

Cable Management: Making Space Useable Now And In The Future

Jim Norton, Custom Products & Services, Inc.

What exactly is cable management? It seems to mean many different things, and different products.

Like many terms used today, cable management has become a “catch all” reference that often entails the perspective of the person using the term. Certainly, an electrical contractor has a cable management perspective that is different from the communication contractor, and very different from the facilities manager. Add to these core services, audio-visual, security, fire alarm, public address, etc. and you start to realize that all are cable based services that need to be managed as individual components of the complete environment. In addition, each has its own view of how best to manage their cabling.

All of these individual building services compete with each other, as well as the other non-cable services, for the same limited hidden spaces within our building structure. Cables and wires can pose a very real safety hazard, and are often viewed as ugly. As a result, we do our best to protect and hide them, wherever and however we can. This can be verified by simply inspecting any building voids—typically wires are hidden above ceilings, in walls and columns, or inside conduits or ducting. Cabling has become the invisible information highway within our buildings.

This makes the management of these cables even more important, and increasingly more challenging to address. We understand that the service outlets are the connection points we need. These outlets are not held in high regard aesthetically, but because they are necessary, we accept them. The challenge is planning their locations to be serviceable. And because they never seem to be where we want or need them, they seem to be everywhere.

Cable Management Perspective

More often than we realize or care to admit, our outlets are not used, for the simple reason that their location does not meet our needs. This introduces another perspective—the “user cable management” perspective.

As we start to design the interior space of our building, we are immediately confronted with how to best connect our users with our fixed outlet locations. We are presented with a multitude of cable management options for our furniture, our walls, or false structures, so that connectivity is where we need it. We have designed additional spaces that can protect and hide wires by incorporating them into the desks, tables, and partitions, or run the cables down power poles. Everything except the chairs seems to incorporate some type of cable management

accessory.

As all of these options are evaluated, you must confront the fact that all of your spaces do not have universal needs. Offices, administrative areas, meeting rooms, class rooms, control centers, and training rooms all have different connectivity requirements. Some work environments are static in nature and some require re-configurability. So a “one size fits all” approach rarely satisfies all the needs.

Another point of confusion is that the terms cable management, cable management solutions, cable management systems, etc. are all used as equal and interchangeable terms meaning the same thing. Somehow, cable management (a process or procedure) and a cable management system (a product) and a cable management solution (a result) all mean the same thing. So, based upon these standards, any space that is designed into the building or furnishings, or can be added to the building or furnishings, that provides a space for your contractor or your staff to install cables in, is considered cable management or a cabling solution or system, depending upon who you are conversing with.

Producing Results

Now that we have a clear picture of what cable management is, we must ask ourselves a more important question: Do any of these processes, products, or scenarios provide us with the end results that we need?

If the answer is yes, then why do we find ourselves entering the “when all else fails” phase of our design? Usually this occurs on move-in day, and we realize the building’s cable management system doesn’t exactly align with the furniture’s cable management system.

We are then offered a host of additional cable management solutions including multi-outlet strips, plastic wall chases, and roll-out rubber floor strips. Most of these offerings will involve making do and making it work, because to do otherwise would involve considerable cost and labor, followed by more contractors with change orders clutched in their hand.

Each building or room will have different and ever-changing requirements for handling cables. Rarely will one system or approach handle all of these requirements. I say “rarely” because there are some viable options. You just need to know where to look and do your homework carefully.

One viable option to be considered is a stand alone cable management system. This type of product focuses on your total needs. It provides a space dedicated solely to protecting and hiding the cabling, while allowing for the changes in location and servicing you want. It is a complete approach that can include all of the various cable based services that you need. It provides an adaptable link between the building construction aspects of your design and the reality of your staff’s need to function.

Even though this approach involves a floor mounted raceway, it is not your

traditional computer raised floor. These types of products vary dramatically depending upon their design. Some systems typically require multiple trades to achieve the final result. While most of them will initially locate the power and communication connections in the floor where you initially requested them to be, making changes to those locations may be very difficult and costly depending upon the system you select. Equally servicing your connectivity utilizing this approach is as difficult as any closed, fixed building void. Systems are available that represent a true turn-key approach and provide everything you need in a single package.

Selecting The Right System

For over 20 years, the term “raised floor” has become synonymous with computer or server rooms. Typically, these raised floor systems were designed to accommodate heating/cooling ductwork and miles of cables typically required for large mainframe computers. Today, the modular raised floor systems designed for managing power and data cables/outlets are completely different. For the most part, these modular floor systems do not accommodate heating and cooling ductwork, but will do an excellent job of managing your cables and outlet locations. After all, that’s what they were designed to do. The challenge is to select the right system for your specific application. Once installed, you have a seamless floor system that allows you to change outlet locations or add additional power/data ports, as needed.

There are also modular, raised floors on the market that can (or must) be secured to the floor. Features, functionality and installation time will vary depending upon the design. Power and data ports are preinstalled, as is the carpet. Modular panels can be installed directly over the customer’s existing short nap carpet (no need to remove the old carpet if it’s well secured to the concrete subfloor). If the floor is bare concrete, a layer of foam is laid down to act as a non-slip surface. The pre-terminated cables are routed below the floor and plug directly into the power outlets or data jacks. With a weight capacity of 50,000 pounds per square foot., overloading the floor will not be an issue with this particular system.

Some systems will include everything you need, while others will provide only the floor pedestals, leaving the customer the task of outsourcing cables, carpet, installation, electrical outlets, data ports, etc. A turnkey system that includes a complete, modular, raised floor cable management system, including delivery and on-site installation, can certainly save time and ensure compatibility of all components.

If you do your research, you will find the system that works for you.

Source URL (retrieved on 12/27/2014 - 11:46am):

<http://www.impomag.com/articles/2012/10/cable-management-making-space-useable-now-and-future>