

# Protecting critical data at VAALCO Energy with next-generation backup and recovery



## Highlights

- Implementing offsite, automated data backup
- Hot backup of databases such as SQL
- Compliance with Sarbanes-Oxley
- Centralized backup that is easy to manage
- Fast backups, faster restores

VAALCO Energy, Inc. is an energy company engaged in the acquisition, exploration, development and production of crude oil and natural gas. The company's properties and exploration activities stretch from the Gulf of Mexico to offshore Gabon, West Africa. Looking for oil in faraway places has boosted sales more than eight-fold since 2002 and has put VAALCO at the top of the "2006 Hot Growth Companies" listed by *BusinessWeek* magazine.

**THE CHALLENGE: implementing an offsite, automated data backup and recovery solution to protect critical data and ensure Sarbanes-Oxley compliance.**

As if the month of December wasn't already busy enough, the IT staff at VAALCO Energy was given just two weeks prior to the end of the year to demonstrate compliance with a set of backup and recovery requirements outlined by auditors in response to Sarbanes-Oxley regulations.

## Data Protection Needs

Robert Walston, IT and Purchasing Supervisor at VAALCO, says the company's current process of hand-carrying backup tapes offsite did not meet new standards of accountability. "It was clear that we needed to implement a data backup and recovery process that, from an outside perspective, could be validated at every point. Staff-wise, we are a relatively small company. But in terms of regulatory requirements, our market capitalization puts us in the same class as major corporations with hundreds of employees."

Dereck Stubbs, VAALCO IT specialist, adds that less-than-clear requirements and changing regulatory expectations made it difficult to get a head-start on compliance. "We had for some time been working with an independent consulting firm to address compliance issues and to prepare for audit processes. But the bottom line was, as many organizations are discovering, auditors and regulators are still working to define requirements. We realized that we needed a backup/recovery solution that would address known requirements such as offsite storage, as well as ensure flexibility and functionality for unforeseen stipulations. With a limited IT staff, we also needed a solution that would require minimal administrative resources."

Walston says that the main concern was protection of VAALCO financial systems running on Microsoft Windows-based administrative and accounting servers. Critical information included financial spreadsheets data and Microsoft SQL 2000 data from the company's IDEAS International financial management solution for oil and gas clients.

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*Dereck Stubbs*  
VAALCO Energy

## One Easy-to-Manage Solution

The VAALCO Energy team considered multiple backup/recovery solutions, including an in-house network-attached storage system with tape backup, offsite tape storage services, and online backup services from various service providers. Stubbs comments, “We tried an in-house tape backup system, but we always came back to the same problem, the offsite issue—how can you verify to an independent party that your data is safe offsite? As far as offsite storage services, price was the prohibitive factor there. It would have cost us a lot to contract with a service to transport our tapes to a licensed, climate-controlled warehouse.”

### **THE SOLUTION: next-generation online data backup and recovery services with ServerSafe technology from NetMass.**

Walston explains that after researching online backup services, the VAALCO team narrowed the field to three contenders. Due diligence resulted in the selection of NetMass online data backup/recovery services based on ServerSafe technology. “NetMass was highly responsive from the very first phone call. We took advantage of a free weeklong trial and found that their service met all of our criteria, from hot backup of SQL databases, to offsite storage and automated policy-based processes. We downloaded the DS-Client software over the network, and less than a day later we were backing up our data across the network.”

The NetMass service enables automated, daily backups of all critical VAALCO Energy financial data, including data consolidated from the company’s main production site in Gabon, West Africa.

**“The auditors confirmed we had a valid backup and restore processes. And it was incredibly fast – an entire restore took all of five minutes.”**

*Robert Walston  
IT and Purchasing Manager  
VAALCO Energy*

## Multiple Benefits

The VAALCO IT team cites the following solution benefits with the ServerSafe solution:

**Secure offsite storage.** In one time- and cost-efficient step, critical data is backed up and stored securely at an offsite location. Password protection and the availability of 256-bit AES “in-flight” and “at-rest” encryption features add to the security of data transfer and storage.

**Hot backup of SQL databases.** Stubbs comments, “Backing up a running SQL database had been a major hurdle when we were doing traditional tape-based backup. Even the Windows-based backup solutions we had in place required that we stop the service before doing a backup. When you stop a SQL service for three or four hours, it may not restart correctly. It’s an archaic way of doing it. One of the other online services we evaluated did claim to offer hot backup, but it was quite a bit more expensive without a lot of additional value. ServerSafe’s ability to back up live tables is really a unique feature. Rapid set-up. “We were under the gun to meet compliance requirements or face exception reports with potential financial penalties. This is definitely smart software and very easy to use. We had policies set up and processes automated within two days. The auditors were waiting for results, so we certainly didn’t have time to tinker with a solution.”

**Economy.** “In our organization,” says Walston, “people wear many different hats. Without the NetMass/ServerSafe solution, we would have had to spend valuable time managing our backup processes and then contract with an outside service to pick up the tapes.

**Rapid data recovery.** “Not only is an outside delivery service expensive, it’s slow—if we depended on them to retrieve our tapes, we’d be at their mercy, hoping they’d be available in the event of a disaster. In contrast, the ServerSafe solution ensures we can consistently meet recovery time objectives (RTOs). It’s tremendous peace of mind, and we can be self-assured of our ability to recover data. It’s one less thing we have to worry about.”

**Scalability.** As VAALCO continues to expand its business and infrastructure, the NetMass service with ServerSafe technology enables seamless turn-on of additional capacity and backup sites. “We expect to grow as a company,” notes Walston, “and the accounting system will expand accordingly. We will also be implementing an Exchange mail system, so having pay-as-you-grow, capacity-based licensing is important on both counts.”

## Data Protection Solved

Walston summarizes, "Most importantly, utilizing the NetMass online data backup service enabled us to meet the critical requirements for compliance. Auditors asked us to prove that our offsite information is secure, that the financial data on the backups is valid and has not been tampered with or accessed. We provided them with two weeks' worth of backups and then did a full system restore on a test server. We basically set up a blank server, restored all our accounting data, and printed a trial balance. The auditors confirmed we had a valid backup and restore processes. And it was incredibly fast—an entire restore took all of five minutes."

"We definitely have a lot of flexibility now in terms of what we can do, what data we can pull and how quickly we can do it," concludes Stubbs. "We're not the first to experience a lot of fear, uncertainty and doubt about Sarbanes-Oxley. But this solution helped us quickly deliver on every audit request—that's something we can take pride in."

## ServerSafe Specifications

### Application Integration

ServerSafe enables seamless interoperability with important applications such as MS Exchange, SQL Server, VMWare, NetWare, AIX, Oracle and many others. Agentless support listed below: S=server, D=desktop, L=laptop.

### Extensive OS Support

Windows 2000, XP, 2003 (S,D,L)  
EMC VMware (S,D,L)  
Mac OS X (D,L)  
Novell NetWare (S,D)  
IBM AIX (S,D)  
SUN Solaris (S,D)  
HP-UX (S,D)  
HP-Tru64 UNIX (S,D)  
IBM iSeries OS-400 (S)  
Red Hat Linux (S,D,L)  
Novell SuSE Linux (S,D,L)

### Extensive Database Support

Microsoft SQL Server  
Microsoft Exchange Server & Outlook 2000/2003  
Oracle 8 & higher  
IBM DB2  
MySQL  
PostgreSQL  
IBM Lotus Notes/Domino Server  
Novell Groupwise

## Company Information

### VAALCO Energy, Inc.

VAALCO Energy, Inc. ([www.vaalco.com](http://www.vaalco.com)) is an independent energy company principally engaged in the acquisition, exploration, development and production of crude oil and natural gas. VAALCO's strategy is to increase reserves and production through a program that balances lower-risk acquisitions and exploratory drilling on domestic acreage with high-potential international prospects. VAALCO properties and exploration activities are located in the Texas Gulf Coast region and offshore Gabon, West Africa.

### NetMass, Inc.

NetMass, the safe data company, provides companies of all sizes highly secure and reliable remote backup solutions. Leveraging the efficiencies of the Internet, the company's data protection services have been helping organizations realize secure offsite data protection, business continuity and regulatory compliance since 1998. With a robust lineup of products, NetMass delivers server backup, database backup, data storage, file sharing, remote access and disaster recovery services. NetMass has offices in Dallas and Houston and has partners and clients around the world. *More information at [www.netmass.com](http://www.netmass.com)*

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