QSS and Minisoft Breathe New Life Into A Trusted Legacy Platform.

Quintessential School Systems

Quintessential School Systems(QSS, www.qss.com) is a long-time supplier of financial and human resource applications for K-12 public schools. An early adopter of the HPe3000, QSSimplemented feature-rich applications powered by Image, VPlus, and COBOL– the quintessential HPe3000 trifecta.

Minisoft

Minisoft was founded in 1983 to develop and market connectivity, electronic forms, document management, client-server and web development tools. With over 10,000 customers worldwide, Minisoft is a major supplier of these solutions for the Hewlett Packard, UNIX, Linux, IBM, Apple, and Windows computer platforms.

Situation

When Hewlett Packard announced that their future plans did not include the HPe3000, Duane Percox (QSS senior partner and a Company founder) developed a two-phase strategy for moving their suite of applications off of the 3000 in a manner that would minimize customers' risk of running mission critical applications (think payroll) on servers soon to be obsolete, and would at the same time modernize the QSS product offerings.

The first step involved replacing the HPe3000 VPlus screens with a Windows GUI developed using VisualBasic and .NET. This new GUI would connect to a similar COBOL application server and use the same Image databases. This step was labor intensive and represented the most dramatic changes for the end users. This is the stage of the migration where most QSS customers are today.

The second phase of the project was to replace the 3000s with Linux servers, running SQL Server, or an open source relational database, as the backend. Netcobol was used to mitigate COBOL program changes and the associated retraining of the COBOL development team. This phase requires customers to purchase new servers and to potentially retrain IT and application maintenance staff; however, end users would see few differences.

Challenge

These steps coupled with the new direction QSS was going in relation to the new web based applications made for a tricky situation. The new web based applications were developed using Ruby on Rails as the framework, a relational database as the data store, and a variety of browsers as the GUI. Ruby on Rails is a Model-View-Controller (MVC) technology which isolates business rules, data access and storage (model) from the web protocols (controller) and presentation (view) layers.

The Ruby on Rails technology precludes the HPe3000 and thus can only be used by the few QSS customers already running on Linux. Unfortunately, this leaves the majority of the QSS install base with no web-based solutions. QSS evaluated various approaches to allow their Ruby on Rails applications access to the vast amount of data stored in Image. If this could be achieved it would provide all QSS customers a modern "Web 2.0" browser front-end able to move data to and from their existing HPe3000s. QSS would also have an opportunity to earn new licensing revenue.

The Solution

Enter Minisoft and their ODBC driver for MPE/iX. Minisoft's approach was simple, required no changes to existing system backups, was straight-forward to configure, and the support was exemplary. In a nutshell, QSS could create Ruby on Rails models that reflected the Image data-sets. These models return to the controllers the same information whether it came from the new relational databases or from Image. Once the controllers have the data, the rest of the application, including all generated HTML, JavaScript and Ajax calls, is identical.

Thus, the bulk of the code in the new web-based applications was entirely database agnostic, thanks to Minisoft's ODBC Driver. This is a promise often cited by web-based development technologies, but they certainly are not referring to a 30 year old navigational database known as Image when they make that claim! It would have been even easier to support Image, but QSS made significant structural changes to the Image databases when converting them to relational databases. Much of the effort spent getting Ruby on Rails access to Image was mapping the old Image structures to the new tables and columns.

Conclusion

"QSS demonstrated the new Employee Self Service web-based application (ESS) at the QSS Users Group Conference in March 2010. The audience was unable to guess which screens were populated from the relational databases and which came from Image - and that is greatest praise of this technology", said Jeff Vance, QSS Senior Technologist.

As a result of this Users Group Conference two large California school districts have adopted the ESS technology and are on their way to providing greater functionality to all of their users!

Minisoft's innovative ODBC Driver can extend the life of the HPe3000 and in this current economic climate, product longevity and savings are crucial to a business's survival. This environment transformed the ODBC Driver from a product that was convenient to a mission critical product overnight. ODBC not only provides greater functionality for all end-users but it also allows for a consistency among reporting functions. It is truly a seamless and database agnostic solution for a trusted but slightly aged legacy platform.

The Minisoft Perspective

With Hewlett Packard's ODBC driver, HP e3000 users will quickly discover they are forced to use Allbase or Image/SQL to access their Image or TurboImage databases. To use HP's "free" ODBC driver, users must setup and define DBE's (Data Base Environment) before any data can actually be accessed.

With Minisoft's ODBC driver you can have direct access to Image and TurboImage databases without having to incur the overhead of Allbase or Image/SQL. Minisoft's ODBC supports advanced features such as linking to multiple databases, KSAM, and MPE files.

In the case of QSS Minisoft was able to supply a modern interface,and thus extend the value of the HPe3000 to their customers. This opened up their databases to the end users for reporting and greater functionality. Whether the task is to web enable a legacy application via JAVA or implement a VisualBasic or .NET application that facilitates access to a company's corporate database, Minisoft's family of Middleware drivers including ODBC, OLE DB and JBDC are the perfect choice for HPe3000 users.

Contact us Today

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