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PRODUCTS

The Basics of Selecting Cable Management

Whether a business is preparing for the impact of emerging technologies—like the Internet of Things or 5G wireless—or continuing their journey to digital transformation—by upgrading network infrastructure to support cloud-based systems that better enable remote work—there’s a common thread (and requirement) to today’s most pressing technology infrastructure needs—good cable management.

Because cabling is the backbone of any network, a large part of the equation is the level of network performance offered by the cable management structure you select. This is especially true when you consider that cable management can enable—or just as easily inhibit (if not done right)—everything from the signal integrity of a single cable to the overall performance of a large data center.

With so much riding on cabling—including all that data—it’s critical that businesses remain competitive in delivering network availability as they extend their networks to new, edge environments.

Where Do You Start?

Whether you’re a contractor tasked with installing IT infrastructure specified by someone else or a consultant who’s educating customers on the critical role that cable management plays in network performance, start by establishing a few basic goals for ideal cable management:

Improved Scalability, Maintenance and Service

Cable management allows easier and safer access to individual components, and simplifies moves, adds and changes (MACs).

Optimal Signal Quality

A properly configured cabling environment helps ensure maximum signal quality and transmission speed by eliminating kinks, twists, improper weight distribution and sharp bends.

Enhanced Aesthetics

A clean and well-organized cabling environment enables higher productivity and can influence a client’s impression of your business.



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Often taken for granted, network cabling installation can be as little as 10% of your IT installation cost but cause 80% of your network problems if not installed correctly.

Network Cabling
Installation Services

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With these goals in mind, it's also helpful to acknowledge three common challenges when getting ready to select proper cable management:

- **Adherence to industry codes, standards and best practices** – it's better to get it right the first time than be told to go back and fix it.
- **Designer specifications** – you'll want it to work as intended, they'll want it to work AND meet their exact needs—plan for both
- **Ongoing moves, adds and changes (MACs)** –The more well thought-out your work is up front, the easier it will be to integrate additional racks and components in the future.

What Do You Need to Succeed?

Look for cable management solutions that help you achieve the following:

- **Maximum utilization of space** - Look for the only cable manager in the industry that offers a patented central track system, one that enables unlimited adjustability with flexible direct support for cable bundles, while allowing maximum use of interior space.
- **Time and labor savings** – Use cable managers that include tool-less accessories, which can be placed anywhere in the cable manager, enabling support and management of cables, as well as quick attachment, removal and adjustment.
- **Support for current and future cabling needs** – Consider solutions for advanced Power over Ethernet (PoE) applications where higher wattages require adequately spaced, smaller cable bundles to avoid excessive heat accumulation.

Vertical or Horizontal?

In most configurations, the basic support solution is a two-post rack with cabling sections along both sides of the rack (in the image in the top right) to provide a vertical pathway for premise cable and patch cords.

Cabling sections in between adjacent racks in a multiple rack bay must be larger (wider and/or deeper) to support cable from both racks.

Open two-post racks provide the most cost-effective and efficient use of floor space, but four-post racks are superior when supporting larger equipment, like modular network switches.

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Don't Forget to Determine Cable Fill

Cabling section width and the corresponding cable fill capacity must be carefully considered, especially when a cabling section is shared in between adjacent racks. CPI recommends using a 50% cable fill when selecting both vertical and horizontal cable management. This allows sufficient space for maintaining cable bend radius for patch cords.

Calculate Your Cable Fill

Quickly determine recommended and maximum cable fill values for all of CPI's cable management and pathway products using a free, online tool. [Start now.](#)

No matter what your project calls for, it's guaranteed that proper cable management practices will be an important and necessary step in the process. To put these best practices into action, be sure to visit [chatsworth.com/racks-cable-management/cable-management](https://www.chatsworth.com/racks-cable-management/cable-management)