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"GREEN" DATA CENTRES GET THE GREEN LIGHT!

by
Mike Gilmore, Technical Director of the FIA
for Networking+ (September 2008)

Sometimes standardisation takes so long that the relevant products or services are obsolete by the time the standard is published. This is easy to understand where technology trends change so quickly. However, other standards can be inspired by external events, often based on fashion, which are "timely". Currently, many organisations seek to align themselves with some "green" objective. This trend is not restricted to commercial enterprises and is spreading, without significant opposition, into the world of standards - it should be realised that most standards organisations obtain funding from government which, in turn, have to promote their "green" credentials. In the previous FIA article in this series, we addressed broadband delivery and its overall "green-ness". Now we see the focus change to the data centre.

An increasing number of organisations are promoting products and services in the name of "green data centres". Now it has spread to standardisation activities. In July, the Technical Board of CENELEC (the European body responsible for EuroNorms covering electrotechnical products) decided to establish a high-level Working Group with the slightly ambiguous title "CLC/BT WG "Green Data Centres"". The objective of the GDC-WG (my acronym, not theirs) is to align and co-ordinate all standardisation activities, ensuring an integrated approach concerning the design, operation and life cycle of Green Data Centres.

This GDC-WG (or CLC/BTWG 132-3) will not undertake direct standardisation work but will instead produce a report summarising current standardisation in the field of "Green Data Centres". In addition, the WG is required to produce recommendations for standardisation projects required to fill any gaps and to provide a roadmap for each. To the cynic, this might appear to be the usual gobbledegook of top management prose. However, the need to design and operate data centres with regard to their both their energy efficiency and overall energy usage is becoming critical in certain parts of the world - and indeed in certain parts of the United Kingdom. It should also be pointed out that it is not just about reducing energy bills for the data centre owners - in some situations the generating capacity is simply not available.

Faced with this problem, it may appear that the GDC-WG is being tasked with "rearranging the deck chairs on the Titanic". Nevertheless, the importance of the activity should not be underestimated. So far the groups encouraged to take part are equipment manufacturers (obviously), the telecommunications cabling industry and cable management system groups - but I would doubt it would stop there. What can cabling standardisation bring to "green-ness"?.

Published standards such as BS EN 50173-5 already define structured cabling for data centres. The next amendment of EN 50174-2 covers the installation, maintenance, repair and operation of all the telecommunications cabling in data centres and certainly addresses segregation and placement of cabling both for electromagnetic interference and maintaining the flow of cooling air. Similar if not identical requirements and recommendations exist in US and international standards and the topics are hardly worthy of the "rocket science" sobriquet. However, there may be other aspects that deliver energy efficiency that have been missed. Unfortunately it has been quite difficult to get data centre designers to contribute to the standards (cabling perhaps being a secondary consideration) so the new GDC-WG may indeed present new opportunities in this area.

There may even be an opportunity for cabling components themselves to become more "green" – not necessarily from the energy efficiency viewpoint but more in relation to the use of resources during manufacturer - "carbon footprint". Work had already begun in this area within the TIA-B, jointly hosted by the CMA, ECA-ITEC and the FIA. If you would like to have your say on this topic, e-mail jane@fiasec.demon.co.uk or, alternatively, you can contact the FIA Secretariat in 01763 273039.

Biography

As the Technical and Standards Director of the UK Fibreoptic Industry Association, Mike is heavily involved in the development of training and competence standards for the fibre installation industry and sets down policy in this area. In addition he chairs the audit and arbitration committees for the FIA. His book "Fibre optic cabling; theory design and installation practice" published in 1991 remains a reference for both experts and entrants into this field.

Mike also initiated the establishment of the Telecommunications Infrastructure Advisory Board (TIA-B) along with the relevant directors of its other host organisations CMA and ECA-ITEC.

In the UK, Mike is Chairman of TCT/7, the BSI Technical Committee responsible for the three panels on telecommunication cabling. He also chairs two of these panels (TCT7/-/1 and TCT7/-/3) and is Secretary of TCT7/-/2. TCT7/-/1 and TCT7/-/2 act to assist development of European and international standards for the design and installation of telecommunications cabling respectively. TCT7/-/2 also manages the implementation of these standards in the UK, where necessary producing supporting national standards.

Mike is involved in CENELEC TC215 - as Convenor of Working Group 1 and Secretary of Working Group 2. These committees are responsible for the development of an integrated series of standards for the design and installation of telecommunications cabling in a range of premises. In 2008 he led the ETSI STF362 on energy efficiency in broadband deployment resulting in the ETSI TS 105174 series documents, allowing Mike to assist in a new TC215 activity covering data centre facilities and infrastructures (monitored in the UK by BSI TCT7/-/3).

At international level, Mike is Convenor of the Cabling Implementation Task Group (CITG) within ISO/IEC JTC1 SC25 WG3. This group is responsible for the strategic management of the international standards covering the specification, QA, installation, administration, operation, maintenance and repair of generic cabling. This work supports all the cabling design standards produced by ISO/IEC JTC1 SC25 WG3 including ISO/IEC 11801, ISO/IEC 15018, ISO/IEC 24764 and ISO/IEC 24702 for industrial premises produced by ISO/IEC JTC1 SC25 WG3 IPTG (also convened by Mike Gilmore).

Mike is a regular speaker at seminars and conferences in all five continents. He has provided the keynote address and opening presentation in many conferences in the UK, Germany and the Netherlands. His seminars, providing regular updates on the progression of cabling standards are particularly well attended and are operating in the UK and continental Europe.