

# DS-Link over Fiber: A High-speed Interconnect for Cluster Computing

Yogindra Abhyankar, Anil Degwekar and Abhay Karandikar

Centre for Development of Advanced Computing, Pune University Campus,  
Pune 411 007, INDIA.

Email: {yogindra, aad , karandi}@parcom.ernet.In

## Abstract

*Recently, there has been a considerable upsurge in cluster based computing. Centre for Development of Advanced Computing, at Pune, India is also offering a cluster computing solution based on its proprietary network<sup>1</sup>. This network is built around a high speed interconnect which uses DS-link<sup>2</sup> protocol, a part of IEEE 1355 standard. One of the disadvantages that prevent DS links to operate in a geographically distributed computing environment is its distance limitation. In this paper, we have sought to remove this limitation by suggesting a scheme for implementing DS links over optical fibers. This scheme has been designed and implemented by us. Here, we discuss the salient features of our scheme. Our preliminary studies indicate that a cluster computing solution using this extended link will be an attractive solution.*