



Customer Case Study Series

Vanderbilt Bone & Joint: Enhancing Productivity and Security With XyLoc

Vanderbilt Bone & Joint

VANDERBILT UNIVERSITY
MEDICAL CENTER

Vanderbilt Bone & Joint — a leading provider of orthopaedic services to patients throughout Tennessee and the southeastern United States — has a long history of outstanding patient care dating back to its founding as a private clinic in 1979. Through a staff of twelve orthopaedic surgeons, Vanderbilt Bone & Joint provides convenient and comprehensive care for patients with a wide range of musculoskeletal disorders.

Vanderbilt Bone & Joint is also respected as a very efficient clinic that leverages technology wherever possible to improve patient care and maximize physician and staff productivity. This focus has allowed the clinic to drive positive business results based on an impressive and expanding patient base, and has put it on a solid footing for continued growth and profitability.

THE CHALLENGE:

Manage A Growing Patient Base Without Sacrificing Quality or Data Security

As a successful clinic with ever-increasing demand for its physicians' time and expertise, Vanderbilt Bone & Joint faced a dilemma: How to best keep up with increasing patient volumes and office visits per day while maintaining full compliance with HIPAA requirements for patient data access and security.

With physicians, surgeons, nurses, and support staff working among 35 exam rooms, and with a clinical PC workstation in each exam room accessed by multiple users within a span of seconds or a few minutes for each incoming patient, it was clear that the choice of workstation security technology would have a major impact on the clinic's day-to-day workflow — for better or for worse.

And with patient activity reaching as high as 500 appointments per day, the clinic's executive and IT teams knew that any system that was overly cumbersome or unreliable would negatively impact doctor/patient interaction time and quality, as well as clinic productivity and business results.

THE SOLUTION: XyLoc Proximity-Based Security with XSS and EMR Record Matching

The PC security approach selected by Vanderbilt Bone & Joint

incorporated four elements: XyLoc active proximity technology for user recognition and authentication automation, user-specific log-on codes, a generic log-on to access the clinic's electronic medical records (EMR) application, and SQL database record-matching between the XyLoc Security Server (XSS) and the EMR application. This combination allowed the clinic to keep its workflows as streamlined as possible, without sacrificing patient data security or the ability to accurately audit specific user sessions and access to patient records in the EMR.

For example, a nurse logs on to a workstation in an exam room via her XyLoc badge and 3-digit user code, and opens an EMR session (via generic EMR log-on) in preparation for a specific patient appointment. She then leaves for a few moments, triggering the automated locking of the PC and screen via XyLoc. Entering the exam room a couple of minutes later, the doctor then quickly restores the PC screen and current EMR patient session via his or her XyLoc badge and unique user code. The doctors and nurses work together in this fashion throughout the day, locking and unlocking access to specific patient records with minimal repetition of manual log-ons, and little or no physician 'downtime' for security procedures.

This security process is simple, reliable, enforceable, and verifiable —

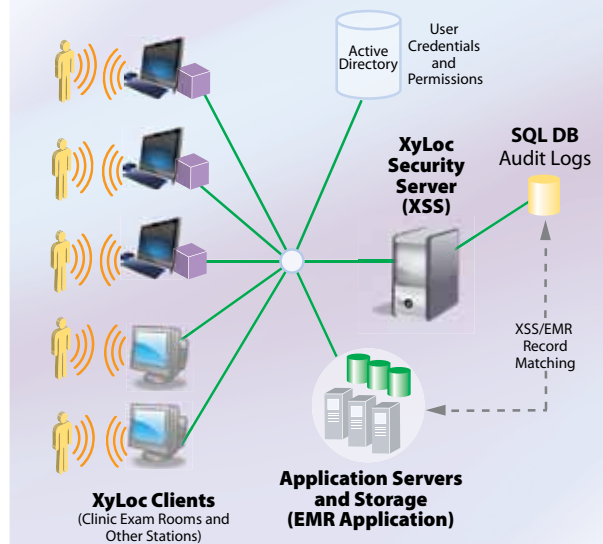
and saves significant time for the clinic's staff. In fact, when compared against the option of forcing a unique per-user log-on and log-off routine for each workstation interaction, the XyLoc-based approach saves Vanderbilt Bone & Joint hundreds of clinician minutes throughout a typical day. This time savings drives better patient care and better overall performance for the clinic.

The XyLoc implementation at Vanderbilt Bone & Joint is straightforward, and consists of XyLoc 'locks' (USB-connected RF readers on protected workstations) and 'keys' (RF proximity badges worn by the users), standard XyLoc client software, and the SQL version of the XyLoc Security Server (XSS).

A key to the success of this implementation was Vanderbilt's partnership with Medigrations, Inc. The Medigrations team provided support to the clinic and Vanderbilt's IT group in a number of areas, including process and IT infrastructure analyses, implementation and rollout, SQL back-end programming, and project management.



XyLoc-Based Security With Auditing



Vanderbilt Bone & Joint leverages the common SQL relational database environment to match log-on records between the XSS and the clinic's EMR application, ensuring full traceability of patient data access sessions to specific PC users.

Results and Next Steps

The results of using XyLoc at Vanderbilt Bone & Joint have been impressive, and the system has been critical to the clinic's ability to provide a superior level of care while handling hundreds of patient visits per day.

One user who knows this well is Dr. Craig Ferrell, founder of the clinic and one of XyLoc's lead users during its implementation there. Having worked with the repetitive and cumbersome manual log-on / log-off procedures in the clinic's pre-XyLoc days, Dr. Ferrell appreciates how XyLoc helps him and his colleagues work much more quickly and naturally now during patient visits.



"As a busy clinic, we could no longer afford to be burdened by completely manual PC and application security procedures. XyLoc gives us the convenience we need as clinical practitioners, enables our compliance with patient data privacy regulations, and will scale well as we continue to grow our practice."

Dr. Craig Ferrell
Physician and Surgeon
Vanderbilt Bone & Joint

The XyLoc-based approach saves Vanderbilt Bone & Joint hundreds of clinician minutes throughout a typical day.

Based on successes to date with XyLoc at Vanderbilt Bone & Joint, the leadership team fully expects to scale the system as needed to support the clinic's growth. Additionally, Vanderbilt University is exploring options for XyLoc deployments in other clinical areas of their health system. HIPAA compliance requirements continue to elevate security to the top of the list of items that must be properly and efficiently addressed, and XyLoc is increasingly viewed as a complete solution that can be successfully rolled out in a short time, with minimal procedural impact on clinicians.

"XyLoc allows the clinic to keep its day-to-day security processes simple and easy to follow. Ease of use and minimal impact on clinicians are what make this a successful solution for Vanderbilt Bone & Joint."

Kathy Stamatelos
Founder, Medigrations, Inc.

Key Success Factors and Lessons Learned

Every IT implementation project offers opportunities for learning and 'best practice' development, and the XyLoc project at Vanderbilt Bone & Joint was no different in this respect. Here are six key success factors and lessons learned in this case.

Gain Top-Down Support and Commitment — The leadership team of Vanderbilt Bone & Joint clearly understood the productivity advantages of using XyLoc technology, and enthusiastically supported the clinic's staff, Vanderbilt IT, Medigrations, and Ensure Technologies experts during its implementation.

Ensure Strong PM and Staff Involvement — With full executive support in place, the next step was to ensure proactive project management and key staff involvement. Vanderbilt's IT team and Medigrations consultants worked smoothly together to coordinate team activities, resources, and timeframes.

Develop and Implement Effective Security Processes — The project team had a solid understanding of their security needs, and how their approach to workstation security would impact day-to-day life at the clinic, its HIPAA compliance posture, etc. The processes they established provided effective security with full audit controls, while also incorporating the real-world operational requirements of the clinic.

Educate End-Users and Set Appropriate Expectations — The project team did a good job educating the clinic's staff members at key points during the XyLoc implementation, including the business rationale for using the system, changes to the workstation log-on routine, and best practices for wearing and using the XyLoc badge. They also added visual indicators to XyLoc-protected PCs, making it easier for clinical users to quickly identify which stations required XyLoc authentication. The staff also set appropriate user expectations regarding procedural changes, log-on enforcement, and system capabilities and limitations.

Tune the System for Its Environment and Users — Medigrations worked with the clinic's staff to appropriately tune XyLoc sensitivity and timer parameters for best performance.

Enforce Processes — With the system operational and all users trained in current security procedures, members of the team turned their attention to verifying ongoing compliance with established procedures. Custom reports were designed to monitor compliance at a system level as well as an operational level.

About Medigrations

Medigrations, Inc. provides medical practice technology consulting and integration services, specializing in business process analysis as related to the automation and integration of technology in medical practices. Founded in 1995 in Raleigh, North Carolina and now based in Nashville, Tennessee, the firm's focus is to help physicians use technology to improve their ability to practice medicine, not to make technology a hurdle for the physicians to overcome. We make IT work! For more information, contact Kathy Stamatelos at kstamatelos@medigrations.com

About Ensure Technologies

Founded in 1997 and headquartered in Ypsilanti, Michigan, Ensure Technologies is an innovative developer of intelligent security solutions designed to help customers meet security requirements with minimal impact on users. Ensure Technologies' award-winning XyLoc family of products provides workstation security with the convenience users appreciate. XyLoc products are used by over 150,000 users worldwide in many leading organizations in healthcare, financial services, government, manufacturing, and legal services. For more information, visit www.ensuretech.com.



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