



Henry Ford Hospital Success Story

- **INDUSTRY:**
Video/Medical
- **APPLICATION:**
Video Asset Management
- **INTEGRATOR:**
Focus Enhancements
- **SOLUTION:**
Focus Enhancements ProxSys Media Server Integrated with QStar HSM and Plasmon G-Series UDO Libraries

About the Vattikuti Urology Institute at Henry Ford Hospital:

The Vattikuti Urology Institute (VUI) at the Henry Ford Hospital in Michigan is changing the way urological diseases are treated. Consistently ranked among the top centers in the U.S. by U.S. News and World Report, VUI retains nearly 20 board-certified urologists and treats more than 50,000 patients annually. At VUI, patients have access to the nation's most innovative technology and surgical techniques. The Institute's director, Dr. Mani Menon, MD FACS, developed the Vattikuti Institute Prostatectomy (VIP), a method of robotic prostatectomy that results in faster recovery times, fewer side effects, and less internal scarring. Since the Institute's first case in 2001, this procedure has received spectacular acceptance. In 2001, less than 100 cases were done worldwide (90 percent of them were done at Henry Ford). In 2006, it is estimated that more than 30,000 patients will undergo the VIP robotic prostatectomy, with minor modifications. Recently the Institute's team, led by Dr. Menon, has developed robotic procedures for treatment of renal cancers and stone disease. www.henryford.com

Vattikuti Urology Institute Uses QStar and ProxSys to Give Surgeons Unprecedented Access to Surgery Video Archives

The Organization:

The Vattikuti Urology Institute (VUI) at Henry Ford Hospital in Detroit, Michigan, is changing the way that urological diseases are treated. As the birthplace of robotic urology, VUI's surgeons, led by Dr. Mani Menon, MD FACS, have performed more than 2,400 robotic prostatectomy procedures—more than any other facility in the world.

The Dilemma:

Recording, cataloging, and archiving video for each surgical procedure created a tremendous burden for the Institute. The original process consisted of manually recording surgeries, first to VHS cassettes and later to DVDs. Continuing with this archival system would have forced the hospital to dedicate two rooms and from one to three full-time staff members to manage the storage. Retrieving footage was a time-consuming process and hindered the Institute's ability to conduct research effectively. As Dr. Alok Shrivastava, MD, MCh (Urology) at VUI explained, "When developing a new procedure such as robotic prostatectomy, it's critical to review past operations, to see what you did and how you can improve. With our old system of manually cataloging and archiving video, we simply could not research the way we wanted."

ProxSys™



Success Story

Solution:

The Vattikuti Urology Institute selected the ProxSys™ Media Asset Management solution from Focus Enhancements to streamline the tasks of recording and storing video for each robotic prostatectomy procedure performed at the hospital. ProxSys replaces the need to manually manage volumes of dispersed videotapes and enables terabytes of low- and high resolution video to be managed from a simple Web browser interface.

In the operating room, a team member uses a bar-code reader and enters key information, including date, patient's name, and surgery type. Recorded footage is sent directly from their Intuitive Surgical's da Vinci® minimally invasive robotic surgical system to the Prox-Sys ingest workstation, where it is automatically indexed according to bar-coded metadata fields. Files are stored electronically in the ProxSys Media Server. A user-friendly, browser-based interface lets surgeons or other authorized individuals browse files or quickly locate a particular file based on patient's name, surgery date, and so on.

Currently, VUI has one ingest station; however, they plan to add a second ingest station to support their other robotic operating room. The ProxSys Media Server can expand to support up to 10 ingest stations, and the system can be further scaled to meet any future needs of the Institute.

QStar HSM software is used to manage the video archives. Recent studies are stored on the ProxSys server, while any study over six-months is stored in the QStar archive on a Plasmon UDO library. QStar provides ProxSys with seamless access to Plasmon UDO large scale archive hardware and facilitates a link between the ProxSys Media Server and the archive hardware. Files are stored on primary disk space for six-months and then moved to the UDO storage library for the remainder of their data lifecycle via the QStar software. QStar HSM provides seamless access to the physical archive location where the studies are stored for long-term retention, either on or off-line, and provides disk like fast access to all studies managed by the solution. This way, VUI can maintain data retention requirements on revision secure long-term storage media, and also provide the VUI team with fast access to study information when needed in an organized manner based on the searching and indexing features of the ProxSys solution. UDO technology was selected for three reasons -- its speed of retrieval, the permanence and longevity of the media and its ability to scale as the systems grows and the studies increase in number and size.

Conclusion:

Using ProxSys, VUI has cut the amount of time and manpower needed to find a file by two-thirds. They no longer need to dedicate full-time employees to managing video archives. To date, the Institute has more than 100 patients' recorded surgery video files stored in ProxSys, and the review process is greatly simplified. Surgeons can use ProxSys to review a particular step of the procedure across all patients. When a patient is in follow-up and exhibits unusually positive or negative recovery symptoms, surgeons can easily refer back to the procedure.

The ProxSys solution enriches VUI's training and mentoring functions. With support for multiple access levels, each trainee is assigned basic-level access to ProxSys. Dr. Shrivastava explained, "Now I can sit at my desk with everything right in front of me. In seconds, I can distribute select cases to trainee surgeons for review."

Future Plans:

Dr. Shrivastava envisions a larger role for archive solution within the VUI arena. Dr. Shrivastava also hopes to expand the role to enable peer-to-peer collaboration with other hospitals. The networking capability of the solution allows users to browse and view clips from any location over the Internet. Dr. Shrivastava hopes to provide other institutions with limited (HIPAA-compliant) access to procedure videos for training and educational purposes. The Vattikuti Urology Institute aims to accelerate the development and adoption of robotic surgical procedures across the medical community.

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