QLOGIC®
The Ultimate in Performance

ALLIANCE BRIEF

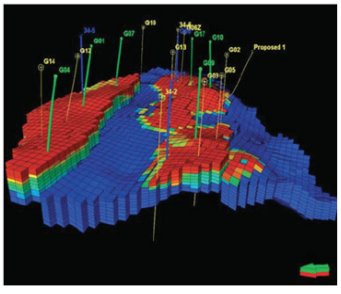
Schlumberger and QLogic

High Peformance Computing

Overview

Petroleum, mining, and other geoscience companies are faced with the challenge of identifying the best repositories of natural resources and extracting the most from these. Decisions about where to perform extraction, and for how long, are extremely important and can make the difference in optimizing costs and earnings or foregoing millions of additional revenue dollars. By analyzing greater amounts of data more quickly, geoscience companies can more accurately identify target sites for improved efficiency and reduced time to extraction.

QLogic® products help geoscience companies improve upstream exploration by accelerating applications in reservoir modeling, seismic processing, horizontal drilling, refinery modeling, and chemical/physical research.



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Solution Highlights

• Expand Scope of Research and Analysis
Increased detail in reservoir analysis results in highly precise targeting, modeling, and extraction.

• Reduce or Eliminate Costs
By leveraging cluster computing/storage resources, geoscience companies using QLogic high performance computing solutions can reduce the costs and complexities associated with deploying and operating HPC exploration data centers.

• Speed Time to Extraction
QLogic solutions help geoscience companies reduce analysis and simulation processing times—hastening extraction and delivery to market.

• More Efficient Operations
QLogic solutions enable the deployment of grid-computing architectures that allow for the pooling of computing and storage resources across research teams resulting in efficient IT infrastructure use and lower product design costs.

Schlumberger

Schlumberger® is the leading oilfield services provider, trusted to deliver superior results and improved exploration and production (E&P) performance for oil and gas companies around the world. Through Schlumberger's well site operations and in their research and engineering facilities, they are working to develop products, services, and solutions that optimize customer performance in a safe and environmentally sound manner.

Schlumberger's real-time technology services and solutions enable customers to translate acquired data into useful information, then transform this information into knowledge for improved decision making-anytime, anywhere. Harnessing information technology in this way offers enormous opportunities to enhance efficiency and productivity. This is a quantum leap from providing traditional "just-in-case" information to delivering "just-in-time" knowledge that meets the changing needs of our customers.

ECLIPSE

ECLIPSE® reservoir simulators have been the benchmark for commercial reservoir simulation for over 25 years because of their breadth of capabilities, parallel scalability, utility computing, and unmatched platform coverage.

The difficulty in preparing input into and analyzing the results from reservoir simulation has historically been a lack of integration between the pre- and post-processing tools and the need for many manual time-consuming data transfers and data-formatting steps. As a result, reservoir simulation has not been utilized in many business decisions where it would have added tremendous value. The answer is ECLIPSE + Petrel™.

With ECLIPSE optimization tools, engineers can increase the accuracy and speed of their history matches, as well as assess risk and model accuracy, while predicting ultimate recovery from various developmental scenarios. ECLIPSE, PVTi™, SCAL™, COUGAR™, and SimOpt® software help you from data analysis through uncertainty analysis to optimize your simulation runs.

QLogic – High Performance Cluster Technology

QLogic offers a comprehensive end-to-end product portfolio that includes multi-protocol fabric directors, edge fabric switches, InfiniBand adapters, and a complete software suite to install, operate, and maintain your high performance interconnect fabric. Application requirements from 12–864 InfiniBand ports can be supported in a single chassis. Multi-chassis fabrics that support thousands of host nodes can be constructed to meet the most demanding compute cluster requirements.

High Capacity Multi-Protocol Directors

- 51.8-Tbps throughput in a single chassis
- InfiniBand DDR supported across full switching portfolio
- Support for 20-to-40 Gbps node-to-node
- Up to 60 Gbps switch-to-switch bandpass

Comprehensive Fabric Management

- Centralized configuration and fabric initialization
- Accelerated fabric deployment and verification
- Fabric health and performance monitoring
- Fabric-wide diagnostics and maintenance
- Centralized management of virtual fabric services

Compatible Plus Software Stacks

- OpenFabrics/OpenFabrics Enterprise Distribution (OFED)
- Optional value-added capabilities
- Accelerated standard Message Passing Interface (MPI) stacks

QLogic InfiniBand Benefits

- Significantly improves application performance for faster time-to-solution
- Provides fabric and application scaling to thousands of CPUs
- Simplifies data center design and reduces operating costs

To Learn More

QLogic www.qlogic.com

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