OIF Approves 1st Implementation Agreement for 25G Generation
Common Electrical Interface (CEI) Projects Result in Completed IAs

Fremont, CA – September 13, 2011 – The Optical Internetworking Forum (OIF) members approved the Common Electrical I/O (CEI) 3.0 implementation agreement (IA) which defines electrical layer interfaces with signaling rates up to 28 Gbaud/s for next generation systems and are the next evolutionary step beyond the existing CEI IA which addressed signaling rates up to 11.2 Gbaud/s. The CEI 3.0 electrical layers form the basis of future protocol interfaces developed by the OIF, and were developed in conjunction with the OIF’s efforts to address 100 Gbaud/s networks.

“The CEI work is important to the networking industry because it paves the way to second generation 100G systems and even beyond,” said Klaus-Holger Otto, of Alcatel-Lucent and the OIF’s Technical Committee vice chair and CEI author. “Moving forward, these IAs will help to drastically reduce power and increase density of the system internal interconnects and therefore open the way for even higher integrated transmission systems in the near future.”

Announced earlier this month, the Next Generation Interconnect Framework project will explore various applications spaces for high speed optical and/or electrical interconnect to build upon the CEI work.#

The OIF’s The Physical and Link Layer (PLL) Working Group has been working on the Common Electrical I/O 25 Gbaud/s (CEI-25) project, which includes electrical specifications for 28 Gbaud/s signaling for chip-to-chip applications, and 25 Gbaud/s signaling for backplane applications. This work will
enable narrower interfaces for 100 Gb/s applications, such as 100 Gigabit Ethernet, which will enable smaller package sizes, lower pin count components, connectors and optical modules, lower power dissipation and clockless interfaces.

“This is the industry’s first published agreement for 25G generation of electrical interfaces,” said David Stauffer, of IBM Corporation and the OIF’s Physical and Link Layer Working Group chair. “This represents a culmination of several years of work in the OIF to address the implication of 100Gb/s networks deployment.”

CEI 3.0 defines electrical specifications for up to 28 Gbaud/s signaling for chip-to-chip applications and 25 Gbaud/s signaling for backplane applications. The CEI-28G-SR clause supports chip-to-chip interfaces up to 300 mm with one connector. The CEI-25G-LR clause supports backplane interfaces up to 680 mm with two connectors. The CEI-25 project builds on the legacy of previous generations of the CEI effort, which provided electrical signaling solutions in the 5-6 Gbaud/s and 10-11 Gbaud/s ranges.

About the OIF
Launched in 1998, the OIF is the first industry group to unite representatives from data and optical networking disciplines, including many of the world’s leading carriers, component manufacturers and system vendors. The OIF promotes the development and deployment of interoperable networking solutions and services through the creation of Implementation Agreements (IAs) for optical, interconnect, network processing, component and networking systems technologies. The OIF actively supports and extends the work of standards bodies and industry forums with the goal of promoting worldwide compatibility of optical internetworking products. Information on the OIF can be found at http://www.oiforum.com.