

CASE STUDY

Remote field DATA COLLECTION allow for greater efficiency in the energy sector

The efficiency of work in the oil & gas sector relies on the accuracy of data the staff gathers on the field inspections and missions. Our customer's data gathering relies on mobile infrastructure. The company needed an effective mobile solution for collecting information in the field through Pocket PCs for their database and also for easily identifying the geographic location based on interaction with the GPS system.

The Client

RDC Data is a US based company in the oil & gas industry. The client chose OSF Global Services for its track record of solutions that improved processes and technologies in this industry for greater compliance and reduced redundancies with integrated end-to-end infrastructure and services track record.

The Idea

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collecting information in the field through Pocket PCs for their database and also for easily identifying the geographic location based on interaction with the GPS system.

David Nelson, RDC Data

"Our working experience with OSF Global Services has been gratifying for us in many regards. Most of all, we appreciated that the team from OSF Global Services was knowledgeable with the project and that they made realistic estimations with both time and money. This is pretty much everything one would look for in an outsourcing programming team."

The Challenge

The company required the Pocket PCs tool to integrate with their own desktop application. At the time of the project kick-off, certain limitations incurred from the preexistent data sheet and the information interdependency.

Although the solution had to be optimized for the limited resources of a Pocket PC, the user needed a simple but consistent navigation interface that enabled him to do actions like sorting and filtering directly on the PDA. Moreover, the design of the input form had to be highly customizable. The Pocket PC had to store the data autonomously and provide it later to the office desktop computer for synchronization purposes.

Another important feature was the communication with the rendering of GPS data through an attached GPS device, for localization purposes on data input.

The Solution

OSF Global Services developed the software application for the Pocket PC – the mobile component in the process. The application was developed to enable the technician on accurate and easy field data gathering. The software also enabled the user to detect and read its location through GPS and record the position where the measurement had been made.

The data is later on downloaded from the Pocket PC on the desktop. The user can transfer on the mobile device some other data sheets with fields predefined from the desktop application, or can customize the fields directly onto the Pocket PC.

On the client specification, our team decided on the technology to be used, according to the hardware resources and the interface for the exchange of data between the mobile and the desktop application, aside from complete project development and implementation.

Technologies

- Database: SQL Mobile for intern use;
- XML for file transfer;
- .NET framework for communication with the GPS port;
- Application testing for Pocket PCs and GPS devices.

The Results

The mobile solution we developed for our client critically improved with efficiency and accuracy on the field data gathering process. Interaction with the GPS system also added a significant stone on our team's mobile development expertise.