

SUN SOLUTIONS FOR HIGH PERFORMANCE AND TECHNICAL COMPUTING



A new collaborative model for supercomputing is emerging. The focus is no longer just the compute environment itself, but expanded application access, data access and availability, and improved data movement. To enable customers to take advantage of this shift in the High Performance and Technical Computing (HPTC) market, Sun is integrating new and existing technologies, services and products, including Sun Enterprise™ and Sun Fire™ servers, Sun Technical Workstations, Sun StorEdge™ storage products, and consulting and training services. Sun's HPTC SOLUTIONS jumpstart applications access, cross-platform connectivity, and data access, management, and control.

Storage Area Network for High Performance Computing Optimizing Data Movement

High Performance and Technical Computing (HPTC) systems traditionally utilize a tightly coupled storage architecture in which the storage devices for each operation are directly attached to the associated computation platform, creating islands of storage. Some HPTC datacenters have implemented Network Attached Storage (NAS), which offers some improvement over islands of storage, but does not provide the comprehensive data management functionality of a Storage Area Network (SAN). Until now, a SAN, delivering increased efficiency and improved data management that meets the performance requirements of demanding HPTC environments was not available.

Sun's HPC SAN is the first solution to bring advanced SAN capabilities to this demanding environment. It provides simultaneous access to data by heterogeneous (diverse) computing platforms; establishes a central point of data, file system and storage administration; while providing performance levels that rival traditional storage systems architectures.

The result is a highly efficient and cost effective architecture that allows sharing of data and storage between heterogeneous computational platforms. The centralized point of data management and administration remains in place as additional computing platforms are implemented in the datacenter.

HPC SAN provides an open solution for moving data to and from applications at unmatched performance rates in excess of 2 GB/sec. in both single process and multiple process environments. This solution consolidates fragmented storage systems, eliminates the need to physically distribute storage on various servers and establishes a central point of management and administration for storage and files systems across the datacenter.

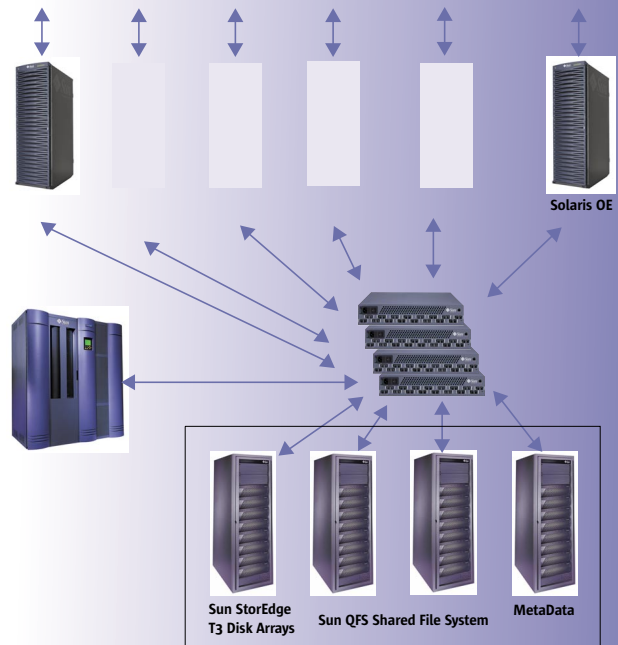
Advantages include:

- ability to simultaneously run multiple queries
- reduction of costly and time-consuming translations necessary when moving data from one system to another
- minimization of redundant data and redundant management/administration work
- single, on-screen view of the available data and single point of control
- greater choice and flexibility with respect to computing environment/resources
- no need to alter storage system or master new data management techniques as the datacenter grows

HPC SAN delivers the data movement performance levels demanded by high-performance and technical computing environments while providing the benefits of advanced SAN capabilities.

DEMONSTRATED CAPABILITIES

- Multiple high-speed data streams
- Multiple simultaneous readers and writers
- 90+% efficiency
 - For example, on a 24-wide file system/stripe group (2.4 GB/s peak), HPC SAN delivers in excess of:
 - 2.2 GB/sec. Reads
 - 2.0 GB/sec. Writes



For more information, email to: HPCSAN@sun.com