

## **Creating a Custom Solution to Turn Offshore Data into Actionable Information**

A leading independent energy company was running an offshore operation consisting of a handful of sub-sea wells connected via cable to a major offshore rig located seven miles away. They needed a more efficient, accessible and less expensive way to monitor production and pressure rates coming in from the ocean floor.

### **Using Raw Data to Its Maximum Potential**

The company had three crucial data problems that needed to be solved. Typically, down-hole data is captured at a very high frequency. The excessive bandwidth needed to monitor the frequent pressure readings coming from the field had a very high cost.

Secondly, often the data served no purpose until technicians noticed a change in the production rates. To maximize its value, this data needed to be interpreted to analyze the rate of change in the pressure readings. This interpretation would give the company valuable information on the productivity of the well and any potential problems.

Finally, without a commonly accessible platform, the data could only be read locally, making it difficult to access and virtually worthless in regards to proactively assessing the wells. The data needed to be delivered in a timely manner to those who could convert it into actionable information.

### **Turning Large Quantities of Data into Actionable Information**

Through a recommendation from one of its partners, this company turned to Globalogix to solve these problems. Due to its freedom from any one technology provider, Globalogix quickly developed a solution that worked within the company's existing infrastructure, and allowed the company to not only monitor its data from anywhere in the world, but also to translate the data into actionable information at a more manageable cost.

The company wanted to manage the data – and its transmission – in the most valuable and economical form possible. Globalogix engineers tackled this problem by developing an algorithm that monitored the digital data points coming from the subsea wells, and at the same time monitored the rate of change (if any) in the data. The algorithm monitored the rate of change in the data to the frequency at which it was captured and transmitted. The higher the rate of change, the more valuable the actual data became. The reservoir engineers gained the most information from the data during these transients of changing data. When the data remained stable it had less value. Consequently, Globalogix managed the transmission costs as well as the volume of data in the database.

To improve the accessibility of the information, Globalogix provided a web-based service. With this development, the complete suite of data and change rates could be accessed, exported and manipulated from any computer with an Internet connection, from virtually any location on the globe. Additionally, to ensure that only authorized personnel could access the data, Globalogix tightly secured the hosting network.

Globalogix provided a complete scope of the services needed to implement this solution. By utilizing a broad range of its capabilities, the Globalogix team accomplished custom programming, remote data hosting, network design and equipment installation in record time.

### **Developing a Custom Data Solution within the Existing Infrastructure**

GlobaLogix managed the capture and rate of transmission of data, lowering the frequency of transmission and reducing the amount (and cost) of the bandwidth the company was using significantly. This improved accessibility allowed the company's personnel to view relevant information from the wells anywhere and at any time, resulting in greater proactive problem solving, increased production and lowered labor costs. As an added benefit, GlobaLogix' ability to handle the entire spectrum of the project kept the budget low and the timeframe short.

These factors were vital in helping the company reach its goals and expand the potential of its operation. And, as a result of GlobaLogix' technical flexibility and broad capabilities, a solution was developed within the field's existing infrastructure at an economical price.