



SCS Case Study

Web-based Database Application Design and Development with Routing and Approval Capabilities

The Client

The state court system provides interpreters for any non-English speaking person, defendant, witness, juror, involved in a court proceeding. These court interpreters are either self-employed or work for interpreting agencies. They work in court systems throughout the state. Self-employed interpreters are paid directly by the state for their time; whereas the state pays interpreting agencies when services are rendered by agency employees.

To facilitate payment, each self-employed interpreter and each agency must submit timesheets to the state. These timesheets must be reviewed and approved by both the county and the court district where the services were rendered upon approval. A copy of each timesheet is sent to the state court system for reporting and budgeting purposes.

In addition to the timesheet process, the state court also maintained a separate database listing the court interpreters along with the certification training they had completed. This listing did not provide for multiple levels of interpreter certification. It also lacked the ability to track continuing education requirements for maintaining a certification level.

The Challenge

The state court system provided an Excel spreadsheet to be used by the self-employed interpreters as their timesheet. The timesheet was downloaded from the court website, completed in Excel, and emailed to the appropriate county personnel to begin the approval process. A separate Excel spreadsheet, which allowed for multiple agents on a single timesheet, was used by the agencies. Some of the agencies customized their time tracking software to produce the Excel spreadsheet as an export.

A number of issues arose during the time the Excel spreadsheets were in use. First, this approach required each interpreter to have access to a recent version of Microsoft Excel and to maintain an email account. Second, not all spreadsheets were being forwarded to the state court resulting in underreporting of interpreter hours and state dollars spent on interpreting services. Finally, those spreadsheets that did make it to the state court were often completed incorrectly or had their format modified so they could not be properly imported into the reporting database.

The state court system issued a request for proposal (RFP) for the design and creation of a software system to better manage and control the interpreter timesheet process. The resulting application was also to combine the tracking of interpreter certification and continuing education with the timesheet database to eliminate duplication of data. Superior Consulting Services (SCS) was the successful bidder in this RFP process.

The Solution

SCS and the state court personnel worked to design an application to meet the timesheet routing and approval requirements as well as the court system's certification tracking needs. SCS analyzed the spreadsheets and the Access databases currently in use. In addition, SCS led a number of

facilitated discussion sessions with court system personnel, county personnel, interpreters, and agencies to further determine the application requirements.

Since many of the users of the application (interpreters, agencies, county personnel, and court district personnel) are spread across the state, a web-based application was created for timesheet entry and approval. The timesheet data is validated immediately upon entry and can therefore be corrected by the interpreter before being stored in the database. Routing and approval are handled by the application. Automatic email notification was employed for timesheets waiting for approval.

The web application also provides for uploading a Comma Separated Value (CSV) version of the agency spreadsheet. This eliminated the need for agencies to make additional software system changes to accommodate the new system. Once imported, the agency invoices follow the same routing and approval process as non-agency invoices. This web application uses a SQL Server 2000 database back-end.

In order to minimize development costs, much of the existing Access front-end used for interpreter certification tracking was preserved. This Access front-end was modified to add features for continuing education and multiple certification levels. The Access front-end was also modified to use the same SQL Server 2000 database back-end as the web application.

The Result

A team of SCS developers worked to implement the web-based and Access-based portions of the application. The state court system personnel were given multiple opportunities to test the application and to provide feedback during the development process. The resulting application was installed on the state court system's servers. Mentoring, technical documentation, and user documentation were provided to the state court system so they could assume day-to-day management responsibilities for the system.

The resulting system has greatly simplified the interpreter timesheet process. Interpreters can complete their timesheets from any computer with Internet access, including a computer at an Internet café or public library. Approved invoices are always routed to the state court system and the timesheet data is guaranteed to be accurate. In addition, the state court system has much greater flexibility in defining and managing requirements for interpreter certification and continuing education.