

SIMULIA and QLogic

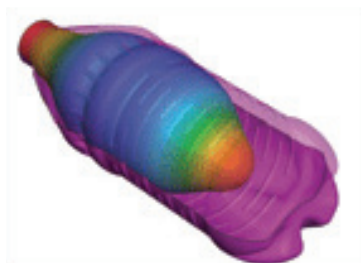
High Performance Computing

Overview

SIMULIA and QLogic have an alliance to bring you the Abaqus FEA product suite on the QLogic high-performance computing InfiniBand networking. The Abaqus FEA and QLogic InfiniBand combination provides a high-performance, parallel-computing environment, thereby allowing users to include significantly more details in their models. This allows analysts to minimize assumptions while reducing turnaround time for high-fidelity results.

SIMULIA

SIMULIA is the Dassault Systèmes brand that delivers a scalable portfolio of Realistic Simulation solutions including the Abaqus product suite for Unified Finite Element Analysis, multiphysics solutions for insight into challenging engineering problems, and lifecycle management solutions for managing simulation data, processes, and intellectual property.



Solution Highlights

Complete Simulations Faster.

When running optimization programs that refine a design, reducing the time-to-information is critical for any company in these competitive industries. Interconnecting your cluster computing network using QLogic solutions can reduce this time interval—the end result is faster time-to-market and higher product quality levels.

Improve Product Designs.

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, industrial engineering customers utilizing QLogic's high performance switching and virtual cluster fabric solutions can reduce the costs and complexities of deploying and operating design and simulation data centers.

More Efficient Operations.

QLogic solutions also enable the deployment of grid computing architectures that 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..

Abaqus

The Abaqus Unified Finite Element Analysis software suite consists of three core products—Abaqus/Standard, Abaqus/Explicit and Abaqus/CAE—in addition to optional add-on products that address the requirements of specific targeted applications.

As the company's flagship product, Abaqus/Standard provides a comprehensive, general-purpose finite element analysis tool that includes a variety of time- and frequency-domain analysis procedures.

A powerful complement to Abaqus/Standard, Abaqus/Explicit is a finite element analysis program designed to serve advanced, nonlinear continuum and structural analysis requirements. The program addresses highly nonlinear transient dynamic phenomena and certain nonlinear quasi-static simulations.

Abaqus/CAE provides a complete modeling and visualization environment for Abaqus.

Whether analysts need to understand the detailed behavior of a complex assembly, refine concepts for a new design, understand the behavior of new materials, or simulate a discrete manufacturing process, Abaqus FEA provides the most complete and flexible solution to get the job done.

QLogic - High Performance Cluster Technology

QLogic is a leading supplier of high-performance clustering and storage networking solutions, which include host adapters and InfiniBand switches that are used by major corporations and government facilities. 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. QLogic offers the most comprehensive and flexible interconnect fabric solutions on the market. Application requirements from 12-to-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. 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 Directors

- 51.8Tb/s throughput in a single chassis InfiniBand DDR supported across full switching portfolio
- Support for 20-to-40Gb/s node-to-node
- Up to 60Gb/s 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/OFED, Optional value-added capabilities, Accelerated standard 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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