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<http://www.healthcarebuildingideas.com/blogs/anonymous/information-technology-infrastructure-healthcare>

## Information Technology Infrastructure in Healthcare

Over the past few years, there have been efforts to recognize the specific IT infrastructure needs of specialized environments, such as healthcare facilities.

Although standards-based generic design guidelines have existed for some time, until now it has been the responsibility of the IT infrastructure designer to modify and adapt these generic design guidelines to meet specific needs.

Generally defined, IT infrastructure design components would include:

- Designing overhead or underground service facilities to connect the building to outside services;
- Determining the optimal location of technology rooms and spaces;
- Determining the size of the technology rooms;
- Designing cable distribution pathways for routing cables through the building;
- Determining the quantity and type of equipment racks and enclosures required;
- Specifying the copper and fiber-optic cabling to be installed, tested, and labeled;
- Specifying the required types of copper and fiber termination hardware;
- Locating wireless access points to provide the desired coverage;
- Calculating the power density and equivalent heat load in the IT rooms for use by the electrical engineer and HVAC engineer;
- Specifying the test criteria for the installed cables;
- Designing the telecommunications grounding and bonding system; and
- Specifying UPS power supplies.

The list is incomplete, but it does serve to show the variety of tasks required. In addition to the written design criteria and specifications, each project requires a drawing package showing the details of the design.

To address these design criteria and requirements as well as those specific to healthcare facilities, BICSI ([www.bicsi.org](http://www.bicsi.org)) created a Healthcare Facility Telecommunications Cabling Standard Committee. The result of the committee's hard work was the ratification and publication of ANSI/TIA Standard 1179 *Healthcare Facility Telecommunications Cabling Standard*.

This new publication joins a number of other standards for designs that have specific needs such as ANSI/TIA 942 *Telecommunications Infrastructure Standard for Data Centers* and BICSI-001-2009 *Information Transport Systems Design Standard for K-12 Educational Institutions*.

Using the criteria in Standard 1179 as the basis for infrastructure design helps ensure that the healthcare facility has a network infrastructure capable of supporting both current as well as emerging technologies. It also ensures that there will be sufficient wired and wireless connectivity to cost-effectively deploy advanced healthcare applications in the future.

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