



Kantonsspital Fribourg Speeds Up its Lab Procedures, while Lowering Operating Costs

Customer Profile

With 38 specialized departments, the Kantonsspital Fribourg is a full-service hospital and medical provider with 350 beds and 1,500 employees.

Initial Situation

The lab's document and quality management system was unable to keep up with the high standards set by the Swiss accreditation agency SAS because of capacity- and process-related problems.

Solution

The hospital implemented AgilePoint as a new business management system. The automated workflow was modeled using Microsoft Office Visio 2003. Generated using Microsoft Office InfoPath 2003, the accompanying documents ensure process quality. The Office SharePoint Portal Server 2003 software allows for hospital-wide access to documents via a browser.

Results

- Employees are able to handle more procedures in the same amount of time as before.
- Considerable infrastructure-related savings
- Future-oriented system with flexible expandability
- All processes are cleanly organized and easily depicted

"The handling of lab documents is much easier, faster, and more secure. System and language limitations aren't a factor any more."

Dr. Benoît Fellay, deputy lab director, Kantonsspital Fribourg

In order to maintain the quality level required by the Swiss accrediting agency SAS, the Kantonsspital Fribourg (the canton of Fribourg's hospital) had decided to modernize its document managing system. The future-oriented solution had to be in line with Microsoft Office SharePoint Portal Server 2003 that had simultaneously been implemented as a hospital-wide, web-based information portal. Based upon the high degree of Microsoft compatibility and economic benefits, facility administrators chose the AgilePoint business management system. By means of the new solution, a complex workflow system now automates the generating, storing, and archiving of lab documents. This substantially speeds up the workflow. In effect, each employee can take on more tasks than before. That is because AgilePoint helps to centrally plan, collect, administer and control all subordinate processes. In addition, the system requires all procedures to be performed by the book. Thanks to the smooth interaction between AgilePoint and the Microsoft products, the hospital is able to save on IT costs daily and has a future-oriented infrastructure at the ready.

“AgilePoint enabled us to develop a quick, largely automated solution design.”

François Berset, software developer, Kantonsspital Fribourg, IT department

Initial Situation

The Swiss health care system is in turmoil. Costs are increasing faster than the gross domestic product (GDP) and the health insurance premiums go up every year. The system is due for an overhaul.

The Kantonsspital Fribourg, is a public hospital with more than 350 beds and 1,500 employees and doesn't need to worry. For years, the state-run hospital has been relying on a continuous improvement program. The lab received a lot of attention in that regard and reforms were making themselves felt back in 2005 when it became apparent that funds for lab services would be cut by 10 percent at the end of the year. “Given that we perform 800,000 analyses annually, that was a major reduction,” states Dr. Benoît Fellay, the deputy lab director. “Additional cuts would almost have been unbearable.”

In order to be ready for the future, the hospital administration decided to have the lab evaluated by the Swiss accreditation agency SAS. There was no doubt that the medical departments would meet the inspection requirements. The weak spot was the lab's information system. There was a sense that the system in place at the time could not pass muster. Every day, 200,000 stored documents had to be converted to ensure that their contents were up to date. “The system just couldn't keep up any more,” says software developer François Berset. “The storage and process capacities had hit their limits, an increasing number of documents were converted into a PDF output format containing errors, and some couldn't even be retrieved.”

There was no way getting around the fact that an SAS-compliant business management system was required for the automated preparation, storage, and management of lab documents. In selecting a suitable tool, Berset and his IT colleague Marc Beaud had a single criterion: the solution would have to be compatible with Microsoft Office SharePoint Portal

Server 2003. “That was absolutely essential,” says Berset, “In fact, we had just started rolling out a hospital-wide, web-based portal solution in the spring.”

Solution

After conducting a comprehensive market survey, Berset and Beaud opted for the AgilePoint business management system developed by Ascentn. In August 2005, the software developers began to sketch out the workflow. Together with lab managers, they defined which paths each document needed to take from the initial idea to publication or archiving in order to satisfy SAS quality standards. Anyone who wants to generate a new document or modify an existing one, submits the request to the pertinent process and quality supervisor. If the request is approved, the requestor is informed by the system. Approval also establishes the document name, title, look, and future link address. The final proposal is sent back to the process supervisor who now recommends amendments or modifications. Once the submitter has made the corrections, the text is reviewed again. When the supervisor releases the improved final version, it is automatically available to all authorized users. At the same time, replaced or obsolete versions are archived.

“It sounds intricate, but we can't afford to let it get out of control,” explains Berset with good reason. The updated documents are the lab's “bible”. They describe every single analytical procedure, each instrument and its purpose, all applicable task instructions or legal provisions, and relevant guidelines pertaining to sample analysis as well as all personal and technical responsibilities. “When we access this information, we trust that it is 100 percent technically and legally correct,” emphasizes Berset.

In November 2005, Berset and Beaud had begun to implement their ambitious ideas. They quickly realized that “picking AgilePoint was a stroke of luck” for two reasons. “We bom-

Key Figures

Number of users	200
Number of PC clients	450
Number of PC workstations	30
Number of documents stored	approx. 200,000
Data volume of stored documents	8 Gigabytes

The Kantonsspital Fribourg has 350 beds and 1,500 employees. The lab is equipped with the latest diagnostic devices.



barded Ascentn with e-mail questions and we always received competent assistance quickly," praises Berset. At the same time, the AgilePoint suite proved to be "perfect for Microsoft product-tailored development environments, which allowed for a fast, generally automated solution design." Berset designed the actual workflow using the Microsoft Office Visio 2003 visualization tool. Since Office Visio provides the required basic elements in a comprehensive symbol database, the process chain can be depicted as a diagram by using the drag-and-drop method. The clincher is that the modeled workflows can run without requiring additional programming or conversions. "We

wrote additional applets that are re-usable and evolve into a multi-use module library for other projects."

Berset assigned every document that passes through the workflow with a mandatory accompanying file that collects all information pertaining to the drafting, release, and archiving processes. Much like a pass or waybill, the documents generated by the Microsoft Office InfoPath 2003 form editor must be labeled and updated by every pertinent party. "Without these monitors, nothing happens. Even if there is one piece of information missing, the entire process comes to a screeching halt," points out Berset.

AgilePoint assumes the role of a central management unit. "This tool is the glue that holds the system seams together. It interlinks all components and processes into a single extremely flexible, high-performance business management solution that is easy to operate," explains Berset. "Everything meets up right here: the entire administration, the retrieval and storage of documents from Microsoft SQL Server 2005, the transfer of files to Microsoft Office SharePoint Portal Server 2003, the receiving of documents from the various Office applications, the integration of InfoPath-generated accompanying files and control over the workflow." Since AgilePoint and the

Additional Information

For additional information regarding Microsoft products and services, please contact your local Microsoft office:

Microsoft Schweiz GmbH

Richtistrasse 3
CH-8304 Wallisellen
Switzerland
Phone: +41 848 22 44 88
Fax: +41 434 56 44 44
www.microsoft.com/switzerland

For additional information regarding the featured reference customer, please contact:

Hôpital cantonal de Fribourg

François Berset
1708 Fribourg
Switzerland
Phone: +41 264 26 71 76
Fax: +41 264 26 71 27
E-mail: bersetf@hopcantfr.ch
www.hopcantfr.ch

SharePoint Portal Server also operate on an XML basis, "system or language limits no longer play a role."

Results

The new system was ready to go by the end of February 2006. Shortly after Berset and Beaud migrated the old data from the previous system and completed the last finishing touches, the SAS auditors returned to perform their inspection. "They went through everything but we passed the test without any problems," says Beaud pleased. Fellay, the lab's deputy director, was just as satisfied. "Handling of the 800 or so lab-specific documents became simpler, faster, and more secure. The storage and map-

ping problems have been cleared up. We have all the leeway we need for any upcoming expansion projects and SharePoint Portal Server gives us a full-text search engine that quickly retrieves any document via the browser."

The project has become a case study examined by other facilities. For example, two other hospital departments have contracted Berset in the meantime to develop a document management workflow process. That does not come as a surprise. "Everyone wants quality," says Berset. "We clearly showed that we were able to quickly and cost-effectively deliver a solution that features the smooth interaction of AgilePoint and Microsoft products."

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Published September 2006
5000-540-24 YU 09/06

Software and Services

- Microsoft Office SharePoint Portal Server 2003
- Microsoft Office Visio 2003
- Microsoft Office 2003 Professional
- Microsoft Office InfoPath 2003
- Microsoft SQL Server 2005

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