looksoftware
powering IBM i applications

USP Hospitales
simply health

Multichannel approach enables USP to deliver modern real-time information services across its Spanish hospital network.

▶ ## Critical issue
USP's Advanced Hospital Management system, needed to be enhanced to deliver:
- A consistent, easy to use User Experience.

- Real-time information from the IBM back-end applications.

▶ ## Solution
Integration with other technologies including: web services, RPG, PHP Visual Basic, Adobe Reader and digital certificates.

▶ ## Results
Reduced training costs due to vastly improved User Experience.

Better integration with other applications and technologies has delivered productivity gains.

Improved security using digitally signed medical records.

Easy to use modernized applications.

Background

USP was founded in 1998 by Gabriel Masfurroll, current Chairman and CEO. It manages a country-wide network of 36 medical centres, more than 1.5 million patients, 150,000 in-hospital stays and 55,000 surgeries per year, making USP Hospitales a leading provider of SaaS based health services in Spain. With a strong presence in Madrid and Barcelona, it counts in its group some of the most prestigious Spanish hospitals such as the Instituto Universitario Dexeus (Barcelona) and the Hospital Sagrado Corazón (Sevilla).

It also co-manages, in conjunction with Hospital Privados de Portugal (HPP), 6 Hospitals in Portugal based in the cities of Lisbon, Oporto, Sangalhos, Lagos and Faro. USP Hospitales Maroc has recently been established to open similar new facilities in the nearby North African country of Morocco.

Constantly aiming to be at the forefront of technical innovation, USP Hospitales has for example, recently implemented SpeechMagic – the speech recognition software for professionals - in order to provide a better service to its patients. They have also recently built a new structure in Barcelona, to replace the current installations of the Instituto Universitario Dexeus. For this new structure, the group has come to an agreement with Tele2 Comunitel to develop an innovative IP Telephony Network, in which they will apply Cisco's IP technology. And recently, in partnership with Vidneo, they have created LATIDOS TV, the first corporate television channel broadcast over the internet, in the health field in Spain.

This is the first time that a Spanish company has created an internet television channel to report, in news format, on corporate issues and the latest advances that take place in the medical field.

USP has been using IBM systems since 1991 and all its health information applications have been developed internally. Indeed, these applications are used throughout its medical facilities. USP appreciates the fundamental advantages of the System i, namely stability and scalability.

So, it's not surprising that USP, like many other IBM System i Application Solution Providers, selected looksoftware's multichannel suite to deliver modern real-time information services which have now been deployed to 36 medical facilities throughout Spain.

> "We needed tools that are easy to use and quick to implement to help us develop applications that provide our patients with the best service possible."
> *Santiago Raventós, CIO, USP*

Challenge

"We needed tools that are easy to use and quick to implement to help us develop applications that provide our patients with the best service possible," said Santiago Raventós, CIO at USP.

"We also had a problem with rotating administrative staff and their ability to learn and use the systems efficiently. This problem is exacerbated with specialist staff, who are only occasional users."

The lack of nurses is a big problem in Spain, just as it is everywhere these days, and this creates further training difficulties for IT, as they are constantly training new users.

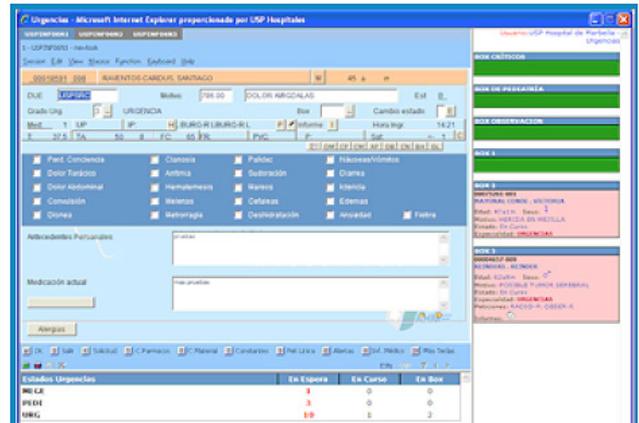Therefore, USP's Advanced Hospital Management (AHM) system needed to deliver:

- A simple-to-learn, easy-to-use, consistent User Experience
- Real-time information from its core IBM back-end applications

"We had to keep reminding ourselves that we are not administrators! Our primary mission is to take care of our patients," said Santiago.

Solution

Applications that have been modernized include, Patient History (pre and post-operative), Administration of Pharmaceuticals and Patient Records for research and census data, among others. Currently in test mode is USP's use of mobile PDA devices to enable 'anywhere, anytime' access to the applications by clinical staff who are constantly on the move.

Also enhanced was the application to produce digitally

signed medical reports. From the outset, the clinical software had to be:

- Easy to use
- Focused only on clinical aspects
- Capable of generating admin tasks transparently

Other technologies integrated with looksoftware's dynamic middleware include Web services, RPG, PHP, Visual Basic, Adobe Reader and Digital Certificates stored in a USB Token.

Benefits

Cost savings have resulted from the reduced need for training and customer acceptance and satisfaction with AHM has never been higher because of the vastly improved User Experience.
Better integration with technologies and applications has delivered productivity gains from more efficient processes.

For example, the Patient Data Reporting process was streamlined using looksoftware's support for web services consumption, thereby enabling the doctor who creates the report to digitally sign the document.

Among the benefits realised from implementing this application were:

- Improved security because reports within the Electronic Medical Records system are now digitally signed
- Reduced costs because the new system is paperless. The only paper used is the report given to patients when they go home!

Another example of improved business performance is the Picture Archiving System which was modernized to eliminate the use of film.

Again looksoftware web services support was used with HL7 messaging and RPG.

Resulting benefits were:

- No more film! Significant cost reductions and improved handling!
- Full integration with the Electronic Medical Records
- Elimination of transport and archiving costs required for film

Summary

- Web-based delivery is now the standard for AHM
- The looksoftware suite has enabled easy deployment of new releases of AHM, driven by customer needs
- USP considers their RPG/IBM i the best back-end server in terms of security and performance
- USP's experiences to date, make them confident their use of the looksoftware suite was the right choice.

It will continue to enable easy integration with new technologies as they emerge, providing further opportunities to maintain AHM's lead in the health sector.

USP was recently added to the "2008 Yearbook of Responsible and Sustainable Companies" which cites them as a benchmark example of social corporate responsibility in the field of health care. An award well-earned!

As USP's partner, looksoftware is delighted to have contributed to that success!

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