TOP 10 PREDICTIONS

IDC Latin America Predictions 2014

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PREDICTIONS

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This study is part of a series of global publications that IDC creates every year in which its leading analysts share their opinions about the upcoming year's outlook for the IT and telecommunications markets in the Latin American region. With the collaboration of more than 100 analysts across Latin America, this document explores the facts and driving forces that are expected to transform the marketplace during 2014 in the form of a list of 'Top 10 Predictions'.

SITUATION OVERVIEW

From Consumption-Based to Investment-Based Growth

After a decade of prosperity and sustained growth, Latin America is following the gradual slowdown that is happening in all emerging markets, which are seeing their macroeconomic indicators moderate. After an estimated sub-par 2012-2013 growth in GDP of 2.7%, the second lowest in the last decade, 2014 is expected to grow 3.2% in 2014 (EIU report of December 2013), still below the 4.1% average of the last ten years for the region. The diminishing tailwind of high commodity prices and low external financing costs, coupled with a moderation in domestic demand will call for a continuing shift from consumption-based to investment-based growth,

Brazil has cooled down its consumption fever, as a result of rising inflation, a weakening currency, and slowing exports to China and Europe, among other factors. Even with (or perhaps due in part to) the World Cup and Presidential elections in 2014, Brazil will underperform the BRIC block of emerging countries, and the major economies in Latin America, likely seeing its gross domestic product (GDP) down to 2.6% in 2014.

Mexico’s GDP, on the other hand, will pick up some speed in 2014, growing at 3.4%, on the back of structural reforms of 2013 and a growing USA demand. Rising economies like Peru, Chile, and Colombia that have been benefitted by profound structural changes, driven by trade agreements and economic stability, will drive the market by attracting net new foreign investments, leading the three economies to grow above average to 6.3%, 4.8%, and 4.5%, respectively.

Under this scenario, innovation and value will be two key factors for sustained competitiveness in Latin America during 2014. Information and Communications Technology, ICT, will play an increasingly key role in both. Only through continued investment in new technologies nations will be able to keep increasing the ability to generate real growth beyond the baseline economic activity generated by everyday spending. During 2014, the technology industry in Latin America will continue its transformational journey. The migration to Third Platform (an architectural shift based on Cloud, Big Data, Mobility and Social technologies) will be the center of the transition to value and innovation, driven by transformation of the process in organizations, and a ‘mobile first’ generation of consumers.

FUTURE OUTLOOK

During 2014, IT investment will reach US$139 billion, growing 8.4% from 2013. Telecommunication services spending will reach US$219 billion, growing 8%. Tablets, smartphones, IT services, storage and packaged software will be the fastest growing IT categories, at 34%, 18%, 11%, 11%, and 10% respectively. More importantly, market forces will continue to shape how these and other technologies are consumed, driving markets to converge, partnerships to form and transform, and business models to evolve. The following are the key predictions for Latin America in 2014:

1. Shifting Powers: C-Suite Execs Will Continue Gaining Importance in IT Decisions

In the past years, we have seen most CIOs point out "alignment with business" as their top priority. It was nothing short of a mantra, actually. However, companies are still far from solving all mismatches between business and IT, and the CIO's challenge moves into the logical following step: how to align with the business' service-level agreements (SLAs)? One of the most critical SLAs for the lines of business (LOBs) is time-to-market. But often, purchase (or development) and deployment of IT solutions take much longer than LOBs can afford to wait. IT sometimes is just not able to cope with these demands and, if technology is a critical component to the initiative, business performance will be affected.

Moreover, the observation of 3rd Platform technologies has shown us that new market dynamics push innovation to the extent that technical aspects are downplayed in the conversation and that business processes capture the center of the scene. However, this fact, far from diminishing technology relevance, actually transforms it to the point that technology is no longer a business tool: technology is the business.

The relevance of 3rd Platform dynamics is such that it implies a holistic transformation for corporate networks and systems. It entails a new way to think about business models and processes and how to relate this new thought process to IT. Consequently, organizational structure will realign to business structure, and the traditional IT functions that were historically under CIO governance (i.e., server and storage administration, network, platforms, desktops) will become horizontal, and strictly tied to business process.

During 2014 3rd Platform technologies will be tied to business processes and therefore have a disruptive impact on the role IT has in the Latin American organizations. The 3rd Platform will bring new business rather than technology models that will require new metrics, such as ROI, response times, usability, scalability, and others, to measure its impact within the enterprise.

The lines of business will take a more proactive role in IT buying and deployment, as new solutions do not necessarily require IT expertise to be used and/or configured. Non-IT areas like sales, marketing, and HR will increase their involvement in technology acquisition up to 60% in 2014. IDC predicts that close to 20% of all enterprise IT spending will be funded from LOB budgets, resulting in almost 10 billion dollars of IT buying stemming from the C-Suite.

This introduces a discussion around the adequate talents and expanded competencies to deal and manage IT solutions deployed throughout the organization. Not only IT but also labor strategies will need to align with business. Training for IT project execution will gains a renewed relevance, ultimately impacting project ROI. An important training shift will occur in 2014 and beyond, where IT professionals will be further educated in business aspects, in order to enable them to assess and better support user areas.

Knowledge production will continue to shift from being created by individual specialists to being created by multiple communities of practice. Corporate borders will further blur as interlinked "ecosystems" of suppliers, customers, and partners emerge, and knowledge will ultimately be applied to maximize the use of technology.

What is left for the IT department within this landscape? The IT function of organizations will ultimately become one of an IT services brokerage, providing a framework for IT operations and governance, aligning tools and services with business process requirements, guaranteeing the accomplishment of the established metrics, and becoming the "think tank" for innovation.

In 2014, IDC expects LOBs to increasingly buy specific solutions but, at the same time, IT will continue to be involved in large deployments and will act as an internal service provider (SP). CIOs and LOBs will need to put processes in place, in order to guarantee that while businesses will continue to have autonomy to look for, decide, and deploy specific solutions, IT will need to be involved to make sure these investments fit the overall IT blueprint and all technical implications are considered, especially when it comes to integration with the existing solutions.

IDC will continue to observe the evolution of this dynamic, capturing business leaders' view on IT priorities and adoption behaviors. Internal communication and collaboration between IT and LOB will be strained in 2014, and 1 in 4 CIOs will face broad conflictive situations around 3rd Platform adoption decisions touching all aspects of the architecture: the network, the infrastructure, the data, the application, and the ever-increasing mobile ecosystem of users. Only an educated business process approach will be the common ground to resolve conflicting situations.

2. Third Platform Technologies Will Heat Up Network Capacity Pressures

In 2013, IDC predicted disruptive growth by 3rd Platform technologies and its four pillars: mobility, cloud, Big Data, and social Web. Being at the heart of the ICT platform, the network has not remained unaffected by the extra connectivity pressures posed by new disruptive technologies.

As new technology solutions increasingly consider integrating concepts such as being global, productive, collaborative, innovative, and business oriented, this has led to trends driving network upgrades to manage growth of voice and video over IP, the proliferation of network-attached wireless devices, virtualization and the growth of cloud computing. According to a recent survey IDC conducted among tech leaders in the region, business needs require a core robust foundational network in more than 53% of companies in Latin America, and 61% of them stated that bandwidth availability is a top concern. Based on this survey, IDC predicts that 4 out of 5 IT decision makers will face demands tied to 3rd Platform technology implementation to double in the upcoming 12 months.

Beyond corporate connectivity, the impact will be felt in network SPs, which will increasingly be forced to seek new business models, in order to address connectivity growth. Such transformation will involve investments in technical as well as business aspects. On the investments side, the rationale will no longer be to stick to choosing either a fixed or a mobile path, or selecting one specific technology strategy. The actual technology strategy will be a hybrid and will involve a series of combined strategies, where fixed (fiber – FTTx) and mobile (3/4G) networks will complement each other. From a technical point of view, Wi-Fi offload will appear as a key solution to network saturation and spectrum limitations, and small cells will increasingly show up as an attractive option with low setup costs and regulatory fees, as has already been observed in large scale hot-spot deployments by Oi, America Movil, and Vivo in Brazil.

And last, but not least, this will imply a continuing redefinition of SPs' business models, not only in terms of their offering but also from billing standpoints, due to data traffic largely surpassing voice. In this context, in 2014, Latin American markets will start to see integrated multimedia plans with the Mbps as the consumption unit for pricing, as well as more and more transactional services models.

For this to come true, networks will require additional bandwidth and pervasive security. Across the Third Platform transformation, security has been positioned as a mandatory and horizontal requirement that crosses technology adoption. IDC expects that over 70% of Latin American companies will consider improving security on the WAN as their main goal within their network optimization plans.

3. Workload Management Will Define the Infrastructure, Paving the Way for Converged Infrastructure and Software-Defined Everything (SDx)

Converged infrastructure systems (CIS) are systems that integrate a common pool of processing, storage, and networking resources in a pre-integrated stack, which includes system management and virtualization capabilities. Although they have been available in the market for a while, the high initial investment cost of the first solutions and the scarce skilled resources to manage them have prevented Latin American companies from faster adoption. As the market continues to evolve, system complexity grows, and datacenter deployments expand, Latin American businesses have started to accelerate the adoption of such architectures. Recent IDC Latin America research on integrated infrastructure and platforms shows this market growing at 61% YoY during the first semester of 2013 with 44% of Latin American companies saying they now fully understand the concept and benefits of CIS, half of them actually implementing CIS in 2013. The growing adoption of CIS has been especially fast in vertical markets like finance, telecom, retail, and manufacturing.

In 2014, one in every two companies will continue on the road to infrastructure optimization, giving a top priority to better management of their workloads through consolidation, virtualization, and use of better technologies to manage their workloads. IDC predicts high double-digit growth in investment in CIS for 2014 stemming from an industry-led value proposition, as well as growing integration capabilities through the middleware layer. In many cases, CIS architectures are positioned as a next step in the virtualization road map, in a context of dynamic provisioning, where it is ultimately the workload, and therefore the software that will define infrastructure demand.

The uptake of converged infrastructure systems is a result of the pressing demand for optimization of workload management. Be it risk data processing in the financial industry, customer data management in the telecommunications or retail industries, or business analytics in manufacturing or services organizations, the demand is generated at the business level and translated into functional articulation in the application layer. In 2014, the expression ‘dynamic provisioning’ will be commonplace, and will be closely intertwined with any ‘as-a-service’ initiative.

Ultimately, the path to dynamic provisioning will also overlap with software-defined everything (SDx) initiatives. SDx allows computing infrastructures to be virtualized and delivered as a service where compute, networking, storage, or even whole datacenter services are automated by programmable software, thus resulting in a more dynamic and cost-effective solutions. In SDx environments, engineers and administrators are able to respond quickly to changing business requirements. Such context will further foster private and hybrid cloud deployments and multi-tenant cloud architectures, as it enables a simpler way to manage traffic loads in a flexible and more efficient manner. Therefore, SDx will be presented to the market as a “simplified networking” paradigm, highlighting the following features:

- **Optimizing network capabilities.** Networks are fundamental to the next generation of converged infrastructure. Businesses currently face the challenge of adding intelligence to their networks, in order to manage traffic flows, complex applications, and quality of service (QOS) requirements; and ensure applications match business needs.
- **Beyond the network.** Designing the datacenter as an integrated whole, in which the relations of the different components (network connectivity, servers, and storage) coexist with each other, will have a positive impact on companies, ensuring the decision making to avoid disruption and ensure business continuity. For this, it is necessary to have high reliability equipment where all components are highly available, scalable, and flexible at incorporating new technologies.
- **Improved standards, interoperability.** The high dependence of the organizations in their business applications and especially those considered mission critical is increasing. The applications themselves are born in environments that demand more services that impact on networks, which require a simplified converged architecture that allows interoperability between multiple protocols.
- **Adding new layers of intelligence to the network; new performance metrics.** Companies are seeking to extract economic value of large volumes of data, which require capturing high-speed data, storage, and analysis tools. Intelligent networks will extend across all locations, offering consistent services under a unique policy and management with capabilities to deliver and deploy applications automatically and through policies based on compliance rather than physical infrastructure.

From a supply-side standpoint, vendors and channels will need to rapidly shift and adapt to this new environment, by reshaping their business models, in order to focus less on volume and more on value. The launch of solutions will extend during 2014, and hardware vendors will need to maintain influence in their key control points and evolve the portfolios in more open standards and interoperable solutions. IDC expects to see a renewed partnering activity from industry players during 2014, especially among vendors that do not possess the full stack within their portfolio, in order to reach the market with a turnkey solution. Companies will redraw alliances and reconsider routes to market and influence their own territories and ensure interoperability between different hardware components susceptible to be handled under SDx-type of solutions.

Big industry names like IBM, HP, Cisco, VMWare/EMC, Oracle, and even AWS will expand their role in this market and will continue to direct resources toward communicating the benefits of these architectures, which include:

- Response times for service enablement and go-to-market
- Industry-driven solutions
- Ease of integration of IT systems
- Personalization functionalities through SDx

Latin American companies will continue to absorb the benefits of converged infrastructure and the road map to SDx during 2014. Rather than individual elements (compute, storage, and networking), infrastructure will be increasingly treated as a set of resources required for specific workloads. In the meantime, services providers will be quickly embrace these solutions, as companies will continue to understand the benefits of converged infrastructure like advanced customization features provided by SDx.

4. Big Data/Analytics Will Evolve From Evangelization to Reality

In 2013, Latin America entered into an education phase as it concerns Big Data technologies, where market players dedicated a great deal of efforts to raising awareness around the benefits of the deployment of further intelligence throughout networks and systems. Such market actions bore fruit to the point that Big Data-related investments (in all hardware, software, and services) rose to US$450 million in Latin America in 2013. This level of investment can be compared with those of cloud-related technologies in 2011. In 2014, Big Data will become a mainstream market in Latin America.

The underlying forces fostering Big Data adoption are stronger in Latin America than in advanced regions of the world. Beyond transactional data that is pervasive and omnipresent, unstructured data from social networks finds a fertile ground in a region with the highest Facebook penetration compared with other regions around the globe. Also, IDC end-user surveys show that a higher proportion of organizations already capture audio and video data in Latin America compared to the United States. By 2014 more than 20% of medium and large companies in the region will be analyzing social chatter, video, and sensor-generated data.

Social networking use is becoming pervasive among mass markets. 65% of Brazilian and Mexican users spend more than an hour a week in Facebook, and 24% of them do so in Twitter. The next question is whether companies are actually maximizing the business opportunity this dynamic represents? 2014 will bring new opportunities for business organizations to capitalize on such information for decision-making processes. In order for this to come true, it is necessary to use technology tools that enable content analysis, as well as end-user activity and branding monitoring, in order to act and react to different situations.

Currently, the vast majority of Latin American companies are developing profiles and content in social networks. According to the latest IDC Latin America Investment Trends survey, 56% of Latin American businesses are using social media, networking, or community initiatives to gather feedback on company products or services.

The main challenge resides in adequately channeling positive and negative mentions and address client issues properly. In order for social business to become a strategic business driver, companies will need to professionalize the role of the community manager and develop/standardize the sales and marketing metrics that will justify the business case. Organizing and analyzing data from social networks is an exercise that involves different areas within the organization, namely sales and marketing, jointly with the IT department. And although there are social analytic tools that are able to organize data silos, it also requires skilled professionals to exploit them. The community manager role will need to evolve from simply managing business' profiles in social networks to become the "strategic brain" capable to act based on the analysis of users' behaviors, seeking to translate them to meet specific business objectives (sales, branding, awareness, and so forth). During 2014 conventional thinking around Big-Data/Analytics will be an evolution of traditional business intelligence/analytics. The constant need to reach "the best insight" through the analysis of company data has been considered among companies' top challenges for a while. Moving beyond the traditional data sources, companies will find different ways of taking decisions and actions based not only on publicly available sources, such as social media and click streams, but also in other types of unstructured data, such as sensors-generated, geo-spatial, and other mobile-device streams. The maturity curve will lead enterprises to extend intelligence to new areas and processes in the organization, many of them that did not even exist in the past.

- In 2014, Latin American business organizations will accelerate their learning curve to ultimately derive marketing strategies based on social analytics metrics. IDC expects more than 60% of companies to use public social networks for marketing/customer service/sales in 2014.

- The expected path for the adoption of Big Data technologies in Latin America is one driven by the analysis of companies' operations-related data, but very rapidly evolving to the analysis of transactional data from sales systems and online customer behavior.

- The first approach observed toward Big Data will be internal and aiming at improving internal processes to better be poised to capture further market opportunities extending the intelligence to the revenue generation points. IDC expects a rise in the demand of business consulting services associated with process optimization, in order for them to be incorporated to a Big Data strategy, meant for an integrated structured and unstructured data processing.

- In 2014, businesses will increasingly require a "data scientist" or statistical expert to ensure technology solutions are aligned with business objectives. This will also bring a new challenge for talent search and acquisition.

- Security will certainly be another key area of exploration for Big Data, as SIEM (Security & Event Management) solutions have been implemented in several Latin American countries during 2013 (Argentina, Chile, Ecuador). These solutions utilize Big Data technologies to correlate unstructured data from transactional logs and enable behavior prediction based on security rules that are set for each organization in a personalized manner.

The "verticalization" of adoption in 2014 to build more solid business cases around Big Data will include areas such as:

- Risk analysis and fraud management in banking
- Price optimization and churn prevention in telecommunications
- Demand forecasting and supply chain optimization in retail and CPG
- Integrated risk management in insurance
- Accuracy in exploration in oil and gas
- Public sentiment and social analytics for the World Cup
- Crime prevention on the application of law
- Patient treatment and fraud detection in healthcare

IDC foresees a sustained adoption of Big Data technologies in 2014, driven by the huge opportunities derived from integrating and processing data from all areas within the organization, generating a new intelligence that will benefit the entire business, leading to US$819 million spending this year.

5. Application Modernization Will Continue Leading the Way to Public Cloud Adoption

As predicted by IDC in 2013, the latest IT Investment trends research suggests that more than 60% of the top companies in Latin America are currently building, transforming, or expanding their network and infrastructure to support 3rd Platform solutions. As of the first semester of 2013, over 34% of companies in Latin America were currently deploying and/or had concrete plans to move some workloads to the cloud by 2014. This, in turn, will also have an impact on datacenter infrastructure, as it will bring additional capacity requirements. This has been validated by Latin American technology leaders interviewed by IDC, who expressed that in the coming five years, the aggregate demand to datacenters will increase more than 80%, thus adding extra pressure on networks to deliver secure, available, and higher capacity.

In 2014, cloud providers' efforts to improve cloud offerings through infrastructure investments, HR certification to ensure high-quality standards, and security levels complying with business requirements will be recognized by enterprise customers. Several datacenters in the region will continue to focus their capabilities on delivering public cloud services for Latin American organizations. The most important regional telecom players will maintain heavy investments in modern infrastructure, as well as HR preparation, especially related to security and management certifications.

Beyond the increasingly competitive landscape in IaaS (Infrastructure-as-a-Service) and PaaS (Platform-as-a-service) after local expansion announcements from Amazon Web Services,and RackSpace, key market actors from the ISV space like Microsoft, VMWare, and Oracle will join the group of heavy betters, building out proprietary datacenters, in order to serve Latin American customers with public cloud services. This renewed and strong investment path will drive a significant increase in cloud services contracts for production and even mission-critical environments.

In this scenario, security and network latency will stop being the prime barrier for cloud adoption and transition, especially in large cities, and business organizations will appreciate scalable SLA-based solutions, as they will be very hard to replicate with internal resources. Not only that, but some specific security-related factors regarding data hosting will actually drive local cloud deployments. One example of this is local Brazilian government that stopped using traditional on-premise mail systems and started using Expresso Technology, and data to be hosted in SERPRO (local data processing entity).

IDC is expects expanded use cases of public cloud in the region, which normally start in developer communities for Web-based applications, but that will rapidly expand into enterprise resource planning (ERP), data analytics, mobile apps, email, media-intensive streaming workloads, social business, and so forth. Even though it is still early to determine which will be the fastest-growing workload that will follow Web-based apps, the accelerated investments from top players through 2014 will fuel a renewed growth path, as well as enable more and more use cases. Some workloads, especially high-performance computing, will remain unsuitable to be moved to public cloud. Large (monolithic) databases (at database layer) may not be moved, as most databases are "unsplittable" workloads, which will be poised to stay in non-x86 architectures (RISC and mainframes).

In the end, one key aspect for public cloud services to evolve in the region will be application modernization, as businesses in Latin America will come to note that not all applications are prepared for migration to a cloud platform in each of their modalities (public, private, or hybrid). Independent of the path that is followed for application modernization, companies are initiating transactional systems, such as billing, ERP, finances, accounting, supply chain, HR, and so forth, with the issues of taxation and compliance being the principal reasons to initiate the transformation of these applications.

According to an IDC survey, 29% of businesses in Latin America plan to invest in IT services for the modernization of "front-office" applications. This is not a low percentage, considering that companies have a large quantity of applications linked to marketing, sales, and customer support processes. As this application modernization realizes, several considerations will be taken into account at the time of workload movement to cloud environments:

- Degree of interoperability of the business processes with other processes of the company
- Competitive advantage generated by process automation
- In-house ability to manage the technological part of the business process
- Investment capacity meant for scalability
- Normative restrictions to the externalization of the business process
- Availability of solutions in the market to support business processes in the public cloud

- Financial return of the change of focus in the technological infrastructure from on-premise to cloud
- Technical restrictions to the movement of associated business process applications to a cloud environment

Ultimately, the impact of cloud services on application modernization will be a critical factor in the acceleration of this process of modernization with components such as:

- Platform as a service (PaaS) services reducing the costs of modernizing applications, due to the fact that within a total cloud environment, companies can use computing resources to modernize their applications, from development tools to virtual machines, storage, testing tools, and so on.
- Software applications complemented with cloud-based modules and applications, a factor that would result in a hybrid environment where applications in an on-premise model coexist with and complement new services based on a 100% cloud environment.

IDC expects public cloud spending to grow over 67% in 2014, rising to over US$1 billion. The companies most benefitted from the use of these solutions will be those that have already ventured into the cloud path through private options and will be ready to take up further changes in public cloud environments.

6. From BYOD to "Mobile First": Mobile Management Tools Will Push Business Strategy to the Next Level

Between 2009 and 2011, IDC tracked a growing propensity from business organizations to allow their employees to use personal devices to access corporate data (mainly email, calendar, and contacts). That was the emergence of the "bring-your-own device" (BYOD) phenomenon. This trend peaked by the end of 2011, when 43% of Latin American companies allowed the use of personally liable devices.

However, by the end of 2012, this changed dramatically. The aforementioned rate of personally liable devices in the organizations dropped to 33% in only 12 months. This was due to the fact that enterprises became more conscious of the risks implied in "chaotically" growing the device installed base without a thoughtful plan to measure impact, not only from a technical standpoint but also the implied legal and labor implications. This resulted in a "freeze" of plans for the use of personal devices for business purposes in some companies, while IT, together with other business areas, legal, and HR, developed policies and processes to deal with and frame their BYOD initiatives. As an aside, only half of the companies that accepted BYOD in Latin America by 2012 were actually incorporating them into a mobile device management (MDM) system.

By the end of 2013, BYOD began growing again in Latin America. 43% of companies allowed the use of personal devices for business purposes. However, this growth now comes in a different form. Organizations have come to a better understanding of the importance of developing an integrated mobility strategy that includes not only devices but rather the whole mobile ecosystem. This is reflected in the fact that out of those companies allowing personally liable devices, half of them are incorporated within an MDM platform.

The huge growth of the device installed base has brought a correlated strong impact on traffic consumption. According to a recent IDC survey, IT decision makers expect traffic derived from tablet usage to grow 55% in 2014, while traffic from smartphones and laptops will grow 34% and 26%, respectively. However, despite the expected device installed base expansion, companies may actually be underestimating the increase in device traffic, and IDC believes it could be twice higher than what these companies expect.

This market trend of a growing maturity in terms of mobile device and tools usage will lead the BYOD/consumerization concepts in Latin America to evolve into "Mobile First." This concept requires a different approach toward mobile strategy, whereby mobile management becomes the key foundation to ensure the administration of the different components: device, connectivity, apps, security, back-end systems, access, identity, content and information control, analytics, and reporting.

In other words, the next step for business organizations will be to move on in the mobility path, to go beyond devices. The evolution of such a dynamic (bring your own everything – BYOE) brings new relevance to systems management dimensions:

- Mobile enterprise management (MEM)
- Mobile enterprise application platform (MEAP)
- Mobile device management (MDM)
- Mobile application management (MAM)
- Mobile enterprise security (MES)

Mobile First will disrupt the market in 2014, as market players from different areas will aggressively continue launching products and services aimed at resolving the challenges of mobile components management. One example of this evolution from the supply side can be noted in the historical Enterprise Server solution from BlackBerry, evolving to Mobile Fusion in 2012 and BlackBerry Enterprise Server 10 in 2013, gearing toward managing work and personal mobile environments, as well as dealing with other platforms, such as iOS and Android. Other key players strongly betting their stakes in these kinds of solutions include Afaria (SAP), Mobile Iron, AirWatch, Kony or Citrix XenMobile (former Zenprise). Many industry giants are also focusing on supporting this trend with an integrated approach, including consulting services and asset management. Microsoft, Oracle, SAP (with solutions beyond Afaria), and IBM fall into this category.

As a result of all this, IDC expects that as of 2014, more than half of all Latin American companies will deploy mobile device policies to evolve with the new BYOD concept. More importantly, out of those companies allowing BYOD, half of them will include the personally liable devices into an MDM platform.

7. Next Wave of Enterprise Mobility: From Email to Corporate Apps

The mobile application uptake in Latin America is pretty conventional, with email being, by far, the top (and in most cases the only) tool being mobilized for over 90% of Latin American companies. Mobilization of business-related apps, such as ERP, customer relationship management (CRM), sales force automation, fieldwork automation, had not yet exceeded 20% adoption in 2013.

Nonetheless, there are a number of factors that allow foreseeing a different pattern for 2014.

In the first place, IT industry giants are dedicating a strong focus toward mobility offerings. Examples include:

- IBM Mobile First launch
- Samsung's growing focus on the enterprise segment
- Microsoft acquisition of Nokia's device business
- SAP, Citrix, and Oracle's ongoing focus on the mobile device ecosystem

Second, the mobile workforce is seeing a huge growth year over year in the world, and Latin America is no exception. By the end of 2014, more than 40% of business employees in the region will be mobile, meaning working away from their desks and using mobile devices for daily routines. Additionally, the growing base of personally liable devices points to a growing computing power in employees' hands, helping businesses to be more productive and competitive, given the growing pressure from clients, partners, and employees toward innovation.

IT decision makers in Latin American organizations already envision mobile strategies as a means to extend the reach of the network, broadening customer channels and communication interfaces. Top enterprises in the region will apply their mobile strategy to serve customer demands and therefore have a direct impact on business metrics, through the following initiatives:

- Mobile-friendly Web sites
- Mobile customer service channels
- Mobile applications to engage and connect with their market to build brand loyalty
- Mobile payments and transactions

In addition to mobile apps serving as the actual driver for business strategies, the optimal devices used for mobile tools will also need to be taken into consideration. Smartphones will continue to be preferred for simple apps like email, while tablets will definitely be the device of choice for business-specific apps. IDC end-user surveys validate this fact where 73% of email, messaging, and conferencing tools will be mobilized through smartphones and 56% of CRM, FSA, and ERP solutions will be deployed in tablets.

Mobile apps will represent the core element that will end up justifying the business case for enterprise mobility strategies. One recent IDC survey indicates that the importance that IT leaders give to specific apps does not necessarily match the path in which these apps are being mobilized. This implies good opportunities to mobilize more business-related apps like ERP, CRM, and other productivity tools.

In 2014, Latin American companies will gain further confidence and understanding of the benefits of mobilizing business process through the correlated mobile apps, by acknowledging the real value of the mobility path where the device is merely the "foot in the door." The mobile app is the element that will actually enable the extension of the business process to the point of transaction, thus consolidating the business case. As such, IDC expects that over 30% of Latin American business organizations will mobilize business-related applications like field service automation, workflow automation, CRM, and ERP during 2014.

8. Internet of Things Will Pick Up Speed through B2B Industry-Led Solutions

A lot has been heard during 2013 around the Internet of Things (IoT) concept, extending the ceiling of potential connected devices practically to infinity. IoT encompasses technological solutions that enable continuous and autonomous communications among machines. In this context, it is easy to foresee that the greatest volume of business related to IoT will come through business-to-consumer (B2C) with concepts like "connected home," "auto-tainment," "mobile wallet,", and “wearable computing” among others, where millions of smart connections among machines will boost market dynamics. However, Latin America still has a way to evolve and mature in this arena, and business to business (B2B) will definitely be the shape IoT trends will adopt in the region during 2014.

In this sense, as connectivity is related to data transfer and tied to computing and processing, and mobility to "connecting people" in a seamless manner, IoT is perceived to drive end-user productivity and innovation, as stated by recently interviewed Latin American tech leaders. According to IDC research, companies recognize IoT initiatives as a strategy to reinforce their ability of connecting data, but more importantly their opportunity of connecting things.

The overall enterprise connectivity evolution can be described in four stages: (1) connecting data (through networks), (2) connecting people (through devices), (3) connecting processes (through apps), and (4) connecting things (smart machines). In 2014, the expected evolution will pair the four components to almost reach the same level and fall within an enhanced connectivity model. This can be reflected in the main drivers Latin American organizations have identified to implement an Internet of Everything initiative:

1. Innovation
2. Faster management decision processes
3. Customer experience
4. Asset utilization
5. Employee productivity

The key question for both industry players and end-user organizations is: Where is the money? One first rule of thumb for both types of actors is that business is related to specific processes, and these later are tied to company's activities. Therefore, the real monetization opportunities for IoT will be found in retaining customer ownership through billing and execution.

In other words, IoT is greatly tied to intelligent industry transformation and it is therefore expected to reach specific dynamics in different sectors:

- **Financial sector.** Although this is the most developed vertical so far through POS-type solutions, there are further opportunities for insurance companies through vehicle localization, as well as the utilization of business analytics for risk management.
- **Healthcare sector.** Solutions related to asset management and remote patient control will capture the main opportunities during 2014.
- **Logistics and transportation.** Fleet administration, package tracking, and overall solutions meant for monitoring, real-time reporting, inventory control, control of parameters, and so on. Such solutions will bring cost-reduction opportunities and further process automation.
- **Utilities/smart metering.** Many initiatives have been seen around the world, looking into monitoring and management in water, gas, and energy networks, as is also expected to be the case in Latin America. However, government intervention in both funding and legislation is key to build a successful business case.
- **Agriculture.** Although very little development has been seen in this sector, this should represent a huge opportunity, especially in agriculture-based economies like Latin American. Greater possibilities for monetization will stem from solutions geared toward weather control and soil condition measurements, silo monitoring, machinery tracking, and so on.
- **Manufacturing.** Although process automation is already taking place in this sector, IoT solutions can certainly enable further development. Tools and machinery management will clearly improve productivity by bringing further visibility to industrial processes, thus accelerating the learning curve for best practice identification.
- **Government.** Smart cities' projects will certainly drive IoT growth in this sector. Cities are facing increasing populations with the consequent challenges urbanization brings (traffic, pollution, resource constraints, health and education concerns, public safety issues). Governments will be able to benefit from IoT initiatives by leveraging their existing IT, data, and human resources more effectively and provide better services to citizens.

In order to capture these opportunities, the IoT ecosystem will continue to take shape in 2014. IDC expects that hardware and semiconductor vendors of the caliber of Qualcomm, Intel, Motorola Solutions, Cinterion/Gemalto, and Sierra Wireless, among others, will work with vertically specialized app developers and platform providers, such as Cisco, Ericsson, Gemalto, and Jasper Wireless, who will bring device and app enablement to the solution. The interaction among these players will be enabled by systems integrators like IBM, Indra, and Siemens, among others. The layer of intelligence and automation to the IoT solution will be brought by data analytics vendors such as IBM, Oracle, and HP. Finally, telcos will represent the "glue" of the ecosystem by connecting the solutions.

It is important to highlight that the IoT ecosystem will not only bring opportunities to large, traditional players but also to small local companies with a very specialized offering, poised to serve the needs of specific markets and/or publics. Furthermore, traditional market players will need to explore smaller actors with closer attention, in order to partner and design a sharp, cost-effective, and integrated solution to serve specific market needs. Ultimately, critical success factors for market players in the IoT space will focus on identifying critical processes in selected verticals and developing the right alliances to come up with a solid turnkey solution.

The potential cost savings from productivity gains through automation is what makes products and services with IoT design attractive. Although M2M applications are currently not as data intensive as smartphones applications, IDC expects 17.5 million new machines will be connected with each other in an autonomous way in Latin America by 2014, and this is just the tip of the iceberg. In terms of revenue, IDC expects that the Latin America IoT market will become a business of around US$4 billion in 2014 (encompassing not only connectivity but also hardware, software, platforms, integrations, and analytics tools), with an outlook of over 30% compound annual growth rate (CAGR) through 2017.

9. Device Adoption Drivers Will Shift Away from Device to Content Use and Creation

The bipolar behavior of the consumer device market over the past year is no secret. While the traditional desktop/notebook PC market has been in the doldrums at a global level, Latin America has been no different, shrinking 7% with 34 million units shipped in 2013. On the flip side, the highly mobile categories of tablets and smartphones continued to see strong double-digit growth of 80%, growing to 111 million devices. This is not expected to change in 2014 either. The PC category is forecast to continue shrinking, declining by another 8% this year, as the smartphone/tablet category will grow 28% to 142 million units.

This shift away from traditional PCs to other more mobile devices, such as tablets, smartphones, "phablets," or even hybrid PC/tablets that combine benefits of tablet slate functionality, coupled with keyboard options (more commonly referred to as convertible PCs or 2-in-1), will continue to push the envelope on what the ecosystem considers as essential computing devices, not to mention the nascent "wearables" categories.

As partners in this ecosystem contemplate their future and their relative importance in this new world, the reality is that trying to stay on top of the latest hardware trends and guessing which vendor or device type will be the next must-have item will become increasingly more difficult, as the market becomes more fractured between different device types. An appropriate analogy might be the main purchasing manager for the toy division at a store like Toys R Us or Walmart or Carrefour guessing whether the main toy purchase for this coming year will be an Elmo doll, a bicycle, or a Skylanders video game. Trying to pick winners and losers might work for one or two seasons, but it becomes increasingly more difficult as time goes by. In that same vein, trying to guess whether Apple's next iPhone will be a huge success in Chile or if the consumers will wait for another brand's flagship phone is a fool's errand since as we have seen with recent highflyers, such as Nokia and BlackBerry, the fortunes in this new hardware environment can change quickly.

Rather than bet on a specific device, the ecosystem that these devices form a part of will be increasingly where these bets are taking place. These environments, which some might want to call "walled gardens," but is a bit simplistic, will begin to go beyond just the operating systems that power the devices such as Windows, iOS, and Android, and go to the entire content offering taking place within these new worlds.

The consumption of paid entertainment content in Latin America for digital services is still nascent in Latin America. Other than the obvious sales of mobile apps in the various digital marketplaces of Apple, Windows, BlackBerry, and Android, the appearances of pure-play content providers, such as Netflix or Spotify in Latin America, are still few and far between. In fact, Spotify only recently announced in December 2013 the launch of its services across most countries in South America with Brazil still notably absent. An example of a successful digital content provider partnering up with a local service provider includes Millicom's Tigo carrier offering of Deezer music streaming service in countries throughout Central and South America.

Companies like Spotify or Netflix serve as interesting content providers in this new ecosystem as they are "mostly" device agnostic. While a TV show at your home can work with any type of television, they are not necessarily seen on all cable SPs. This is similar to the new business model emerging, whereby the content providers decide what type of entertainment/service/application hardware device the product might work on and on which the device manufacturer will need to pay for the "honor" of having them create applications for their hardware.

So far, we have not seen any vendor with a truly disruptive hardware business model in Latin America such as Amazon has had in the United States. While the traditional hardware vendors (Apple, Samsung, HP, Nokia, and others) continue to see the vast majority of their profits come from the hardware they sell, Amazon has essentially turned the model on its head, essentially giving the hardware away at cost or even below cost, knowing that those customers will make up for the negative margin by buying movies, physical books, digital books, plumbing supplies, toys, and just about everything else that can be shipped in a box. As the hardware is only a "means to an end" for Amazon, the more hardware categories it enters, the more disruptive the market could become, with phones an obvious area that the company must surely be contemplating. As the logistics of home delivery begin to become ironed out within Latin America, this potential subsidized hardware model will likely be embraced by consumers and reviled by its competitors, similar to that in the United States.

Latin America continues to be a market of rapid expansion with some markets like Ecuador seeing a doubling in the number of pay TV subscribers from 2012 to 2013, with pre-paid subscribers representing more than half DirectTV's installed base within the country.

With a shift from pre- to post-paid subscribers in many countries, combined with business models created to adapt to the high incidence of pre-paid phone and even pay TV accounts, players such as Millicom, America Movil, Telefonica and DirecTV, among others are well positioned to serve as the gatekeepers that the content providers will be partnering with to provide their content to the hundreds of millions of Latin American consumers.

2014 will be a year of further expansion of different content providers in Latin America, continuing to tweak their business models to determine the ideal content to provide, price to charge, and alliances to forge as the traditional hardware model splinters into these various, profitable new ecosystems.

10. Gen-Y and Education-Related Projects Will Drive Computing Devices Growth in Latin America

Over the past decade, the overall Latin America information society has been benefitted by numerous initiatives, from both public and private sectors, meant to expand the PC installed base and contribute to closing the digital divide. More recently, such initiatives have evolved taking advantage of new technologies. In this sense, tablets will increasingly occupy the place once held by desktop PCs, then notebooks, and most recently netbooks within overall government and educational projects.

Tablet diversification is not only attracting end users at home because of versatile applications but also investors (in this case, governments paying the bills for education) because of a lower price point to deploy mega projects. Despite the fact that in theory, tablets are devices of a different nature and usage purpose compared with notebooks, mainly due to its screen size and computing capabilities, price point clearly becomes a key decision factor. This leads one to think that if tablet price points continue to decrease compared with current average prices of netbooks, its uptake will accelerate significantly. IDC expects that there will be 1.3 tablets sold for every notebook shipped to Latin America in 2014. More than 52% of the tablets sold in 2014 will be below US$249, while that will be the same price point for an inexpensive notebook tailor-made for educational deals.

The impact of the previous discussion can be found in the fact that traditional PC vendors and component manufacturers are investing in innovative solutions based on tablets in order to provide a custom-made product that can perfectly fit into private and public budgets. Vendors are also focusing on education programs by introducing exclusive content for educational purposes that are being implemented in schools in Mexico as part of virtual classroom initiatives, including whiteboards and tablets.

Latin America has been home to many megaprojects for education over the past few years with Argentina and Venezuela being the clear champions in this case, delivering millions of netbooks to students in a relatively short period of time. As long as the two governments are able to continue finding the resources to fund these massive deployments, IDC expects these to continue.

The Mexican federal government has announced a 4.1 million unit PC deals to be deployed in five years. The first phase of this project started in the second semester of 2013, providing 240,000 public school students with notebook PCs. One of the most important project accelerators is precisely the price point where US$230 PCs compete with US$150 tablets, and might lead the Mexican government to shift devices for the next phase of the project.

Another impacting plan in the education sector is the one Intel is implementing. Currently, eight of the 11 largest educational PC deals in the world are in Latin America, and Intel has created a business unit specifically focused on education, which aims to create an entire solution, including elements such as software and training. Such programs have an impact in terms of retention and academic performance.

In 2014 governments will not only need to determine the effectiveness of some of these large-scale educational deployments of PCs and tablets, but also see how they fit into the future needs of the base of users they purport to benefit. Many Gen Yers do not necessarily see tablets as a PC substitute, but rather mostly as an entertainment device to access their social networks and online gaming, instead of a processing tool to use at school and/or work.

This means youngsters are mostly using tablets more for content browsing rather than content creation. As the hardware environment sees a greater diversification into hybrid tablet/PCs, and the ability to create content on tablets is enhanced via keyboards, this prejudice against content creation will likely evolve.

Likewise, these users are eager to gain further productivity from these devices. And while tablets will not emulate traditional PC content usage, it will still appear as an innovative way to create certain content such as basic design suites that younger generations are more accustomed to. IDC expects these to begin with learning applications like digital textbooks, sophisticated calculators, medicine textbooks, dictionaries, and many others currently available in all app stores, as 2014 will be a year that the concept of creation and consumption on tablets and PCs begins to see more of a grey area.

ESSENTIAL GUIDANCE

Third Platform ICT market transformation continues to be unstoppable in Latin America for 2014 and beyond. It will continue to shape the competitive landscape in our industry. Nevertheless, let us remember that the reason behind changing technology adoption patterns is not the technology per se, but what you can do with it. End users are certainly showing this as they re-shape their business processes and their connected lives.

More and more, the new outlook will be by new consumption and business models and will bring innovative ways to capture opportunities for growth.

- Technology solutions will permeate in a more personalized and fragmented way for mass markets. There will be no killer app, leading device, single network or platform that will concentrate end user needs. Hence, the identification of end user segments will be key to address customer expectations.

- The inclusion of further enterprise areas in the IT decision making process under a new governance framework will become crucial to generate a virtuous business cycle. Technology providers will need to gain increasing understanding of their customers' business activities and challenges and seek synergy and empathy with new relevant actors within the organizations.

- The design of a roadmap to tap new markets and extend the reach of innovative ICT solutions will be a plus. Beyond the biggest economies that typically represent the bulk of investment in the region, sustained growth will stem from innovative communities in fast-growing markets. Being alert to these buckets of opportunities will certainly aid the development of a solid business case.

Latin America will continue to demonstrate its ability to leapfrog when it comes to technology uptake. But for this to come true in its greatest extent, technology solutions will need to contribute to escalate, optimize and potentiate existing resources. Real gains in agility and productivity will continue to drive demand, With that in mind, opportunities are up for grabs.

LEARN MORE

Related Research

- IDC Latin America Predictions 2013 (Doc # LA 13066 January 2013)
- IDC Latin America Predictions 2012 (Doc # LA12528 January 2012)
- IDC Latin America Predictions 2011 (Doc # LA11330 January 2011)
- IDC Latin America Predictions 2010 (Doc # LA10103 January 2010)
- IDC Latin America Predictions 2009 (Doc # LA19160 January 2009)
- IDC Latin America Predictions 2008 (Doc # LA18202 January 2008)
- IDC Predictions 2014: Battles for Dominance — and Survival — on the 3rd Platform (Doc # 244606 December 2013)
- Worldwide Black Book Query Tool, Version 3.1, 2013 (IDC #244842, December 2013)

Synopsis

This IDC study takes a broad look at the upcoming year's outlook for the IT and telecommunications markets in the Latin American region. Based on insights from IDC Latin America's leading analysts, 2014 will be a year of more tempered growth when compared to previous ones, where companies and industries begin the full transformation to the third-platform solutions that they began to implement in 2013. In addition to the two engines of the region (Brazil and Mexico), vendors are increasingly placing long-term bets on countries that have been showing a clear preference towards free-trade policies that encourage increased IT investments such as Colombia, Chile and Peru.

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1000 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For more than 48 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

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