

CONGRESS SHOULD AUTHORIZE UNIVERSAL FIBER OPTIC  
COMMUNICATIONS SYSTEMS AS COMMON CARRIERS

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#### A. Situation

All the elements required for universal fiber optic communications carrier systems are now in volume production or are emerging as test prototypes at costs competitive with copper systems. The unprecedented advantages of fiber optic carrier systems is that they can provide unlimited simultaneous transmission switching and processing of all types of content including data, voice and video. Thus they most resemble the common carrier postal and telephone systems and cannot be analogized with single channel radio and television stations and networks or with cable TV systems configured for restricted capacity and one-way transmission. Like cable, fiber systems are natural monopolies.

Fiber optics' unique capability for interactive two-way communications, paid either by sponsors or direct users, will permit new transactions, marketing, interactive learning and library retrieval. Fiber optic carriers will provide universal geographic, demographic, commercial, individual and group access options; two-way interactive transactions and messages; unrestricted formats; sponsor or user payment options; and adaptability to all types of communications content. Residential fiber optic networks are already being tested in a dozen limited areas. They could be fully operational in selected metropolitan areas in 10-15 years and regionally in 15-20 years. Full-scale private fiber optic networks are in use and under construction by large corporations, institutions, and the U.S. Government. It is already apparent, however, that emerging fiber optic carrier systems, such as telephone and electrical utilities, contemplate controlling the content, alone or in collaboration with suppliers such as broadcasters, cable television operators, film and sports producers. Unless fore-sighted public policies are speedily adopted, the benefits of this revolutionary technology may be channelled for the exclusive benefit of the technical developers - to the neglect of the rights of the content suppliers and users.

Telephone companies are now prohibited from owning and operating video transmission systems by overlapping Federal, state and local regulation, as well as judicial interpretations. These restrictions seemed appropriate when cable TV was a promising infant. Now, over half of U.S. families are subscribers and cable monopolies are among the most cash profitable growth industries in our economy. Only Congress can pre-empt these outmoded restraints on a revolutionary new technology of communications freedoms.

Vertical integration of technical facilities into content (with interlocking controls and cross subsidies between carriage, processing and content) will destroy free and fair market competition among content suppliers as well as carriers. First Amendment speech and press rights would again be arbitrarily denied as they have been in radio and television broadcasting and cable TV.

B. Premises

1. Communications is a process consisting of two independent functional components, each of which has separate and distinct parameters of public policy:

- a. Content: The entirety of signals, messages, information, etc.
- b. Carriers and Processors: The entirety of technical hardware and facilities of transmission, reception and processing of content.

Note: This component is often termed "media" as in the U.N. Declaration of Human Rights: "Any person has the right to communicate with any other person in any medium." In popular usage, however, "medium" is also applied to books, periodicals and other "packages of content." Therefore this ambiguous term is avoided.

II. It is an inalienable right of every person to communicate with any other person in any public\* carrier or processor of communications content (\*public carriers are those available to others than the owner).

- a. To transmit, receive or exchange content of signals and information of any nature, purpose, format, or mode which is available through the carrier, at non-discriminatory rates and terms.
- b. To communicate with select desired geographic, demographic, or occupational segments available through the carrier.
- c. To sell, buy, or lease the communication service or content by convenient units.

III. No one but the content owner may abridge or censor content. Only the owner is liable for content proven illegal by due process.

IV. Carriers and processors with patents, licenses, franchises, permits, and secret or proprietary equipment essential to

communications carriage or processing must grant non-discriminatory, compulsory licenses or rights at their own terms.

V. The paramount public importance of universal communications requires enforceable legislative safeguards:

- a. Universal availability by geographic and demographic groups.
- b. Local - regional - national - international interconnections must be ensured.
- c. Rates and terms for low income and handicapped groups related to their ability to pay and to social subsidies.
- d. Maintenance of state-of-the-art services and economies, assured by adequate private and public R. and D.
- e. Regulatory and fiscal policies to reward innovation and compliance with public objectives.

VI. As universal, unrestricted capacity carrier systems become available on a market-by-market basis, most public interest restrictions on content can be revoked, such as fairness and equal time.

### C. Congressional Authorization

Congress should enact legislation authorizing any person to own, construct or operate any public communications carrier or processing facility provided it is regulated by common carrier principles which prohibit engagement in, discrimination between, or abridgement of content.

Specifically, the Congress should authorize construction and operation of fiber optic networks with video and other broadband services by telephone or electrical utilities (or others) provided they are regulated by common carrier principles.

Such legislation need not and should not impair the legal rights and status of other carriers including broadcasting and cable television systems.

The importance of public communications in social, cultural, economic and political activities calls for the establishment of a cabinet level Department of Public Communications. The responsibilities of this department should involve technical, economic and applications research and the evaluation of development options. It should oversee all public communications systems and facilities such as postal and express systems, retail distribution, telephone, broadcasting and cable whether by physical transport, electronic or optical carriers.