

Business Overview

Chelsio Communications, a privately-held subsystems company in Sunnyvale, California, is the market and technology leader in protocol engines and server adapters for 10 Gigabit Ethernet (10GbE). Chelsio provides products and solutions for the following applications:

- Enterprise data centers, connecting high-speed servers and storage systems to the data-center backbone
- High Performance Cluster Computing (HPCC), interconnecting servers in cluster and grid-computing architectures, and connecting these clusters together locally or over long distances (WAN)
- Storage target systems serving users over high-speed LANs or dedicated IP storage networks

Core Technology

Chelsio's flagship board-level protocol engine is the world's best performing 10GbE adapter. It employs Chelsio's unique Terminator ASIC that processes TCP/IP, iSCSI, and other upper-layer protocols - unburdening the host-system's CPU of these tasks. Unlike competitive solutions that tax the host-system CPU to process these protocols, Chelsio's TCP offload engine (TOE) technology dramatically increases the host-system's CPU performance, as well as it's network bandwidth.

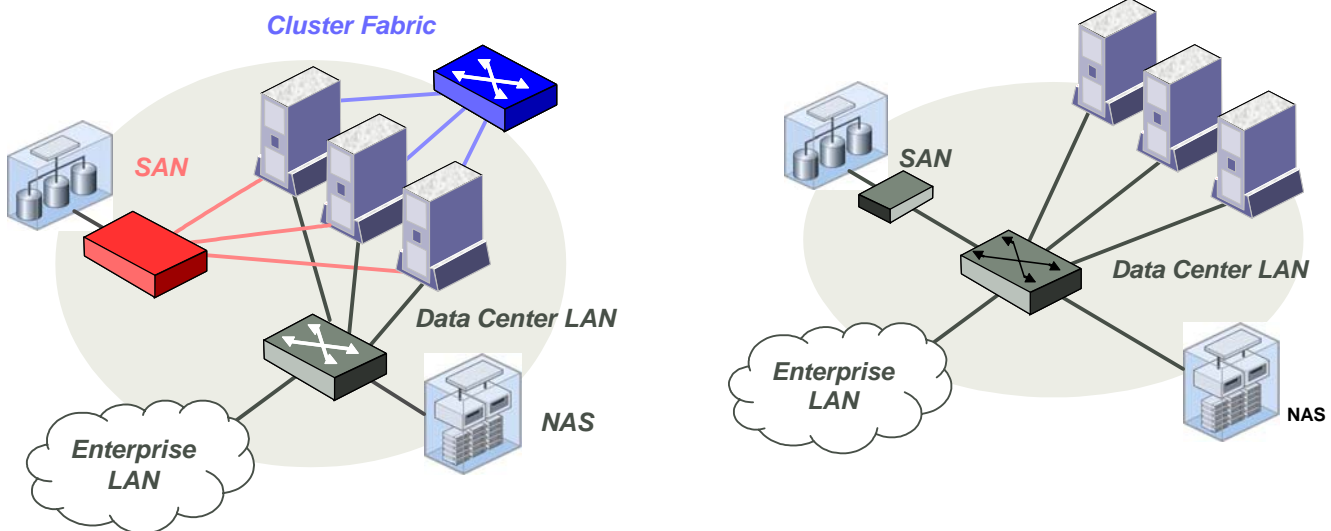


Illustration of network convergence in the data center. At left, data center using multiple high-speed networks for different purposes. At right, Chelsio-powered 10 Gigabit Ethernet provides the performance boost and protocol support to warrant converging all traffic onto Ethernet, reducing costs for equipment, cabling, planning, power, and management tools and effort.

Market Outlook

As enterprise and HPC data centers have evolved, they have deployed proprietary or niche interconnect technologies in their storage networks and cluster fabrics, in addition to the ubiquitous Ethernet LANs. To use these networks, systems must have multiple interfaces and support multiple protocols, and the data center must have multiple switches, multiple cabling infrastructure, and disparate management systems. The enormous bandwidth increase afforded by 10GbE, along with parametric improvements afforded by Chelsio's TOE technology, enables using Ethernet for all these kinds of traffic - a trend the industry calls "network convergence." This convergence is creating a market for 10GbE worth billions of dollars over the next several years.

Products

Chelsio's products are standards-compliant Ethernet adapters that comprise high performance *protocol engines* that feature the TOE and iSCSI technology, as well as lower-cost *server adapters* that rely on their host systems' native protocol processing. The current generation of products are PCI Express compatible.

S310 Storage Accelerator	<ul style="list-style-type: none">• Highest performance Ethernet adapter• TOE, iSCSI, and RDMA with DDP support• 'Unified Wire' solution• Advanced traffic management support
R310 iWARP Adapter	<ul style="list-style-type: none">• RDMA-enabled (RNIC)• Lowest latency Ethernet adapter• Standards-compliant iWARP solution
N310 Server Adapter	<ul style="list-style-type: none">• Stateless offload• Lowest-priced 10Gb Ethernet adapter• Best price/performance
T3 ASIC	Third-generation 10Gb Ethernet Unified Wire Engine for iSCSI, RDMA and TCP/IP Applications

Chelsio also provides protocol software and drivers for Linux, Windows, and Solaris, as well as documentation, training, and support. The company shipped its first products in 2003, and is now shipping products in volume based on its third-generation Terminator ASIC. Customers building globe-spanning 10 Gigabit Ethernet networks to link supercomputer sites in multiple countries recently used Chelsio products to break bandwidth records in multiple categories; more information is available at www.chelsio.com.