Skymira: Case Study Series

Case Study:
Compressco, Inc.

Streamlining Paperwork through Remote Work Order Automation, Real-time Inventory Management and GPS Positioning.

By: Roy Lund
Skymira, LLC

Background

Compressco, a TETRA Technologies Company (NYSE:TTI), is a leading manufacturer of Production Enhancement Solutions for Marginal and Low Pressure Oil and Gas Wells. The firm manufactures, leases and services its GasJack™ technology designed to increase production and total recoverable reserves of natural oil and gas wells.

The GasJack is a mobile compressor about the size of a road construction power generator. Placements are in extremely remote areas, from Texas up through Alaska.

When oil and gas wells are first drilled, the innate well pressure is sufficiently strong, but as the well is drained over time, the pressure decreases to a point where daily production becomes marginal and in some cases unprofitable. The GasJack™ is a mobile compressor, about the size of a road construction power generator. These units are placed along side the marginal wells where they add pressure, increasing the daily production rates. The technology allows the producer to extend the life and viability of these valuable resources.

Compressco's business model is one of leasing and servicing the GasJack™ units. Most of the placements are in extremely remote areas. The fields where these units operate include Mexico, and covers an area of the US from Texas up through Alaska. Units are also used in offshore locations. Compressco deploys a team of technicians on a regular basis to service the units and to make repairs when required. Customer contracts typically include an uptime guarantee. At the time the Skymira solutions were implemented, Compressco had several thousand GasJacks™ in operation and over 180 full time technicians servicing them.

Challenges

Compressco realized early on that manual processes for creating work orders and managing parts inventory would impede their ability to grow as quickly as they required.

Several of the challenges identified as having the greatest impact included:

- Work orders were all paper-based. Service records were handwritten and mailed back to the main office for manual data entry. With over 4,000 work orders each month, the amount of paperwork was extreme, taking three full time clerks and an entire conference room to handle it.

- Parts inventory on the technicians' trucks was also manually managed. The inefficiencies of this process were believed to be resulting in higher costs for the company, but there was no way to effectively analyze the data to know where savings could be generated.
- Verifying the exact location of their service technicians and vehicles was manual.
- Without a centralized database, mining all of this information -- service records, technician time sheets, unit failure codes, etc – was difficult. The firm wanted to begin to determine avenues to greater efficiencies and effectiveness.

With such a range of challenges, Compressco determined that three phases of implementation made the most sense. Phase one would focus on the work order automation; followed closely by Phase two, real-time inventory management; and finally, Phase three, technician access to machine data.

Skymira TailorFit™ Solution

By the time Skymira was called in, the Compressco implementation team had already met with several potential providers. They were disappointed to realize that all had proposed "'canned solutions", none of which could fully address the full set of requirements for the project. They didn't want to deal with multiple suppliers. They also wanted a solution that would integrate with the way they were doing business, having the least amount of impact on operations. For example, they wanted electronic work orders that resembled the existing form layout. They also favored complete integration with existing enterprise systems.

"Skymira understood our requirements and had a process in place to make tailoring the solution part of the contract"

According to Chris Anderson and Larry Brickman, Compressco's project leaders, "Skymira got it right away." "They asked the right questions and they quickly understood our requirements. They also had a process in place to offer us exactly what we wanted, but without the long lead-times one-off custom work requires. In the end, they made tailoring the solution part of the contract, everything in one place, easy and convenient."

Project Scope & Implementation

Following Compressco's desire for phased implementation, Skymira offered two primary solutions that would later be easily integrated with each other.

Mercury Project Snapshot

Mercury 1: Transform paper work orders (4,000 per month)

Mercury 2: Add real-time inventory management system

Mercury 3: Update work order, add ability for technicians to request status of compressors they are responsible to maintain

Hardware: EMS PDT100 for 180 trucks, Laptops

Carrier: SkyTerra satellite packet data

Skymira Services: Electronic Forms, Enterprise systems integration, GPS tracking

Implementation went very well with no unexpected surprises. Knowing the installation of new hardware in all 180 trucks would have the greatest impact on operations; Compressco coordinated the installation of the laptops with regularly scheduled technician training. By the end of the day's classes the technician had a newly outfitted truck and was up to speed on use of the new system. Skymira also addressed specific software issues that were required. For the subsequent two phases, the ramp-up impact was less given that these were predominantly software upgrades

Compressco understood the data needed to be in one database to be truly valuable and that was crucial that all the data, regardless of application, be in an XML format and integrated with the enterprise systems.

Customer Results

"Paperwork was streamlined -- the company more than doubled the number of work orders from 4,000 to 8,500 and clerk count was reduced from three to just one."

The positive results of the work order automation by streamlining the paperwork showed up almost immediately. Compressco could now check and make sure things were operating smoothly. Did the technician show up when they were supposed to? Did the work get done? Were there any unforeseen problems? Field efficiency and scheduling were greatly improved. Skymira's solution allowed the company to process more than double the number of work orders processed, from 4,000 per month at project roll-out to 8,500, while simultaneously reducing the administrative clerk count from three down to just one. And with service reports being sent electronically, technicians were now freed up to spend more time on maintenance and less time on paperwork. From a morale standpoint alone, the improvement was significant.

"Once we had service and parts information in a single database, we were able to trim parts inventory costs $200,000 per month"

When inventory management came on line, the system began to provide checks and balances. Compressco could now check parts inventory on trucks, determine which techs were most successful and which ones might need more training based on hours and parts expended. They were also able to see which technicians were located closest to projects. Perhaps the crowning achievement came during an extensive analysis of parts usage. With access to a complete database of information, Compressco was able to trim parts inventory costs by an astounding $200,000 per month. The results were timely -- given today's economic environment those savings are helping the company stay on its growth track.

Out in the field, Compressco's clients and peers have tuned into the implementations. It's become quite the story in the market. Technicians report they often hear the words -- "Wow. Laptops, satellites, no paperwork."

About Compressco

Compressco, a TETRA Technologies Company (NYSE:TTI) headquartered in Oklahoma City, Oklahoma is a leading manufacturer of Production Enhancement Solutions for Marginal and Low Pressure Oil and Gas Wells. Utilizing the GasJack™ technology, the company's Production Enhancement Solutions can dramatically increase the daily production and total recoverable reserves allowing the customer to substantially increase both cash flows and the net present value of their producing reserves of natural oil and gas.

Marginal wells currently represent more than 64% of all domestic natural gas wells, but account for less than 10% of total domestic production. With demand for natural gas outstripping domestic supply, technologies to enhance production and profitability of marginal wells have become increasingly necessary. The GasJack™ fills this niche allowing the producer to extend the life and viability of this valuable resource.

About Skymira, LLC

Skymira delivers the industry's first truly tailored remote information solutions for seamless management of remote operations through a complete set of state-of-the-art satellite and cellular technologies. Designed to unlock the value in corporate remote information, Skymira TailorFit™ solutions are the perfect combination of technology, services and client-insight, tailored to the exact fit each business requires.

Providing proven cost-savings through timely access to a company's remote assets and information, Skymira supports a variety of functions, from streamlining paperwork to GPS fleet tracking and remote equipment monitoring, in the transportation, maritime, oil/ gas, construction, utilities, mining and forestry industries. Its partners are leading manufacturers and network operators including: Inmarsat, SkyTerra, Skywave, Iridium, EMS Satcom, Hughes, Thrane & Thrane, Wideye, and Sierra Wireless, among others.

Skymira was recently awarded the elite status of being one of the Inc. 500 fastest growing companies for 2009. The firm was founded in 1998, and is based in Milford, Connecticut. Information about the company can be found at www.skymira.com

About the Author

Roy Lund is sales director at Skymira and has a comprehensive background in information technology development for remote information management solutions. He is responsible for business development and customer project implementation at Skymira. Lund's career spans over twenty- seven years, working at firms from Fortune 500 to the leading names in the maritime industry.

Prior to joining Skymira, Lund managed vessel and shore IT development at Kirby Corporation, deploying Kirby's first vessel satellite communications system and providing support for over seven hundred vessel crewmembers on two hundred and twenty tugboats. During his tenure at Kirby, Lund was also responsible for delivering the first back office system for Kirby. Prior to that, he oversaw the satellite and touch screen technology implementations at Hollywood Marine, prior to its acquisition by Kirby. Lund also was Vice President at Boatracs, Inc, a satellite system provider, where he was responsible for new product development, global customer sales/service and strategic software planning. At the Variable Annuity Life Insurance Company, he provided IT leadership for the company's regional offices, agent support systems and executive information systems. During his tenure at Variable, Lund also played an integral role in delivering the first back office system to the Fortune 500 firm.

Lund holds a B.A. degree in business administration from the University of Missouri at Kansas City. Roy can be contacted at Lund.r@skymira.com

Skymira TailorFit™ Remote Information Solutions

The perfect combination of technology, services and client-insight, tailored to the exact fit each business requires.

Every Skymira TailorFit™ Solution begins with insight into the exact needs and the way our clients do business. As a leading provider of satellite and cellular communication products from major manufacturers, Skymira combines the technology that's best for each application with highly effective ready-to-use applications and the right communication, implementation and support services. Each solution is then 'fit' to the way the business operates, guaranteeing faster uptime, concrete results and greater returns on investment.