Data Center Evolution

Top 3 Trends That Will Impact Your Structured Cabling System

Trends	Structured Cabling Impact
1 Data Center Convergence Companies are abandoning disparate architectures in favor of pooling and sharing server, storage, and networking capacity across multiple applications and lines of business. The benefits: • Reduced operations costs • Increased productivity • Improved flexibility & agility across all elements of the data center The first market forecast for Converged Infrastructure predicts that nearly 2/3 of the infrastructure that supports enterprise applications will be packaged in some type of converged solution by 2017. *Source: "Converged Infrastructure Takes the Market by Storm." Wikibon*	• Fiber optic cabling will be needed to all server racks and storage arrays to handle increased density while reducing cable pathways and improving airflow. • The need for high-density connectivity (e.g. special patch panels and enclosures for increased port/fiber/switch density) and high-capacity cable management to optimize performance and protect network cabling infrastructure will be required.
2 Virtualization Concerns over costs, power, cooling hardware, and administration and maintenance complexities are driving the trend toward data center virtualization. The benefits of virtualization include: • Reduced labor costs • Reduced facilities costs • "Greener" IT footprint • More physical location options can be considered and decisions based on aspects such as lower construction costs, lower labor rates, population density, and lower energy costs. *Source: 2012 CEO IBM Global Study, "Leading Through Connections."*	• The integration of IT components from virtualization and convergence initiatives may drive more cable density in some situations and fewer cables (with more network capacity) in others. • Network decisions will affect fiber count and fiber type.
3 Network Infrastructure Optimization • The ever increasing volume of data that is transmitted across the network demands a state-of-the-art network cabling solution. • Beyond the current data demands, structured cabling systems must support the capture, curation, storage, search, sharing transfer and analysis of "big data." • When you consider the fact that a structured cabling system will support and outlive 90% of network components, yet represents only 5% of the network investment, it's no wonder why 71% of network downtime is attributed to issues with the infrastructure. *Source: "5 Trends in Data Centers That Impact an Organizations yet represents Structured Cabling System." Datatrend Technologies Inc.*	• To support rapid deployment models, a physical layer design that accommodates a phased implementation approach is critical. • EIA/TIA-942 provides detailed guidance for structured cabling. • Bottom line, more strategic thought must be given to the structured cabling system.

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