombia's Information Technologies and Communications sector amounted to approximately US\$19 billion in 2012, including television, internet, telephony and IT services. This figure shows 9.9 percent nominal annual growth from 2002, when it stood at approximately US\$7.3 billion.

Breakdown of ITC Revenues by Telecommunications and Information Technologies

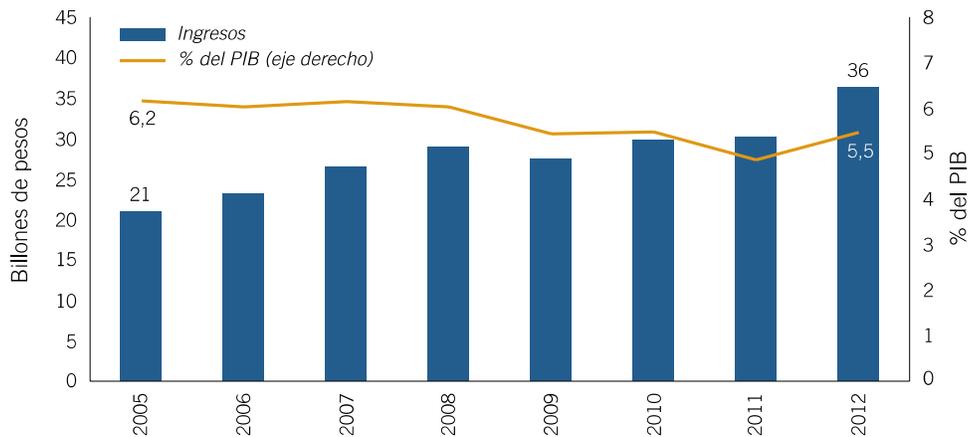
(Billion Colombian Pesos- COP)



Sources: Data, DIAN and Fedesarrollo calculations; Graph, “El Sector TIC: La Nueva Locomotora de la Economía Colombiana”, <http://bit.ly/1eOMgCy>

The graph above shows an upward trend for telecommunications and IT revenues, as well as an increased share of the total income by the Information Technology subsector (IT 10 year average growth of 13.7 percent vs. 9.1 percent in telecommunications). This trend is expected to continue, with increased dynamism and expenditures in IT and Internet services as GOC policies seek to increase the share of ITC as a part of national GDP.

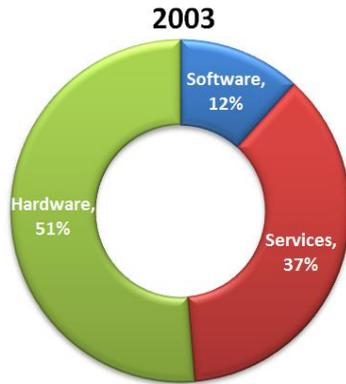
Evolution of ITC Sector Income and % of GDP



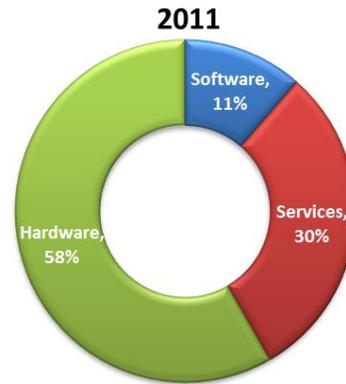
Sources: Data, DIAN and Fedesarrollo calculations; Graph, “El Sector TIC: La Nueva Locomotora de la Economía Colombiana”, <http://bit.ly/1eOMgCy>

Figures by research firm IDC show that Colombia's IT sector revenues in 2011 were 4 times those of 2003, having grown at an average rate of 20 percent year-over-year (y-o-y). Fedesarrollo and CCIT figures show that IT market revenues stood at US\$5.7 billion in 2012.

IT Sector Breakdown by Subcomponent:



IT Sector Breakdown by Subcomponent:



Source: ProExport, using IDC 2012 data- <http://bit.ly/Tpwd09>

In terms of specific IT subsectors, it is possible to perceive how Colombia's market continues to be concentrated mostly on hardware. While by 2011 software and services grew in revenue over three times their 2003 levels, hardware continues to make up more than 50 percent of total revenue, with over US\$3.5 billion in 2011.

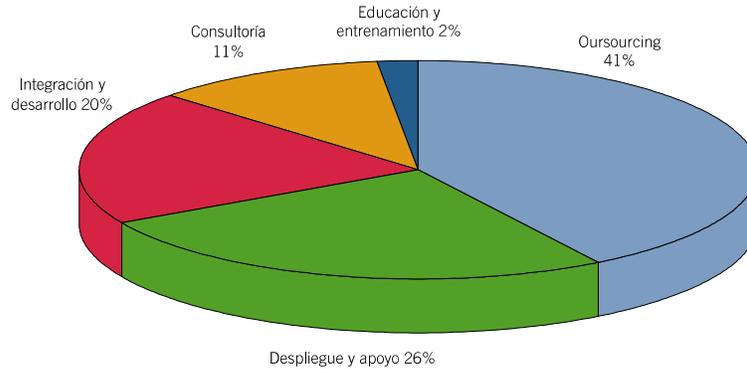
IT services rank second, having shown a steady growth in revenue over the last 8 years to surpass US\$1.8 billion in 2011, made up by outsourcing (40 percent), deployment and support (26 percent), integration and development (20 percent), consulting (11 percent) and education and entertainment.

According to IDC figures, software revenue in 2011 stood at US\$698 million and held a share of 11 percent of Colombia's IT market. Software revenue in 2011 can be further broken down into software operating systems (53 percent), security software (18 percent), systems and network management software (18 percent), and storage software (11 percent).

Local production in the IT sector consists of **computer hardware assembly**, repair, software development, and an expanding offering of IT services. These developments have helped the IT sector in Colombia become the third largest in Latin America in relation to per capita GDP, with approximately 3,000 companies operating in the sector (mostly retailers and distributors) employing more than 32,000 people.

Breakdown of ITC Services Sales in 2012:

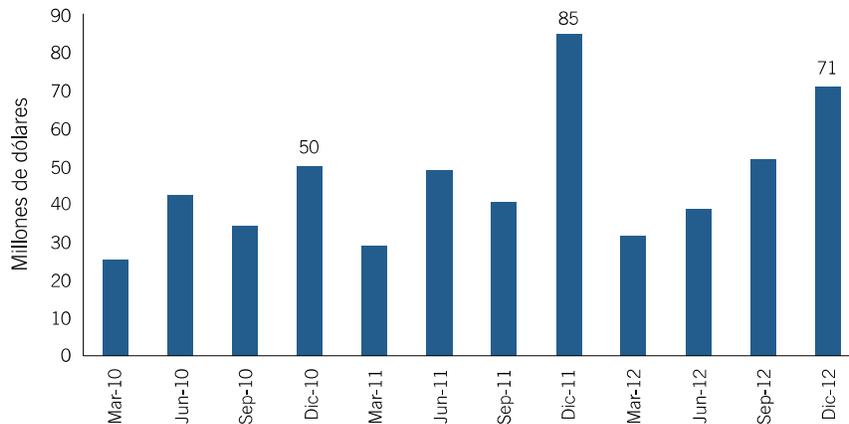
Outsourcing (41%), Deployment and Support (26%), Integration and Development (20%), Consulting (11%), Education and Entertainment (2%)



Source: ProExport, “El Sector TIC: La Nueva Locomotora de la Economía Colombiana”, <http://bit.ly/1eOMgCy>

Looking forward, sources point to an upward trend for Colombia’s IT sector as a result of expected growth of the Colombian economy, as well as to public policies implemented by the Ministry of Information Technologies and Communications (MinTIC).

Colombian Imports of IT Services (US\$ Mill.)

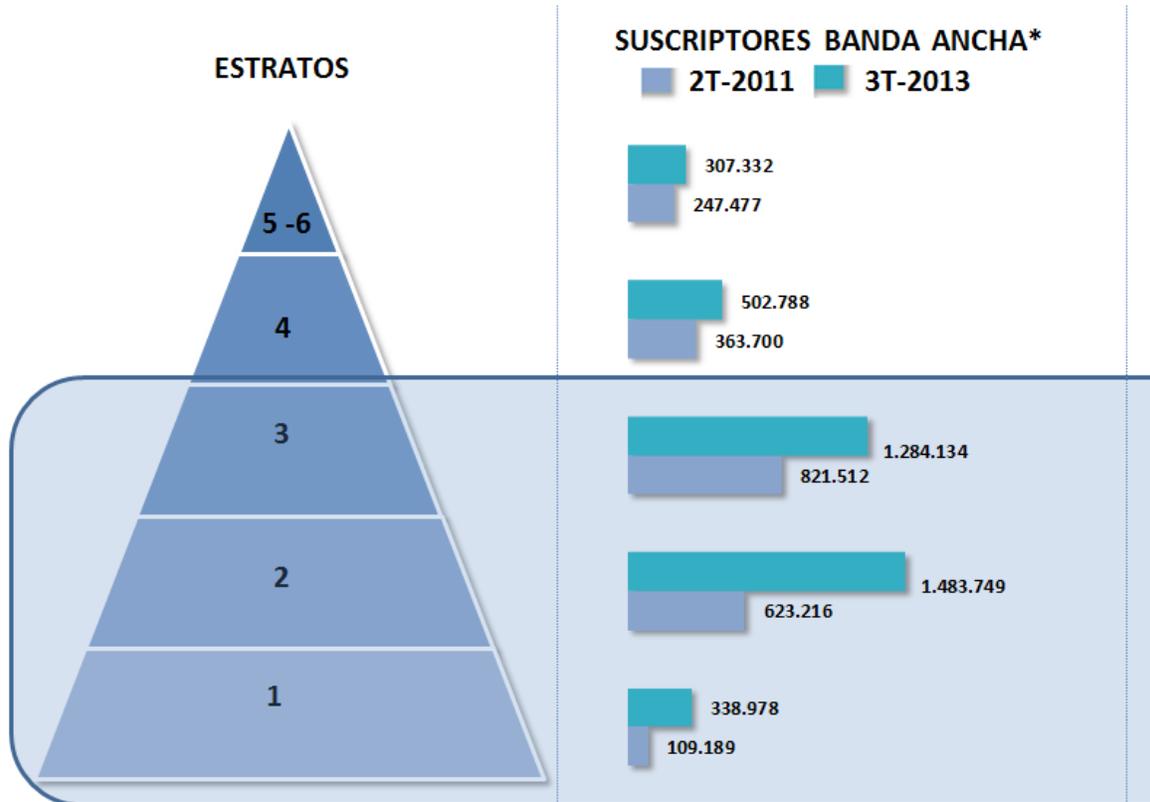


Source: Banco de la República (Balanza de Pagos), “El Sector TIC: La Nueva Locomotora de la Economía Colombiana”, <http://bit.ly/1eOMgCy>

In this regard, according to MinTIC data, at the close of the third quarter of 2013 approximately 7.6 million Colombians were broadband subscribers, achieving a penetration rate of 16 percent, up from 2.2 million in 2010. While mobile Internet users grew to 4 million

at the close of the same time period, it is also worth noting the large increase in broadband connectivity at the lower demographic levels, which now constitute the largest subscriber base in Colombia.

Colombia’s Income Demographics (left) and Broadband Subscribers (right)



Source: MinTIC Quarterly Report, 3Q2013: <http://bit.ly/1ioQbGD>

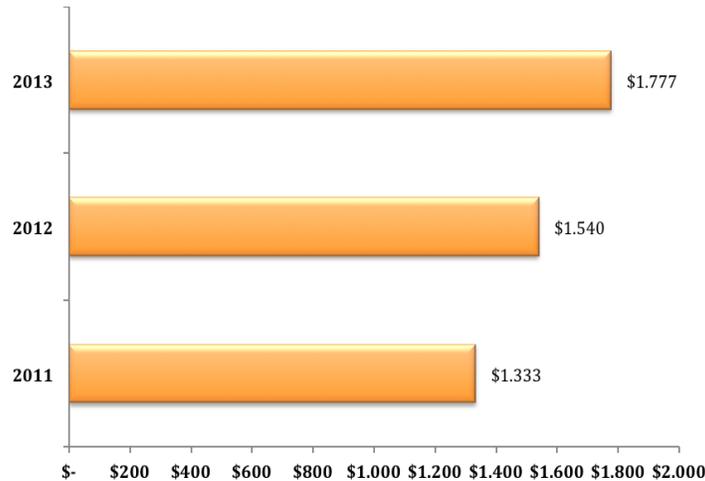
In particular, growth in the Information Technologies and Telecommunications sectors will be strongly influenced by the considerable achievements in terms of widespread Internet and mobile connectivity of the Colombian population, as well as increased small- and medium-sized enterprise (SME) access to and use of technologies and the Internet.

With regard to technology and Internet usage by SMEs, from 2010 through 2012 Internet usage tripled from just seven percent to approximately 20 percent. In fact, SMEs constitute 80 percent of the companies in the IT sector, a good number of which are open to strategic partnerships and business opportunities with international firms that will allow them to grow in the local market.

Colombian International Trade in IT Equipment

Colombian Imports of IT Goods (HS8471): Year over Year as of October 2013

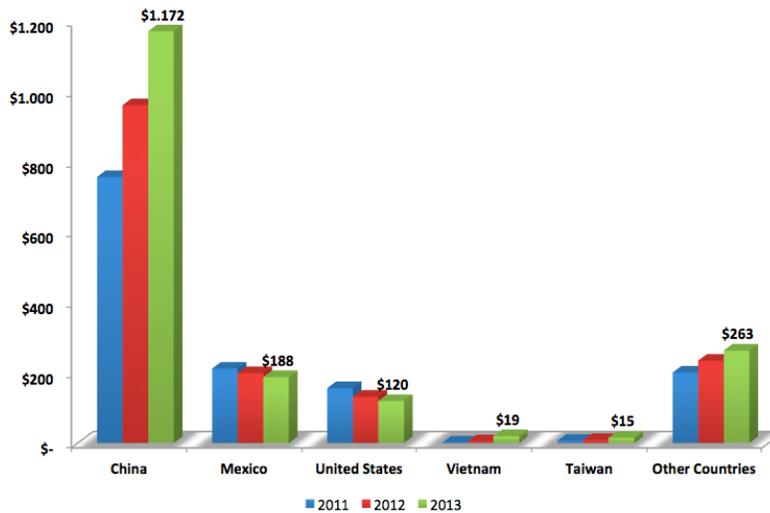
US\$ Mill.



Source: Graph by U.S. Commercial Service- Bogotá with Global Trade Atlas data.

In terms of international trade in IT equipment (Harmonized System Code- HS8471), Global Trade Atlas figures indicate that Colombia’s total imports year over year for the period of October 2012-2013 amounted to US\$1.36 billion, a 33 percent nominal growth compared to 2011. Of this total, 66 percent of imports (US\$1.17 billion) came from China, followed by Mexico with 11 percent (US\$188 million), and the United States with seven percent (US\$120 million).

Colombian Imports of IT Goods (HS8471) by Country (US\$ Millions)



Source: Graph by U.S. Commercial Service- Bogotá with Global Trade Atlas data.

It is worth noting how while the total value of Colombia's IT products has been increasing, those imported directly from the United States have moved downward over the past three years, leading to a drop in market share in comparison to China and Mexico. While the latter has also been negatively affected, IT imports from the former have been constantly increasing, along with those from other Asian countries such as Vietnam and Taiwan.

US\$ Mill.

	2012	2013	Y-o-Y %Var.
World	\$1.540	\$1.777	15%
China	\$961	\$1.172	22%
Mexico	\$199	\$188	-6%
United States	\$132	\$120	-9%
Vietnam	\$5	\$19	294%
Taiwan	\$8	\$15	81%
Other Countries	\$234	\$263	12%

Source: U.S. Commercial Service- Bogotá with Global Trade Atlas data

The slide in the U.S. market share of Colombia's IT imports has continued in spite of the FTA between Colombia and the United States which went into effect in May 2012, while China's advantage has continued to increase. Two facts must be taken into consideration with regard to this trend: 1) many international and U.S. manufacturers have their production facilities in China and export directly from there; 2) Chinese companies continue to expand aggressively into Latin America and Colombia, through now familiar brands such as Huawei and Lenovo.

Nevertheless, as the IT market (computers, software, components, and related services) in Colombia is expected to continue growing well above GDP rates, there are good prospects for U.S. companies to take advantage of the benefits derived from the FTA and reverse this trend.

This agreement not only locks in tariff reductions for a large number of U.S. IT goods, but also creates a stable framework to do business, establishes dispute resolution mechanisms, and provides tangible benefits such as U.S. companies getting the same treatment as Colombian ones in public procurement processes, where interesting opportunities lie in the short and medium term.

GOC Policies on IT

A considerable share of the growth of the IT sector in Colombia in recent years is closely associated with various major public policy initiatives, many of which have been pushed by MinTIC. The plans and reforms that have been passed have served and are expected to continue to fuel the growth of the IT and telecommunications sector over the next few years.

In particular, MinTIC's Vive Digital program, which is Colombia's technology plan for the 2010-2014 period, was crafted to increase the country's internet penetration, reduce unemployment, and raise technology appropriation and overall competitiveness. The three pillars of this four year program include: multiplying the number of internet connections to 8.8 million (x4); increasing to 700 the number of municipalities connected to the information highway (x3, reaching 63 percent of the total); and connecting to the internet 50 percent of Colombian homes and SMEs (from a 27 percent and 7 percent baseline, respectively).

From 2010 through 2014, the Vive Digital program has invested approximately US\$3.1 billion, aimed at strengthening and activating IT supply (infrastructure and services) and demand (users and applications). Of this budget, US\$1.8 billion was funded by MinTIC, while the remaining US\$1.3 billion were funded by various other ministries and public institutions.

As previously stated, due to increased Internet connectivity, complete fiber optic broadband connection for most municipalities, and a larger share of connected homes and SMEs, demand for hardware, software and IT services is expected to continue growing.

Furthermore, with concrete mechanisms such as the SME Technological Modernization fund, set up by MinTIC and executed by government-run Bancoldex, local companies can tap resources of over US\$16.5 million dollars to invest in IT services and infrastructure modernization.

Major tax reforms passed over the last few years are also expected to have a positive effect on IT sector growth in Colombia. Most recently, legislation approved in December 2012 provides for a VAT exemption for desktop and laptop computers priced under approximately US\$1,146 (COP\$2,200,962); intelligent mobile devices priced under approximately US\$601 (COP\$1,154,163); and Internet services for lower income households.

Previous legislation had already achieved income tax exemptions for software development companies based in Colombia, as well as a general tariff reduction from five percent to 0 percent for all devices with Internet connectivity (laptops, tablets, and smartphones).

Most recently, decree 2499 of 2012 reduced withholding tax from 11 percent to 3.5 percent for locally based companies involved in software development, website design, software consulting services, licensing services and software usage rights. Thanks to the FTA and the national treatment provisions, U.S. companies should be subject to these same benefits.

Finally, the Productive Transformation Program, crafted by the Ministry of Trade and executed by government-run Bancoldex, is also fostering IT growth in Colombia. Under this

program, the GOC seeks to take various sectors to world-class status, including Business Process Outsourcing (BPO) and Software Development.

For the BPO sector, Colombia has sought to attract the establishment of Call Centers within its territory by offering attractive investment conditions and strengthening human capital, particularly in language skills. It has also sought to become more attractive in Knowledge Process Outsourcing, Information Technology Outsourcing and Added-Value Services.

In the last couple of years Colombia has been successful in attracting large multinationals such as HP, Unisys, Indra, and Teleperformance, which have established large data and call center facilities throughout the country. These operations, which require large investments in computers, servers, software and components, are expected to continue as policymakers at the local and national level remain adamant about consolidating BPO as a driver of economic growth and employment in Colombia.

As progress is made on all these fronts, interesting opportunities will emerge for U.S. companies capable of identifying emerging demand for more sophisticated products and services from local and foreign companies operating in these sectors in Colombia.

Sub-Sector Best Prospects

Best prospects for:

1. Cloud Computing and Virtualization: Infrastructure as a service (IaaS); Platform as a service (PaaS); Software as a service (SaaS); Network as a service (NaaS); Communications as a service (CaaS)
2. Applications Software: Enterprise Resource Planning (ERP) Solutions; Supply Chain Management Systems (SCMS); Business Intelligence Solutions; Advanced Security Software Solutions
3. Hardware:
 - a. *Medium and Large Corporate*: Upgrading of equipment compatible/enabled for cloud services
 - b. *SME and Domestic*: Computing and mobile devices, particularly for 4G/LTE services
4. Mobile Applications

Opportunities

Opportunities for U.S. companies in the Colombian IT market are associated to three main drivers: 1) increased connectivity and affordability of equipment; 2) multi-sector economic growth; and 3) government programs for institutional, regional and SME modernization.

Nationwide improvements in infrastructure along with increased connectivity for the general population and for business associated with the successful implementation of Vive Digital are expected to impact the supply and demand of IT hardware and software in a positive way. In particular, MinTIC will try to foster content development and industry-specific applications that can take advantage of the infrastructure deployed over the last four years.

Household demand for Internet-ready computers and mobile devices, such as tablets and ultra-books, is expected to increase due in part to improved infrastructure, but also due to decreases in the cost of computing equipment derived from key tax and customs reforms. By the end of 2012 Colombia could boast that IT equipment in the country was the most affordable in the region, stirring up competition as lower prices lead to increased demand from a growing middle class that can now purchase previously inaccessible goods.

With 4G/LTE services rolling out in 2014, demand for equipment capable of taking advantage of this new technology should also benefit.

A second major source of opportunities for U.S. companies in Colombia relates to sustained demand for IT hardware and services, expected from the ever growing number of new and expanding companies operating in the country's dynamically growing sectors of the economy.

As Colombia's security situation has improved over the last 10 years, so have the flows of Foreign Direct Investment into the country, with oil, energy and mining being sectors with intense activity and potential for continued growth. As major national and international companies such as Ecopetrol, Cerrejón, ISA, Chevron, Pacific Rubiales, BHP Billiton, and AngloGold Ashanti continue to expand their operations in Colombia, U.S. IT companies with experience and specific value-propositions tailored for these sectors could benefit greatly.

Other sectors with a natural demand for IT hardware and services, where growth in IT investment or refreshment cycles are expected to take place, include Business Process Outsourcing, Financial Services, Transportation and Aviation, and Retailing.

BPOs continue to be a big bet by policymakers at the national and local level, with Medellín, Barranquilla and Bogotá positioned to continue attracting local and foreign investment into the sector. Local banks are expanding throughout the region, with some regional banks and specialized financial institutions deploying operations in Colombia.

Colombia's international trade is expected to continue growing at a fast pace, as the multitude of Free Trade Agreements signed by the country enter into force. This will drive up demand for transportation and aviation services, as local goods enter new markets, and foreign goods and brands enter or expand throughout Colombia, which in turn will benefit consumer retail at the local level.

Dynamic economic activity in these sectors should prove a boon for U.S. IT companies capable of adding value to new and existing companies operating in Colombia, both foreign and domestic. Services such as Cloud Computing and Virtualization are likely to be of interest both for large multinationals seeking to reduce IT costs, as well as for SMEs looking to build computing capacity without incurring considerable expenditures.

Specific opportunities may also be found in these sectors for companies seeking more sophistication in terms of IT architecture and applications. For example, Enterprise Resource Planning (ERP) Solutions and Supply Chain Management Systems (SCMS) should be of particular interest to companies operating in manufacturing, logistics, transportation, aviation and trade. Business Intelligence Solutions and Advanced Security Software Solutions should also be of interest for retailing and financial services companies.

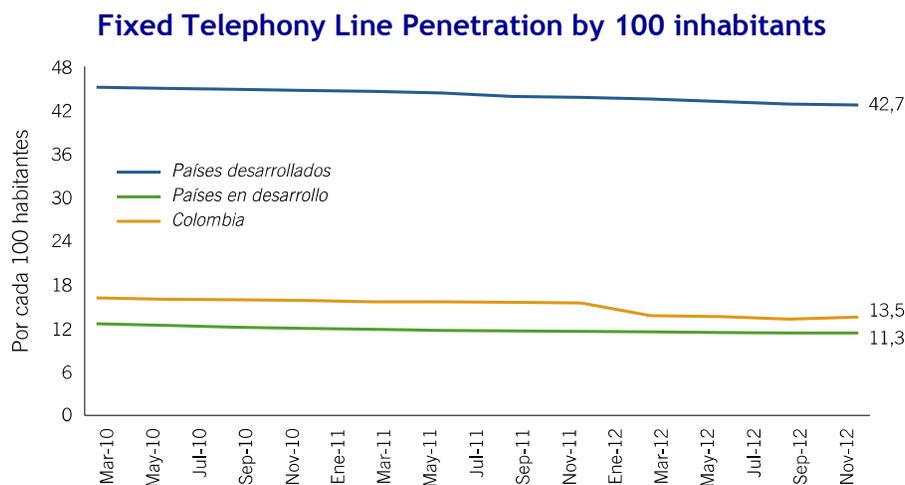
Note on Telecommunications and the U.S. - Colombia FTA

General Overview

Colombia's telecommunications market continues to be driven by Government programs aimed at increasing access and penetration. The broadest coverage can be found in the mobile telephony segment, where there are 48.6 million registered lines (in a country of approximately 46.5 million inhabitants), of which approximately 79 percent work through prepaid services, according to the latest MinTIC quarterly report (3Q2013).

In Colombia, mobile Internet is also directly connected to prepaid users, which jumped from just 2.5 million at the beginning of 2010 to 13.8 million by the third quarter of 2013. Subscription Internet services grew dynamically as well, reaching 4 million for the same time period, from just below 1 million in 2010.

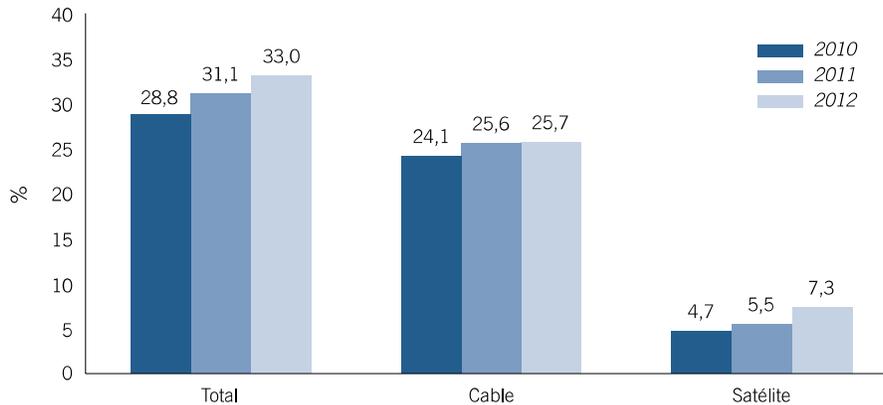
For fixed services, the drop in telephony lines has stabilized, with a total number of 6.7 million lines by October 2013, and a penetration rate of approximately 13.5 percent by November 2012.



Sources: MinTIC, UIT; Graph, "El Sector TIC: La Nueva Locomotora de la Economía Colombiana", <http://bit.ly/1eOMgCy>

Television has continued to move in an upward trend, with approximately 33 percent of households having some type of paid subscription service at the end of 2012.

Percentage of Population with Television Subscription by type of Service



Sources: Data, ANE and DANE; Graph, "El Sector TIC: La Nueva Locomotora de la Economía Colombiana", <http://bit.ly/1eOMgCy>

One of the most important developments in the telecommunications sector in 2013 was the spectrum auction organized by the GOC to allow carriers to provide 4G/LTE services. Under this process 60 Mhz in the 2,500 MHz band were awarded to Claro and DirecTV (30 MHz each), while Avantel, ETB/Tigo and Movistar were awarded spectrum in the AWS band, in a process estimated at approximately US\$400 million.

Furthermore, the process for a third nationwide public channel to be assigned is still to be resolved, with more frequencies allocated for local channels during the year, while the National Television Agency is promoting the establishment of new subscription TV companies to take advantage of the new fiber optic infrastructure.

Telecommunications and the FTA

On May 15, 2012 the FTA went into effect, including a chapter dealing with telecommunication services specifically. This chapter regulates access to the use of public telecommunication services for both parties; it stipulates a series of obligations pertaining to suppliers of public telecommunication services, including interconnection, resale of services, number portability, and dialing parity; and obligations for major suppliers of telecommunications services, such as treatment by major suppliers, competitive safeguards, resale of services, unbundling of network elements, interconnection provisions, co-location, provisioning and pricing of leased circuits services, and access to poles, ducts, conduits and rights of way.

The FTA Telecommunications chapter also regulates operation of submarine cable systems, establishes conditions for the supply of information services, the operation of independent regulatory bodies and government-owned telecommunications suppliers, and the resolution of telecommunications disputes, among others. In general, the Telecommunications chapter fosters transparency, equal treatment and a clear framework for U.S. companies operating in Colombia and vice versa.

In September 2012 Colombia's Communications Regulatory Commission (CRC) published a study of the regulatory and market effects of the FTA on the telecommunications market. In general terms, the conclusions were that Colombia could expect to benefit from the agreement in both the retail and wholesale markets, as new players enter the country, and new investments are required to improve network quality and broaden end-user services. The study further concluded that Colombia had taken all legislative and regulatory steps to comply with what was negotiated under the agreement.

Web Resources

CS Bogota contact:

Carlos F. Suárez

Commercial Specialist

Email: carlos.suarez@trade.gov

Tel: 571-275-2814

- Comisión de Regulación de Comunicaciones (CRC)- www.crcom.gov.co/
- Departamento Administrativo Nacional de Estadística (DANE)- www.dane.gov.co
- Departamento Nacional de Planeación (DNP)- <http://www.dnp.gov.co>
- Ministerio de Tecnologías de la Información y Comunicaciones (MinTIC) www.mintic.gov.co
- MinTIC- Programa Vive Digital- www.vivedigital.gov.co
- Ministerio de Comercio, Industria y Turismo (MinComer) Programa de Transformación Productiva (PTP) - www.ptp.com.co
- Proexport- <http://www.proexport.com.co/en>
- 2012 Tax Reform- <http://bit.ly/TBXf4z>
- Cámara Colombiana de Informática y Telecomunicaciones- www.ccit.org.co

For More Information

The U.S. Commercial Service – Your Global Business Partner

With its network of offices across the United States and in more than 70 countries, the U.S. Commercial Service of the U.S. Department of Commerce utilizes its global presence and international marketing expertise to help U.S. companies sell their products and services worldwide. Locate the U.S. Commercial Service trade specialist in the U.S. nearest you by visiting <http://www.export.gov/eac>.

Disclaimer: The information provided in this report is intended to be of assistance to U.S. exporters. While we make every effort to ensure its accuracy, neither the United States government nor any of its employees make any representation as to the accuracy or completeness of information in this or any other United States government document. Readers are advised to independently verify any information prior to reliance thereon. The information provided in this report does not constitute legal advice. The Commercial Service reference to or inclusion of material by a non-U.S. Government entity in this document is for informational purposes only and does not constitute an endorsement by the Commercial Service of the entity, its materials, or its products or services

International copyright, U.S. Department of Commerce, 2012. All rights reserved outside of the United States.