

AcucorpTM Solutions a Healthy Choice for Per-Se Technologies, Inc.

Industry: Healthcare
Current Environment: Heterogeneous: NCR UNIX/Sun Solaris, Windows NT, X-Terms, PCs
Application: Healthcare Information Technologies
Acucorp Solutions: Data Access and Programmer Productivity
Previous Environment: NCR UNIX, X-Terms, PCs
Previous COBOL: ACUCOBOL-85



PARTNERS IN SUCCESS

Morris Moran, Director of IT, Emergency Medicine Division; Mike Burrow, Application Manager/System Admin.; Howard Stockdale, Senior Systems Architect; Raj Patel, Programmer/Analyst; and Scott Barrett, Programmer/Analyst

By Janusz Piotrowski

When a leading provider of healthcare information technology needed to add relational databases and distributed processing, they chose to extend their legacy applications with solutions from Acucorp. In a remarkably short time, Per-Se Technologies, Inc., successfully leveraged their decades of investment in reliable COBOL programs into an ultra-modern, open-architecture system that supports state-of-the-art data mining and management tools.

Patient's Profile

Headquartered in Atlanta, Georgia, Per-Se Technologies, Inc., is a global leader in comprehensive business management services, financial and clinical software solutions, and Internet-enabled connectivity, with more than 180 offices and 5,500 employees in 10 countries. Their customers include over 2,000 healthcare organizations and 35,000 physicians. They process more than 200 million medical transactions annually, and their solutions help

manage 20 million patient records online.

It's Time for a Checkup

Starting in the 1970s, Per-Se made a huge investment in custom COBOL applications. They amassed millions of lines of code and terabytes of data. They created a robust and highly tailored system that was extremely solid and reliable in maintaining scheduling, resource, and productivity management solutions to help manage every aspect of patient care. The system ran on NCR UNIX server platforms supporting mixtures of X-terms and DOS PCs, with its core data sources in Acucorp's VisionTM indexed file system.

According to Morris Moran, IT Director

at Per-Se's Emergency Department Division (EDD) in Jacksonville, Florida, the need to upgrade their systems arose

"In IT, and in software development, I never subscribed to the view that everything has got to be one way or another. I think it's the right tool for the right job."

***Howard Stockdale,
Per-Se Technologies***

from two basic needs: one, the system needed better data-mining and ad-hoc reporting capabilities to help the customers realize all the revenue-capturing opportunities; and two, an integrated data audit trail was de facto mandated by the government's Health Insurance Portability and Accountability Act (HIPAA). In April, 2000, Per-Se made the decision to upgrade and started the research phase of the project.

Just What the Doctor Ordered

Howard Stockdale, the Senior IT Architect at EDD, Jacksonville, was responsible for overseeing all of the technical details of the project.

According to Howard, Per-Se initially considered several approaches to the planned upgrade, including rewriting their applications in Java or Visual Basic. But after looking at the cost, schedule and business impact projections for those options, they decided instead to focus on extending their legacy COBOL applications.

Long-time, satisfied ACUCOBOL™-85 users, Per-Se decided to go with the newest Acucorp solutions that include ACUCOBOL-GT (graphical technology), a comprehensive suite of powerful data access, distributed processing and internet access tools, and the industry's best technical support. Armed with the Acucorp tools, Per-Se extended the existing architectural model of their system to add a relational database running on a Windows NT server. They also built an inte-

The Course of Treatment

Per-Se began the project by upgrading from ACUCOBOL-85 Version 2.3 to ACUCOBOL-GT 4.31 to lay a solid foundation of feature-rich, modern COBOL language and extensive tools. They also made a related decision to migrate from NCR UNIX to Sun Solaris

specifically to upgrade the level of support for their UNIX platforms.

Then, as Howard describes it, they killed two birds with one stone by building one utility, written entirely in ACUCOBOL-GT, for handling all the data I/O replication and distribution for both the SQL database and the HIPAA audit repository. The hub of that utility is the *Centralized I/O Module*, a program that runs on the UNIX server and distributes the system-wide

vision I/O data to the replication store. A second program, *dbreplicate*, also on the UNIX server, instantly replicates every data I/O received from the *Centralized I/O Module* to the NT based SQL server database. Every 15 seconds, *dbreplicate* makes a synchronous call to AcuConnect on the NT server, passes on the current I/O batch information, and then FTPs the replicated Vision I/O's. AcuConnect passes the filename to a third application, *dbupdate*, which updates the SQL database. The *dbupdate* program runs each update as a separate thread using ACUCOBOL-GT's Transaction Management System that includes COMMIT and ROLLBACK capabilities. The process of replication takes from two seconds for a single I/O to about 90 seconds for a batch of 10,000 I/Os. In

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Howard Stockdale,
Senior IT Architect

practice, it typically takes no more than 17 seconds from the initiation of the I/O operation to the data's availability in the SQL database (including whatever part of the 15-second delay by *dbreplicate* happens to apply).

Feeling Great

All the programming, installation and testing of the new system was done in-house, by one person, and in just four months of part-time work. Morris and Howard report that the new system has been running for three months without a hitch, keeping the databases synchronized and updated. "We are ecstatic about this, it has done so much for us!" says Howard. "We're going to be able to understand our data more and, because of better information analysis, have a leg up on our competition."

Per-Se's satisfaction with their new solutions is so genuine they've decided to become a vendor of Acucorp's products. Sharing a common vision, the two companies are looking forward to a successful future.

For more information about Acucorp, Inc., and our products, please visit www.acucorp.com

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