

INTELLIGENT NETWORK DESIGN

A COMPANY'S NETWORK INFRASTRUCTURE IS ITS FOUNDATION. WHAT MATERIALS DO YOU NEED TO BUILD A STRONG NETWORK BACKBONE?

CABLE OPTIONS

Cat5e Cable (most common form of cable used)

- Network Support: Supports 1000BASE-T (1000 Mbps / Gigabit Ethernet)
- Crosstalk: Reduced dramatically from Cat5 and levels of Near-End Crosstalk (NEXT) lowered
- Bandwidth: 350Mhz



Cat6 Cable (four twisted pairs of copper wire with a longitudinal separator)

- Network Support: Certified to handle Gigabit Ethernet
- Crosstalk: Significantly reduces NEXT and PSNEXT (Power Sum NEXT)
- Use: Well suited for bandwidth-intensive or high-performance network environments (like power lines, lights & equipment)
- Bandwidth: 500 Mhz




SDN COMMUNICATIONS
the business simplification experts

FIBER OPTIONS

Multi-Mode Fiber

- Typical use: Connecting two communication closets within a building
- Features: The larger core size of the glass strands contained in multi-mode fiber make it better suited for use in short distances of approximately 1500 feet or less.



Single-Mode Fiber

- Typical use: Long-distance builds
- Features: The smaller diameter of the glass strands in the fiber can transmit light further.



7 QUESTIONS TO ASK DURING THE TELECOMMUNICATIONS AND TECHNOLOGY PLANNING/DESIGN PROCESS:

1. What are the network demands today? What will they be in five years?
2. What networking equipment is needed? How much space will that take? What are the requirements for heating/cooling, power and size for that equipment?
3. Is there a Lifetime Product Performance Warranty on the products and performance of the solution?
4. Is a certified Telecommunications Project Manager, RCDD and/or BICSI certified installer involved in the process from the beginning?
5. Where is the cabling located throughout the building? Should plenum or non-plenum cabling be used?
6. How can you better maximize effective space utilization?
7. What can be done today to accommodate future moves, adds, and changes?

THE NETWORK ARCHITECT SPECIALISTS

SDN COMMUNICATIONS IS THE LEADER IN:

- CABLING
- NETWORKING EQUIPMENT — SWITCHES, ROUTERS, SERVERS, COMPUTERS, DATA STORAGE SOLUTIONS, SECURITY, WIRELESS NETWORKING
- TELECOMMUNICATIONS AND TECHNOLOGY CONSULTING
- TELEPHONE SYSTEMS/IP TELEPHONY SOLUTIONS

MINIMIZE COSTLY CHANGE ORDERS AND DELAYS

Your firm's reputation depends on completing jobs on time and within budget. Changes to network infrastructure, cabling type, power and cooling requirements, and communication closet size/location can be very costly.

SDN understands the technology that is critical to business functionality today. By defining end-user needs and applications at the start of the design process, both builder and client can make strategic decisions that will foster innovation and growth. **Save time and money by minimizing change orders.**

WORK WITH A LOCAL AUTHORITY

The complexity of today's applications and network technology require a thorough understanding of how the various system components work with each other. **SDN staff members receive continuous training** on the latest product advancements.

SDN Communications also offers a **lifetime warranty on the products and performance of solutions.** We help you choose the solutions today that will outlast changes and company growth.

FIND THE EXPERT ADVANTAGE

When the U.S. Navy needed to find an expert in networking design and cabling, it turned to SDN Communications. SDN's ability to successfully complete the project within the time frame and budget resulted in a special letter of commendation from the Navy.

SDN has **staff with certifications** in Telecommunications Project Management, Registered Communications Distribution Design (RCDD) and BICSI.

Contact SDN for more information or to arrange a meeting to learn more about **telecommunications technology trends.**

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