

News Release

For more information:

Deborah Jones

Strategies

714-957-8880, ext. 113

deborah@strategiesadpr.com

FOR IMMEDIATE RELEASE

CRITICAL I/O ANNOUNCES FULLY OFFLOADED IPv6 CAPABILITY WITH LATEST XGE SILICON STACK ETHERNET INTERFACE

Silicon Stack 1 Gb Ethernet PMC Delivers IPv6 with Wire-Speed Performance

Irvine, Calif., November 15, 2006 — Critical I/O, the leading provider of high-performance interfaces for embedded, military and avionics systems, today announced full support for IPv6 within its Silicon Stack Ethernet interfaces which offers wire-speed performance to next generation systems requiring seamless operation within existing IPv4 and future IPv6 networks. The Critical I/O XGE4032 PMC offers complete hardware offload of IPv6 connections thereby enabling Ethernet data networks to satisfy even the most demanding real-time system applications such as radar, data acquisition, mission computers, sonar, FLIR, and SIGINT data, video distribution, and signal processing.

“Our XGE Silicon Stack technology offers wire-speed throughput, ultra-low host processor overhead, low latency and rock solid determinism. And now with our XGE4032, these performance attributes are extended to IPv6 traffic as well,” said Jack Staub, chief executive officer of Critical I/O, “all of the existing processor based alternatives use a software stack to implement all network stack protocols including IPv6, and that approach simply is not viable for high performance or real-time systems.”

“Engineers have attempted to apply Ethernet to real-time systems for years now, and nearly all have been disappointed with poor throughput, high transfer latency, non-

deterministic behavior, and excessive CPU loading. These problems are entirely due to Ethernet's TCP/IP software stack, regardless if the stack is running on the processor itself or a separate processor PMC. Three years ago we introduced Silicon Stack Ethernet to address this problem head-on in order to make Ethernet a high-performance data network and now we've added native IPv6 support."

Unlike performance-limiting software stack implementations, Silicon Stack Ethernet, as its name implies, offloads the entire TCP/IP protocol stack (Ethernet, TCP, UDP, IP, iSCSI and RDMA) in dedicated silicon, freeing the host processor completely and allowing for wire-speed throughput, microsecond latency and rock-solid determinism. The XGE Silicon Stack architecture incorporates an integrated firmware-based protocol engine that permits easy protocol extensions and customization. (See Fig. 2) The XGE4032 processor interface features a dual-channel design in PMC and conduction-cooled PMC form factors. It offers full interoperability and compatibility with standard Ethernet components.

Staub added, "The Silicon Stack technology makes a whole new world of increased performance possible. In fact, as the industry leader in Fibre Channel for embedded systems, we've been using this type of Silicon Stack architecture for years. And, as designers know, 10 Gigabit Ethernet is on its way so our XGE4032 is just the beginning."

The XGE4032 Silicon Stack Ethernet PMC interface will be available within 90 days from Critical I/O complete with extensive software library and driver support for real-time and standard OS platforms running on a wide range of embedded computing platforms.

About Critical I/O

Critical I/O, headquartered in Irvine, California, is the leading provider of high-performance interfaces for embedded, avionics and military applications. The company has shipped more than 30,000 Fibre Channel interfaces into the embedded systems marketplace and with nearly a decade of progressive development and testing, has now delivered its

sixth generation of advanced Fibre Channel technology. Critical I/O has also brought *true* high performance Ethernet interfaces to the real-time and embedded systems marketplace. With its unique Silicon Stack Ethernet architecture, Critical I/O is leading the way in enabling high performance Ethernet-based systems to compete, for the first time, with costly proprietary fabrics. Known worldwide for its technical expertise, software support, and its ability to leverage state of the art commercial technology, Critical I/O focuses entirely on the network requirements of high performance embedded systems.