



FOR IMMEDIATE RELEASE:

Laura Beck for Silver Lining Systems

laurabeckcahoon@gmail.com

512-786-1098

## **Silver Lining® Systems to Bring the Calxeda Fabric to Hyper-scale Servers with AMD Opteron A1100 Processor**

*SLS Fabric lowers networking costs by up to 75% for ARM® and x86-based Servers*

**El Segundo, CA, January 14, 2016**—Silver Lining® Systems (SLS) today announced new fabric interconnects that dramatically reduces the cost of high bandwidth networking for large datacenters. SLS also announced that they are building their next generation servers using the newly released AMD Opteron™ A1100 ARM-based system-on-chip (SoC).

SLS introduced two new SLS fabric products, which can reduce the cost of 10 gigabit intra-rack networking by as much as 75% in storage, web, and media streaming server clusters. With this announcement, the innovative distributed fabric switch architecture first seen in Calxeda's SoCs will be available from SLS in two form factors: a PCIe card and a standalone fabric ASIC for custom server applications. SLS's parent company, AtGames Holdings, acquired the Calxeda IP in 2014 after the venture-backed silicon start-up failed to raise additional capital.

"We are very excited about working with AMD to bring fabric-based computing to market," said Dr. Ping-Kang Hsiung, Managing Director of Silver Lining Systems. "Combining the efficient Opteron A1100 Series processor with our unique fabric technology realizes the promise of Calxeda's innovations to help drive down costs and power requirements of hyper-scale computing and storage."

The Fabric Interconnect Adapter, the SLS FIA-2100, is a PCIe 10Gb network interconnect card for interconnecting AMD's Opteron A1100 64 bit ARM-based servers, as well as industry-standard x86 servers. The FIA provides four XAUI 10Gb ports and one 10Gb Ethernet uplink port to connect to a Top of Rack Switch. The new Fabric Interconnect Chip, The FIC-2100 is designed for building custom hyper-scale servers and supports the AMD Opteron A1100 as well as Intel Xeon D and Intel Atom SoCs.

"AMD is pleased to be able to work with SLS to combine their innovative fabric with AMD's robust 64-bit ARM-based Opteron A1100 SoC," said Dan Bounds, senior director of datacenter products, AMD Enterprise Solutions. "This combination can help lower costs of scale-out computing and media streaming while delivering the performance and reliability customers demand."

## Key benefits of SLS Fabric technology include:

- **Cost Reduction & Port Consolidation** by up to 75% compared to traditional 10Gb interconnect hardware
  - How:** Minimizes # of Ethernet PHYs to save power, cost cabling
  - How:** lowers Interconnect power consumption by up to 50% compared to traditional Ethernet switching
- **High Bandwidth & Low Latency** - Multiple integrated 10Gb NICs. Integrated 80Gbps fabric switch enables higher bandwidth, lower latency solutions in a rack. Enables in-order flow delivery, guaranteed performance and predictable latency.
- **Power Efficiency** - Energy Efficient Ethernet (EEE) network adapters. Static and dynamic adaptive link management (width and speed) to optimize for power versus performance. Unique power domains for each MAC
- **Deployment Flexibility** - Supports wide range of fabric topologies. Enables designs of various densities: single node, single chassis fabric, full-rack fabric. MAC learning provides transparent support for virtualization
- **Fault Resiliency** - Resilience for fault routing for both unicast and multicast routing. Adaptive routing for better dynamic performance & reduction in hotspots
- **Fabric-Wide Security** - Support for secure “tunnels” across fabric beyond Ethernet (protocol agnostic)
- **Works with new and existing architectures**, with CPU-agnostic support for ARM, x86, FPGA and GPU connectivity

### About Silver Lining Systems

Silver Lining Systems (SLS) is a leader in low power computing for the data center. Its innovative technology, especially fabric switch technology, is improving the hyperscale, power-efficient server and storage markets. The cloud subsidiary of AtGames Cloud Holdings, SLS adopted Calxeda technology and assets in late 2014, and partners with AMD, ARM and Foxconn, among others. More at <http://www.silverlining-systems.com>

AMD, the AMD Arrow, Opteron and combinations thereof are trademarks of Advanced Micro Devices in the US and other jurisdictions. Silver Lining is a registered trademark of AtGames Digital Media.

###