

STANDARDS ORGANIZATIONS

SUBJECT: DATA COMMUNICATION &
OPTICAL FIBERS

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STANDARDS ORGANIZATIONS

Standards are developed through the cooperation of standards creation committees, forums, and government regulatory agencies.

Standards Creation Committees

o International Organization for Standardization (ISO).

The ISO is a multinational body whose membership is drawn mainly from the standards creation committees of various governments throughout the world. The ISO is active in developing cooperation in the realms of scientific, technological, and economic activity.

International Telecommunication Union- Telecommunication Standards Sector (ITU-T)

- ◉ By the early 1970s, a number of countries were defining national standards for telecommunications, but there was still little international compatibility.
- ◉ The United Nations responded by forming, as part of its International
- ◉ Telecommunication Union (ITU), a committee, the Consultative Committee for International Telegraphy and Telephony (CCITT).
- ◉ This committee was devoted to the research and establishment of standards for telecommunications in general and for phone and data systems in particular.
- ◉ On March 1, 1993, the name of this committee was changed to the International Telecommunication Union Telecommunication Standards Sector (ITU-T).



American National Standards Institute (ANSI).

Despite its name, the American National Standards Institute is a completely private, nonprofit corporation not affiliated with the U.S. federal government. However, all ANSI activities are undertaken with the welfare of the United States and its citizens occupying primary importance



Institute of Electrical and Electronics Engineers (IEEE).

The Institute of Electrical and Electronics Engineers is the largest professional engineering society in the world. International in scope, it aims to advance theory, creativity, and product in the fields of electrical engineering, electronics, and radio as well as in all related branches of engineering. As one of its goals, the IEEE oversees the development and adoption of international standards for computing and communications.



Electronic Industries Association (EIA).

- ◉ Aligned with ANSI, the Electronic Industries Association is a nonprofit organization devoted to the promotion of electronics manufacturing concerns. Its activities include public awareness education and lobbying efforts in addition to standards development. In the field of information technology, the EIA has made significant contributions by defining physical connection interfaces and electronic signaling specifications for data communication.



◉ *Forums*

Telecommunications technology development is moving faster than the ability of standards committees to ratify standards. Standards committees are procedural bodies and by nature slow-moving. To accommodate the need for working models and agreements and to facilitate the standardization process, many special-interest groups have developed **forums made up of representatives from interested corporations.**



- ◉ **The forums** work with universities and users to test, evaluate, and standardize new technologies.
- ◉ By concentrating their efforts on a particular technology, the forums are able to speed acceptance and use of those technologies in the telecommunications community.
- ◉ The forums present their conclusions to the standards bodies.



◉ *Regulatory Agencies*

All communications technology is subject to regulation by government agencies such as the **Federal Communications Commission (FCC)** in the United States. The purpose of these agencies is to protect the public interest by regulating radio, television, and wire/cable communications. The FCC has authority over interstate and international commerce as it relates to communications



Internet Standards

An Internet standard is a thoroughly tested specification that is useful to and adhered to by those who work with the Internet. It is a formalized regulation that must be followed.

There is a strict procedure by which a specification attains Internet standard status. A specification begins as an Internet draft.



An Internet draft is a working document (a work in progress) with no official status and a 6-month lifetime. Upon recommendation from the Internet authorities, a draft may be published as a Request for Comment (RFC).

Each RFC is edited, assigned a number, and made available to all interested parties. RFCs go through maturity levels and are categorized according to their requirement level.

