



The Fibreoptic Industry Association

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2007 - A YEAR OF CLOSURE OR THE BEGINNING OF A SEA CHANGE?

by

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Before producing this article, I thought it worthwhile to have a look back to our Networking+ article at the same time last year. In my copy entitled "The Year Ahead" I focussed on the initiation of work on higher speed Ethernet networks by IEEE. Even though agreement on exactly what these networks were to be was not reached until December 2007 - leading to a formal project approved by IEEE - the FIA experienced, throughout the year, the leading edge of the "bow wave" of the decisions yet to be made.

Before I review the likely impact of higher speed Ethernet, it is useful to review the key developments of 2007. December saw the publication by BSI of the final standard in the BS EN 50173 series so we now have structured cabling standards for offices, industrial premises, homes and data centres supported by the "bible" - BS EN 50173-1. Although there may be future documents in the series, the completion of this quintet of standards represented a significant milestone for European industry - a model being followed, to some degree, by the USA.

The revision of the EN 50174 series, covering installation of telecommunications cabling, completed its first comment phase. This document has direct impact on segregation between mains power and data cabling. This work is also echoed in new work being done in the electrical standards bodies in Europe. It was fitting, therefore, to see the establishment of the Telecommunications Infrastructure Advisory Board (TIA-B) by the FIA and ECA-ITEC.

We now are pleased to report that the CMA is to join the TIA-B party as a co-host. The three-headed TIA-B should provide the long-awaited solution for the distribution of information produced by the FIA and ECA-ITEC to the user base via the CMA. Furthermore, the TIA-B looks forward to implementing the measures necessary to demonstrate the integration of BICSI qualifications with UK standards and regulations.

So 2007 marked the closure for some projects and the birth of others.

Many questions coming into the FIA Technical Directorate surrounded the choice between multimode and singlemode optical fibre. Leading-edge users have, quite naturally, been well aware of the discussions regarding 40Gb/s and 100Gb/s networking within IEEE and are voting with their feet - migrating their infrastructures towards singlemode optical fibre to guarantee next-generation evolution at minimal cost. However, even less experienced designers are asking the "multimode or singlemode" question. They are right to do so.

Various cost analyses have shown that, for installed lengths greater than approximately 200 metres, it is cheaper to install singlemode infrastructures than their multimode counterparts. This breakeven distance has fallen over the years due, in no small part, to the relative costs of singlemode optical fibre

compared with the increasing cost of high specification multimode products. The problem has always been the high cost of singlemode transmission equipment that can completely reverse any cost benefit. In 2007, we have seen a trend towards entry-level design support for 10GBASE-F solutions, removing lower speed networks, coupled with the IEEE decision to develop 40Gb/s and 100Gb/s solutions - the multimode implementations of which are not particularly attractive and are potentially costly. It will be interesting to see how this trend develops during 2008.

Of course standardisation for copper cabling is not dead - December saw the publication of the final drafts of Augmented Category 6 in the USA and Class E_A and F_A at international level. So there is "life in the old dog" yet - but for how much longer?

Further information is available via the FIA web-site at www.fia-online.co.uk or directly via the TIA-B section at www.fia-online.co.uk/TIA-B. Enquiries can be e-mailed to jane@fiasec.demon.co.uk, or, alternatively, you can contact the FIA Secretariat in 01763 273039.