



Revolutionizing Reservoir Simulation With SilverStorm

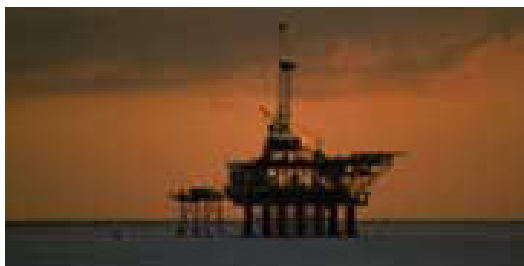
Results

- Simulations complete in half the time with three times the computational throughput
- 3 year ROI of 150%

Executive Summary

Competition in all industries is fierce. This is especially true for the oil and gas industry where the ability to accurately and quickly track and forecast supply ratios, model geophysical phenomenon, and develop safe, efficient instruments and tools is vital to company viability.

Top oil and gas companies, in partnership with SilverStorm Technologies, acquire high performance clustering solutions that will allow them to achieve their performance, efficiency, and data integrity goals, thereby improving overall business performance.



The Problem

For most companies, modeling geophysical phenomenon takes large, expensive systems and days of computation to render a result.

In the oil and gas industry, by the time the result has been delivered and confirmed, reserves could go dry. This interruption of output flow is extremely costly to oil companies as it has ramifications all the way to the end customers who use the petroleum products. Quite often, when computations take too long or results are inaccurate, competitors discover, lease, and tap the oil field first, costing the company millions in lost revenues.

No successful company can afford either of these scenarios, but, as with all companies, they also need to watch the costs of bringing in a new solution. The typical processing environment, which often consists of several large, monolithic mainframe servers, is not able to complete the simulations rapidly enough to meet their business requirements.

The Customer

One large oil and gas company, ranked as one of the highest producers of petroleum products worldwide, chose SilverStorm Technologies as their networking partner to deploy their next generation IT infrastructure.

This top oil and gas company began looking for a high performance clustering solution that would provide the speed, low latency, and scalability they needed, both now and into the future. After extensive testing in their development lab, this company chose the SilverStorm solution.

The Test Environment

They tested their solution using the SilverStorm 3000 InfiniBand switch combined with Fabric Access software to connect ten Itanium-2 based servers with PCI-X HCAs all running RedHat Linux. The company was extremely pleased with both the results of the performance tests and the expert technical support they received.

The Production Solution

"We were not able to meet our performance needs with any other interconnect solution we tested so we turned to a high performance solution with SilverStorm providing the

Most top oil and gas companies have established comprehensive research and development facilities encompassing the fields of petroleum geology, drilling, production, gathering and transportation, machinery, and instrumentation. Over the past half-century, these companies have invested over a billion dollars in scientific and technological capital for research and development with a profitable five times (or more) return on their investment.

