

## **Future-Proofing In Commercial Applications: What's In It For You?**

Could you imagine trying to buy a computer today that will last for the rest of your life? Try running today's version of any high-end design program on a ten year old machine. Let me take this analogy a step further. Let's take that ten-year-old computer and plug it into the power outlet of a new building; it should work just fine. Now take it and plug it into the outlet of a building built fifty years ago. Guess what, it will probably work just fine. So what is my point? Power technology is very stable in comparison to computing technology.

Now bearing that in mind, let's switch our thoughts to wiring. Your electrical wiring isn't required to undergo changes to make your appliances or electronics function. We have become quite comfortable with the fact that once it's in place it can virtually be forgotten. It will most likely serve our needs over the useful life of the structure. Conversely, structured cabling is evolving as we speak. As human beings, the way we handle large amounts of information is by categorizing bits of like information into the same mental folder. It comes as no surprise then that electrical cabling and structured cabling fall into the same mental classification. After all, they both carry power (of a sort), they are both hidden behind the walls, ceilings and floors, and power is accessed via a wall outlet.

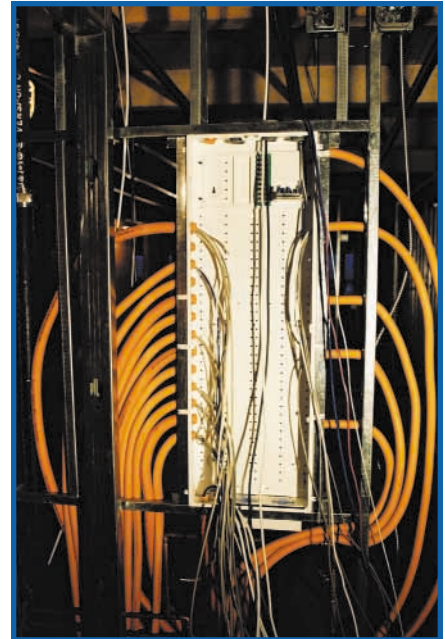
Of course there are differences that anyone working with either electrical or structured wiring has to know. Electrical wiring carries a stream of power that can be twisted and turned any which way with little resultant effect on its power carrying capabilities. Structured cabling carries a complex stream of bits and bursts of power or light that represent human words, music, text, graphics, video, etc. Sharp bends in this wiring can distort the communications stream, diminishing its usefulness.

Beyond these marked differences lies another difference

that is being ignored far too often in structured cabling design. "The whole point is what do you do with these emerging standards? What do you do with the Cat6?" asks Mr. Peter Garin. Mr. Garin has managed and shared ownership in several well known restaurants and nightclubs in the information

rich area of San Francisco. Stemming from his own personal experience, he has started a business named Current Media that consults with area businesses on structured cabling and low voltage issues. He nails down the concern that will eventually be on everybody's mind: "...the technology is fast forwarding so how do you future proof?" If structured cabling is stapled to studs behind sheetrock, like electrical cabling is, what can be done when the smart cabling is dumbed down by "emerging standards?" Replacing cable at this point can be a very expensive and messy affair. "You cannot afford to shut down. As rents and costs increase, you have to increase productivity, which means there is no room for downtime," states Mr. Garin. So what's the solution?

Whether it's new construction or retrofit, due to the dynamic nature of the structured cabling, Peter is recommending that his clients install conduit wherever smart cabling might be needed. He found a company based out of Cleveland, Ohio (Carlon - [www.carlon.com](http://www.carlon.com)) manufacturing a bright orange corrugated nonmetallic tube specifically for structured cabling.



The conduit is trade named Resi-Gard®, it's UL listed and comes in various diameters. They also make a whole line of orange nonmetallic brackets for low voltage applications. The distinctive orange color lets all the other trades in the construction project know "this is for structured cabling, and to stay away!" He contends that using tubing is the only thing that makes sense. If changes need to be made in the future, additional cables can be pulled in or replaced as needed without creating any downtime for the business.

Weighing in on using a wireless network, Mr. Garin states, "If you use a wireless network in any segment of your business platform there is the possibility of that information being pirated. What we advise the clients, both the landlords and restaurateurs as well, if the infrastructure is set up in the building so that your tenants simply plug in and unplug, you have actually improved the rental of the building. You've minimized the maintenance and no one is going to come in and rip out sheet rock each time there is a new computer system put in. Having empty conduit to pull through

limits the destruction of the building or renovation of the building, minimizing down time."

Once again, electrical wiring is stable, while structured cabling is evolving. If you want a design that serves your customers needs for the life of the building, be sure to make accommodations for these differences.



**From the Author...**

- *Carlson's Structured Cable Brackets are UL listed for two-hour Fire Rating and Low Voltage Devices.*
- *Per Articles 770 & 800 of the 2002 NEC:*

*Carlson® Resi-Gard™ is for use in General Purpose Applications,*

*Carlson® Riser-Gard® is for use in Riser and General Purpose Applications, and*

*Carlson® Plenum-Gard® is for use in Plenum Applications*



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