



# Technology in Healthcare

# Medical Facilities

Today's medical facilities are rich in technology. Not only do they require an advanced communication infrastructure directly related to patient care, but they also maintain other systems, including: CCTV security surveillance, building management, HD audio video, interactive patient systems, public address, nurse call, automated pharmacy dispensaries, VOIP, email and more. All of these systems operate over a sophisticated communications cabling infrastructure.

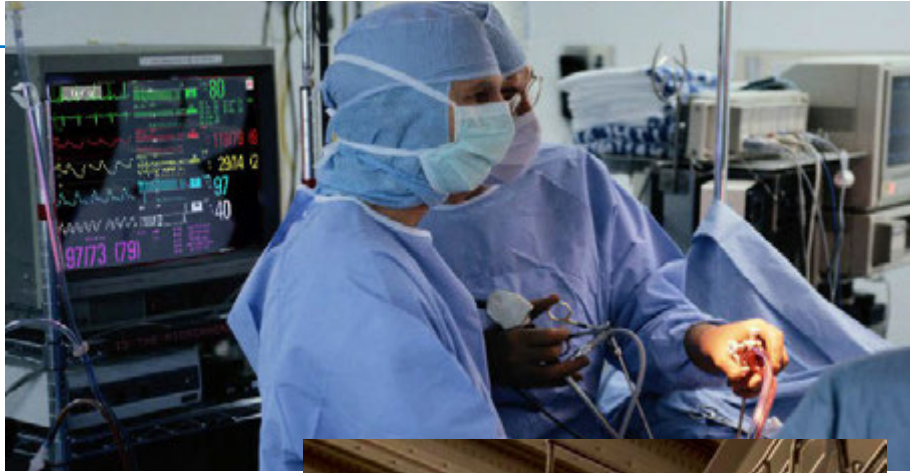


Additionally, many of these systems can be accessed via a local wireless network, which as a result of the growth in the number of wireless users and devices, must be extremely robust. To ensure maximum performance of the structured cabling system in these facilities, globally recognized standards bodies have developed cabling requirements specifically for healthcare facilities and buildings.

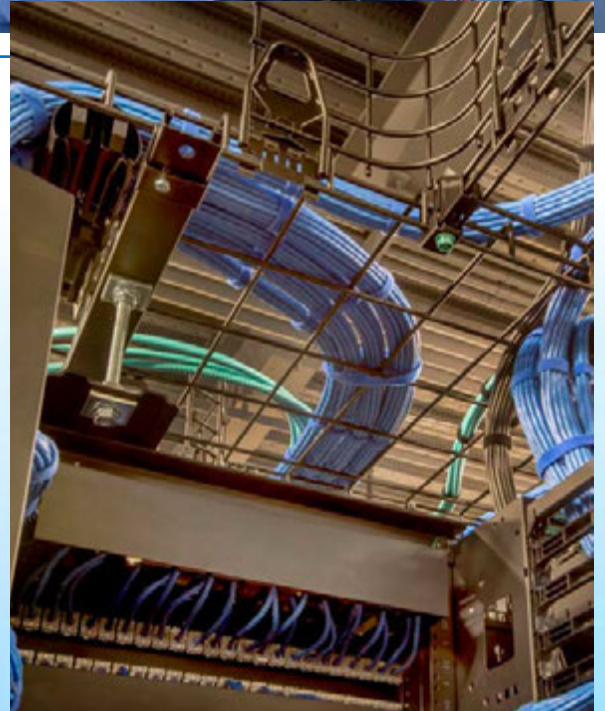




One such standard, ANSI/TIA-1179-A Healthcare Facility Telecommunications Infrastructure Standard identifies the appropriate cable media for healthcare facilities, especially those with operating rooms and restricted areas used for infection control. It recommends Category 6A (10 Gigabit Ethernet) copper cables to the work area or equipment outlets and OM3, OM4 or OM5 multimode as well as singlemode fiber optic cables for backbone applications.



A 10 Gigabit Ethernet infrastructure based on Category 6A shielded cables is ideal for providing the throughput and security the network in a medical facility needs to perform optimally. In today's medical facility, due to the variety of equipment and systems on site, there is the potential for significant electromagnetic and radio frequency interference (EMI/RFI). This noise, if left unchecked, can have a negative impact on the performance of the cable infrastructure. Shielded cables are designed to keep harmful noise out. Hitachi's Supra 10G-XE™ is a new type of Category 6A communication cable that provides the enhanced performance of a fully shielded solution while installing and terminating like an unshielded system. The Supra 10G-XE, which is rated to accommodate up to 120 watts of power, can also support Power over Ethernet applications based on IEEE 802.3 af, at and bt standards. With more and more devices remotely powered over twisted pair cables, it is important to select a cable that efficiently and safely supports the PoE devices of today and tomorrow while also providing the necessary bandwidth.



Hitachi also offers a large selection of fiber optic cables that can be used to link data rooms, extend the local network to the far corners of the facility or even connect nearby buildings. Now with bend-insensitive optical glass, Hitachi's fiber optic cable designs include a variety of hyper-small constructions such as our NanoCore® cables that offer up to 144 strands of fiber in a very small 9.9mm cable diameter. To protect these links from accidental or intentional harm, cables with aluminum interlocking armor are also available.



If planning new construction, adding to your existing facilities or performing a network upgrade, consider a cable infrastructure that includes high performance, made in America cables from Hitachi Cable America.



## **Hitachi Cable America Inc.**

Located in Manchester, New Hampshire, Hitachi Cable America's (HCA) 300,000 square-foot facility produces over 4,500 unique cable constructions. HCA has been manufacturing cables at this facility since 1986 and operates 24/7 to supply demand. In addition to producing network related cables, HCA builds cables for the medical industry, the cellular phone industry, industrial applications, supercomputing and more.

### Products from Hitachi Cable America Include:

- Category 5e, 6 & 6A Cables
- Category 7, 7A & 8 Cables
- Fiber Optic Cables (indoor, outdoor & armored)
- NanoCore™ Micro Distribution Fiber Optic Cables
- Industrial Ethernet Cables
- Coaxial & Mini-coaxial Cables
- Distributed Antenna System Cables
- Round & Ribbon Electronic Cables
- ChannelFlex Flat Robotic Cables



HCA is proud to use Corning Optical Glass in all standard fiber optic cable constructions.

plus  
**CORNING**<sup>®</sup>  
ClearCurve<sup>®</sup> Optical Fiber

For more information about Open System Architecture, please contact us.

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