Volume 1 / Issue 5 2005 - Investing in IT

DataCenter for Filing Medical Data

Author

Hervé BARGE

Program Director / Program Manager

Information System - Telemedecine

ARH de Franche Comté, CMSIH MAINH

Franche Comté: A pioneer in patient medical filing and identification will have a DataCenter for filing medical data at its disposal .

Confident since 2000 of the issues of information sharing between the main players in the health system, in order to improve the quality of patient care, the Regional Health Office in Franche-Comté is committed to making a technological base in order to create a regional Shared Medical File (SMF).

In the context of today's complex legal system (Reform of the Health System of 13 August 2004, Law of 4 March 2002, etc.), the Health Corporation "Emosist Fc" is offering regional health professionals an operational SMF which may be accessed by patients themselves. One of the key factors of the project's success was its original, pragmatic approach which involved health professionals and patients, representing an important cultural shift.

This SMF allows the exchange, consultation and feeding of diverse information which may or may not be filed, without data entry, via the CPS card for health professionals or a Web interface equipped with an authentification system for the patient. This also ensures a complete entry record for a better patient follow-up.

Expansion of the Initial Project

Since 2002, the platform of health networks and a certain number of services of additional value such as a regional imaging server, a regional directory of health professionals, a connection for identification, an information portal and a videoconference connection are housed by the GCS Emosist Fc. Other hospital projects introduced, such as computerisation of all the blood banks in the region and standardising of emergencies (which would create a network between all the emergency services of the region), complement the original plan. An initial regroupment project of 11 SSR hospitals already provides this practice based on the regional platform. These different projects that are highly important in terms of data availability, have allowed us to better understand how to store information.

In 2006, the Franche-Comté SMF was developed with the SQLI group in order to absorb the influx of hospital information systems. All hospitals in the region have developed a computerisation procedure for care processes thanks to the financial help awarded to hospitals in 2007. An increase in regional identity charges has been observed between January 2006 and October 2007—from 30 000 identities from networks originally to more than 7 550 000 to date.

Two other projects—the first, a regional imaging RIS, and the second, a regional filing device, have been registered in the third generation SROS and should be developed in the next few months.

Business – Health Professional Partnership

This centralised regional approach is managed by a financial benchmark but is also due to the working partnership which was set up around the GCS Emosist Fc as a basis for strong collaboration and as a discussion forum for DSI managers, which allows information to be shared. A hospital manager is no longer liaising with industry and taking risks alone. The other advantage of this approach is that only 2or 3 hospitals would normally have the financial means to purchase a filing system with a sufficient security level guaranteed.

Since 2000, most hospitals have been interconnected through a high speed regional network. This network is also managed by the health corporation group Emosist Fc. The early years allowed us to apprehend the management of such a network and to be even more active so as to lead to 99.99% of information becoming available.

In 2007, in the context of competitive dialogue, six establishments were regrouped and decided to pool their joint means to computerise the entire healthcare process. The choice was left to publisher CERNER. Three solutions were possible: For the first, each hospital stored its data using computer rooms, technicians, security engineers, etc. The second consisted of ASP filing with CERNER, the share of previous investments being transferred to industrialists. The third solution was a Remote Hosting filing with Emosist which would benefit from the region's record history. It was this solution which was carried forward with its advantages for industry, which would benefit from a competent workforce and a single action required instead of six.

Outsourcing?

As to the question "should we externalise our storage?" or "should we store in a centralised manner ourselves?", here are a few ideas which led to the choice of a centralised DataCenter between different users.

The existing infrastructure should be developed to absorb the influx of an increasing amount of data. A single centre used to consolidate data is less onerous than making several sites conform to the same process. In addition, it was difficult to take on new engineers and security specialists at most of the sites. What seems to be lacking in these areas additionally, is leadership on the part of project mangers to provide support to health professionals through the changes. Therefore, an advantage of the DataCenter is the centralisation of technical resources and a prioritisation of human resources required for managing change.

Risk Management

With the nerve centre well identified, it is now easier to ensure the protection of this DataCenter. A risk which is often discussed is linked to this concentration of medical data. One problem is data loss through damage due to a natural risk such as a fire. It is clear that a plan for a second site must be carried out. The main role of this second site is to allow work to be continued in real time in case of failure at the other site. In any case, we cannot economise with this strategy.

As to risks linked to malicious acts, the choice of the most secure centralised data bank possible is the least risky strategy. If we accept the principle that convoy speed is the same as the slowest vehicle, the choice of smaller and more numerous storerooms within facilities which do not have an adequate control of security nor a permanent work analysis is a much greater risk than possibly having access to this centralised information.

Conclusion

The challenge of modernisation is linked to an increasing number of structures which should exchange information. We are facing a deficit in terms of the skill and availability of all human resources structures in place in order to ensure change is managed.

This does not mean that public/private partnerships in domains which are badly managed or which do not include health professionals should not be established – on the contrary. Industrialists we have encountered also say that they have everything to gain by working in a cooperative environment. They spend less time replying to innumerable invitations to tender which will trigger the Hospital 2012 project, there are shorter delays for decisions and both skilled interlocutors will probably avoid a great many failures.

Combining this RemoteHosting approach with the regional filing plan and possible storing of medical images, we may predict reduced costs largely superior to individual shares. This approach should be compared to cooperatives in which different subscribers may use such and such a production material or warehouse storage.

If we observe a faster increase in the number of our equipped structures, more greater communication and a real partnership between providers and clients, all of which will be less costly for the financial providers, then I feel this could be an advantageous pathway for the future.

Published on : Wed, 28 Sep 2005