

## **Woven Systems Debuts Industry's First 10 Gigabit Ethernet Switch to Deliver a Unified Fabric for Data Centers**

*EFX 1000 Ethernet Fabric Switch Offers Breakthrough Performance, Highest Scalability, Lowest Power Consumption and Lowest Cost of Switching in Its Class*

**Santa Clara, CA** – Woven Systems™, Inc., the leading innovator of Ethernet fabric solutions, announced today the introduction of its EFX 1000 Ethernet Fabric Switch. The switch is the first of a new class of switches to meet the growing needs of next generation interconnect requirements and applications targeting multi-core servers, IP storage, data center grids, server consolidation and virtualization. With up to 144 10 Gigabit Ethernet (GE) ports, the EFX 1000 delivers the industry's highest port density solution – neatly packaged in an energy-efficient chassis that provides seamless setup and management for ease of system deployment and Active Congestion Management for optimal performance.

Until recently, network architect's options for scaling network infrastructure were limited, because of Gigabit Ethernet's limited scalability and the added latency and complexity of Layer 3 routing. Woven Systems eliminates Ethernet's scalability limitations with a low cost, massively scalable 10 GE fabric that delivers high bandwidth and low latency. Woven removes capacity bottlenecks with resilient, non-blocking multi-path fabrics scaling to over 4000 10 GE edge ports. To reliably assure high performance and availability across the fabric, Woven's patented vSCALE™ technology with Active Congestion Management dynamically detects congestion and redirects traffic across less congested paths.

"First generation 10 GE switches that were based on crossbars, packet processors, and large buffers were optimized for metropolitan area and wide area applications, and as a result, were saddled with expensive, power-hungry architectures that were latency prone," says Helen Chen, Distinguished Member of Technical Staff at Sandia National Laboratories. "This makes them impractical for large data center applications. Next generation designs, such as Woven's, gives the promise of a unified data center fabric that achieves performance and latency combined with the low cost, low power and ease of deployment benefits of ubiquitous Ethernet for connecting servers and storage – critical requirements for tightly coupled computing applications in the HPC market."

“10 GE has an opportunity to become the dominant data center switch fabric if it can challenge InfiniBand’s low cost per port, high speed and low latency interconnect capabilities, and Fibre Channel’s predictable block-oriented storage capabilities, while retaining Ethernet’s standard interface and interoperability benefits,” adds Joe Skorupa, Research VP, Enterprise Network Services and Infrastructure at Gartner. “Companies that address these issues will enjoy a rapidly expanding market.”

The EFX 1000 Ethernet Fabric Switch is designed to simplify network operations with plug-and-play intelligence, ubiquitous interoperability, and automatic tuning and balancing. IT personnel can work with familiar, standards-based Ethernet technology, eliminating the need for specialized expertise, re-building existing applications, or complex re-routing and re-configuration. At 1/5th the cost, 1/5th the rack space and 1/5th the power consumption of alternative systems, Woven delivers the lowest total cost of ownership in the market today.

“Our new switch fabric solution delivers a compelling business case for adopting 10 GE to meet today’s data center bandwidth growth challenges in the supercomputing and commercial markets,” concludes Harry Quackenboss, President and CEO of Woven Systems. “The EFX 1000 offers users a strong return-on-investment with extraordinary performance and scalability to meet their evolving network requirements.”

### **About the EFX 1000 Ethernet Fabric Switch**

Woven Systems EFX 1000 Ethernet Fabric Switch is a modular 10U switching platform with configurable line cards that can support up to 144 non-blocking 10 GE ports each. The EFX 1000 features a high density energy-efficient switch platform that may be interconnected to create very large Ethernet fabrics. Woven Systems latency-optimized multi-path flow routing technology automatically avoids congestion and overcomes the limits of “no loops” Ethernet protocols to support large non-blocking fabrics of more than 4000 10 GE edge ports. Utilizing cut-through switching, the EFX 1000 achieves port-to-port latency of just 1.5  $\mu$ s through a single switch and 4  $\mu$ s across a 4000-node fabric. Enterprise-class high availability features include redundant hot-swappable system controller cards, power supplies, and cooling trays. Fully compliant with IEEE Ethernet standards, the EFX 1000 interoperates with the industry’s leading 10 GE network adapters, iSCSI HBAs, storage systems, switches, and routers.

Woven’s unique switch architecture incorporates patented vSCALE packet processing technology to efficiently manage the distribution of traffic through the switch fabric. The Active Congestion Management feature dynamically monitors end-to-end Layer 4 traffic flows to detect congestion across a large fabric and automatically redirects traffic onto less congested paths, while maintaining in-order packet delivery. This feature uses latency-based routing algorithms to balance traffic across the fabric for the highest levels

of performance and availability. In addition, Active Congestion Management detects switch or link failures across the fabric and automatically re-routes traffic to an alternate path in less than 10 ms, avoiding lost network connections and time outs.

The vSCALE technology also allows network managers to partition bandwidth to reserve fabric capacity for specific applications – such as online transaction processing or storage back-up – while remaining fabric bandwidth may be shared by less-critical applications. Bandwidth partitioning allows IT administrators the ability to guarantee network resources as broadly or narrowly as desired.

Woven's Ethernet fabric solution includes the optional Woven Dashboard fabric monitoring software which provides per-application flow visibility and reporting. The vSCALE packet processor collects Layer 4 flow statistics for up to 1000 flows per port and reports them to the monitoring application using the industry-standard IPFIX reporting format. The Woven Dashboard enables IT administrators to monitor overall network health, configurations, virtualized resources, and pinpoint performance bottlenecks in real time.

The EFX 1000 chassis has been architected to support 100 GE speeds in the future, offering customers long-term investment protection.

The Woven EFX 1000 Ethernet Fabric Switch will have a list price of approximately \$1,500.00 USD per port. First customer shipments are planned for the third quarter of 2007.

### **About Woven Systems**

Woven Systems is an innovative network infrastructure provider that offers the industry's first massively scalable Ethernet fabric switching solutions for data centers. Fully compliant with IEEE Ethernet standards, Woven redefines network performance and efficiency with Active Congestion Management for balancing traffic, operational simplicity, and a significantly lower cost of switching. The Woven solutions deliver the performance and scalability of InfiniBand™, the reliability of Fibre Channel and the ease-of-use of Ethernet. For more information, contact Woven Systems at the company's web site [www.wovensystems.com](http://www.wovensystems.com)

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