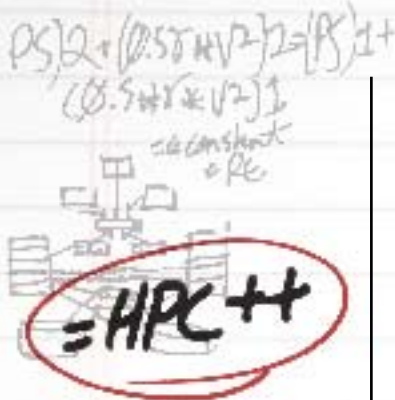


LY PRODUCTIVE HIGH PERFORMANCE COMPUTING



PARTNER PROFILE

From enterprise data centers to the service provider core, Brocade® (NASDAQ: BRCD) develops extraordinary networking solutions that connect the world's most important information. Delivered directly and through global partners, these solutions help today's data-intensive organizations operate more efficiently and maximize the business value of their data. (www.brocade.com)

BROCADE COMMUNICATIONS AND MICROSOFT HPC SOLUTIONS.

Brocade Communications and Windows HPC Server 2008 enable organizations to harness the processing power of high-speed clusters from a scalable, highly secure, and reliable HPC solution.

SITUATION

Companies must be more efficient than ever with IT resources, but they must also maintain their position in a competitive marketplace. In order to stay competitive, companies require high-performance computing (HPC) solutions that reduce or control costs without sacrificing a single CPU cycle performance as well as deploy quickly, integrate in a heterogeneous environment, and scale from workstation to cluster while migrating to 10 Gigabit Ethernet (GbE).

SOLUTION

Windows® HPC Server 2008, along with Brocade Communications® and their advanced network processor technology rich feature sets, network-wide security and scalable architecture, enable organizations to harness the processing power of high-speed clusters for more traditional enterprise applications such as data warehousing, line-of-business (LOB) applications and transaction processing – creating efficiencies while delivering unsurpassed performance. Optimized by Microsoft's integrated HPC solution and a productive development environment, Brocade Communications allows companies to take advantage of the performance and efficiency benefits of HPC environments.

Together, Windows HPC Server 2008 and Brocade Communications offer enterprise organizations a scalable, highly secure, and reliable HPC solution.

BROCADE COMMUNICATIONS

Brocade Communications develops extraordinary networking solutions that enable the world's most important information in mission-critical environments, from enterprise data centers to the service provider core to some of the most demanding HPC environments globally. As a result, Brocade Communications offers end-to-end networking solutions that enable today's complex, data-intensive businesses to run in the most efficient manner possible. The comprehensive suite of products and support services in Brocade Communications' HPC solutions can help build a robust, scalable, and highly available network infrastructure for the expanding and evolving needs of HPC applications, grid computing, and cluster networking. The entertainment industry, gas and oil exploration, genomics research, weather research, and national laboratories have all benefited from Brocade Communications' award-winning network infrastructure products and ongoing innovations in high-speed networking.

Brocade Communications' products deliver on the performance and availability an HPC environment demands. Brocade's HPC infrastructure includes the high-density BigIron® RX switch and NetIron® MLX router platforms for Layers 2-3, offering the high port density and advanced routing services to support the increased number of IP and MAC addresses and forwarding requirements of HPC environments.



WINDOWS HPC SERVER 2008 BENEFITS

BigIron RX Series Switches. BigIron RX series switches have consistently reset the bar for high-performance, high-density, resilient switching for data centers. A 16-port 10GbE interface module for the BigIron RX switch series scales up to 512 ports of 10GbE server connections in a single switch. This, in addition to the series-leading capacity of up to 1,536 GbE per system, provides data center architects with unmatched capacities for server aggregation, for both GbE and 10GbE servers, allowing for fewer switches to maximize performance and optimize power and cooling efficiency. The inherent hardware and software resiliency of the series, combined with its support for industry standard and proprietary rapid convergence protocols further enable high-availability data center services.

NetIron MLX Routers. NetIron MLX routers complement the BigIron RX switches by providing high-performance, high-end data center routing, aggregation, multiple virtual routing, and advanced security capabilities for HPC environments. The NetIron MLX series is unmatched in IPv4, IPv6, and Multi-VRF wire-speed routing performance without compromise. In addition to industry-leading capacity of up to 128 10GbE wire-speed routing ports per system, a new high-density GbE interface module will boost the series capacity up to 1,536 ports in a single router.

FastIron SuperX/SX Switches. The FastIron SuperX/SX family has an extensive feature set delivering wire-speed performance and ultra low latency, which are imperatives for HPC environments. These platforms present the industry's most scalable and resilient Power Over Ethernet (PoE) design, with a robust feature set to secure and simplify the deployment of an edge-to-core network while supporting high-density 10GbE.

Windows HPC Server 2008 brings the value of an integrated HPC solution and a productive development environment to customers for whom HPC has been out of reach in the past. By focusing on productivity for users, developers, and administrators, HPC has gone mainstream.

Windows HPC Server® 2008, is based on Windows Server 2008 and enables organizations to:

- Improve productivity of systems administration and cluster interoperability by dramatically simplifying the overall deployment, administration and management over the entire system lifetime, while ensuring interoperability with existing systems infrastructure.
- Rapidly develop HPC applications through integration with Visual Studio® 2008, which provides a comprehensive parallel programming environment. In addition to supporting standard interfaces such as OpenMP, multiprocessor interconnect (MPI) and Web services, Windows HPC Server 2008 also supports third-party numerical library providers, performance optimizers, compilers, and debugging toolkits.
- Seamlessly scale from workstation to cluster by allowing end users to harness the power of distributed computing through a familiar Windows-based desktop environment without requiring specialized skills or training.

Together, Brocade Communications and Windows HPC Server 2008 enable organizations to take advantage of the benefits of HPC for:

Improved performance and network monitoring.

Brocade Communications uses sFlow (RFC3176) on all platforms to gather data on performance conditions across the network. By embedding packet sampling technology into an ASIC, sFlow identifies the cause of poor performance, whether the port size is 100 megabits or 10 gigabits. The always-on monitoring capabilities of sFlow pinpoint network bottlenecks, policy violations, and potential malware infections. IT managers can make necessary adjustments or corrections with confidence based on this precise network monitoring.

High-availability and fault tolerant architecture.

HPC environments require robust, proactive management tools that prevent network disruptions, and respond promptly, even automatically, when disruptions occur. Brocade Communications' Ethernet management tools deliver network-wide visibility, assessing network activity without diminishing performance.

High density

NetIron MLX Routers offer the highest density of 10 Gigabit Ethernet at 512 ports of Gigabit Ethernet at 1,536 ports in a single switch.

Scalability.

High-bandwidth capabilities provide data center architects with ample network capacity and scalability to support service growth in large enterprise and Internet data centers, as well as up to 320 Gigabits per second (Gbps) inter-switch and data center connectivity.

FURTHER INFORMATION

For more information about Windows HPC Server 2008 and HPC, please visit <http://www.microsoft.com/hpc>

For more information about Brocade Communications, please visit <http://www.brocade.com>