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## SHIFTING THE FOCUS OF INFORMATION TECHNOLOGY AND ENERGY EFFICIENCY

by  
**Mike Gilmore, FIA Technical Director  
for Networking+ (June 2009)**

During May 2009, two events were held which have concentrated on "green IT". The first was the Green IT 09 exhibition and seminar, the other was the BSI Green IT seminar at the CBI Conference Centre chaired by yours truly.

Making data centres more energy efficient seemed to be the order of the day at both events. This is hardly surprising when one considers the total energy consumption of data centres (56 TWh in 2007 and predicted to almost double by 2020 if nothing is done). Lots of activities are underway ranging from the European Union Code of Conduct for Data Centres Energy Efficiency to the standards-based actions in ETSI on "energy efficiency and broadband deployment". As I reported previously CENELEC established a standards body has been to review future standardization activities in Europe on energy efficient data centres and work has already started in one CENELEC group on addressing the issue of energy efficiency when constructing data centres.

However, "green-ness" needs to be viewed on a global scale. Overall reductions in CO<sub>2</sub> emissions and energy consumption are the necessary objectives of society as a whole - rather than the preserves of isolated groups of technologies. The continual focus on data centres is somewhat disappointing, firstly because it is actually a very easy target - particularly when there are so many easy solutions to reduce the consumption - and secondly because the totality of energy savings by effective use of "information technology" in residential and commercial premises would dwarf savings in the data centre market.

I would posit that "information technology" is an enabler of green-ness. Information technology should therefore be viewed as a "means to an end" - and should not be confused with the "end" itself. Rather than simply asking how IT can reduce its own energy consumption, we need to be focusing on how IT can maximise its own energy efficiency while supporting the global ambition of overall reductions in CO<sub>2</sub> emissions and energy consumption.

Mobility is critical to reducing CO<sub>2</sub> emissions associated with travel. True mobility places demands on broadband and other multi-service networks fed by telecommunication operators data centres and therefore those data centres need to become more energy efficient not only because they are being asked to do more but because in some cases there is no more power available. However, it should be noted that both mobility and the more general uptake of broadband deployment have a serious side effect - they transfer the energy usage from the employer to the employee, from the organisation to the individual.

Energy efficiency regulations and Codes of Conduct may be valuable for specific components, products and organisations but individuals are not so compliant and do not react well to regulation or legislation. Codes of Conduct and other more direct regulations are being prepared for residential broadband terminal equipment, stand-by modes for equipment etc., but there are many in this country (and others around the world) that believe that our personal activities are already over-regulated and that powers to survey and thereby control those activities have already gone too far.

People only really react positively when they can see a payback. Individuals certainly expend a growing proportion of their overall energy consumption on IT-related equipment but few use IT to reduce their energy consumption in other areas - particularly with regard to environmental controls.

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We need to be careful that isolated actions do not damage the opportunity that IT has to provide real solutions to the global objective by enabling change in our working practices and implementation of environmental control systems that will automatically reduce our CO<sub>2</sub> emissions and energy consumption.

To join the FIA, e-mail [jane@fiasec.demon.co.uk](mailto: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 TCT7, 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.



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