

Distributed Storage Networking Architectures: Fibre Channel, iSCSI, Ethernet, InfiniBand, Hyper Transport, Rapid IO & 3GIO Collide in the Data Center

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Abstract

Never in the history of computing has there been such a convergence of technology waves within the distributed systems marketplace. Specifically, the rapid evolution of SANs, NAS, and high speed I/O technologies have created a struggle for control of the interconnect within the data center, creating a *perfect storm* of converging technologies.

This presentation will discuss:

- How did we end up with such a convoluted set of competing standards all trying to address similar, and in some cases identical, problems?
- What are the key technical attributes of each of these technologies?
- How do each of these technologies compare with each other?
 - o Throughput
 - o Latency
 - o QOS
 - o Scalability
 - o High Availability
 - o OS Model
- What are the implications for distributed software applications that utilize these technologies?
- Host Bus Adapters are playing an increasingly important role in IO. What are the HBA implications of each technology?
- What are the outstanding technological problems that need to be addressed going forward?
- Who will win and why?