



RAID Inc. and QLogic

High Performance Computing

Overview

RAID Inc. has partnered with QLogic to produce storage solutions that meet the most stringent requirements of the High Performance Computing (HPC) and Federal Government markets. RAID uses a variety of host interfaces including InfiniBand, Fibre Channel, iSCSI and SAS to produce a true 100% customized solution that can address any customers' needs.

RAID Incorporated

Since 1994, RAID, Inc. provides true 100% customized storage solutions that best meet the unique requirements of HPC centers, corporations, government entities, and educational institutions worldwide. From grid computing to supercomputing to the cockpit of a fighter jet, RAID Inc. ensures the availability of critical digital content in real-time, all the time. The company guarantees this with the "RAID Approach," a concierge service and support model that ensures the highest level of personalized support and resolution to any issue. The company's flagship service, StorageWatch®, the industry's only real-time monitoring and managed storage service, which lowers total cost of ownership while increasing data availability, was developed as part of the "RAID Approach" to better serve its customers. RAID Inc.'s guaranteed "customer first" approach has made them an industry leader in true 100% customized storage with the best service and support.

Xanadu

Xanadu® provides an industry-unique combination of capabilities to provide storage solutions for the most demanding environments. Not only does the array provide unmatched scalability, availability, and manageability, but also the flexibility, performance, and economy required for the future. This high performance fibre solution is connected to SAS/SATA disk drives, which can be scaled from a base system of a 2U,



Solution Highlights

- Fabric and Application Scaling to 1000s of CPUs**
 QLogic high performance InfiniBand delivers extremely low latency and substantial 20Gbit bandwidth, which translates into support for very large clusters thousands of nodes.
- Reduce or Eliminate Costs**
 By better leveraging cluster compute and storage resources, customers using 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 user groups resulting in more efficient IT infrastructure use and lower product design costs.

12-drive solution to over 1500 disk drives using 128GB of cache making it the industry's only true modular system that can scale to match performance requirements. Each major expansion module is connected using a high-speed X-bar switch architecture, which enables true multi-node operation with performance scaling linearly with capacity.

The Xanadu has the most advanced data integrity technology in the industry today, which ensures against silent drive failures and minimizes drive rebuilds up to 50% with its patented disk-healing technology. Additionally, the solution has a full complement of enterprise software offerings and the latest advancements in energy management technology.

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. QLogic offers the most comprehensive and flexible interconnect fabric solutions on the market. 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. 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

- 51.8-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
- 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) capability
- 10Gb Ethernet and 4Gb 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
- Single Data Rate (SDR) and DDR capable
- PCI-X™ and PCIe®

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
- Eliminates the need for separate physical server connections to storage and network resources
- Scale servers and I/O independently pool and share I/O between servers

To Learn More

QLogic www.qlogic.com

RAID Inc. www.raidinc.com



The Ultimate in Performance

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