Interconnects: Which one is right for you?

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Abstract

Over the past few years cluster computers have become commonplace. During that time the interconnect choices have gotten more numerous. For the early clusters the obvious choice was Fast Ethernet. However, today there are several options including Gigabit Ethernet, Myrinet, SCI and others. Which one is right for your cluster will depend on many factors including cost, cluster size, latency and bandwidth needs. We have examined the currently available interconnects and will present performance results based on both raw bandwidth measurements and application scalability. Finally we will examine the pros and cons of each interconnect and make recommendations as to what type of cluster/application for which each interconnect is best suited.