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MANAGING THE SUB-CONTRACTING SUPPLY CHAIN FOR TELECOMMUNICATIONS INFRASTRUCTURES

— THE SEARCH FOR THE MAGIC BULLET

by
**Mike Gilmore, Technical Director of the FIA
for Networking+ (March 2006)**

There seems to be a depressing trend in the IT infrastructure industry (both optical fibre and balanced cabling) for clients to be contractually isolated from their suppliers by tiers of contracting organisations. This seems to be resulting in an absence of effective quality assurance which leads to the client not getting what they originally wanted or getting it later than planned - or both.

There are, of course, ways around this problem if the client is aware of the dangers and I would like to explore just one of them in this article.

There are many phases in an installation of a telecommunications infrastructure. Each of the primary aspects i.e. design, planning, installation and testing has its own complexities which should result in an installation specification that is unique to the job in hand.

There are certainly standards that all installation specifications should reference. For example every installation specification should specify BS 6701: 2004 that dictates the requirements and responsibilities for the installation, operation and maintenance of telecommunications cabling and equipment. BS 6701:2004 also mandates the use of all of the relevant UK electrical standards and European information technology cabling installation standards. BS 6701:2004 is therefore, in effect, a one-stop shop standard. Having said that, the problems seen in the marketplace do not solely relate to the standards referenced in contracts. There are many other elements within an installation specification that are not the subject of standards.

Recently, I was asked to audit a site in which the client had specified that the cabinets in the "comms rooms" were to be mounted on plinths and the cabling was to enter from below. The layout of the panels was also specified. When I arrived on site I found no plinths and the cables entered the cabinets from the top - and of course the arrangement of the panels was incorrect. The situation could not be corrected in an economically viable or timely fashion. This has resulted in a reduction in the capacity of each cabinet since the roof-mounted fans units cannot be operated properly and the amount of transmission equipment had to be reduced. In a world of increased heat generation in cabinets due to PoE, this has a significant effect in operational terms.

Any amount of standardisation could not have prevented this problem because it was site-specific. The real problem was that the specification defined by a client was never seen by the installers at the "sharp end". The traywork and cabinets were installed by one contractor, another contractor laid the cables on the traywork that was provided to them and when the final "expert" telecommunications installer arrived on site the cables were terminated and tested according to basic manufacturers instructions. Although each elements was undertaken flawlessly it would appear that in each case the original installation specification was never seen or was ignored – possibly starting with the traywork/cabinet installer - resulting in a poor installation.

In recent months I have personally been called out to examine more and more sites where the client is dissatisfied with a particular aspect of an installation. It is not uncommon to find out that the installer has never even seen the installation specification issued by the client that, if seen, would have prevented the problem in the first place. Instead the detailed requirements have been "suspended" or trapped one or more tiers of contractual management above the basic installer level.

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In these situations, it is certainly of no use to belatedly criticise the installer of the cabling - be it optical fibre or twisted pair. The installer has probably just installed the cabling in the trunking, traywork and ducting provided. Being at the bottom of the food-chain, the installer has neither the power of the time to get involved in a lengthy discussion with the next contractor "up the chain" about the whereabouts of the clients original specification.

What can be done in the face of such abdication of responsibility by the contracting tiers? One solution is remarkably simple. Assuming that there is a site-specific installation specification, it should be attached the primary contract as part of the terms and conditions of the contract. There should also be one other very important piece of paper included in the main contract. This document is intended to be used all the way down the sub-contracting chain and simply requires the contractor and any sub-contracted party to sign confirming that the installation specification has been included in the sub-contract and that the sub-contractor has received it. Equally importantly, the pieces of paper are required to be logged with the client as each phase of the installation commences.

This one "magic silver bullet" provides assurance at a number of levels and is proven to work.

This type of advice is just one of a range of services that the FIA provides to clients, main and sub-contractors. Technical support from the FIA is free to members. If you wish to access the resources provided by the FIA go to www.fia-online.co.uk. Enquiries can be e-mailed to 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.

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). TCT7/-/1 acts to assist development of European and international standards for telecommunications cabling. TCT7/-/3 manages the implementation of European standards and others in the UK.

At the European level Mike is Convenor of CENELEC TC215 Working Group 1, the group that controls the development of European standards for the design and installation of telecommunications cabling. In the international arena Mike is Convenor of ISO/IEC JTC1 SC25 WG3 IPTG, a standards committee working on generic cabling for industrial premises (ISO/IEC 24702). More recently Mike has been appointed as Convenor of the ISO/IEC JTC1 SC25 WG3 Cabling Implementation Task Group.

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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