Cabling Support Hardware may be the Hidden Treasure
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Editor - "Heard On The Street" column on www.wireville.com
January 23, 2004

For more than two decades, the communications industry has focused most of its attention on the cable. We have seen a churn of technological advances in both fiber optic and copper based communications cabling. The barrage of the "newest & greatest" types of cable has almost exhausted the bank accounts of the customers. From the earliest releases of the Levels & Categories Program (adopted by TIA/EIA www.tiaonline.org), we saw a stream of more than 25 different variations & generations new cable designs. The net result is today's fiber optic cables and copper cables deliver more performance than we even dreamed possible only a few years ago. However, one of the resultant damages from this technological race is a huge volume of abandoned cable.

The National Electrical Code (NEC 2002) has been adopted by most local authorities having jurisdiction (AHJ's). In a move to reduce fire hazards and fuel load, NEC 2002 requires the removal of abandoned cable that is not identified for future reuse. This volume of abandoned cable could exceed 8.5 million miles of cabling waste materials. Some industry experts have concluded, "Most of the expense for this corrective safety action to reduce fuel load in the structure will be placed on the shoulders of the building owners. Many former tenants left their cable in place when they moved out."

There are some valuable assets that may remain after the abandoned cable is identified and removed. Those hidden treasures are the wire and cable management and support systems. Cable support hardware includes cable runways, cable trays, wire baskets, flexible steel cable trays, bridle rings and a myriad of J-Hooks and J-Hook trees. www.erico.com The focus on a substantial investment in support hardware has been absent from the building owners priorities. Today's **structured cabling systems must allow for both the installation and the removal of datacom cabling in the workplace** (particularly the multi-tenant environment). Several key Building Owners and Managers Association (BOMA www.boma.org) committees are studying these issues and reviewing the language in leases to maximize the values for both the tenant and the building owner.

A well designed and installed cable support hardware system will reduce installation and removal expense substantially. This asset is highly reusable and will generate repetitive savings throughout many generations of tenant or occupant turnover. This is the permanent highway for the information systems in buildings.

A serious look at the people, policies and technologies that will dominate the agenda in 2004 will include a focus on cabling infrastructure hardware. When the tenant moves out, this valuable asset will be transferred to the building owner as an " As Built Improvement".

A consultation session with your support team at the distributor will help to illustrate some of the technical underside to this misunderstood and under-valued hidden asset. We found numerous offerings from the shelves of Rexel that were a perfect fit for current requirements, adaptable to cable removal and reuse for future installations. When it comes to SELECTING WIRE AND CABLE MANAGEMENT SYSTEMS, Rexel had all of the answers. In most projects, proper

support hardware is mandatory to maintain performance and the capability to handle MARCs (Moves, Adds, Removals, & Changes) without affecting working networks.

The cable support system (overhead, perimeter, infloor, or underfloor) is a critical component of a properly designed voice-data-video communications system. To find out more about this arcane technology check out EIA/TIA-569 "Commercial Building Standard for Telecommunications Pathways and Spaces. When designing the cable tray support system, be sure to consider the (current and future) load capacity and grounding requirements.

In summary, many of the key BICSI (www.bicsi.org) insiders are forecasting that there will be an increased demand for substantially more robust structured connectivity components and support hardware for structured cabling systems. Several large commercial real estate firms have already begun the process of evaluating the cabling facilities in their buildings in order *to covert the trash to treasure*. One building owner told us, "We bought a Fluke Networks DSP 4300 cable tester and starting down the road to recovery." Additionally, there is already an increased demand for software systems to document and record the asset (i.e. Fluke Networks LinkWare ™ Cable Test Management software and facility documentation) www.flukenetworks.com

It turns out that there are literally millions of dollars of fully functional installed cabling that has been abandoned in some buildings. You don't have to be a rocket scientist to see that there are big savings to be captured.

The proper installation, labeling and documentation of the entire cabling system make the installed asset potentially transferable from tenant to tenant through the building owner. There will be language in the leases that cover the responsibility for removal if the incoming tenant does not find the asset acceptable. If a successful transfer of this asset is accomplished, then both the outgoing and incoming tenants will realize substantial savings. In any event, the building owner gets ownership of the cabling support hardware asset. This approach is definitely a win/win scenario.

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Sidebar:

TIA - Telecommunications Industry Association
TIA is accredited by the American National Standards Institute (ANSI) to develop voluntary industry standards for a wide variety of telecommunications products. TIA's Standards and Technology Department is composed of five divisions which sponsor more than 70 standards-setting formulating groups. We will review the standard from User Premises Equipment, Network Equipment group, including:
TIA/EIA-568-B Series, Commercial Building Telecommunications Cabling Standard
TIA/EIA-569-A, Commercial Building Standards for Telecommunications Pathways and Spaces
TIA/EIA-569-A-6, Commercial Building Standards for Telecommunications Pathways and Spaces for Multi-Tenant Buildings
TIA/EIA-606, Administration Standard for the Telecommunications Infrastructure of Commercial Buildings
TIA/EIA-570, Residential Telecommunications Cabling Standard
TR-42 Scopes:
TR-42 - User Premises Telecommunications Infrastructure

The TR-42 Engineering Committee is responsible for commercial, industrial and residential cabling standards including telecommunications infrastructure administration, pathways and spaces, and copper and optical fiber systems requirements. These standards include information and requirements necessary for implementing telecommunications infrastructure.

TR-42.1 - Commercial Building Cabling
The TR-42.1 Commercial Building Cabling Subcommittee develops and maintains telecommunications cabling standards for commercial buildings. This Subcommittee specifies cabling system topology, architecture, design, installation, testing and performance requirements for commercial buildings, and campuses. The telecommunications cabling specified is intended as an open system designed to support a wide variety of voice, data, video, building control and other low voltage, power limited applications.
Where applicable, TR-42.1 integrates systems requirements and recommendations generated by other TIA Sub-committees into its standards, and provides joint approval with TR-42.4, TR-42.7 or TR-42.8 on any TIA publication that is intended to add to or modify cabling system requirements specified in standards developed by TR-42.1.
TR-42.2 - Residential Telecommunications Infrastructure
TR-42.3 - Commercial Building Telecommunications Pathways and Spaces
TR-42.4 - Customer-owned Outside Plant Telecommunications Infrastructure
TR-42.5 - Telecommunications Infrastructure Terms and Symbols
TR-42.6 - Telecommunications Infrastructure and Equipment Administration
The TR-42.6 Subcommittee develops and maintains standards for telecommunications administration. These standards include requirements for alphanumeric identification, labeling, color-coding and record-keeping for the telecommunications infrastructure consisting of cabling, pathways and spaces, firestopping, and grounding and bonding. In addition, these standards provide guidance for the administration of equipment assets.
TR-42.7 - Telecommunications Copper Cabling Systems
TR-42.7.1 - Copper Connecting Hardware
TR-42.7.2 - Copper Cable
TR-42.8 - Telecommunications Optical Fiber Cabling Systems
TR-42.9 - Industrial Telecommunications Infrastructure
The TR-42.9 Industrial Telecommunications Infrastructure Subcommittee develops and maintains standards for telecommunications infrastructure in industrial buildings, structures and campuses that are beyond the scope of the commercial building standards. Industrial buildings, structures and campuses can be large, dusty, corrosive, and can contain explosive and severe environmental conditions such as extreme temperature, EMI/RFI, and hazardous gasses. The standards developed by this Subcommittee address both occupied work areas and remotely controlled equipment.
The telecommunications cabling specified is intended as an open system designed to support a wide variety of voice, data, video, building controls, industrial controls and other low voltage, power limited applications. The standard addresses special needs for design, materials, processes and installation practices.
Where practicable, the standards developed by this Subcommittee will harmonize and incorporate requirements of standards developed and approved by TR-42 Subcommittees and Working Groups through normative reference.