

## Top 5 list: why fiber over copper

CableOrganizer.com supplied the following list of what to consider when deciding between fiber optic and copper cabling for computer networking applications.

1. Fiber optic is so much more efficient...and secure than copper cabling. In comparison, fiber optic cables can transmit far more information, and with a greater degree of fidelity. In fact, fiber links offer over 1,000 times as much bandwidth as copper. Fiber optic cabling also offers extra security for the data being transmitted, since it is far more difficult to tap than copper cable.

2. Only fiber optics can go the distance. Not only is fiber optic cable capable of carrying far more data than copper, it also has the ability to carry that information for much longer distances. Indeed, a fiber-optic cable can easily transmit a signal as far as 80 km or more without the need for amplification.

3. Fiber optics can't be interfered with! Because fiber optic cables are glass-based, they don't conduct electricity. This eliminates the need for grounding, and makes them immune to any type of electrical interference — even lightning. Since fiber optic cabling is so resistant to interference and atmospheric conditions, it can be used outdoors — and in close proximity to electrical cables — without concern.

4. Fiber optic cables don't mind roughing it. Glass fibers don't only escape interference; they are virtually free from the threat of corrosion, too! While copper cabling is sensitive to water and chemicals, fiber optic cabling runs almost no risk of being damaged by harsher elements. As a result, fiber optic cable can easily endure "living conditions" that coaxial cable just can't, such as being put in direct contact with soil, or in close proximity to chemicals.

5. You may be surprised by fiber optics, but you won't be shocked. A major benefit of fiber optic cabling is that it doesn't pose a threat of physical injury to the user if it breaks. Since fiber optic cabling transmits light and not electricity, the people handling it run no risk of injury from fire, sparking or electrocution.

