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## Network Cabling Installation: Are You Wired for Wireless?

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### Network Cabling Installation: Are You Wired for Wireless?

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Even in a wireless environment, network cabling installation is important—not only for the devices but also the data that is transferred to and from the wired and wireless networks. Datatrend experts have identified five key cabling installation areas to consider when rolling out your wireless network.

**1. Secure your network.** Consider a DMZ (also known as a perimeter network) to protect your wired LAN but understand what users will be doing on the DMZ. For large file transfers, a DMZ and a wired Ethernet can significantly improve transfer speeds, but security can be compromised despite the fact that a DMZ is designed to provide an additional layer of security. Consider additional wireless security—authentication and encryption schemes (See point #3). If you're providing guests wired access, then consider a designated Ethernet guest port that bypasses the corporate LAN and routes to a guest LAN using authentication.

**2. Mind the gap.** Most wireless LANs require multiple access points for better access and data transfer

speeds. Make certain you consider a properly planned [structured cabling installation](#) in your distribution system. After all, the distribution system is the “wired backbone” that enables roaming protocols to work on a wireless network. Consider the distance between the hubs or switches and make certain it doesn’t exceed the length of the Cat5/Cat5e cable.

**3. Know your scope.** Many smaller wireless LAN deployments are effective with just a hub. However an enterprise-wide wireless LAN is not only more effective with switches, but also more secure because you can use optical fiber to connect the switches to a master. Optical fiber also can increase the range of your distribution system.

**4. Get the rate straight.** As bandwidth demand increases, faster speeds are necessary to handle the 100+Mbps data transfer rates. Connecting 802.11g access points using 10-Base-T cable installation instead of 100-Base-T twisted pair can result in bottlenecks. In addition, newer 802.11n access points may require a cabling installation using Cat5e or even Cat6 cable.

**5. Plan for power.** Power over Ethernet (PoE) is another important upfront consideration that can save time and money later. The extra pairs of wires within a Cat5 cable can supply electrical power to your access points as part of the distribution system.

The performance of your wireless network is, in part, the result of the network cabling installation on your wired network. Taking this information into account when you roll out your wireless network and making accommodations for it can vastly improve its function.

[Contact our expert team](#) to learn how Datatrend’s network cabling installation services drive high performance wired and wireless networks.

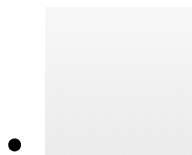


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