

HPC for Seismic Processing

High-Performance Computing Solution for the Oil and Gas Industry

The EMC® HPC for Seismic Processing Solution dramatically improves overall system performance, lowers costs, and increases ROI for oil and gas computing.

Business Challenges

Seismic data processing requirements and the volume of data collected are growing dramatically. Processing the seismic data traditionally takes four times as long as it takes to acquire the data in the first place. The industry is driving to make this a one-to-one ratio, which is causing a major shift in the way data is processed. Challenges include:

- Tape is no longer fast enough to support processing requirements.
- Large Linux clusters are needed to meet compute processing needs.
- Disk storage must be utilized to eliminate bottlenecks.
- NAS devices are increasingly unable to keep up with data requests.
- Increased deployment risk due to the multi-vendor nature of deployment.

Solution Description

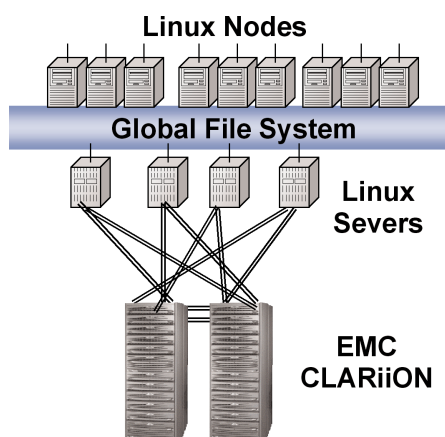
EMC's new HPC for Seismic Processing Solution was designed to help customers address these challenges. EMC has teamed up with leading providers to create a tested and proven solution that will meet the aggressive requirements of disk-to-disk processing.

The EMC HPC for Seismic Processing Solution includes:

- EMC CLARiiON® SAN storage
- EMC deployment services based on a tested reference architecture
- Linux cluster environment integration (including Dell)
- Global file system integration (including IBRIX and ADIC)

The solution is designed to provide a comprehensive storage deployment that eliminates the bottlenecks associated with other storage systems. EMC has tested and certified a unique deployment of our CLARiiON SAN-attached storage for deployment in a Linux cluster/global file system environment to support seismic processing.

The illustration depicts a typical EMC HPC for Seismic Processing Solution.



Solution Value

A key value of an EMC solution is its integration capability. EMC's enterprise-class software, multiple hardware platforms, and services capabilities provide the backbone for an open, scalable architecture. And you'll be able to leverage your current investment in legacy systems. The EMC HPC for Seismic Processing Solution is unique in the industry because it provides an operational storage deployment that can dramatically improve overall system performance, lower costs, and increase ROI.

Benefits of the EMC HPC for Seismic Processing Solution include:

- **Customized solutions** for oil and gas industry high-performance computing.
- **High throughput** to many compute nodes.
- **Solutions to meet high service levels and data throughput requirements:** EMC can help you determine the optimum size cluster for your environment and discuss scalability, performance, and cost trade-offs.
- **Easily scalable** to meet compute requirements. The EMC Proven™ solution can handle large amounts of data as your requirements grow. Solution configurations currently in place are in the range of 72TB and can scale larger if necessary.
- **Optimized** solutions to meet specific customer requirements.
- **Reduced deployment risk:** EMC has tested and certified our solution in our E-Lab™ and in actual customer environments. This means that we understand the issues that surround storage, Linux clusters, and global files systems. EMC can help you design the ideal storage solution for your multi-vendor environment.

Getting Started

Benefit today from EMC oil and gas industry solutions. Talk to your EMC sales representative today for more information on the full range of EMC information lifecycle management solutions or visit our website at www.EMC.com/solutions/.



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