

Digital Oilfield Inc.

Java-based, Solaris-powered electronic invoicing technology from Digital Oilfield greases the wheels of North America's oil industry



Company
Digital Oilfield Inc.

Vertical Market
Upstream oil and gas industry

Key Challenges

- Delivering web-based online invoicing systems clients around the world, eliminating upgrade and compatibility issues
- Slow, tedious manual administration processes with high occurrence of human errors and downtime.
- Uncontrollable amount of miscoded, misrouted and unorganized document circulating in the system

Solution

- Build OpenInvoice and OpenContract software with J2EE
- Delivered on Solaris™ Operating Environment.
- Superior scalability with Sun servers
- Business continuity and with high level of performance and optimized integration Sun storage system: StorEdge 3150

Partners
Digital Oilfield Inc.

Why Sun

- Sun offered a secure, simple and solid enterprise data storage that was irresistible. Sun provided strong collaboration of top technology to eliminate process, errors and cost while increasing highest level of data management and storage and complete integrated suite for communicating with hundreds of supplier and customers.

Business Results

- Easier access to invoicing for customers
- Significantly reduced invoice processing costs per transaction
- Scalability has met service spikes
- Rapid updated data communication and information delivered from central to hundreds of supplier and vendor
- Significant number of steps are eliminated, reduced cost and time, decreased complexity

Digital Oilfield has attacked the cost and complexity of business processes in the oil and gas industry. Using Sun Java Web Services technology, Digital Oilfield has significantly accelerated network service deployment of its Internet-based solutions that automate and integrate financial and operational processes between energy companies and their suppliers. Currently more than 1800 suppliers in the North American oil and gas industry carry out reliable and secure invoicing transactions over the Internet using Digital Oilfield technology.

When Digital Oilfield went looking for the best way to deliver and support their online invoicing systems to clients, they turned to Sun for secure, scalable Internet-based hardware and software.

The upstream oil and gas industry involves hundreds of companies involved in a series of constantly evolving relationships. Suppliers like road crews, drilling mud suppliers, trucking companies, cooks, and environmental companies can change on a daily basis, and maintaining business processes between ever-changing numbers of partners is a daunting task at the best of times.

Prior to Digital Oilfield's arrival, invoicing a payment followed one of two methods: a slow, tedious manual process, prone to input errors by both the energy and the service companies, or a desktop application model requiring constant updates at every user location. The manual invoicing process has been a long-standing problem, where invoices are miscoded, misrouted or difficult to categorize. In fact, one client audit noted errors in 25 percent of invoices from their previous system and processes.

Taking the proverbial bull by the horns, Digital Oilfield brought a radically different technology option to the market, with the introduction of two centrally controlled, web-based applications, the Java-based OpenInvoice and OpenContract. Digital Oilfield's business process solutions automate and improve the processes for managing field tickets, invoices and contracts between energy companies and their suppliers.

Accessing OpenInvoice and OpenContract in a hosted ASP environment, clients benefit from better invoice tracking, clearer communication among trading partners, and significant reductions in paperwork and processing time. The new levels of process automation eliminate up to 80 percent of the internal processing time and cost associated with invoice approval and audit. This represents a huge time and cost saving for Digital Oilfield clients. Users immediately benefit from an easier way to invoice and a faster method of payment.

Easy access, regardless of operating system, language or locations. Integrated server and storage system delivers the highest levels of security and stability.

"The Sun-powered electronic invoicing system by Digital Oilfield has dramatically streamlined our invoicing process in the year and a half we've been using it. Our internal users and suppliers appreciate the ease of use of the system and the web-based nature of the application allows for very smooth inter-company workflow. Our average invoice approval time has dropped from weeks to days, which means we have much more control over our payment process."
- Robert Austin of Anadarko Canada Corporation.

Choosing a high-octane platform

When Digital Oilfield decided to bring their service to market, they sought out a technology partner with the software and hardware to deliver Digital Oilfield's online invoicing tools. Because of the nature of the information being processed, they needed the highest levels of system security, scalability and flexibility. Confidence breeds success, so they wanted to invest in software with a proven track record and clear road map for the future.

After a comprehensive evaluation of available development environments, Digital Oilfield chose Sun Microsystems's Java language for the application and Sun servers to power the application.

Digital Oilfield selected Java over other programming languages because it afforded the opportunity to centrally manage applications by moving to a web-based model.

Because software upgrades are done centrally, users don't face downtime hassles for upgrades, nor additional installation costs. Because the invoicing information is stored online, a supplier can log on at their convenience and rapidly input information. At the same time, their customers receive the invoice instantly, completely eliminating mail and routing problems. Digital Oilfield clients have

seen invoice processing costs drop by up to 80% per transaction.

Additionally, an application written in the universally accessible Java platform instead of a proprietary software type need only be written once, and can then be deployed anywhere, on any machine, be it a PC, Mac, UNIX, or Linux. Java has the added benefit of supporting multiple languages and currencies. This flexibility ensures Digital Oilfield's clients have easy access regardless of operating system, language or location. Digital Oilfield can easily manage the needs of clients around the world.

Hitting pay dirt with Digital Oilfield

OpenInvoice and OpenContract embody the "write once, deploy anywhere" vision of Java, and have simplified the procurement model for supplier integration tools

What has this meant for Digital Oilfield and its clients? Dramatic reductions in the costs and complexity previously associated with supplier integration tools.

The client who had suffered a 25 percent error rate was now enjoying automated and streamlined invoice receipt, coding, routing, adjudication and approval processes; full integration with their financial systems; reduced errors with coding and approval; and a better ability to capture spending information. The streamlined systems also allow them to take advantage of early payment discounts.

The complete solution: Sun servers and storage

Digital Oilfield's clients work in a highly competitive industry and deal with large volumes of classified financial information. They require a system with the highest levels of security and stability. As such, Digital Oilfield required a system that could support various configurations and customer environments. Reliability, performance and data availability are at the heart of any enterprise data storage system and are critical to security and busi-

ness continuity in Digital Oilfield's environment. The linked server-storage-software system provided by Sun has a number of key benefits for Digital Oilfield as they work with the various data streams coming in from customers.

Sun servers were selected for their scalability and reliability, while keeping the total cost of ownership down. In addition, Sun's solution offers guaranteed military-grade server security for its customers. The Digital Oilfield infrastructure is deployed on a group of Sun SunFire servers running the Solaris™ Operating Environment.

Sun servers provide excellent CPU scalability, performance, and large memory capacity. Of note, the scalable servers can handle fluctuations in demand at different times of the day, week or month, a common requirement in the upstream oil and gas market.

During a three-week period in the summer of 2003, a sudden increase in transactions meant that Digital Oilfield's data man-

agement capabilities had to be immediately increased by 50 percent. Because Sun systems can be ramped up or ramped down in response to fluctuations in demand, Digital Oilfield met the challenge and continued to provide reliable services to its customers.

A Sun StorEdge™ 3510 storage system offers the high availability required in Digital Oilfield's secure, data-rich environment.

The strong relationship between Sun and Digital Oilfield has translated into winning customer support for Digital Oilfield. Today, Digital Oilfield connects its customers to a supplier community of over 1800 members, including Anadarko Canada Corporation, EnCana Corporation, Nexen Inc., and Unocal Corporation. Energy companies in North America and across the world are shifting into top gear with technology created through this turbo charged partnership between Digital Oilfield and Sun Microsystems.

Sun Technology

Hardware:

- Sun Fire servers
- Sun StorEdge™ 3510 storage system

Software:

- Solaris™ Operating Environment.
- Java 2 Platform, Enterprise Edition (J2EE)

Digital Oilfield Software:

- OpenInvoice
- OpenContract

Get the details.

For more information on Digital Oilfield, visit www.digitaloilfield.com. And for more information on Sun software, please visit www.sun.com/software

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