



ALLIANCE BRIEF

Intel® Cluster Ready and QLogic

High Performance Computing

Overview

With the Intel Cluster Ready program, Intel teamed up with industry leaders like QLogic to make high performance computing (HPC) simpler. When you choose certified Intel Cluster Ready systems and registered Intel Cluster Ready applications, it's easier to purchase, deploy and manage HPC clusters—and put advanced technologies from Intel and QLogic to work on your toughest HPC challenges.

Need maximum performance and throughput? Select certified Intel Cluster Ready systems based on the Intel Xeon® processor 5500 series.

As a member of the Intel Cluster Ready Program, QLogic works to make HPC clusters simpler to purchase, deploy and operate—and more powerful for end users. QLogic collaborates with Intel and other HPC industry leaders to:

- Select relevant technologies from its product portfolio
- Incorporate them into leading-edge systems that follow the Intel Cluster Ready specification
- Test them for interoperability with other certified, Intel Cluster Ready technology elements and registered Intel Cluster Ready applications



Solution Highlights

Find the right configuration, right away.

Choose a certified Intel Cluster Ready system and reduce the time, complexity, and risk of selecting a collection of independent components.

Know that it works.

Speed time-to-value with faster, easier deployment. Choose a certified Intel Cluster Ready system and registered applications—and be confident they'll work together, just like they should.

Reduce total cost of ownership.

Intel® Cluster Checker helps ensure components keep working together, to increase system availability and lower TCO over the cluster's lifetime.

- Share resources and information with the HPC community by participating in Clusterconnection.com
- Continue collaborating to keep Intel Cluster Ready customers on the forefront of science and industry

QLogic technologies that have been validated for compliance with the Intel Cluster Ready specification include:

- QLogic InfiniBand Adapter 7104-HCA-LPX1P-DDR
- QLogic TrueScale InfiniBand Fabric Director Switch
- QLE7140 – TrueScale InfiniBand Adapter – SDR
- QLE7240 – TrueScale InfiniBand Adapter – TrueScale DDR with PCIe-x8
- QLE7280 – TrueScale InfiniBand Adapter – TrueScale DDR with PCIe-x16

QLogic InfiniBand Benefits

- Significantly improves application performance for faster time-to-solution
- Provides fabric and application scaling to 1000s of CPUs
- Simplifies data center design and reduce 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

How Does It Work?

The Intel Cluster Ready Program brings together key elements that make it simpler to capitalize on high performance computing.

The Intel Cluster Ready Specification helps ensure system interoperability by providing a common basis for building certified clusters and developing registered applications.

Certified Intel Cluster Ready systems are built according to the specification and rigorously tested for component interoperability. Select a certified cluster to gain the confidence that the system will work as it should.

Registered Intel Cluster Ready applications have been validated on a certified Intel Cluster Ready cluster. Run multiple registered applications on the same certified cluster without rebuilding the software stack or reconfiguring hardware.

Intel Cluster Ready recipes or reference designs help hardware vendors and system integrators design and build certified systems.

Accelerate Innovation and Discovery

Accelerate your bandwidth-hungry applications

Unleash more parallel processing performance. Apply the power of an Intel Cluster Ready system with the Intel Xeon processor 5500 series and InfiniBand technologies from QLogic to enhance high performance computing productivity and solve new problems.

With next-generation Intel Core™ microarchitecture, the Intel Xeon processor 5500 series packs groundbreaking performance into smaller, denser footprints that require less power.

The Intel Xeon processor 5500 series combines dynamic performance capabilities, energy efficiency advances and more than triple the memory bandwidth of Intel's previous-generation dual-socket architecture.

Its intelligent performance enables dynamic management of cores, treads, cache, interfaces and power for performance when you need it. And Intel Turbo Boost Technology enables automatic increases in processor frequency of up to 400 MHz.

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-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.

To Learn More

QLogic www.qlogic.com

Intel Corporation: www.intel.com



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