Diakonie Klinikum Stuttgart

JiveX in the Diakonie Clinic in Stuttgart, Germany

One PACS for everything

In the past, the Diakonie Clinic in Stuttgart, Germany used a Linus-based PACS which, in the administrators' view, had a number of disadvantages. The clinic switched to JiveX Enterprise PACS a good six months ago and thus to a system that rectified many critical points in the old one and opened up new horizons. Yet the Stuttgart team not only use the good administration capabilities of the software, but, in cooperation with the VISUS team, have also developed new functions that are already proving to be valuable.

The satisfaction of the IT team lead by the IT manager Friedhelm Brinkmann is based on an uncomplicated, comprehensive, and successful PACS migration that came in on time and on budget and was rewarded with gains in functionality as a result of the switch from Linux to Microsoft. The person responsible for PACS, Hermann Brummer, knew of a whole range of reasons arguing in favor of a switch to JiveX: "From an IT point of view, the excellent integration into the existing hospital infrastructure and the virtualized server structure are convincing. With JiveX we can also comply with data protection requirements both better and more simply. We can achieve a better performance and react with greater flexibility to individual user needs not only with regard to hanging protocols, but also to other software modifications in response to widely varying user needs."

Greater economic viability and better performance through intelligent storage structures

One advantage that users do not see, but sense is that we use different storage—something that was achieved with the introduction of JiveX.

On the one hand, PACS can be integrated into the existing virtualization environment—which was impossible with the old system. This contributes to savings on hardware costs. On the other hand, we implemented a structure that enabled additional savings to be made in terms of storage capacity and improved performance: "On the one hand, we have high availability storage capacity (DataCore) which the normal PACS data flows into and from which we make back-ups and which underlies the specific storage criteria. And so that this expensive storage is not burdened with unnecessary data, there is also a second storage device (QNAP RAID) into which, for example, data flows from CDs, thin film evaluations, or DICOM presequences for caching—data, that is, which does not require a back-up. And ultimately, we even have long-term storage (Fast LTA)."

Hermann Brummer
Manager in Charge of PACS

This solution results in the user being able to search on information on a patient via a server and obtain this behind the scenes from two directions—from the 'expensive' PACS storage as well as from the more cost effective QNAP. Ultimately, this results in faster load times, because each storage system only has to load part of the data. And naturally, this solution saves money, because the 'expensive' storage is used more efficiently.

Friedhelm Brinkmann adds a whole range of other aspects too: "With the old software, updates used to take an enormous amount of time without a high-availability design. You cannot afford this kind of current operation downtime in an acute-care hospital. With the VISUS system, we can perform an update without interrupting current operation. We just need half an hour in total to do

this." In his view, important arguments in favor of the system were also that the system is properly equipped for the future. It supports the IHE's open standards, it can even be used as a central archive for medical records, and can even easily store external PACS data formats, like photos, videos and ECGs. Since the hospital is currently working on introducing digital patient records, JiveX Viewer is also an advantage for using tablets.

During project implementation, Friedhelm Brinkmann was pleased with the expertise of his VISUS contact partner and project manager as well as with the fact that user management could be performed easily and centrally on the domain controller via a LDAP connection. It is easier in Stuttgart now that the more than 70 DICOM devices available in the hospital can all communicate with the new PACS.

Increased data protection through intelligent client management

The Diakonie Hospital in Stuttgart is not the only PACS client. There is also a radiological and nuclear medicine practice. The radiology practice is responsible for MRI and shares the same premises with the hospital's radiology department. Despite this proximity, access to patient data must be regulated clearly to comply with data protection regulations. With JiveX, the design which IT came up with can also be implemented going forward. In future, all cases/investigations will be provided with IDs regulating access rights. Data generated in the radiology practice will not be visible to hospital staff unless approved. "Previously, we had four databases which was very laborious from a technical point of view. Today, all information goes into one database and is visible—or not—to authorized users via rights management. This is significantly better", says Hermann Brummer.

Even with the prototype of a portal solution tested in the Stuttgart Diakonie Hospital you feel properly set up in the hospital. The portal is set up for uploading data—for example, by patients or their referring physician—as well as for downloading by healthcare facilities for further treatment. Our experience with the system has been very good. It was able to help a patient away on holiday when they needed emergency treatment.

More options for users

IT specialists are convinced by JiveX. But what are users saying? According to Hermann Brummer and Friedhelm Brinkmann, users were initially rather impressed by the increased number of options that JiveX had to offer while others who just used the basic functionality criticized the excessive amount of functionality. "A few functions have to be shown very clearly, naturally. JiveX's high level of functionality is initially confusing. We were also criticized for not configuring the system to meet user needs from the very beginning. But as it became clear which options could be customized with JiveX—like the user interface, usage, and hanging protocols—then users' initial skepticism subsided", explains Friedhelm Brinkmann.

Friedhelm Brinkmann
IT Manager

Making things easier for users resulted in them being able to call up special programs from JiveX like mediCAD Hectec. This saves on clicks and login times, and makes the whole evaluation process more convenient.

As ever when there is a change of system, not everything that users were used to could be replicated exactly with JiveX, but Hermann Brummer collected these together in a wish list and passed them on to VISUS. "I think it's great how seriously VISUS has taken these wishes and they didn't wait long before implementing some of them", he concluded contentedly.