

Landmark

Landmark and QLogic High Performance Computing

Overview

Oil & gas, 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's products](#) help geoscience companies improve upstream exploration by accelerating applications in [reservoir modeling](#), seismic processing, horizontal drilling, refinery modeling, and chemical/physical research.

Company

Since 1919, Halliburton has continued to earn the trust of our customers around the world by leading the well-site services industry through the delivery of innovative technology, reservoir-specific expertise and outstanding service quality. No matter how challenging their technology or service issues may be, our customers know that we will find a way to fulfill on our promise: The Reservoir — Delivered.

Product

A major advance in reservoir simulation, Landmark's Nexus™ software enables fully implicit, fully coupled surface-to-subsurface simulation for a comprehensive look at your asset. With Nexus technology, simulate everything from small fields to complex assets with multiple reservoirs and varying fluids at unprecedented speed.

Rapid Reservoir Simulation

Nexus Reservoir Simulation software provides solutions five times faster on average than other leading reservoir simulators.

More accurate, more robust, faster solutions

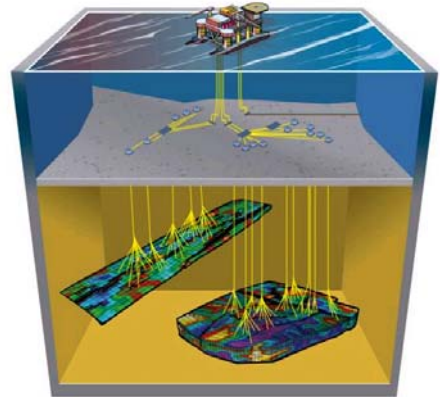
The Nexus package is optimized for the DecisionSpace® environment to provide integrated reservoir and facility modeling giving users one seamless solution.

Increased Accuracy in Production Forecasts

Nexus software solves both surface and subsurface equations together in a tightly coupled network model yielding more accurate results.

Multi Reservoir Models

Nexus software allows users to utilize several reservoirs from different earth model data sources into the model and to combine the reservoirs at one common surface network.



Solution Highlights

Expand Scope of Research and Analysis

Increased detail in reservoir analysis produces more accurate findings that ultimately result in highly precise targeting, modeling, and extraction.

Speed Time to Extraction

QLogic solutions allow geoscience companies to significantly reduce analysis and the time it takes to run modeling and processing applications—reducing the timeline for successful extraction and delivery to market.

Reduce or Eliminate Costs

By better leveraging cluster compute and storage resources, geoscience companies utilizing QLogic high performance computing solutions can significantly reduce the costs and complexities associated with deploying and operating high performance computing exploration data centers.

More Efficient Operations

QLogic solutions also enable the deployment of grid computing architectures which allows for the pooling of compute and storage resources across multiple research teams resulting in better overall IT infrastructure utilization and lower overall cost of product design.

QLogic Corporation

QLogic is a leading supplier of high performance clustering and storage networking solutions, which include the host adapters and InfiniBand switches that are used by major corporations and government facilities. The company delivers a broad and diverse portfolio of products that includes InfiniBand switches and InfiniBand host channel adapters for the fast growing high performance computing market. The company is also a leading supplier of Fibre Channel HBAs, blade server embedded Fibre Channel switches, Fibre Channel stackable switches, iSCSI HBAs and iSCSI routers. QLogic products are delivered to small-to-medium businesses and large enterprises around the world via its channel partner community. QLogic products are also powering solutions from leading companies like Cisco, Dell, EMC, Hitachi Data Systems, HP, IBM, Network Appliance and Sun Microsystems. QLogic is a member of the S&P 500 Index.

QLogic – High Performance Cluster Technology

QLogic offers a comprehensive end-to-end product portfolio which includes Multi-Protocol Fabric Directors, Edge Fabric Switches, Host Channel Adapters (HCA), and a complete software suite to install, operate, and maintain your high performance interconnect fabric. QLogic offers the most comprehensive and flexible interconnect fabric solutions on the market. Application requirements from 12 to 288 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. This offering, combined with the industry's only Fabric Management tools that enable an administrator to install and boot a fabric in minutes, helps to satisfy the growing demand for high-performance computational clusters and grids.

High Capacity Multi-protocol Director

11.52Tb/s throughput in a single chassis
InfiniBand DDR supported across full switching portfolio
Support for 20Gb/s node-to-node
Up to 60Gb/s switch-to-switch bandpass
Single Wire Support for InfiniBand, Ethernet and Fibre Channel

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

Multi-protocol gateways

Virtual I/O Controller (VIC) Functionality
10Gb Ethernet and 4 Gb Fibre Channel
Scale I/O and servers independently
Pool and share I/O between servers

Widest range of host InfiniBand adapters

Widest choice of adapters
SDR and DDR capable
PCI-X and PCIe

Compatible Plus software stacks

OpenFabrics / OFED
Optional value-added capabilities
Accelerated standard MPI stacks

QLogic InfiniBand Benefits

1. Significantly improve application performance for faster time-to-solution
2. Provides fabric and application scaling to 1000s of CPUs
3. Simplify data center design and reduce operating costs
4. Eliminate the need for separate physical server connections to storage and network resources
5. Scale servers and I/O independently pool and share I/O between servers

To Learn More:

QLogic – www.qlogic.com/solutions

Landmark – www.Halliburton.com