ehCOS: GLOBAL PIONEER IN THE DEVELOPMENT OF “NEXT-GENERATION ELECTRONIC HEALTH RECORDS (EHR)”
Gartner, the world’s leading information technology research and advisory company, has recently published a thought-provoking report on the current status and the latest developments in the healthcare management software industry. The report titled *Market Trends: Vertical-Specific Software Will Be the Heart of New Global Healthcare Bodies*¹, carries out a detailed examination of the industry-specific software for healthcare providers (hospitals, clinics, specialty centers, primary care centers, etc.) taking into account both the current industry trends (new healthcare models, global consolidation of operators, regulatory aspects, etc.) and the general trends in the IT industry (mobile, big data, cloud, etc.). The convergence and mutual reinforcement of these two trends allows us to anticipate what the Electronic Health Record systems (EHR) of the future will look like.

According to the macro figures provided by the prestigious research and advisory firm, market-specific software for healthcare providers is expected to reach a total value of USD 8.3 billion in 2015, with an annual growth rate of 8% to 9%, climbing to USD 10 billion in 2018. Two strongly interrelated applications, EHR systems and disease management systems focused especially on chronic ailments, are expected to be at the forefront of this growth.

Of course, the growth in the demand for healthcare-industry software is not homogeneous around the globe. The United States and other mature markets seem to have a certain degree of saturation and exhibit sustained growth, although less so than in the immediate past, while the demand in emerging markets appears to be skyrocketing.

The Latin American region belongs to the latter case, showing signs of a particular dynamism that is clearly manifested in actions such as the intensification of government regulation in the areas of electronic health records or the release of important public and private tenders for the purchase of EHR systems. Other more veiled indicators that confirm this trend include the arrival of global vendors to the region, a significant increase in events specializing in this field, and the growth of investments in the sector (mergers and acquisitions, new healthcare “divisions” in software integration companies, etc.). Though difficult to quantify, these indicators are present in virtually every country in the region.

There are a number of suppliers at the center of this worldwide “boom” in health technology, especially in Latin America. Some of them have many years of experience in the business, others are new entrants attracted to the expected growth, others are manufacturers of this type of software, many others are consultants or system integrators; while some are local, others are regional and few are global. Furthermore, given the extremely dynamic growth in a market such as the Latin American one, which lacks a certain degree of maturity in the sector, it is quite common to find customers who find it particularly challenging to effectuate objective comparisons between the offers and value propositions of the different EHR systems on the market. Subsequently, the Gartner report cited contributes valuable data to the industry to help us better understand the future of our business and what we need to prioritize if we want to make a serious commitment to information technology applied to the healthcare industry of the subcontinent.

Perhaps the first important conclusion of the Gartner report has to do with the motivations of the current buyer of these information systems: the client wants customized and real result-oriented solutions that respond to the tremendous challenges exerted by the pressures of the healthcare setting, the need to improve the quality of patient care and the increase of regulatory requirements, in addition to the gradual aging of the population and the increase in chronic degenerative diseases.

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The market is looking for customized and real result-oriented solutions

It seems apparent to conclude that what every buyer wants and demands are customized solutions and real results. Nevertheless, according to both Gartner and the market, the projects carried out in the last 10 years in Latin America (and around the world) all too often showed disappointing results, with very little real progress in the day-to-day use of EHR systems, and many broken promises.

The EHR systems in the last decade, said to be the core of support for the daily activities of a hospital, have been built on inflexible design principles that offer minimal to virtually impossible capacity for real customization. What many providers call «customization» is nothing more than a routine configuration of information systems, without the real possibility of adapting to the specific processes and practices of a specific hospital or a network of centers.

It should be noted that in the clinical care world, there could be huge differences between the specific processes of two hospitals in the same country, the same region or the same city. Ownership (public or private), the healthcare financing model; the cultural, social and healthcare characteristics of the population to be served; the type and size of the center (short-, medium- or long-stay center; small, medium or large); and its degree of specialization (general, pediatric, oncology, etc.); are factors that determine the processes and characteristics of each hospital. Therefore, the traditional approach of insufficiently flexible software that the client must adapt to is illogical and counterproductive.

All this data leads us to a software design model that everis has been working on for three years and we are a global pioneer of in terms of real implementation: the concept of modular EHR. It is true that many consulting firms in the industry, including Gartner, have pointed towards this possibility in the past, but few providers have chosen to follow this path which they regarded to be without much future. In everis however, when we developed our ehCOS software 2, we committed to this concept from the beginning, to the extreme of designing the structural and technological bases following the principles of flexibility and modularity. The idea is simple enough, but at the same time complicated to carry out: offering the client an EHR that they can customize and adapt to their processes and their day-to-day practices, but within a common framework of international best practices that incorporates modern and flexible technological components that make this customization viable, both in terms of costs and outcomes. In the end, ehCOS is able to deliver an EHR base system with multiple business components conceptualized as Lego pieces that can interconnect and assemble together, while respecting the business processes of our clients.

2 ehCOS is a suite of world class eHealth products developed by everis. It is the first suite designed from the ground up exclusively for the healthcare industry, with a methodology based on 3 pillars: people, processes and technologies. More information: ehcos.com
In this regard, the recommendation of the Gartner report cannot be any more eloquent concerning the pertinence of the approach we are taking with ehCOS, stating: «...Ultimately, what may happen is that health technology will become modular, with vendors focusing on the core solutions and then building out from this according to what their clients require. This could form the basis of next-generation EHR systems...»

In addition to having the traditional core functions that support clinical practice, the EHR of the future will “mutate” to respond to market demands, seeking to meet the industry challenges with agility. This modular approach becomes vital if the natural incorporation of the latest IT trends and developments is required, what Gartner has called the «Nexus of Forces», which includes mobile, cloud environments and the sharing of information, and the use of massive amounts of data capable of generating information and knowledge, commonly known as Big Data.

**Two major lines define the evolution of the EHR of the future: real adaptation and customization to meet the needs of each client, and the incorporation of major technological trends**

The open and innovative EHR system is ready to incorporate technological trends that will shape the coming decades:

- mHealth
- Social Health
- Big Data
- Wearables
- Cloud
- Omics

The next-generation EHR systems like ehCOS will incorporate all these technological advances in their range of functionalities. For example, to expand the flow of medical attention beyond the physical boundaries of the hospital by taking advantage of mobile devices to communicate and monitor patients, or incorporating predictive analytics into their information flows that make treatment recommendations or help prescribe medications that are customized for each patient.

ehCOS’ commitment to this future focus is now a reality: we are pioneers in the native integration of mobile functionalities in our platform, with the addition of devices that can be incorporated into garments (wearables) with cases of real EHR use, or the gradual incorporation of advanced predictive analytical engines in innovative projects in Europe and Latin America.

As Gartner points out, Latin America and emerging markets in general, currently have a great opportunity that should be seized: Latin America’s time-lag in incorporating technology in the healthcare field now allows the region to benefit from the lessons learned from more mature markets, enabling it to make a technological leap forward without inherited burdens or restrictions, thanks to the EHR systems of the future created with a truly customizable modular approach that incorporate current technological advances in mobile, big data, cloud or collaborative social networks.

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About everis, an NTT DATA Company:

everis, an NTT DATA Company, is a multinational consulting firm providing business and strategy solutions, application development, maintenance and outsourcing services. The company, which operates in the telecommunications, financial institutions, industrial, utilities, energy, government and health sectors, achieved a turnover of 591 million euros in the last fiscal year. Currently, we rely on 10,600 professionals working in our offices and high performance centers located in 13 different countries.

Our consulting firm is part of the NTT DATA Group, the sixth largest IT services company in the world, with 70,000 employees and a presence in Asia-Pacific, the Middle East, Europe, Latin America and North America. As part of the NTT DATA Group, everis is able to offer a wider range of solutions and services through increased capacity as well as technological, geographical, and financial resources that help provide the most innovative solutions to our customers.

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