

Ecommnet Ltd.

“BY USING SQL ANYWHERE, WE WERE ABLE TO LEAVE THE ISSUE OF DATA TRANSMISSION BETWEEN THE MOBILE DEVICE AND THE BACK-END DATABASE TO SYBASE TECHNOLOGY...MAKING THE WORKFLOW EASY AND SIMPLY FINE-TUNING PERFORMANCE AS NEEDED.”

—ROBERT CAMPBELL, MANAGING DIRECTOR, ECOMMNET LTD.

CUSTOMER CASE STUDY

INDUSTRY

- Technology/Software Development

SYBASE TECHNOLOGY

- SQL Anywhere[®]
 - MobiLink[®]
 - UltraLite[®]
- Afaria[®]

BUSINESS ADVANTAGE

By employing SQL Anywhere's proven and scalable mobile data management and synchronization technology, Ecommnet eliminated the need to build that functionality itself, and instead, was able to focus on the development of the application. The result was a successful deployment of the proof of concept application within just seven days.

KEY BENEFITS

- Speeds development time
- Ensures reliable, scalable mobile data management and synchronization
- Improves patient care
- Positions company for continued growth

UK-based Oasis Medical Solutions Ltd. engaged Ecommnet Ltd. to mobilize the test results component of its Patient Administration System in order to enable clinicians and other hospital staff to access and review test results more quickly on their iPhone[®]. Faced with an extremely aggressive development timetable, Ecommnet deployed Sybase technology, SQL Anywhere as the data management and synchronization platform and Afaria as the device management and security solution, allowing the firm to focus on the development of the application.

MOBILIZING THE FRONTLINE OF HEALTHCARE

Patients who are admitted to hospitals typically undergo a battery of laboratory tests and/or imaging studies. These tests enable clinicians to diagnose patients' conditions or obtain the latest information on chronic or pre-existing conditions in order to determine the most effective treatments. Getting those results from the lab or radiology department as quickly as possible is critical.

For nearly 20 years, Oasis Medical Solutions has offered British hospitals a web-based patient administration system (PAS) that includes among its functionality access to patient test results. Over 30 hospitals in the UK currently use PAS. Wanting to provide this information to clinicians even more quickly, wherever they happen to be at the moment, Oasis decided to mobilize PAS onto clinicians' iPhone devices and ultimately to other mobile devices.

To accomplish this in a very short time frame, Oasis engaged the services of Ecommnet, Ltd., a UK-based software development and consulting firm. With more than 25 years of IT experience encompassing application development, infrastructure, database, security, integration and communications experience, Ecommnet also had the mobile solution development experience Oasis needed to achieve this objective.

“We were approached by Oasis because of our reputation in the field — particularly in the development of mobile applications — to create a proof of concept mobile test results application,” explains Robert Campbell, managing director of Ecommnet.

“Our charge was to develop an iPhone-based application that would extend the patient test results functionality of Oasis' PAS so that both clinical and non-clinical staff could see pathology lab and radiology results very quickly on their iPhone — almost at the triage stage — in order to be able to determine the most effective treatments and clinical pathways to help ensure positive patient outcomes. The development timetable was very aggressive, as Oasis wanted to be able to demonstrate this proof of concept at an upcoming industry exhibition.”

WITH THE DEVELOPMENT CLOCK TICKING, ECOMMNET TURNS TO SYBASE

Because the web-based Oasis PAS already existed and was in use in 30 hospitals, Ecommnet did not have to begin from scratch. Its challenge was to mobilize the test results functionality. The extremely tight deadline to extend this functionality to an iPhone, where results could be displayed and reviewed on a couple of screens while also making it easy-to-use in environments with inconsistent wireless connectivity (WiFi/3G), presented significant challenges.

“From the start,” explains Campbell, “knowing that we were dealing with data that needed to be moved back and forth between the PAS system's back-end Oracle database and the iPhone devices in an environment in which the iPhone users didn't have constant connectivity, we realized we needed a reliable store and forward capability.

“THANKS TO SQL ANYWHERE AND MOBILINK, WHICH PROVIDED US WITH HIGHLY SCALABLE AND RELIABLE DATA MANAGEMENT AND SYNCHRONIZATION CAPABILITIES, OUR DEVELOPERS WERE ABLE TO FOCUS ON THE DESIGN OF THE APPLICATION, KNOWING THAT THEY HAD A PROVEN PLATFORM ON WHICH TO BUILD IT.”

—ROBERT CAMPBELL,
MANAGING DIRECTOR, ECOMMNET LTD.

We quickly determined that a mobile data management and synchronization solution would be essential to the efficient execution of this project.”

The question Ecommnet needed to address was whether to use the native database application technology on the iPhone or an already well-proven solution for these kinds of applications with which the firm was familiar. It chose to go with the latter, which was SQL Anywhere from Sybase.

DEPLOYING SQL ANYWHERE REDUCES DEVELOPMENT TIME SUBSTANTIALLY

“The decision to go with Sybase,” says Campbell “was based on the fact that from our perspective and experience, SQL Anywhere’s main purpose in life is to be a rapid store and forward database and data synchronization platform. This is something it does very well and reliably. By using SQL Anywhere, we were able to delegate the issue of data transmission between the mobile device and the back-end database to Sybase technology instead of having to spend a lot of time that we really didn’t have to get that communication working. Using SQL Anywhere, 80 to 90 percent of that work was done for us simply by deploying it, allowing us to focus our efforts on developing the mobile application functionality itself, making the workflow easy and simply fine-tuning performance as needed.” Ecommnet’s decision to deploy SQL Anywhere proved to be a wise one, as the firm was able to deliver the mobilized test results application in a mere seven days, from conception to deployment, exceeding all expectations.

The Oasis test results application resides on the user’s iPhone along with the SQL Anywhere client software. Users are able to access patient test result data on the fly — as they move between patients’ rooms, for example — via a SQL Anywhere synchronization server that communicates directly with a back office Oracle database. The application also employs Afaria, Sybase’s mobile device management and security solution, to protect the sensitive information located on the device.

Clinicians receive detailed patient test results, which are identified on a screen in a scrollable tabular format. They are able to review them and mark the results as being reviewed, which action is immediately transmitted to and reflected in the Oasis Oracle database.

APPLICATION TO BE ENHANCED TO SUPPORT ADDITIONAL MOBILE DEVICES

Oasis built this proof of concept to demonstrate that patient test data could be delivered to clinicians and other hospital personnel with more immediacy and without their having to be in any particular location tethered to a desktop. The primary goals, of course, were improved patient care, and increased clinician and administrative efficiency. On both counts, the project was a success. “Thanks to SQL Anywhere, which provided us with highly scalable and reliable data management and synchronization capabilities, our developers were able to focus on the design of the application, knowing that they had a proven platform on which to build it,” says Campbell.

The application is the basis of a pilot at a number of hospitals, with others looking to adopt it. In addition, there have already been discussions about enhancing the application to work with other devices running on other mobile operating systems. It is also possible that other Oasis PAS functionality will similarly mobilized in the future.

“Our Patient Administration System and Electronic Patient Record products enable our partners and clients to transform how they deliver healthcare,” says Steve Pusey, Chief Technical Officer at Oasis Medical Solutions. “We are dedicated to continually enhancing our products to help our partners and clients expand their capabilities. Incorporating mobile technology helps increase the efficiency and effectiveness of clinicians and other healthcare personnel, and based on this successful project, we expect to pursue other opportunities to provide our customers with the tools and information they need, when and where they need them.”

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