CASE STUDY
SMITH & NEPHEW: CREATING A CONNECTED CARE PLATFORM FOR THE FUTURE

smith&nephew

Rivet Logic implements next generation digital solution for Smith & Nephew on Liferay DXP, helping hospitals and surgeons reduce cost while increasing OR efficiency.

At a Glance

ORGANIZATION
Smith & Nephew

INDUSTRY
Healthcare

USE CASE
Interactive Training, Learning Management

The new S2 application delivers a much improved user experience for hospital administrators, making it easier and faster to create complex procedures and training content. The personalized training experiences have reduced training and orientation time, improved staff competency, and increased surgeon confidence in staff.

ORGANIZATION

Smith & Nephew is a leading global medical technology company that supports healthcare professionals in over 100 countries in their daily efforts to improve patient lives. Through a pioneering approach to the design of advanced medical products and services, Smith & Nephew strives to secure wide access to their diverse technology for more customers globally. The company specializes in medical products for Orthopaedic Reconstruction, Advanced Wound Management, Sports Medicine, ENT, and Trauma & Extremities.

Smith & Nephew is transforming healthcare through its unique interactive digital solutions designed to help hospitals and surgeons reduce cost by increasing OR efficiency.

CHALLENGE

The changing healthcare landscape is driving hospitals and surgeons to find new ways of reducing costs without sacrificing patient care. Typical procedure-related expenses associated with sterile processing of unused instruments can quickly add up. Combined with inefficiencies such as insufficiently trained OR staff, ordering errors and massive inventories, and these hidden costs start to increase dramatically while hindering staff productivity.

rivetlogic

Smith & Nephew S2 Procedure Performance suite is designed to help today's OR become more efficient by training surgical staff on how to set up surgical suite for specific surgeons and their respective procedures. OR training can be a stressful process, and with low staff retention rates in the OR, the goal is to make training a more interactive, effective, and fun experience by incorporating gaming technology.

However, the initial version of the S2 application, which was purchased by Smith & Nephew, was inadequately designed and couldn't fully support Smith & Nephew's business objectives. For one, it was hard coded, with an inflexibly constructed database, making even minor updates difficult and time consuming. In addition, the user interface was lacking, and managing content involved an inefficient and tedious process. The technology also couldn't support all the features Smith & Nephew wanted to implement, and included only limited learning management capabilities. Smith & Nephew realized the need for a flexible, future-ready platform to rebuild the S2 application, one that can readily accommodate new feature additions and evolving business requirements.

SOLUTION

After evaluating a number of different approaches, Smith & Nephew chose Liferay DXP to rebuild its S2 application. With a robust set of out-of-the-box features, wide variety of plug-ins, interconnectivity with other applications, multi-language support, and a Learning Management System add-on, Smith & Nephew saw Liferay DXP as a platform that's well positioned to meet both short term needs and long term goals.

Smith & Nephew also realized the importance of having the right Liferay partner on board for the project to be a success, and chose Rivet Logic to implement the solution. Working collaboratively, Rivet Logic rebuilt the S2 application in Liferay, while adding additional functionality to create a much-enhanced user experience for both end users and administrators.

To deliver the type of training experience Smith & Nephew envisioned, Rivet Logic integrated Valamis, a Learning Management System (LMS) add-on available through Liferay. Through the seamless integration that leverages Valamis's advanced learning management along with Liferay's user management and content targeting capabilities, the S2 application can now support the creation of highly personalized and customizable training programs. Training can not only be personalized to surgeon-specific preferences and instrument sequencing, but is also customizable to align with numerous procedure types or any training protocols within an organization.

In addition, Liferay DXP leverages Elasticsearch out-of-the-box, enabling robust enterprise search capabilities across the application while also providing useful content usage metrics to allow further content targeting and personalization. Having a powerful search and analytics tool like Elasticsearch in place also sets the S2 application in the right path for future feature and platform enhancements.

Furthermore, through custom built, advanced reporting and graphing capabilities, Smith & Nephew can now gain valuable insights on user activity and performance, instrument sequencing results, and most importantly, instrument utilization.

RESULTS

The new Liferay-based S2 Procedure Performance suite serves as a next generation digital solution to help hospitals address the challenge of reducing cost while increasing OR efficiency. The personalized training experiences have reduced training and orientation time, improved staff competency, and increased surgeon confidence in staff. By making training programs accessible from anywhere and information easily displayed in a dashboard, perioperative staff can learn instrument sequencing and practice procedure steps before surgery in the comfort of their home. And by incorporating gaming technology, training has become interactive and fun.

The new S2 application also delivers a much improved user experience for hospital administrators, making it easier and faster to create complex procedures and training content. In addition, they now have the ability to manage staff competence and measure training performance. Lastly, advanced reporting capabilities provide valuable insight on instrument utilization, helping to reduce cost and decrease setup and turnover time by identifying unused instrumentation and streamlining instrument trays.

The Liferay based solution has allowed Smith & Nephew to create a connected care platform for the future, providing the agility to quickly add more features and connect to other applications for ongoing innovation.