



Mellanox 20Gb/s InfiniBand Virtualizes Blade Servers With Scalable I/O

Modular Server Platforms Showcase Unprecedented Data Center Agility and Mass Deployment of Virtualized Desktops

SERVER BLADE SUMMIT, GARDEN GROVE, CA – April 18, 2006 – Mellanox™ Technologies Ltd, the leader in business and technical computing interconnects, will demonstrate InfiniBand connected blade servers dynamically provisioned into scalable, service-centric pools of computing resources and virtualized for corporate desktop deployments. Flexible I/O modules facilitate independent scaling of InfiniBand connected processing blades and the number of I/O connections that are used to seamlessly integrate into existing data center infrastructure. InfiniBand-based blade servers provide data centers with optimal total cost of ownership and features:

- Virtualized I/O modules that provide agility, flexibility and consolidation benefits
- Power-efficient switch and single-chip, 20Gb/s adapter silicon that facilitate dense, space-saving systems
- Intelligent InfiniBand I/O architecture that drive the deployment of cost-effective virtualized desktops

“With over ten leading vendors shipping production InfiniBand-based blade servers and several more on the way, low-latency, 10Gb/s InfiniBand is the de-facto high-performance dense computing fabric of choice. 20Gb/s InfiniBand provides even higher levels of computing efficiency and performance,” said Thad Omura, vice president of product marketing at Mellanox Technologies. “A new generation of virtualized blade servers that meets the needs of the agile data center, such as the innovative PANTAmatrix system from PANTA Systems, is paving the way for unprecedented levels of dynamism in data center application and resource deployments.”

Scale Computing and I/O Independently

InfiniBand's high-bandwidth and low-latency characteristics are used to interconnect compute blades to virtualized I/O modules. As a result, compute resources can scale independently from I/O resources used for networking, storage and graphics and can be dynamically reconfigured to meet changing data center requirements.

“InfiniBand building blocks from Mellanox enable compute resources to be dynamically matched with each I/O component, facilitating unprecedented server performance and scalability,” said Scott Rose, Vice President of Product Management at PANTA Systems. “The PANTAmatrix system has been able to demonstrate greater than 10X performance improvements for actual compute and I/O intensive customer workloads such as streams processing. In addition, server reconfiguration is possible within minutes, in order to match workload demands, using the System Management interface.”

Dense, Power-efficient Blade Servers

Utilizing the small form factor and power-efficient characteristics of Mellanox's InfiniBand solutions, OEMs have designed dense and power-efficient blade architectures not possible with any other interconnect technology. For example, the PANTAmatrix system packs 128 dual-core AMD Opteron processors per rack, with up to 40% power savings versus traditional rack architectures, and scales to over 9,000 processors per cluster.

InfiniBand Blade Servers for Cost-effective Desktop Consolidation

The increasing deployment of virtualized host client infrastructure that delivers full desktop functionality to thin clients, utilize virtualized servers in the data center for dynamically deployable computing and I/O resources. This ensures optimal resource utilization for desktop applications and allows quicker deployment of new users. InfiniBand's channel I/O architecture provides virtual machines servicing these virtualized desktops the ability to logically appear as multiple intelligent end-points. Each end-point can provide dedicated services such as QoS (Quality-of-Service), isolation and security for each consumer.

The usage of hypervisor offload capabilities available in InfiniBand adapters frees processing resources to host more virtual machines per CPU, and as a result, more desktops per server. PANTA Systems has advanced the adoption and qualification of 64-bit InfiniBand support for popular virtualization solutions, such as the open-source Xen hypervisor. By providing this capability, the PANTAmatrix facilitates x86-64 virtualization adoption, even at the core of the data center, enabling corporations to minimize hardware capital expenditure, streamline and simplify IT support, and most importantly, enhance security of critical corporate data assets.

Come Visit Us at the Server Blade Summit, April 18 – 20, Garden Grove, CA

Mellanox will present a session on “Using InfiniBand to Enhance Server Blade Virtualization Performance” on April 20th at the Special Open Tutorial on Server Consolidation and Virtualization. *Mellanox will also showcase PANTA Systems’ PANTAmatrix solution in Booth #302 during exhibition hours.*

About PANTA Systems

PANTA Systems has developed technology that enables the next generation “dynamic” data center. PANTAmatrix is the first server platform to combine industry leading off-the-shelf technology to provide a highly scalable, dynamically configurable, and power efficient x86-architecture based computer system. The system has a balanced architecture that allows compute and I/O performance to be scaled in tandem, with no bottlenecks occurring. The scalability and dynamic configuration capabilities make it a perfect fit for the new “dynamic” data center, in which application services are no longer bound to dedicated servers, and industry standard systems take over the role of expensive proprietary solutions even for the most demanding applications. PANTAmatrix is particularly suited for applications that benefit from multi-processing, are data and I/O intensive, or latency sensitive.

Founded in 2002, PANTA Systems is headquartered in Cupertino, California. For more information on PANTA's solutions, please visit www.pantasys.com.

PANTA and PANTAmatrix are registered trademarks of PANTA Systems, Inc. All other trademarks are property of their respective owners.

About Mellanox

Mellanox Technologies is the leader in high-performance interconnect solutions that consolidate communications, computing, management, and storage onto a single fabric. Based on InfiniBand technology, Mellanox adapters and switch silicon are the foundation for virtualized data centers and high-performance computing fabrics that deliver optimal performance, scalability, reliability, manageability and total cost of ownership.

Founded in 1999, Mellanox Technologies is headquartered in Santa Clara, California. For more information on Mellanox's solutions, please visit www.mellanox.com.

Mellanox is a registered trademark of Mellanox Technologies, Inc. and InfiniBlast, InfiniBridge, InfiniHost, InfiniRISC, InfiniScale, and InfiniPCI are trademarks of Mellanox Technologies, Inc. All other trademarks are property of their respective owners.

For more information:
Mellanox Technologies, Inc.
Thad Omura, Vice President of Product Marketing
408-970-3400
media@mellanox.com