FEDERAL TELECOMMUNICATIONS LAW:

A LEGISLATIVE HISTORY OF

THE TELECOMMUNICATIONS ACT OF 1996

PUB. L. NO. 104-104, 110 STAT. 56 (1996)

INCLUDING

THE COMMUNICATIONS DECENCY ACT

Volume 13
Document Numbers
178 - 179

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William S. Hein & Co., Inc.
Buffalo, N.Y.
1997

Library of Congress Catalog Number 97-70098
ISBN 1-57588-279-5 (SET)

This volume printed on acid-free paper
by William S. Hein & Co., Inc.

Printed in the United States of America.

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INTRODUCTION

AN OVERVIEW OF THE TELECOMMUNICATIONS ACT OF 1996

The "Telecommunications Act of 1996," signed into law on February 8, 1996, opens up competition between local telephone companies, long-distance providers, and cable companies; expands the reach of advanced telecommunications services to schools, libraries, and hospitals; and requires the use of the new V-chip technology to enable families to exercise greater control over the television programming that comes into their homes. This Act lays the foundation for the investment and development that will ultimately create a national information superhighway to serve both the private sector and the public interest.

President Clinton noted that the Act will continue the efforts of his administration in ensuring that the American public has access to many different sources of news and information in their communities. The Act increases, from 25 to 35 percent, the cap on the national audience that television stations owned by one person or entity can reach. This cap will prevent a single broadcast group owner from dominating the national media market.

Rates for cable programming services and equipment used solely to receive such services will, in general, be deregulated in about three years. Cable rates will be deregulated more quickly in communities where a phone company offers programming to a comparable number of households, providing effective competition to the cable operator. In such circumstances, consumers will be protected from price hikes because the cable system faces real competition.

This Act also makes it possible for the regional Bell companies to offer long-distance service, provided that, in the judgment of the Federal Communications Commission (FCC), they have opened up their local networks to competitors such as long-distance companies, cable operators, and others. In order to protect the public, the FCC must evaluate any application for entry into the long-distance business in light of its public interest test, which gives the FCC discretion to consider a broad range of issues, such as the adequacy of interconnection arrangements to permit vigorous competition. Furthermore, in deciding whether to grant the application of a regional Bell company to offer long-distance service, the FCC must accord "substantial

weight" to the views of the Attorney General. This special legal standard ensures that the FCC and the courts will accord full weight to the special competition expertise of the Justice Department's Antitrust Division--especially its expertise in making predictive judgments about the effect that entry by a bell company into long-distance may have on competition in local and long-distance markets.

Title V of the Act is entitled the "Communications Decency Act of 1996." This section is specifically aimed at curtailing the communication of violent and indecent material. The Act requires new televisions to be outfitted with the V-chip, a measure which President Clinton said, "will empower families to choose the kind of programming suitable for their children." The V-chip provision relies on the broadcast networks to produce a rating system and to implement the system in a manner compatible with V-chip technology. By relying on the television industry to establish and implement the ratings, the Act serves the interest of the families without infringing upon the First Amendment rights of the television programmers and producers.

President Clinton signed this Act into law in an effort to strengthen the economy, society, families, and democracy. It promotes competition as the key to opening new markets and new opportunities. This Act will enable us to ride safely into the twenty-first century on the information superhighway.

We wish to acknowledge the contribution of Loris Zeppieri, a third year law student, who helped in gathering these materials.

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April 1997

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MODIFIED FINAL JUDGMENT
(Part 2)

HEARINGS

BEFORE THE

SUBCOMMITTEE ON
TELECOMMUNICATIONS AND FINANCE

OF THE

COMMITTEE ON
ENERGY AND COMMERCE
HOUSE OF REPRESENTATIVES

ONE HUNDRED FIRST CONGRESS

FIRST SESSION

JUNE 7, 14, AND 21, 1989

Serial No. 101-92

Printed for the use of the Committee on Energy and Commerce

U.S. GOVERNMENT PRINTING OFFICE

25-424 WASHINGTON : 1990

For sale by the Superintendent of Documents, Congressional Sales Office
U.S. Government Printing Office, Washington, DC 20402

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MODIFIED FINAL JUDGMENT

WEDNESDAY, JUNE 7, 1989

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ENERGY AND COMMERCE,
SUBCOMMITTEE ON TELECOMMUNICATIONS AND FINANCE,
Washington, DC.

The subcommittee met, pursuant to notice, at 2:05 p.m., in room 2322, Rayburn House Office Building, Hon. Edward J. Markey [chairman] presiding.

Mr. MARKEY. We are conducting these sessions in a less formal manner in that we are waiving members' opening statements. Without objection, I will introduce the witnesses and let them briefly outline what their major points are and then we can get quickly to the point of asking questions.

Today we have Mr. A. Gray Collins, Jr., senior vice president of external affairs, Bell Atlantic; Mr. Robert Glaser, vice president, strategic planning, Southwestern Bell Corp.; Mr. Warren Prince, chairman, Tymnet-McDonnell Douglas Network Systems Co., from San Jose, CA; Mr. Bruce Fogel, chairman, Phone Programs, Inc., from New York City; and Mr. Warner Sinback, manager for telecommunications policy, General Electric Information Services, General Electric Co., Rockville, MD.

Let us begin with Mr. Fogel. We will go from my left to right. Each one of you will have no more than 5 minutes, which we will very strictly enforce, to lay out your major points, and then we will turn to the subcommittee members for questions.

Mr. Fogel.

STATEMENTS OF BRUCE J. FOGEL, CHAIRMAN, PHONE PROGRAMS, INC.; A. GRAY COLLINS, JR., SENIOR VICE PRESIDENT, EXTERNAL AFFAIRS, BELL ATLANTIC; WARREN F. PRINCE, CHAIRMAN, TYMNET-McDONNELL DOUGLAS NETWORK SYSTEMS CO.; WARNER SINBACK, ON BEHALF OF ADAPSO; AND ROBERT H. GLASER, VICE PRESIDENT, STRATEGIC PLANNING, SOUTHWESTERN BELL CORP.

Mr. FOGEL. Thank you. I am appearing before you today in my role as chairman of Phone Programs, which is an information provider of short duration programs made available over the telephone around the United States.

I only have a few minutes. Therefore, would you please refer to my submitted written testimony as to who we are and what our function is?

Contrary to the hopes and expectations of Congressmen who may have been persuaded by the BOC's, the direct entry of the domi-

nant telcos into the content provision will predictably stifle competition and diversity in the fledgling audiotex industry.

Prior to the dovetailed regulatory and antitrust prohibitions against the BOC's there were no information providers in mass announcement services as we know them today. That's right. None. Zero. Just no information providers.

Prior to 1983, the old Bell System was responsible for all telephonic mass announcement programming and its content.

Until 1983 mass announcement, 976 or dial-it services had crept along in development at a snail's pace. Thus, for over 50 years, since the first such programming in the late 1920's, the Bell system permitted relatively few types of services and programs to reach the public through plain old telephone service.

For our company, Phone Programs, the rules which went into effect in 1983 seemed simple and straightforward. The dominant telephone companies of America were to be limited in my business to their traditional roles as common carriers. For presumably reasonable and nondiscriminatory fees, they would provide the transport of our programs through their telecommunications networks and perform billing services in conjunction with their existing facilities for billing local consumers. We the providers would be responsible for all programming content. We would take the risks inherent in free enterprise and reap the rewards of success or suffer the consequences of business failure.

Looking back upon what I viewed in 1983, I now see that I was extremely naive. In practice, the BOC's have stunted the growth of the kinds of information services with which Phone Programs is familiar. I make this point and emphasize it for a couple of reasons.

First, since 1983 a lack of development in mass announcement services of which the BOC's complain is directly attributable to their own repressive and monopoly induced actions.

Second, inasmuch as the BOC's have not played by existing rules, I ask rhetorically, how can the Congress believe that the BOC's would adhere in good faith to any future rules, especially where they would be direct competitors of information providers utilizing their own network facilities along with and in competition with us?

I can state categorically that the local exchanges still enjoy a natural meaningful monopoly in the provision of local mass announcement services. It is this monopoly power that enables them in various jurisdictions to control the number of information providers, to manipulate or veto the content of local programming, to dictate advertising guidelines, to share in the revenues of providers while sharing none of the risks, to create various arbitrary requirements upon providers who have no competitive choices on the local level.

Please bear in mind that I refer to current, ongoing facts. This is not something that may happen in the future. It is not my speculation.

Let me give you a few examples.

Look at New Jersey Bell's local 976 service. Today if one of your staff were to telephone the marketing section of New Jersey Bell which deals with mass announcement services to ask for information about becoming an information provider of that system, the New Jersey Bell representative would explain that New Jersey per-

mits only a single provider. The winning provider, as we call him, is predictably the one who will accept the least revenue so that the BOC can garner the lion's share. It has been my understanding that the existing sole New Jersey provider receives approximately one cent per call while New Jersey keeps the other 12 cents of a total of 13 cents.

A myriad of other examples of abuses abound, abuses which could not survive in a true competitive environment.

Mr. MARKEY. Sir, I am going to have to interrupt you there. You will be given plenty of opportunity in the questioning to give further examples.

[The prepared statement of Mr. Fogel follows:]

PREPARED STATEMENT OF BRUCE FOGEL, CHAIRMAN OF THE BOARD, PHONE PROGRAMS, INC.

Good afternoon, my name is Bruce Fogel.

I am appearing before you today in my role as chairman of the board of Phone Programs, Inc. which is an information provider on many local mass announcement or dial-it networks around the United States. My presentation today is thus limited in scope to this segment of the information services industry.

I am extremely grateful to the committee for affording me this opportunity to present certain facts and views from the perspective of a relatively small player when compared to the seven giant regional holding companies and their respective operating companies. On a day-to-day basis my company sees first hand how the bell operating companies—or BOCs—are able to control and manipulate the marketplace in my business.

It is the position of my company, as well as my own personal and professional conviction, that any legislative proposal which would permit the BOCs to enter the marketplace as content providers on mass announcement networks would, if enacted, cause an abrupt and negative turn-around in the development of this infant industry. I believe that my company is particularly well qualified to identify the facts and circumstances which have led us—as well as Judge Greene—to this inescapable conclusion.

An initial word about Phone Programs. Phone Programs and its affiliates are closely held companies, owned by three individual businessmen including myself. We have operated continuously since 1972, and thus our experience both predates and spans across the effective dates of the FCC's second computer inquiry as well as AT&T's divestiture under the antitrust court's modified final judgment or MFJ.

The essence—the bread and butter—of our business is the creation of short prerecorded audiotex programs which are delivered to the public for a fee through the local telephone exchange monopolies, which, in the main, are the BOCs. Our oldest program, Sports Phone, originated with us at the inception of our business in 1972. We also offer weather, financial, time of day, racing and other programs. On local dial-it or 976 networks throughout America, we provide approximately one hundred programs spread across almost twenty markets. To my knowledge, these kinds of audiotex programs are unique in their universal accessibility by the general public.

Phone Programs has been described by others as a responsible citizen in this business, and the professionals in our company take great pride in what we believe has been our responsible approach. We have not ever provided, nor will we ever provide dial-a-porn programming. Phone Programs has been a leader in seeking ways to lawfully limit access to obscene or indecent program offerings. We have also avoided so-called gab or chat or live programming because of the evidence of widespread abuses in that type of service. In some regions, our advertising has become a model of full disclosure for other providers. I have personally taken an active leadership role in the industry, speaking at national conferences sponsored by the United States Telephone Association, the Information Industry Association and others. Currently, I am the chairman of the voice information services division of the IIA.

With this brief background in mind, what have Phone Programs and I witnessed over the past several years to cause me—or, better said, to require me—to seek to be heard by you, the lawmakers of our nation?

In short, contrary to the hopes and expectations of Congressmen who may have been persuaded by the BOCs, the direct entry of the dominant telcos into content

provision will predictably stifle competition and diversity in the fledgling audiotex industry.

Prior to the dove-tailed regulatory and antitrust prohibitions against the BOCs, there were no information providers in mass announcement services as we know them today. That's right. None. Zero. Prior to 1983, with insignificant exceptions, the old Bell System and its component parts were responsible for all telephonic mass announcement programming and the content thereof. There was complete vertical integration.

Now, I mentioned a few moments ago that we have been in this business since 1972—an apparent contradiction to my statement that the Bell System controlled all content prior to 1983. The explanation for this apparent contradiction is simply that, prior to the now six-year-old prohibition against the BOCs from providing content, they contracted with companies such as mine to produce programming for them. They, however, were the owners and controllers of an entirely integrated system from program creation to the delivery of information content to consumers over local networks.

Until 1983, mass announcement or 976 or dial-it services had crept along in development at a snail's pace. Thus, for over fifty years, since the first such programming in the late 1920's, the monolithic Bell System permitted relatively few types of programs to reach the public through plain old telephone service (POTS).

From 1983 to the present, in spite of substantial barriers imposed by the BOCs (which I will get into momentarily), the dissolution of content control by the BOCs prompted in some geographical regions of the United States the immediate development of a fledgling information industry, offering great diversity and potentially extraordinary benefits to the public. Our business is competitive in that Phone Programs and other information providers compete with each other for local audiences. In many systems, there are specific programs which are directly competitive, offering the consuming public choices which they never had prior to divestiture and would not have today but for divestiture.

For myself and my two investment partners at Phone Programs, the rules which went into effect in 1983 seemed simple and straightforward. The dominant telephone companies of America were to be limited in my business to their traditional roles as common carriers. For presumably reasonable and nondiscriminatory fees, they would provide the transport of our programs through their telecommunications networks and perform billing services in conjunction with their existing facilities for billing local consumers. We, the providers, would be responsible for all programming content; we would take the risks inherent in free enterprise and reap the rewards of success or suffer the consequences of business failure.

Looking back upon what I viewed in 1983 as my own basic and fundamental expectations regarding the rules of the BOCs after divestiture, I now see that I was extremely naive. In practice, the BOCs, through ingenious methods and control of the local networks, have pressed through the outer limits of the rules and stunted the growth of the kinds of information services with which phone programs is familiar. I make this point and emphasize it for a couple of reasons. First, since 1983 any lack of development in mass announcement services of which the BOCs complain is directly attributable to their own repressive and monopoly-induced actions. Second, inasmuch as the BOCs have not played by existing rules, I ask rhetorically, how can the Congress believe that the BOCs would adhere in good faith to any future rules, especially where they would be direct competitors of information providers utilizing their own network facilities along with and in competition with us?

In recent months, the BOCs have tried to persuade the MFJ court, information providers, and the general public that they, as prospective information providers themselves, would have heavy competition. The BOCs claim that announcement services are already competitive from the perspective of the carrier because of the availability of the interstate services such as those offered by AT&T. As an active IP utilizing both the local services and the national, interstate services of AT&T, I can state categorically that the local exchanges still enjoy a meaningful natural monopoly in the provision of local mass announcement services. It is this monopoly power and the still-pervasive bottleneck character of local exchange services that enables the BOCs in various jurisdictions to (1) control the numbers of information providers, (2) manipulate or veto the content of local programming, (3) dictate advertising guidelines, (4) share in the revenues of providers while sharing none of their risks and (5) create various arbitrary requirements upon providers who have no competitive choices on the local level.

Please bear in mind that I refer to current, ongoing facts. This is not my speculation about the risks of future monopoly abuses by the BOCs. They are here, today,

in defiance of the letter and spirit of the MFJ 1982 and Judge Greene's triennial review decisions of last year.

A few examples.

Let's look at New Jersey Bell's local 976 service. Until a few years ago New Jersey was my home state, and I am familiar with the local 976 service there. New Jersey is the eighth most populous state in America; it is a prosperous state, cosmopolitan; it has a rich mix of cultures and backgrounds and a strong consumer base upon which a burgeoning information industry should be predicated. Today, if one of your staff were to telephone the marketing section of New Jersey Bell which deals with mass announcement services to ask for information about becoming an information provider on that system, what would your expectation be? no doubt, you would anticipate receiving an application and upon the satisfaction of some reasonable requirements, you could be in the business of providing mass announcement programming in the state of New Jersey.

You would be incorrect in your assumptions. If knowledgeable and truthful, the New Jersey Bell representative speaking to your staff member would explain that New Jersey Bell permits only a single provider who offers all thirteen programs on the existing network. The lone New Jersey IP attains its status by resort to a "bid" to New Jersey Bell. The "winning provider" is predictably the one who will accept the least revenue so that the BOC can garner the lion's share. In recent years, it has been my understanding that the existing sole New Jersey provider receives approximately one cent per call made by the public and that New Jersey Bell keeps the other twelve cents. While I am not absolutely certain of the exact split between the provider and New Jersey Bell (because of a claim of confidentiality), I am certain that my estimate is in the ball park.

A myriad of other examples of abuses abound. Abuses which could not survive in a true competitive environment. For example, the regional companies have now imposed uniform "policy," standards upon the industry whereby a BOC can refuse to offer service to an information provider if the provider's program content may be harmful to the "image" or "reputation" of the BOC. Mind you, none of the BOCs will limit this standard to pornography, and journalists such as myself may be chilled into presenting only the least controversial programming.

Many BOCs have required arbitrarily high minimum call volumes in order to become or remain an information provider. In this way, the potential benefit of service to targeted or specialized community segments is all but wiped out.

Most BOCs have managed to garner the greatest share of revenues for themselves by participating, in one fashion or another, in the goodwill or market success of individual programmers. Some, like New York Tel have tried it both ways. On the older 976 network, New York Tel have kept for itself a range of 80 to 90+ percent of dial-it revenues from programming, even though New York Tel takes none of the business risks of the progammers, nor does New York Tel create any of the program content. In its newer system, New York Tel has explicitly endorsed an unlawful "revenue sharing" arrangement whereby it would participate in the revenues of providers on a percentage basis. Of course, this kind of "sharing" arrangement would be impossible to sell to business customers such as Phone Programs if we had any competitive alternative.

In my business, I believe that the current efforts to displace the MFJ prohibitions with proposed legislation would be a terrible mistake. Judge Greene has issued detailed opinions regarding information services, and his decisions are now pending appeal in the United States Court of Appeals for the District of Columbia. A sudden disruption of the judicial process, in my estimation, would be wrong on at least two grounds. First, for the reasons I have already given, I believe that the current state of the law, per Judge Greene, is correct, in accordance with existing antitrust laws. Had it not been for regulatory and court intervention, I would not be here today talking to you about my "industry" because there would be no audiotex industry. Second, there are hundreds of small businesses out there, which, like mine, have placed their faith in the orderly judicial process. The courts have not been subject to lobbying or political considerations. Accordingly, Phone Programs and I beseech you to permit the judiciary to carry on its continuing review of information services, especially in the specific area of audiotex services with which I am familiar.

Thank you for your patience and consideration in hearing the views of one provider in this industry.

Mr. MARKEY. We will have the second witness, Mr. A. Gray Collins, senior vice president of external affairs for Bell Atlantic.

STATEMENT OF A. GRAY COLLINS, JR.

Mr. COLLINS. Good afternoon. My name is Gray Collins and I am Bell Atlantic's senior vice president for external affairs. I would like to thank Chairman Markey for holding these hearings and Congressmen Swift and Tauke for the interest they have shown in lifting the consent decree restrictions.

We believe the information age will improve the quality of life and the competitiveness of our Nation. Earlier this year we prepared a report which describes the types of services which might be developed if the present decree restrictions are removed.

The report describes nine American consumers, among them a farmer, a truck driver, an elderly homemaker, a teacher, and shows how information services would be part of their everyday lives. The services included language lessons, tutoring, medical applications, assistance for the deaf, and a multitude of others.

I will submit the report for the record, with your permission, Mr. Chairman.

Mr. MARKEY. Without objection, it will be included in the record.

[The report is contained in the subcommittee files.]

Mr. COLLINS. Successful development of these information services requires understanding a host of different matters, including customer terminals, the communications network and information databases.

Successful integration of these components into information services requires substantial technical, marketing, operational, and financial resources, as well as time.

Bell Atlantic believes its entry would speed the process and bring information services to more consumers sooner and at more affordable rates. And we believe our participation will benefit other information service providers and speed their development of gateways and information services.

To date, Bell Atlantic has moved as quickly as the court and regulatory processes will allow. However, we cannot risk the substantial investment needed to spark the information age explosion with the existing prohibitions in place. Let me give you a couple of examples.

One year ago, last June, the court issued a final order authorizing the RBOC's to provide gateway services. Bell Atlantic viewed this change as a positive development and has deployed two gateways. Our efforts to develop one of the gateways are being impeded by the court's interpretation of the decree's long distance restriction.

Gateway service relies on a sophisticated computer system accessed via the existing telephone network. Bell Atlantic sought court approval to provide gateway services throughout the State of Pennsylvania using one centralized computer.

The decree court, however, said that we could not use that efficient arrangement. Under the court's decision, we must install separate gateway computers in each of the five local service areas to serve Pennsylvania.

Second, the decree's rules prevent us from making it easy for consumers to use computerized information services. Bell Atlantic had wanted to organize its gateway so that consumers could use

one common set of commands to retrieve information from various databases. You simply cannot expect customers to use a variety of commands when they are seeking information from various kinds of databases.

The court, however, said that we could not do that because the creation of a uniform command structure would cause us to make editorial judgments. We cannot make the information age a reality if we have to contend with these kinds of rules.

However, we are exploring in a limited way a number of information services in medical, educational and electronic yellow pages areas. To make one of the medical services useful, however, requires a huge upfront investment in determining how the data can be efficiently formatted, entered, stored, retrieved, and protected. Each party has to participate.

Trials have to be undertaken, and in the end, there must be enough ubiquity and value to users that they are willing to pay enough for the developers to recover their investment.

Bell Atlantic is prepared to invest in the development of the information age if the decree's artificial restrictions are removed and policy and implementation follows the public interest standards set by Congress and administered by the regulators.

If the rules are not substantially modified, our country will continue its antiquated public policy which ignores technology development, slows down the delivery of information services to consumers, and protects a few.

When you change the rules, we will be better able to bring the information age to rural as well as urban consumers. The information network will be developed faster, more information services will be available to consumers, and costs will be reduced as more applications are developed. Bell Atlantic is ready, Mr. Chairman.

Mr. MARKEY. Thank you.

We will now turn to Warren Prince, chairman of Tymnet-McDonnell Douglas Network Systems Co.

STATEMENT OF WARREN F. PRINCE

Mr. PRINCE. Good afternoon, Mr. Chairman and members of the subcommittee. I appreciate the opportunity to present Tymnet's views concerning the important issues being considered by the subcommittee.

As explained more fully in my written statement, Tymnet provides what are commonly referred to as value-added network, or VAN services. Examples of the kind of information services we provide include protocol conversion, which allows incompatible terminals and hosts to communicate, electronic mail, and gateway services.

Tymnet's offerings include many consumer oriented services as well as business applications. our network can be accessed in every LATA in the United States and in 80 countries around the world. We are proud of the fact that we were one of the first foreign companies to offer VAN services in Japan.

As you can see, Tymnet participates in the one segment of the information services market in which the FCC and the courts have authorized the BOC's to compete. We are not therefore here to try

to persuade you that the BOC's should be kept out of our business. They are already in it. But I think Tymnet offers a unique a unique perspective as one of the few information service providers that has had actual experience competing with the BOC's.

We hope our comments will assist you in evaluating the BOC's arguments that they should be allowed to move into other segments of the information service industry.

Time and again Tymnet has been confronted with BOC attempts to cross subsidize and anticompetitively price their so-called public data network services which are equivalent to our VAN offerings.

Several of the BOC's have sought to justify the provision of these services at rates well below cost by grossly underestimating their expenses and substantially overstating projected demand.

The BOC's have also sought to provide themselves with the underlying transmission facilities at costs substantially below the tariff rates which competing VAN's must pay for the same service. In the end, the BOC-regulated ratepayers have had to bear the costs of many of the BOC's competitive information services.

BOC's have also taken every opportunity to discriminate against their information service competitors in the provision of basic transmission facilities. These activities eventually led the FCC to adopt the comparably efficient interconnection and the open network architecture rules. Unfortunately, the ONA plan submitted by the BOC's achieved few of the Commission's stated ONA objectives. Among other serious shortcomings, the BOC's plans failed to unbundle existing services, failed to price ONA services according to costs, and failed to specific how ONA would be applied to the new technologies and services.

BOC's claim that the American public is being deprived of the benefits of the information age because the BOC's cannot fully participate in the industry are simply not credible. The United States is the acknowledged leader in the global information services market. That leadership position has resulted from the ingenuity of forward looking entrepreneurs, not the complacency of entrenched monopolists.

Many of the services which the BOC's claim are unavailable to the public are already being provided by Tymnet and other information service providers or will be made available when adequate demand develops. To illustrate this point, I brought the database services that are now available over the Tymnet network.

The point is that the information age is alive and well with the BOC's in their current role. For all these reasons, we believe that Congress should focus its attention on overseeing the regulatory initiatives of the FCC, in particular, the FCC's application of the ONA rules and the BOC's deployment of ONA features that would be useful to information service providers and their customers. we are of the view that the courts have followed an appropriately cautious course in considering the BOC's request for relief from the MFJ and we urge Congress to do likewise.

Thank you.

Mr. MARKEY. Thank you, Mr. Prince.

[The prepared statement of Mr. Prince follows:]

PREPARED STATEMENT OF WARREN PRINCE, CHAIRMAN, TYMNET-MCDONNELL DOUGLAS NETWORK SYSTEMS CO.

Good afternoon, Mr. Chairman and Members of the Subcommittee. My name is Warren Prince, and I am Chairman of Tymnet-McDonnell Douglas Network Systems Co. ("Tymnet"). I have been actively involved in the information services business since 1966. My affiliation with Tymnet dates back to 1970, when I became Vice President of Tymshare, Inc., which was then an independently owned firm. My responsibilities included management of Tymshare's computer operations, financial services and the Tymnet packet-switching network. From 1978 to 1988, I served as President of Tymnet and, since 1988, I have been its Chairman. In 1984, McDonnell Douglas Corporation acquired Tymnet, and it has operated as a separate division since that time.

In the various positions I have held at Tymnet, I have developed a special interest in telecommunications regulatory policies as they affect Tymnet. I have also overseen the company's efforts to respond to changes and proposed changes in such policies. I have previously testified before Congress regarding telecommunications policy, and I frequently travel to Washington to discuss proposed regulations with the Federal Communications Commission ("FCC") and its staff on behalf of Tymnet. We have also participated in the divestiture-related proceedings before Judge Greene.

Tymnet is frequently referred to as a "value-added network" ("VAN"). Generally, VANs provide networks with broad capabilities, including protocol conversion and gateway services.Tymnet also provides terminal emulation, electronic mail and other applications-oriented services. The VAN industry has experienced steady growth over the past decade, in part because of growing demand by residential and small business users. In 1988, the VANs had combined domestic revenues in excess of $420 million. The market has been highly competitive. In addition toTymnet, industry participants include Telenet Communications Corporation, CompuServe, Computer Sciences Corporation and now, several of the BOCs.

Before I address some of the issues that are of concern to Tymnet, let me first try to briefly explain what is meant by the term "protocol conversion," which is an important aspect of the services we and other VANs provide. "Protocols" are the conventions used by computers in transmitting information. If two computers support different protocols, they are incompatible and cannot communicate with one another unless the "protocols" governing the message sent by the originating computer are "converted" into protocols readable by the receiving computer. Protocol conversion can be described as a "translation" which allows computers speaking different languages to communicate. Protocol conversion is an unregulated ',enhanced service,, under the FCC's rules, and is an "information service" under the Modification of Final Judgment ("MFJ"). Protocol conversion is one of the information services which Judge Greene authorized the Bell Operating Companies ("BOCs") to provide in connection with their gateway offerings in his March 1988 decision.

There are a wide variety of protocols and, hence, many different conversion combinations. A widely used service is asynchronous/X.25 protocol conversion, which allows personal computers ("PCs") and unsophisticated terminals to communicate with the mainframe computers most commonly used in providing consumer-oriented information services. Tymnet also offers asynchronous/3270 conversion, which allows PCs and terminals to communicate with IBM host computers, and asynchronous/ALC29.46 protocol conversion, which is used primarily in the airline and banking industry. In total, the Tymnet network supports 26 different protocol combinations, and also supports the Japanese Katakana and Kanji characters.

Tymnet's services were originally designed for use in conjunction with the remote data processing services offered by Tymshare, Inc. By interconnecting with the Tymnet network, users of Tymshare's data processing services could obtain economical, error-free and secure access between asynchronous terminals and hosts. The technology was so attractive that other entities such as the National Library of Medicine sought to utilize the service. In 1976, after operating a shared network for several years, Tymnet began to offer these services as a public network.

One of the first features that Tymnet offered was a user-friendly "Information" Menu, which Tymnet's subscribers could access without charge. The introductory menu service has been substantially improved over the years. In addition to listing all of the databases which can be accessed via the Tymnet network, the menu also lists Tymnet's access locations, certified products, and documentation. Tymnet's "Information" Menu is constantly being updated to provide new information to Tymnet users. Since 1984, Tymnet has also offered the "Menu Server," a gateway service that can be customized to meet the needs of individual subscribers. Thus, Tymnet

has been providing many of the "gateway" information services which the BOCs are now authorized to provide.

Initially, the services offered by Tymnet were predominantly business-related, since a consumer market for information services was virtually nonexistent at the time. Gradually, however, a consumer-based market for Tymnet's services took root with the advent of low-cost terminal equipment and the establishment of consumer-oriented data bases. Thus, in 1979, Tymnet introduced new offerings such as Leisure-Tyme and Off-Peak pricing, which are now available at the relatively low rates of $1 and $2 per hour, respectively, in an effort to attract and serve residential and small business users.

Tymnet is pleased to note that in the last three years, its consumer-oriented gateway information services, which employ asynchronous/X.25 protocol conversion, have become the fastest growing part of Tymnet's business. Tymnet estimates that well over 3 million individual passwords have been validated for consumer-oriented databases that utilize Tymnet's services. Usage of Tymnet's Leisure-Tyme and Off-Peak services has grown steadily as a result of increased demand by residential and small business users. For example, Tymnet's Saturday usage averages about one-half the number of characters transmitted on weekdays, and its Sunday usage averages between one-quarter and one-third the level of its weekday transmissions. At present, fully 20 percent of Tymnet's revenues are "citizen-based," i.e., derived from individual or residential users, or from consumer-oriented databases.

Tymnet's packet-switching network is extensive. Tymnet has at least 2900 nodes, all of which may perform asynchronous/X.25 protocol conversion. Tymnet has thousands of local access ports in more than 800 cities in the United States and can be accessed in 80 countries throughout the world. There is at least one Tymnet node in each BOC LATA, and there may be as many as 20. Tymnet was among the first foreign companies to offer value-added services in Japan, and Tymnet continues to expand into other foreign markets as regulations permit.

We bring a unique perspective to your deliberations because the information services we provide compete with the protocol conversion and gateway services being offered by the BOCs today. The BOCs made their first move into the market when, in 1985, the FCC allowed them to offer asynchronous/X.25 protocol conversion on an integrated basis with their basic packet switched services (that is, free from the Computer II structural separation requirements). In 1986, the BOCs actually brought their own packet-switching and protocol conversion services to market, and for the last three years the BOCs have competed with Tymnet and others in the provision of these services. Since March of 1988, when Judge Greene authorized the BOCs to provide gateway services, electronic mail and data storage, the BOCs have been authorized to compete with Tymnet in almost all aspects of its business.

As a result, I am not here today to try to persuade Congress to keep the BOCs out of our business. They are already in it. But I would like to provide you with the benefit of Tymnet's experience competing against the BOCs, and describe some of the anticompetitive roadblocks that they have placed in our path. We hope this will assist you in evaluating the BOCs' arguments that they should be permitted to participate in other segments of the information services market.

Throughout the debates over the BOCs' proper role in the information services industry, Tymnet has sought to insure that the BOCs do not leverage their control over bottleneck transmission facilities to gain an anticompetitive advantage in the information services market. Tymnet has had to be vigilant because the BOCs have consistently attempted to cross-subsidize and underprice their "public data network" ("PDN") services, as they refer to their packet-switched protocol conversion services. The BOCs have also taken every opportunity to discriminate against competing VANs in the provision of basic transmission services.

The pricing practices of several of the BOCs are particularly illuminating. Initially, many of the BOCs sought to provide their PDN services at rates which were clearly below cost. Filings with the FCC revealed that the BOCs were grossly underestimating cost inputs (such as marketing expenses) and were projecting exaggerated market demand. For example, in the protocol conversion waiver request which it filed with the FCC, New Jersey Bell projected that its marketing expenses would be only 4 percent of the anticipated revenues from its packet data network in 1987. In fact, however, New Jersey Bell's actual marketing expenses for that year were about 400 percent of its revenues. New Jersey Bell missed its expense forecast by over 10,000 percent, and its demand forecast by over 99 percent.

Through various pricing techniques, the BOCs also sought to provide themselves with transmission service at a cost substantially below the tariffed rates which Tymnet and other competing VANs must pay. As a result, Tymnet—among others—argued before the FCC and various state public utility commissions

("PUCs") that the BOCs' rates were anticompetitive, and we predicted that ratepayers would end up bearing much of the cost of the BOCs' competitive services through cross-subsidization.

Our predictions have proven to be correct. In an ongoing state proceeding to determine whether Pacific Bell's PDN service should be granted permanent approval, Pacific Bell admitted that from 1983 through 1988, it invested $11 million in capital and incurred $16 million in expenses in offering the service. The service has been a losing proposition for Pacific Bell—and for its regulated ratepayers—since the service was initiated. The most recent public information indicates that, through April 1988, Pacific Bell generated less than $100,000 in revenues for its PDN service.

A review of the cost and revenue data filed with the FCC by Bell Atlantic reveals an equally disturbing picture. From June 30, 1986 to December 31, 1987, Bell of Pennsylvania invested $6,243,551 and incurred $2,568,054 in expenses in the development and provision of PDN services, while PDN revenues for the same period were only $18,890. New Jersey Bell has not fared much better. Between January 1986 and December 1987, it invested $5,929,066 and incurred $2,690,915 in expenses, but realized revenues of only $135,000. (Although PDN revenues generated by Bell of Pennsylvania and New Jersey Bell increased in 1988, it is impossible to determine the current profitability of the service since they have modified the format in which their costs are reported.) To date, neither the FCC nor the state PUCs have acted aggressively to prevent further cross-subsidization of the BOCs' competitive PDN services.

The BOCs have attempted to unfairly advantage their own information services in other ways. For example, the BOCs initially sought to provide themselves with services such as LATA-wide seven-digit dialing (Pacific Bell) and dual-use loops (NYNEX), while denying these same services to competitors. These and other instances of BOC discrimination prompted the FCC to establish a set of requirements that were the genesis of the Comparably Efficient Interconnection ("CEI") and open Network Architecture ("ONA") rules established in Computer III.

I wish I could say that the story ends happily with the implementation of the FCC's ONA safeguards. Unfortunately, despite the fanfare with which the ONA process was launched and the sheer volume of the BOCs' ONA plans, the actual implementation of ONA has been disappointing. Although the BOCs' ONA plans have many shortcomings, the most serious—from Tymnet's perspective—are the following: (1) The plans fail to unbundle existing services, even though the unbundling of the BOCs' basic services purported to be the major promise of ONA as originally conceived; (2) the FCC has not required the BOCs to make essential new service elements, such as Automatic Number Identification (an important billing function), available to unaffiliated information service providers; (3) the FCC's rules provide the BOCs, information service operations with a substantial preference in obtaining access to Customer Proprietary Network Information; (4) the FCC has declined to ensure the BOCs' information service competitors parity of access to BOC basic service facilities, because it has chosen not to require the BOCs to offer competitors the opportunity to collocate their equipment in the BOCs' central offices; (5) the BOCs have not priced their ONA services reasonably, according to cost and, indeed, have used the ONA process as a mechanism for repricing many of their existing services to their competitors' disadvantage; and (6) the BOCs' ONA plans fail to specify how ONA will be applied to new technologies and services, such as CCS7 and ISDN.

Tymnet is particularly disturbed by the BOCs, failure to provide, on an unbundled basis, the network features requested by many information service providers during the course of the Computer III proceedings. Prior to the filing of the ONA plans, I asked my staff to work with others in the industry and the BOCs to develop a reasonable list of network elements that Tymnet and other VANs needed on a priority basis. After much work, we limited our requests to five elements. For example, Tymnet requested Uniform Access Number, which would simplify users, access to Tymnet from anywhere in the country or in the region.

In response, the BOCs' ONA plans collectively identified 118 "features" that would be offered on an unbundled basis under the ONA framework. Although this list might seem impressive to the uninitiated, it unfortunately is little more than a catalog of features that were already available to the public long before ONA. In fact, of the five specific feature requests that we made, only two made the BOCs' ONA list, and they, only nominally. Data-over-voice capability (an advanced loop technology) was offered by just one BOC, and Automatic Number Identification was not made available in a form that can be used by information service providers.

As I previously noted, the BOCs are seeking to use the ONA process to reprice existing services in ways that are detrimental to the information services industry.

For example, BellSouth proposed to apply special (i.e., discriminatory) rates to ONA services used by information service providers. To make matters worse, it appears that ONA may be used as a vehicle for imposing some form of carrier-type access charges on information service providers, despite the FCC's ruling to the contrary. This Subcommittee played a pivotal role in terminating the access charge proceeding last year, and I am sure you are all aware of how serious the imposition of those charges would be for the information services industry. Between 5,000 and 10,000 individual letters were sent to the FCC during the access charge proceeding, demonstrating that consumers are also concerned about the effect of such charges.

Having provided you with examples of the competitive problems raised by the BOCs' provision of information services, let me now address the supposed benefits which the BOCs have claimed will result. I am sure you have all heard the BOCs' apocryphal prediction that, without their full participation in the industry, there will be no Information Age in the United States. The BOCs claim that the United States is being penalized because they are limited in their provision of information services. They further claim that other countries have moved far ahead of the United States in bringing information services to the public, and that only if they are allowed to enter the information services market completely will American consumers reap the benefits of the Information Age.

Contrary to the BOCs' assertions, the Information Age is in full flower in the United States. No other country even approaches us. Our strength in the global information services market today is largely the result of the ingenuity and perseverance of competitive vendors like Tymnet, not the complacency of monopolists. And I submit that this will continue to be the case. The development of the VAN information services industry in the United States is a case in point. The VAN industry was developed by a number of entrepreneurs who saw the potential for such services and were willing to take the measured risks necessary to enter the market. After the market was developed, the BOCs saw an area which could be lucrative for them and in which the toughest part of the groundwork, market development, had already been done. Ironically, the BOCs are now trying to extend their monopoly to include a market developed by competitive forces.

Another myth that the BOCs have attempted to exploit is that the French Minitel system is a sterling example of what we Americans are missing in the way of information services. The BOCs have chosen a very poor example. The French Minitel service was initiated in 1981 and became operational in 1983. Its prime objective was to provide a needed electronic substitute for out-of-date print telephone directories. It is reported that the French spent over $2 billion on the system. Indeed, the French P.T.T. gave away the Minitel terminals needed to access the system. The Minitel example raises the issue whether in this country, government involvement and outright subsidization of such a system would be consistent with our traditional private sector philosophy, or in the public interest.

Beyond these important policy considerations, the Minitel example raises serious questions about the utility of such a system, based on the actual uses to which it is being put. "It's a waste," says Denis Perier, a French journalist and author of a book that critiques the Minitel system. In his view, the system that was to have modernized France's national phone network has "degenerated into a pornographic system." Moreover, a recent article in Communications Week indicates that demand for Minitel services in France is declining, and that France Telecom is attempting to attract business information services to boost the use of the network.

The BOCs, moreover, have not accurately reflected the degree of Support for their position in the economic literature. For example, last month, when William L. Weiss, Chairman and CEO of Ameritech, testified before this Subcommittee, he quoted from a book published by the Brookings Institution, entitled Changing the Rules: Technological Change, International Competition and Regulation in Communications. Mr. Weiss told you that the author of this book, economist Robert Crandall, stated that "to hem the BOCs into a corner called 'local service' is to sacrifice . . . the competitive energy of seven large . . . companies," and may mean "a considerable loss in economic benefits." But Mr. Weiss gave you only half of the story. What Mr. Crandall actually said led him to reach quite the opposite conclusion. The full quotation is as follows: "Regulatory problems rarely involve choices from among first-best solutions to resource allocation issues. The choices involved in delimiting the domain of BOC activities are among risky alternatives. To hem the BOCs into a corner called 'local service' is to sacrifice the benefits of unleashing the competitive energies of seven large communications holding companies. *On the other hand, to allow the BOCs free entry into such downstream services as information and inter-LATA services is to risk cross-subsidization induced by regulation.*

Perhaps the best solution is to keep the line-of-business restraints until the states adopt alternatives to cost-based telephone rate regulation." (Emphasis added.)

Full BOC participation in the information services market simply is not necessary to ensure the benefits of the Information Age to the American public. Tymnet and others are currently providing a number of the services which the BOCs would have you believe are unavailable today, or could not be provided without them. To cite just one example, Tymnet is currently trailing a service in Florida that provides direct-billed end-user access to state government information services and databases, including corporate filings and Department of Motor Vehicles files. Similar services could eventually allow a Social Security recipient to check on a missing payment. Tymnet is also providing free services to charitable organizations, including Kids Linking Kids, a network linking 30 clinics for disabled children nationwide.

Published statistics clearly belie the BOCs' claims that the United States is lagging behind the rest of the world in bringing information services to the public. For example, the Information Services Report submitted in August 1988 by the National Telecommunications and Information Administration of the Department of Commerce stated that in 1980, there were approximately 400 databases supplied by 59 services. This has grown to approximately 3,699 data bases supplied by 555 service organizations. The information services market is growing at an annual average rate of 32 percent. In fact, according to NTIA, "the marketplace for business information services is functioning very well . . . [and] there is ample proof of a healthy business information marketplace at work." American information service providers are also competing effectively abroad. Internationally, combined U.S. VAN revenues were approximately $230 million last year.

The truth is that the wealth of information services that we have in this country is unmatched abroad. Furthermore, our policies are being emulated by a number of foreign countries. As recently reported in the Financial Times, Europe's main industrial lobbying group is "welcoming" the EC Commission's plan to break public authorities' monopolies over such value-added services as electronic mail and videotext. The European group is seeking to obtain information services comparable to those available to their Japanese and American competitors.

We are sanguine that, after you have reviewed the record and have weighed the considerable costs against the dubious benefits, you will conclude—as we have—that now is not the time to allow the BOCs to move into other segments of the information services market. In light of our experience with the BOCs' anticompetitive activities to date and the lack of any demonstrated need for their wholesale entry into the information services industry at this time, we believe that Congress should focus its attention on overseeing the regulatory—and deregulatory—activities and initiatives of the FCC. We continue to seek opportunities for the development of truly effective safeguards to prevent cross-subsidization and discriminatory conduct on the part of the BOCs. As matters now stand, however, the FCC has enough to do in attempting to resolve the serious competitive concerns raised by the BOCs' entry into one segment of the information services market. We would not want to see the process become hopelessly complicated by the BOCs' entry into the remainder of the market. We believe that the courts have followed an appropriately cautious course in considering the BOCs' requests for relief from the MFJ, and we urge the Congress to do likewise.

Thank you for the opportunity to present Tymnet's views on the important issues being considered by the Subcommittee.

Mr. MARKEY. Our next witness, Mr. Warner Sinback, is the manager for telecommunications policy of the General Electric Information Services, General Electric Co.

STATEMENT OF WARNER SINBACK

Mr. SINBACK. Mr. Chairman and members of the subcommittee, on behalf of ADAPSO, the Computer Software and Services Industry Association, I wish to thank you for appearing here today.

ADAPSO's industry statistics show that there are over 8,000 information services companies in the United States, with annual revenues nearing $80 billion. Continuing past trends, most of these companies are entrepreneurial in nature and have annual revenues of less than $10 million each.

The industry is also a significant creator of jobs. In 1985 the industry employed, directly and indirectly, more than 2.6 million people. The industry also contributes favorably to the Nation's trade balance. Although precise figures are both elusive and dated, the most recent government data available indicate that the industry enjoys a healthy trade surplus which in 1983 was estimated to be between $8 billion and $11 billion.

The true importance of the industry, however, lies in the far broader role that it plays in the U.S. economy. Both public and private sector studies have concluded that U.S. industries which make extensive use of information services have experienced more rapid growth in output, employment, productivity, and exports than industries that make less use of these services. In other words, U.S. competitiveness in world markets is closely tied to a vibrant and healthy information services industry.

Thus the question before the subcommittee is whether there is sufficient evidence that the RBOC's entry into the information services marketplace will enhance the substantial contribution which the industry now makes to the U.S. economy. If not, the Congress should be reluctant to take any action which would threaten long-term viability of one of America's few sunrise industries.

In evaluating whether the RBOC's participation in the information services industry would serve the best interests of the United States, the subcommittee should recognize the extent to which information service providers are totally dependent upon the RBOC's to deliver their information services to their customers.

Despite claims to the contrary, there are today no meaningful alternatives to the RBOC's local network. As a result, if the RBOC's were free to enter the information services marketplace, they would have both the ability and the incentive to use their control over the local exchanges to favor their own information services. In particular, the RBOC's would be in a position to cross subsidize their information services operations.

Mr. MARKEY. They would also be able to use their bottleneck control over the local exchange to their competitive advantage by manipulating quality and availability of the facilities on which their information services competitors depend.

A carefully conceived and vigorously enforced regulatory regime could partially address this potential for anticompetitive conduct. Unfortunately, no such regime now exists. The FCC accounting rules adopted to guard against cross subsidization are largely untested, and the FCC lacks the resources to effectively enforce them.

The FCC's Computer III safeguards that purport to guard against discrimination are also inadequate. Some favor the RBOC's while others will be difficult to enforce.

The FCC's much heralded open network architecture is also unlikely to be of much value to most information service providers. Indeed, the FCC has used ONA to resurrect once again its proposal to require enhanced service providers to pay common carrier type access charges.

A continuation of the current line of business restrictions would thus appear to be the most effective means of ensuring that the information services industry continues its central role in the econo-

my of the United States. While such a result would be consistent with ADAPSO's view that MFJ legislation is both unnecessary and inappropriate, ADAPSO has never opposed the entry of any party lawfully permitted to do so into the information services industry.

If alternatives to the current line of business restriction are to be considered by Congress, a requirement that the RBOC's offer information services through fully separate subsidiaries would be the next most effective means of reducing, but not eliminating, the opportunities for anticompetitive abuse.

The structural separation of an RBOC's regulated and unregulated activities would minimize joint and common costs and thus make cross subsidization more difficult. It would also generate a paper trail and thereby make anticompetitive self-dealing much easier to detect.

The fundamental question which Congress must resolve, however, is whether the risks associated with RBOC entry into the information services marketplace outweigh the perceived benefits. As I have pointed out, the U.S. information services industry is very much alive and well. The subcommittee should therefore continue its factfinding investigation and resist calls for precipitous enactment of legislation.

Mr. MARKEY. Thank you, Mr. Sinback.

[The prepared statement and attachment of Mr. Sinback follow:]

PREPARED STATEMENT OF WARNER SINBACK, ON BEHALF OF ADAPSO, THE COMPUTER SOFTWARE AND SERVICES INDUSTRY ASSOCIATION, INC.

Mr. Chairman and Members of the Subcommittee. Thank you for the opportunity to participate in this afternoon's session and in the Subcommittee's consideration of the public policy implications of the line-of-business restrictions of the Modification of Final Judgment.

I am Warner Sinback, and I am here today on behalf of ADAPSO, the Computer Software and Services Industry Association, Inc. I am chairman of ADAPSO's Domestic Communications Policy Committee, a position I have held for several years. ADAPSO, as you may know, is the principal trade association of the computer software and services industry. ADAPSO's member companies provide the domestic and worldwide public with a wide variety of information services, including local batch processing, software design and support, systems integration, remote access data processing, and electronic data base services.

I have also been actively involved in the information services business since 1965. I have thus been fortunate to participate in the growth of the industry that is the subject of today's session. In the next few minutes, I would like to comment on the health of the information services industry and its central role in the U.S. economy. I also hope to share with you some of ADAPSO's concerns about the further entry of the Regional Bell Operating Companies (or RBOCs) into the information services marketplace. Finally, I would like to focus on the kinds of safeguards that should accompany any RBOC involvement in the provision of information services.

Let me begin by discussing the information services industry, which is said to have its origins in the 1956 consent decree that ended the government's antitrust suit against IBM. Under the terms of that decree, IBM was required to separate its data processing activities from its equipment activities and to provide information services through the vehicle of a fully separate corporate subsidiary. Since that time of punch cards and tabulating machines, the information services industry has experienced phenomenal growth.

In 1966, for example, the year in which the FCC instituted the First Computer Inquiry, there were 700 companies engaged in the provision of computer services. Their annual revenues amounted to $534 million. Two decades and two Computer Inquiries later, there are more than 8,000 companies in the U.S. information services marketplace, with annual revenues approaching $80 billion. (of this amount, approximately $6 billion are attributable to network-based information services.) As was true in 1966, most of these companies are entrepreneurial in nature and have annual sales of less than $10 million each.

The industry is also a significant provider of new employment opportunities. It has been estimated that, by the middle of this decade, the industry was directly responsible for more than 1.2 million jobs and indirectly responsible for the employment of an additional 1.4 million individuals. The industry has also contributed favorably to the Nation's balance of trade. Although precise figures are both elusive and dated, the most recent government data available to ADAPSO indicate that the industry enjoys a healthy trade surplus. In 1983, this surplus was estimated to be between $8 and $11 billion.

The true importance of the information services industry, however, lies in the far broader role that it plays in the U.S. economy. As the Office of Technology Assessment has recently concluded, information services "have significance for the creation of wealth and employment going well beyond their direct impact." In other words (and as confirmed by an empirical study commissioned by ADAPSO), those U.S. industries that are intensive users of information services experience more rapid growth in output, employment, productivity, and exports than those industries that use these services less intensively.

This is not to say that computer services are the exclusive domain of big business. In fact, the residential and small business markets for information services are among the fastest growing in the United States today. Even quite small companies depend on electronic databases, automated production control systems, and similar information services. These services not only enable small businesses to compete with their larger and more sophisticated competitors, but they also enhance the ability of small companies to compete in national and international markets.

Large businesses benefit from computer services in a number of ways. They use these services to increase their productivity and thus improve their ability to compete successfully with competitors in low-wage, less-developed countries. These services also enable large companies to focus on their own business, thus freeing them of the significant investment in personnel and resources needed to operate and maintain sophisticated data processing systems. Information services also provide large businesses, as well as their smaller competitors and residential subscribers, with access to specialized data processing applications, software programs, and databases which most users lack the resources to compile, maintain, or duplicate.

In short, U.S. competitiveness in world markets is closely tied to a vibrant and healthy information services industry. It is therefore appropriate for the Subcommittee to conduct these sessions and to focus, as it has in the past, on this vital sector of the American economy. As I believe these working sessions will demonstrate, the information services industry is alive and well and the public is being well-served. There is no pressing emergency which requires immediate action on the part of Congress. The question before the Subcommittee is thus whether there is sufficient evidence that the further entry of the RBOCs into the information services marketplace will enhance the substantial contribution which the industry now makes to the U.S. economy. If there is not, the Congress should be reluctant to gamble with one of America's few remaining sunrise industries.

In evaluating whether and on what basis the further participation of the RBOCs in the information services marketplace would serve the best interests of the United States, the Subcommittee should keep a number of factors in mind. First, the Subcommittee should recognize that the United States has become the acknowledged world leader in the provision of information services without the involvement of the RBOCs (except as providers of the underlying telecommunications infrastructure). Indeed, many past advances in information technology were in response to the carriers' inability or unwillingness to accommodate the needs of U.S. industry. History has further demonstrated that a monopoly franchise, a regulated rate base, ubiquitous transmission facilities, and captive ratepayers are by no means prerequisites to success in the provision of information services. In fact, it can be persuasively argued that U.S. information service providers have achieved their technological and economic superiority precisely because their services are provided as an overlay upon, rather than as an integral part of, the ubiquitous nationwide switched network. Not burdened by an investment in costly transmission facilities, U.S. information service providers have been free to develop and embrace new technologies in relatively quick succession.

Second, the Subcommittee should recognize the extent to which information service providers are totally dependent upon the regulated services and facilities of the RBOCs to deliver their information services to their customers. There are simply no meaningful alternatives to the RBOCs in the marketplace today. The RBOCs and the Department of Justice have conceded as much in the briefs they have recently filed in the U.S. Court of Appeals.

The bottleneck control which the RBOCs exercise over local distribution facilities provides the carriers with unique market power over ADAPSO's member companies. Although the carriers have always possessed this power, their incentive to use it for their competitive advantage has been constrained by the line-of-business restrictions of the 1956 AT&T Consent Decree and, more recently, by the Modification of Final Judgment.

And this brings me to the second major topic I wish to discuss this afternoon—ADAPSO's concerns about the further entry of the RBOCs into the information services marketplace. Simply stated, if the RBOCs were free to engage in the provision of information services, they would have not only the ability, but also the incentive, to use their market power to favor their own information services to the detriment of independent computer service vendors. Specifically, ADAPSO is concerned about cross-subsidization and discrimination.

Cross-subsidies are of concern to ADAPSO because of the relatively high costs of communications and the large percentage which they represent of the total costs of most information services. Faced with experienced and capable competition, the need to acquire new software and equipment, and a desire to obtain market share, the RBOCs would have every incentive to cross-subsidize their information service operations by shifting costs to their regulated operations. Because of the many joint and common costs involved in the provision of basic and enhanced services, the RBOCs would (absent proper safeguards) have ample opportunity to do so with relatively little fear of detection.

Let me provide you with some numbers that highlight the ease with which the RBOCs could use their regulated operations to support their unregulated information services. In 1987, there were close to 205 billion minutes of interstate traffic using the switched access facilities of the local exchange carriers. During that same period, there were only 4 billion identifiable minutes of information services that used those same facilities. It should be apparent that even a modest increase in the costs assigned to each minute of the carriers' regulated services would provide the RBOCs with a sizable pool of funds to subsidize a substantially smaller amount of information service traffic.

Also of concern to ADAPSO is the RBOCs' ability (absent proper safeguards) to use their control over the local exchange to prefer their own information service operations or, conversely, to discriminate against competing information service vendors. Some forms of discrimination are overt, such as when a carrier charges its own information service operations substantially less than its competitors for the same basic transmission services. Another equally overt form of discrimination arises when an RBOC permits its unregulated information service operations to collate equipment in the carrier's regulated central office, while denying its competitors a similar opportunity to share in the technical and economic advantages of collocation.

Other kinds of discrimination, although somewhat more subtle, are equally pernicious. These include such practices as a general lack of cooperation in critical coordination issues; delays in responding to requests for installation and maintenance; the provision of transmission service that is inferior in quality; restricted access to customer and network usage records and profiles; and the tardy disclosure of technical information about the network and new basic services, to name but a few.

A carefully conceived and vigorously enforced regulatory regime could address some of these concerns. Unfortunately, there is no such regime in place. Although the FCC has accounting rules to guard against cross-subsidization, these rules are largely untested and, more important, the FCC lacks the resources to effectively enforce them. But even if the FCC's safeguards were effective, the Subcommittee must recognize that less than half of the RBOCs' costs are subject to the FCC's jurisdiction. The rest fall within the jurisdiction of the states which, to date, do not employ a uniform accounting and audit system comparable to that prescribed by the FCC. The RBOCs are therefore in a position to cross-subsidize their information service offerings with little likelihood of detection.

The FCC's Computer III safeguards that purport to guard against discrimination are also inadequate. Some such as those involving customer information and collocation favor the RBOCs; others—such as those dealing with installation and maintenance—will be difficult to enforce. Furthermore, the FCC's much heralded open Network Architecture ("ONA") is likely to be of little value to information service providers. The services which some information service vendors want most are precisely those services which the RBOCs refuse to provide and which the FCC refuses to require. Equally important, the FCC has used ONA to resurrect its previously rejected proposal to require enhanced service providers to pay common carrier-type access charges. In its recently released Notice of Proposed Rulemaking, the FCC has

proposed that enhanced service providers be required to pay carrier access charges in order to obtain any federally tariffed ONA services.

Moreover, it must not be forgotten that the FCC's jurisdiction is circumscribed by the Communications Act of 1934. It does not have the authority to oversee competition in the information services marketplace. Furthermore, none of the FCC's safeguards, including its accounting rules, would apply if several of the RBOCs are successful in their campaign to bring many information services under state and federal regulation as basic transmission services.

The final topic that I would like to discuss this afternoon concerns the kinds of competitive safeguards that are necessary to ensure that the information services industry continues its central role in the economic well-being of the United States. A continuation of the current line-of-business restrictions would, of course, be the most effective means of accomplishing this goal. Although ADAPSO believes that MFJ legislation is both unnecessary and inappropriate, ADAPSO has never opposed the entry of any party, lawfully permitted to do so, into the information services industry. ADAPSO, however, has insisted that the competition provided by such entry be fair. If alternatives to the current line-of-business restrictions are to be considered, a requirement that the RBOCs offer information services through fully separate subsidiaries would be the next most effective means of reducing (but not eliminating) the opportunities for anticompetitive abuse.

The separation of an RBOC's regulated and unregulated activities would not only minimize joint and common costs and thus make cross-subsidization more difficult, but it would also generate a "paper trail" and thereby make anticompetitive self-dealing much easier to detect. Because interaffiliate transactions are more visible than intracorporate arrangements, structural separation would also help deter the RBOCs from discriminating against their competitors.

In order to be minimally effective in addressing the dual concerns of cross-subsidization and discrimination, a separate subsidiary should be required to: (1) have separate officers and employ its own personnel; (2) maintain separate books of account; (3) utilize its own facilities (except as noted below); (4) secure its own debt financing; (5) obtain all transmission capacity from affiliated carriers pursuant to the terms and conditions appearing in the carriers' published tariffs (or if service is not provided pursuant to tariff, at the same rates, terms, and conditions that such service is provided to third parties); (6) conduct all transactions with affiliated carriers, other than those involving tariffed transmission services, on an arm's-length basis pursuant to written contracts; and (7) acquire all research and development services and equipment from affiliates on a fully allocated cost basis.

In addition, the RBOCs and their information service subsidiaries should not be permitted to: (1) share personnel, equipment, services or facilities, except that the subsidiary should be permitted to collate its information services software and equipment in affiliated RBOC facilities and share other services, equipment and facilities, as long as competing information service providers are accorded identical opportunities; (2) engage in any joint activities, except that the subsidiary should be permitted to market an affiliated RBOC's services, facilities and equipment, as long as competing information service providers are accorded identical opportunities; and (3) share any technical or other information regarding the regulated network or any information regarding customer use of that network, unless such information is simultaneously made available to third parties under identical terms and conditions.

In order to ensure that these safeguards are not undermined by misguided regulatory policies, the RBOCs should also be expressly prohibited from: (1) cross-subsidizing their information services with their regulated service offerings; (2) discriminating against unaffiliated information service providers with respect to the installation, maintenance and quality (including interconnection and interoperability) of their basic service offerings; (3) bundling underlying basic services with any enhanced offerings made available by the RBOCs or their affiliates; (4) configuring or pricing their basic services in such a way that a particular service is only of value to, or use by, the RBOCs' affiliates; and (5) engaging in non-cost-based, "value of service" or strategic pricing of the services needed by their information service competitors.

Each of these safeguards and behavioral constraints is absolutely essential to help ensure that the vital information services marketplace remains fully and fairly competitive.

In closing, I once again want to thank the Subcommittee for the opportunity to be present this afternoon and share ADAPSO's views on these very important issues.

The U.S. information services industry is alive and well. There is no emergency requiring immediate action on the part of Congress. The Subcommittee should therefore continue its factfinding investigation, and resist calls for precipitous

action. The risks are simply too great and the benefits too uncertain to gamble with the future of the information services industry.

Thank you.

ADAPSO,
July 7, 1989.

Hon. MICKEY LELAND,
House of Representatives, Washington, DC.

DEAR MR. LELAND: Thank you for your letter of June 19, 1989, in which, you inquired as to the impact on minority-owned businesses of the entry of the Regional Bell Operating Companies ("RBOCs") into the information services marketplace. I noted your interest in this matter during the Subcommittee's hearing, but did not have the chance to respond. I am therefore pleased to have this opportunity to provide a response to your inquiry on behalf of ADAPSO, the Computer Software and Service Industry Association, Inc.

According to ADAPSO's Minority Enterprise Subcommittee, which is actively promoting greater minority enterprise participation in the computer software and services industry by encouraging profitable, long-term, high-tech relationships between minority enterprises and established industry members, there are more than 260 known minority-owned businesses in the industry. Although there is every reason to believe that there are hundreds more, these companies are the ones that ADAPSO has been able to individually identify, either through personal contact or by reviewing publicly available government records. Some of these companies are ADAPSO members; others are not.

In ADAPSO's view, minority-owned businesses are as vulnerable as other members of the computer services industry to anticompetitive abuse on the part of the RBOCs. Despite differences in longevity and size, minority enterprises stand in the same position vis-a-vis the RBOCs as their more established competitors in one very important respect. All information service providers are dependent upon the RBOCs for the communications services and facilities which they need to deliver their computer service offerings, whether software or services, to their customers. If communications facilities are not available on a nondiscriminatory basis, information service providers cannot conduct their business. Likewise, if the RBOCs cross-subsidize their computer service offerings, information service providers will find it difficult to succeed. Indeed, to the extent that minority-owned businesses, like other new startup companies, lack the financial resources to withstand prolonged unfair competition (either in the form of cross-subsidization or the discriminatory availability of communications facilities), they are less likely to survive than more established industry participants.

In short, the fate of minority enterprises is tied to the industry of which they are a part. Indeed, the goal of the six-point program recently adopted by ADAPSO's Minority Enterprise Subcommittee is to bring minority enterprises into the mainstream of the industry through partnering relationships. As part of this program, ADAPSO is: (1) preparing and distributing a "notebook," describing interested minority enterprises and established industry partners; (2) creating a clearinghouse for those interested in establishing partnering and mentoring relationships; (3) publishing minority enterprise and partnering success stories to help establish and confirm credibility; (4) conducting regional meetings (including videoconferencing) to encourage partnering relationships with local minority enterprises; (5) encouraging and expediting the establishment of a minority enterprise venture capital fund; and (6) continuing publicity to encourage the widest possible participation in the program.

In other words, ADAPSO's goal is to achieve the economic integration of minority enterprises into the computer services industry.

On behalf of all of ADAPSO's member companies, I therefore encourage you to insist that any legislation allowing the RBOCs to enter the information services marketplace be accompanied by strong competitive safeguards. In particular, the RBOCs should be required to enter the industry through fully separate subsidiaries, as outlined in my prepared statement, so that all members of the industry are protected against cross-subsidization and are assured equal and nondiscriminatory access to the facilities they need in order to compete.

Please let me know if you have any further questions or if I can provide you with any additional information.

Sincerely,

WARNER SINBACK,
Chairman, Domestic Telecommunications Policy Committee.

Mr. MARKEY. Our final witness, Mr. Robert Glaser, is the vice president of strategic planning for Southwestern Bell Corp.

STATEMENT OF ROBERT H. GLASER

Mr. GLASER. Mr. Chairman, members of the subcommittee, good afternoon. I am Robert Glaser, senior vice president of strategic planing at Southwestern Bell Corp. I thank you for inviting me here today.

I commend this subcommittee for holding these hearings and I thank the sponsors of H.R. 2140 for bringing this important issue to this stage.

My organization's charge is to direct Southwestern Bell's participation in information services. our goal is to make numerous and diverse sources of information easy to use and available to as many people as possible.

We live in a fast paced, time crunched, service dominated world. The service sector is the fastest growing segment of the U.S. economy.

The fuel that makes the service sector run and improves its productivity is information. Without the right information a service business cannot compete. Without adequate information services for our Nation our service sector will lose out to foreign competition.

All around the globe countries are stimulating information services and telecommunications infrastructure. You need only to look to the telecommunications green paper "Europe 1992" as an example. Yet no other place in the world hamstrings its telephone companies like we do in the United States.

The modification of final judgment prohibits my company and the other six Bell holding companies from fully participating, and as a result, stimulating our country's information industry. Even if you argue these restrictions were appropriate in 1982, they are certainly neither necessary nor appropriate today.

The MFJ gateway order allows us to transport information, but the content restriction bars us from being an effective facilitator for information services. That is, we cannot create, format, edit, process, manage, or promote information.

Our gateway in Houston has already given us some clear examples of consumers being denied beneficial information services because of these restrictions. The Houston Better Business Bureau came to us with a proposal to expand the availability of information about Houston businesses through our gateway. We couldn't.

The Houston health department approached us with a request to provide information on how parents could get free inoculations for their children during an outbreak of measles. We couldn't.

In both cases the organizations had the information but didn't have the capability to format it. We were unable to help because the MFJ restricts us from touching content. Information providers who could have helped did not. We were interested because we believe the additional usage of such public service information on the gateway would generate greater use of other information services. Bottom line: the services are not available to Houston consumers today.

Even more frustrating than the Better Business Bureau case was the fact the information was already stored in a computer in electronic format. All we would have had to do was a format conversion for the gateway. We couldn't.

Without the ability to provide content, individuals, nonprofit public service organizations, and small businesses will probably be unable to make their information available to the public.

The Bell companies must have the option of working closely with information providers on the formatting and the presentation of their information.

We also should be allowed to help provide the content, to help stimulate the information services infrastructure. Electronic yellow pages offers great potential for customers and for businesses. Consumers could conveniently find up-to-date information on all kinds of products and services. The availability of electronic yellow pages will help bring Americans up to speed in the information services race.

For example, a disabled shopper could call up a local business' electronic ad, browse the list of products, check the specials, type in an order, and request delivery. By providing electronic information content the Bell holding companies are merely asking to exercise their right to contribute to the diversity of information. Our entry will increase competition, expand variety, and improve efficiency in the industry.

Our opponents say we should not provide content because we own the means of transmission. They say we will discriminate. I submit that we will have the same incentives as the local supermarket which sells its house brands as well as thousands of other competing labels. The supermarket owner knows to attract customers he must offer a wide selection to be successful. Likewise, we want a wide selection on our gateways so once in a while they will use our house brand.

As you know from the legislation before you, proper safeguards to prevent discriminatory access will be a prerequisite of full Bell entry into information services.

Thank you, Mr. Chairman.

[The prepared statement and attachment of Mr. Glaser follow:]

PREPARED STATEMENT OF ROBERT H. GLASER, SENIOR VICE PRESIDENT, STRATEGIC PLANNING, SOUTHWESTERN BELL CORPORATION

Mr. Chairman, members of the subcommittee, good afternoon. I'm Robert Glaser, Senior Vice President of Strategic Planning at Southwestern Bell Corporation. Thank you for inviting me here today.

Also, I commend this subcommittee for holding these hearings and I thank the sponsors of HR 2140 for bringing this important bill to this stage.

My organization's charge is to direct Southwestern Bell's participation in information services. Our goal is to make numerous and diverse sources of easy-to-use information available to as many people as possible.

I believe information is the key that can unlock the door to creativity, independence, productivity and all-around better lives for Americans.

We live in a fast-paced . . . time-crunched . . . service-dominated world. The service sector is the fastest growing segment of the United States economy. However, its productivity gains are woefully lagging that of America's manufacturing sector.

Despite that development, the long-term strength . . . and some would say survival . . . of our economy is likely to be in the services industries. Because of global competition, we can no longer rely on manufacturing alone as a competitive strength.

The fuel that makes the service sector run . . . and improves its productivity. . . is information.

From the delivery of pizza to legal counsel . . . information can make the difference between quality service or virtually no service.

Without the right information, a service business cannot compete. Without adequate information services for our nation, our service sector will lose out to foreign competition.

You've heard a lot about how the U.S. is not keeping up with other countries in the area of information services. Even if you disagree with that statement, you must agree that the availability of information services is developing faster in other countries than it is in the United States.

You only need to look to Europe to see how the information industry will develop even faster in the future. I refer to EC '92.

As the walls of trade come tumbling down in 1992, the 12-member European Community will see a freer flow of information from country to country. A European consumer will see his available information base greatly increase.

Europe and others around the globe realize information is critical to their continued economic development. And information is vital to America . . . but no other place in the world hamstrings its telephone companies like we do here.

Information is a vital weapon in the global economic battle. Instantaneous availability of information is viewed as a competitive advantage. I also believe it is a competitive necessity.

Other countries are aggressively pursuing the competitive positioning of their business sector by accelerating the availability of information services.

Meanwhile, the United States has self-imposed restrictions that keep it in first gear . . . it's high time we changed gears.

Unless we do, our information services industry will go the way of automobiles, TVs, VCRs and other American products . . . dependent more and more on foreign providers.

The modification of Final Judgment prohibits my company and the other six Bell Holding Companies from fully participating . . . and as a result stimulating . . . our country's information industry.

Even if you argue these restrictions were appropriate in 1982, they're certainly neither necessary nor appropriate today.

While it is true the U.S. District Court has granted limited relief, that relief has not gone far enough . . . causing confusion and short-changing consumers.

Today, a Wall Street executive can turn to a PC and access a vast spectrum of information. But a school teacher in a small Oklahoma town, or a farmer in Kansas does not have that same capability.

We are creating a nation of the "information services rich" and "information services poor."

Today's information service prohibitions restrict us in two critical areas. For one, we cannot facilitate information services for others who create content. Secondly, we cannot own or create content.

These senseless barriers are denying Americans the full benefits of information services . . .

. . . A small entrepreneur who has the ability to create information content but does not have the wherewithal to make that information available is locked out of a new revenue source.

. . . A seventh grader cannot easily find additional research on famous Americans.

. . . A disabled person must call a friend rather than shop at home for groceries.

Americans do not have the variety of information available that they could or should have. This is harmful to our nation because it hurts the entrepreneur who should be able to enter this market, and ultimately consumers have fewer choices.

First, let's look at the facilitator role.

One of the ways the Bell Holding Companies could become catalysts and stimulate growth in the information industry is as a facilitator.

The MFJ allows the Bell companies to transport information, but bars them from being a facilitator. That is . . . they can't format, process and manage information.

Not long ago, computing power was concentrated in large mainframe computers. Users had to rely on the mainframe manufacturer for software. The birth of the personal computer put the power to create software in the hands of the masses. The user also became the producer.

Rather than fight or control this evolution, computer vendors such as IBM and Apple continued to write software, but they also encouraged the growth of independent software manufacturers.

As a result, creativity and the entire computer industry exploded. It was in the interest of firms like IBM and Apple to have a robust variety of software for the PC users . . . regardless of who created it.

Today's information services are basically in the hands of large providers . . . the information mainframers. If we were allowed to be a facilitator, we could put the power of information services into the hands of individuals . . . the information PCs.

It is in our interest . . . and in the interest of our industry . . . for us to help develop a rich variety of information services. Like the computer industry, everyone would benefit from increased creativity and usage.

Even with the information services freedoms we've been given, we are still prohibited from really facilitating the industry's development. Our gateway in Houston has already given us some clear examples of consumers being denied beneficial information services.

The Better Business Bureau came to us with a proposal to expand the availability of information about Houston businesses through the gateway. We couldn't.

The Houston Health Department approached us with a request to provide information on how parents could get free inoculations for their children during an outbreak of measles. We couldn't.

In both cases, the organizations had the information, but didn't have the capability to provide it. We were unable to help because the MFJ restricts us from being a facilitator. Information providers who could have helped, did not.

We were interested because we believe the additional usage of such public service information on our gateway would generate greater use of other information services. Our motivation is different than an information provider without a gateway.

Bottom line . . . the services are not available to Houston consumers.

Even more frustrating in the Better Business Bureau case was the fact the information was already stored in a computer in electronic format. All we would have had to do was format it for the gateway.

Squelching these kind of services is a loser for everyone—the consumer, the public service organization and other information service providers.

Without the ability to provide content, individuals, nonprofit public service organizations and small businesses will probably be unable to make their information available to the public. Only commercial and financial content providers will be inclined to develop information for sale.

The Bell companies must have the option of working closely with information providers on the formatting and presentation of their information. The MFJ keeps us from working with information providers in any capacity where content is concerned.

Now the next step . . . the issue of Southwestern Bell owning content.

Some might say: "Okay, let's change the definition of information services. You can facilitate information providers, but you can't generate information."

This solution misses the point and does not solve the problem. A change in definition would only keep in place needless barriers.

The information business is transforming so rapidly due to evolving technology and changing market needs . . . that the new definition will become just as outdated and remain just as unnecessary.

There is no logical reason to keep the Bell Holding Companies from providing information services content, given the safeguards that are in place and have previously been discussed with this subcommittee.

The content restriction keeps us from partnering with other information service providers to offer a richer and fuller variety of information to Americans.

We frequently receive proposals from small entrepreneurs seeking our participation in such ventures.

These individuals are almost always amazed when we tell them we are prohibited by the MFJ from participating in their undertaking. These proposals could result in useful information being brought to market.

For example, recently a potential information provider contacted us about a videotex offering. He wanted to make medical information available that had not been distributed to doctors across the country because of the normal delay in producing professional journals.

This entrepreneur was trying to get information quickly into the hands of the people who need it. Because we could not partner with him, this service is still not provided.

If we could enter into joint ventures with information providers, it would attract more players to the market and increase competition among providers . . . and additional competition will bring consumers more choices and higher quality services.

For instance, we might join with a local school district to offer a "learning gateway". Such a gateway would bring together a variety of educational courses and data base resources covering an extensive range of topics.

The "electronic classroom" of tomorrow will exist wherever there is a student in possession of a terminal that can access the learning gateway.

The learning gateway concept also holds promise for small and large American businesses as they train and retrain workers.

In addition to co-owning or partnering with other providers, the Bell companies should be allowed to offer their own content, such as electronic yellow pages.

Electronic yellow pages offer great potential for customers and businesses.

Consumers could conveniently find up-to-date information on all kinds of products and services. The availability of electronic yellow pages will help bring Americans up to speed in the information services race.

Businesses have never had a more competitive struggle than they have today. Electronic yellow pages could be an additional choice of advertising to reach consumers. Information in the ads, such as a special sale or arrival of a new product, could be updated daily.

For example, a disabled shopper could call up a local business, electronic ad . . . browse the list of products . . . check the specials . . . type in an order . . . and request delivery.

By providing electronic information content, the Bell Holding Companies are merely asking to exercise their right to contribute to the diversity of information.

Our entry will increase competition, expand variety and improve efficiency in the industry.

Our opponents say we should not provide content because we own the means of transmission. They say we'll act anticompetitively.

I submit that we'll have the same incentives as your local super market, which sells its house brands, as well as thousands of other competing labels. The super market is trying to attract consumers to its store . . . much like our information services house brands would stimulate traffic and competition for our gateway.

As you know from the legislation before you, proper safeguards to prevent discriminatory access will be a prerequisite of full Bell entry into information services.

Our activities will be watched closely by federal regulators . . . through the FCC's ONA rules and the equal access requirements, as well as the FCC's cost allocation rules.

Information providers . . . as well as the other Bell companies themselves . . . will be keeping an eye on us. In short, these many players are not likely to ignore any evidence of anticompetitive activity.

We cannot harm the industry . . . we can only help it.

Our country and our service sector need and deserve the fullest and most creative variety of information possible.

Allowing the Bell Holding Companies to participate totally in the information services arena can make it happen.

And you have the power to make it happen.

Thank you very much.

SOUTHWESTERN BELL CORPORATION,
St. Louis, Mo., June 12, 1989.

Hon. EDWARD J. MARKEY,
Chairman, Subcommittee on Telecommunications and Finance,
U.S. House of Representatives, Washington, DC.

DEAR CHAIRMAN MARKEY: In a June 9 interview with a Communications Daily reporter, inaccuracies in my remarks to your subcommittee were brought to my attention.

Simply stated, we had a breakdown in internal communications and inadvertently some of the details of my testimony were not correct.

QuickSource, our voice gateway, is available to more than 900,000 touchtone telephone users in Houston. The Houston Health Department, despite indicating an interest, is not on QuickSource today. Nor is the Houston Council on Alcoholism & Drug Abuse, which also wanted to be on the voice gateway. The Better Business Bureau (BBB) also isn't on the voice gateway and has not expressed an interest in the service.

My testimony should have made it clear that I was talking about QuickSource, not SourceLine, our video gateway. SourceLine reaches some 10,000 PC and information terminal users, and both the Houston Health Department and the BBB are on line.

I also referred to Southwestern Bell's contacts with the Houston Health Department and the BBB. It was my understanding they came to us. In fact, U.S. Videotel (USV), a systems operator, had the discussions with those two agencies and, in turn, brought them to our attention.

Since we are prohibited by the MFJ from being a facilitator and can't assist information providers, we are limited in the solutions we can offer. As a temporary remedy, beginning in March we instituted a special program to waive SourceLine usage charges for community service programs during our Houston gateway trial. Additionally, USV, in some instances, provides free programming for those organizations. USV has told us this is a temporary arrangement to stimulate interest in gateway services and is not a permanent arrangement. We discussed this offer with other system operators and thus far no one has expressed an interest in taking part.

Our experimental program of waiving charges to nonprofit groups is for the purpose of encouraging USV and other system operators to stimulate this sort of information service. It was because of this arrangement that the Houston Health Department and the BBB were able to get on SourceLine.

Although some of my details were incorrect, the basic thrust of my remarks is accurate: as long as BHCs are prohibited from formatting, processing and editing information, there will be nonprofit agencies and others who will have trouble getting their information to the masses. BHCs need to be able to create information content as well as facilitate the efforts of others in making their content available to the public.

Sincerely,

ROBERT H. GLASER,
Senior Vice President, Strategic Planning.

Mr. MARKEY. The Chair notes that the ranking minority member has arrived.

Mr. RINALDO. Mr. Chairman, as you know, there are no opening statements, but I certainly would like to extend a word of welcome to Gray Collins from my home State, and Bruce Fogel, who is also from New Jersey. As you know, Gray Collins is the senior vice president of external affairs for Bell Atlantic and certainly brings a great deal of expertise, not only in information service, but in the engineering and technical aspects of the network. I am sure that his insights will be invaluable to us as we formulate our recommendations.

Similarly, Bruce Fogel is the chairman of Phone Programs, Inc., which is a New York-based audiotex firm, and chairman of Voice Information Services Division for the Information Industry Association. We are hoping he will move to New Jersey since he also lives there. They are a leading company in the field. They are now the third largest audiotex provider in the United States with close to 100 programs across the Nation. He certainly brings a tremendous amount of expertise in his field, and I want to thank both of them for contributing to this dialogue.

Mr. MARKEY. Thank you.

Let's now begin the questioning period. We will recognize the gentleman from Texas, Mr. Leland.

Mr. LELAND. Thank you, Mr. Chairman.

Mr. Glaser, you raised the issue about the Bell gateway. I am very pleased about the experiment in Houston. It seems like it is going to be a big success.

What is your response to the argument that we should wait until we have more experience with gateway services before we conclude that the BOC's or RBOC's must be allowed to provide information services in order to get these services to the public?

Mr. GLASER. Congressman Leland, I appreciate very much your hope for success in the Houston gateway. We hope so too.

As to the question of waiting for more information, that is one that can always be made regardless of what point in time you are at. Two years from now or 3 years from now there will still be more information to be learned and new services to be developed behind the gateway. I believe we should not delay in this country and should move forward to provide the information services.

We have 120 different information service providers behind our gateway, Telenet being one. We would certainly welcome Tymnet as a participant behind our gateway. I believe we have shown our commitment to the process and I would like to see us move forward.

Mr. LELAND. Thank you, Mr. Glaser, for your response.

I have a very real concern that if the BOC's are allowed into information services that small competitors, such as many minority businesses, will be forced out of the market or won't be able to get into the market. I would like to get a response from panel members.

Mr. Fogel.

Mr. FOGEL. We are very familiar at our company with the Southwestern gateway. Quite frankly, our information is much to the contrary of its success. We understand that the call volume that has been generated on the gateway is predominately from free services. I respectfully wonder whether or not Southwestern structured the gateway and its pricing in the way you can get on the gateway to the extent where it is doomed to fail.

The imposition on an information provider is to go out and advertise the gateway telephone number to the Houston public to get them into the habit of calling the gateway and then go out and advertise one more time the services that we provide.

In interviewing our company, and I believe many other information providers, they were advised that that just wasn't going to work; it was not going to attract information providers such as Phone Programs; we're looking to charge for services that would enhance the gateway trial. Lo and behold, when the product came out, it came out where it was completely to the contrary.

You might want to check on that call volume. Unfortunately, I don't think it is going to be a success. That is the information we have had.

Mr. LELAND. Thank you, Mr. Fogel.

Mr. Glaser, would you like to respond?

Mr. GLASER. Yes, I would. Thank you, Congressman Leland.

Mr. Fogel, by the way, is a very good customer of ours through 976 service offerings in Texas. I would like to commend his company for the responsible way that they provide 976 services. It has not brought some of the controversy on to the industry.

There are numerous ways that information providers can utilize our network to bring their products to the customer. our audiotex gateway in Houston is just one of them; 976 is another one that Mr. Fogel's company does utilize along with approximately 280 other providers of information services, and local exchange facilities such as Tymnet use us to provide their information services. So there are multiple ways.

The trial itself, we are learning as we go along. Mr. Fogel is correct. Initially we had designed the trial as a single telephone

number access and then you pick whatever information service you may want behind that. We have learned that that may not meet the needs of all of the information providers to use our gateway. we are in the process of determining how we can implement multiple directory numbers for the audiotex gateway to accommodate individual information provider needs and we expect to be able to offer that kind of opportunity to information providers within the next 30 to 60 days.

Mr. LELAND. Thank you.

Mr. Prince, can you tell us why you are not utilizing a gateway?

Mr. PRINCE. We are in negotiation right now with Southwestern Bell and we should be connected to their gateway within the next month. We will then be connected to six out of the seven RBOC gateways.

Mr. LELAND. Thank you, Mr. Chairman. I yield back the balance of my time.

Mr. MARKEY. The Chair recognizes the gentleman from New Jersey, Mr. Rinaldo.

Mr. RINALDO. Thank you very much, Mr. Chairman.

I would like to begin by asking Mr. Collins a question. Is the American Newspaper Publishers Association, ANPA, correct when it claims that information services in this country have lagged because the divested telephone companies have been slow in deploying gateways?

Mr. COLLINS. I think they are absolutely wrong. As a matter of fact, as I have mentioned in my testimony, we have put two gateways in service, one in Philadelphia and one here in Washington. We filed with the FCC within 30 days to get their regulatory approval. The gateways are up and working. We have 600 customers on one and 400 on the other. We did not give away terminals the way Southwest Bell did.

ANPA, by the way, has been one of the inhibitors. When we went to the FCC to get our relief ANPA came in and said that we should answer a whole host of other questions, which would have delayed the introduction of the gateway.

Mr. RINALDO. Why is the providing of information services so important at the present time for the Bell Cos.? Bills in prior Congresses that were supported by your company, for example, did not address information services content. Why do the Bell Cos. now believe letting them provide content is so necessary?

Mr. COLLINS. Going back into the MFJ case, I believe that content was not part of the original case; it was added in the MFJ consent decree.

The reason it is so important now is that we are having the experience of not being able to help the information providers interface with the gateways. We believe that if we could do that we would develop additional gateway users, that the cost of the gateway, the configuration of the gateway, the deployment of gateways would be rapidly expanded and these gentlemen at the table would have many more access points to their customers.

Mr. RINALDO. Would anybody like to comment on that?

Mr. FOGEL. I fail to see why the telephone companies, the RBOC's, the BOC's, need be in the information business in order to service us IP's. If the problem is intrastate connection of various

gateways so you can serve Philadelphia and Pittsburgh, perhaps that's a place where the Congress or the judge might want to begin. But being an information provider is a whole different ball of wax. We work with all of the regional holding companies, and where it is an attractive opportunity, we are there.

I just don't see information provision and gateways as one in the same.

Mr. RINALDO. Mr. Fogel, your testimony detailed how local telephone companies attempt to limit the spread of information service providers. If Congress did move forward with legislation to permit the Bell Cos., BOC's, RBOC's, all of them, into information services in some manner, what steps would you recommend to ensure that these practices do not continue?

Mr. FOGEL. Quite frankly, the steps that are in place now under the law, namely, the modified final judgment, haven't seemed to work. I began by talking to a number of abuses, one of which is in New Jersey, unfortunately, where there is one information provider and no others allowed in the 976 business. Every other State in the Union that is allowed 976 has got numerous information providers and invites them.

Quite frankly, I don't know that there are any things that I could recommend other than leaving well enough alone now because there are so many things before the courts as we speak.

Mr. RINALDO. In other words, what you are saying is that Judge Greene, in your opinion, is doing a good job and you want to leave it right where it is; is that what you are saying?

Mr. FOGEL. I think Judge Greene is doing the best job that can be done right now and there isn't evidence in our hands-on experience that the telephone companies won't abuse whatever the laws are since they are abusing the laws that exist today.

Mr. RINALDO. Maybe someone else would like to comment on whether or not Judge Greene is doing a good job.

Mr. Prince.

Mr. PRINCE. I would like to comment. Not on the Judge Greene issue. Both Mr. Collins and Mr. Glaser had mentioned that there were these databases that with a little bit of change could be tied into their gateway. I wonder if they had contacted anyone that could help them. There are lot of companies out in the Silicon Valley that have little pads that could make those modifications so those host computers could tie right into their gateway. So are they interested in really providing information services or getting into the business? Because if they really wanted to help the Better Business Bureau or these others, there are lots of little companies that can do those things for them.

Mr. RINALDO. My time is up. I would like to conclude by taking a quick pole. Who do you feel is better equipped at this point in time to handle telecommunications policy, the FCC or Judge Greene? All I want is a one-word answer. We will go right down the line.

Mr. FOGEL. Judge Greene.

Mr. COLLINS. FCC.

Mr. PRINCE. At this point in time, Judge Greene.

Mr. SINBACK. Judge Greene.

Mr. GLASER. The FCC.

Mr. RINALDO. Thank you.

Mr. MARKEY. The gentleman's time has expired. Let's move to the gentleman from Louisiana, Mr. Tauzin.

Mr. TAUZIN. Mr. Chairman, I wonder why any of you didn't mention Congress.

Mr. GLASER. It was multiple choice, and there were only two choices.

Mr. TAUZIN. My view, Mr. Chairman, as you well know, is that Judge Greene was never elected to make communications policy for America whether you like what he is doing or not. If you like it now, you might not like it next week or next month, but there is nothing you can do about it. If you don't like the policy of the FCC, you can at least take it out on the next presidential election. If you don't like the policy of the Congress, you can take it out every 2 years. That is an awfully big difference as far as I am concerned. I think it is time we started thinking in those terms.

Thank you.

Mr. MARKEY. The Chair recognizes the gentleman from Iowa, Mr. Tauke.

Mr. TAUKE. Thank you, Mr. Chairman. Mr. Chairman, I would just note the Catholic Church runs very efficiently but it is not the form of governance we choose for this country, and I think in a sense that is the point that some of us have made on the question.

Mr. TAUZIN. Is the Pope making policy?

Mr. TAUKE. You hadn't heard. The Vatican has its own LATA. And ambassador.

Let me ask, Mr. Prince, Mr. Fogel and Mr. Sinback, if any of you provide any information services in any non-Bell areas. Do you, Mr. Fogel?

Mr. FOGEL. No, I don't.

Mr. TAUKE. Mr. Prince?

Mr. PRINCE. Yes. We have been connected with Southern New England Telephone Co., with their packaged switched network for over 3 years.

Mr. TAUKE. Mr. Sinback.

Mr. SINBACK. Yes, we do in a number of independent telephone areas.

Mr. TAUKE. Do you have any problems, either of you, with any of the non-Bell companies?

Mr. SINBACK. I wouldn't say that we have any more or less problems with the independent companies. The information provider has an interesting dilemma. If the telephone service is not good, it is not the telephone company that gets the blame for that; it's the service provider. So we are very sensitive to quality of service, for example. But I would not say I would characterize the independents as being any different from the Bell Cos. with respect to service level.

Mr. TAUKE. Mr. Prince, do you have any problem with any of the non-Bells?

Mr. PRINCE. No.

Mr. TAUKE. If you don't have any problems with any of the non-Bell companies who don't have any restrictions on them, why do you feel that permitting the Bell operating companies. to offer information services would suddenly cause all kinds of problems?

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Mr. PRINCE. I haven't seen the non-Bell companies attack this with such a vicious intent. They have, I think, approached it rather prudently.

Mr. TAUKE. Attacked what with such viciousness?

Mr. PRINCE. The entrance into information services. Does that mean that they are just slower or are they more prudent? I don't know.

Mr. TAUKE. I am not sure that I understand what you mean. They already can get in. Do you mean they aren't interested in getting in?

Mr. PRINCE. They have not tried to move as quickly as the RBOC's.

Mr. FOGEL. Mr. Tauke, if I may.

Mr. TAUKE. Yes, Mr. Fogel.

Mr. FOGEL. Although we are not involved with utilizing any of the independents, one of the reasons for that fear and concern is specifically our experience with Cincinnati Bell. They entered into the information business and invited information providers simultaneously. our concern and the reason we chose not to enter that marketplace was that we would be advertising and promoting and they would have all of the information necessary from our successes and our failures to then turn around and introduce those very same or similar programs that we were succeeding with or not introduce those we were failing in. They would have all of the traffic information necessary to market to the proper people. We don't get that ANI information, the people who are calling us.

We wouldn't dream of working with an independent who was also going to be an information provider, and now the Congress is considering allowing the BOC's into this business. We have already made a very large financial commitment and we don't want them taking all the marketing information they have learned from our provision to compete with us as soon as you allow them in the business. God forbid. I've got to feed my kids.

Mr. TAUKE. This creates difficulties for somebody like me who represents a State where three quarters of the geographical area and about a third of the people are served by non-Bell companies. You are saying you don't want to provide services to those people. We wonder about how some of those people get services, but I guess that is another ball game. Those companies don't have any restrictions on their offering services.

One of the things that we look at is not just what happens to your company or what happens to the Bell Co. or who makes money. We also are trying to figure out how we get the services to the American people.

Mr. Collins.

Mr. COLLINS. Mr. Congressman, we have a great deal of rural territory in our area and we believe that the only way the information services are going to get there is if we can develop the gateway, drive the cost down, and move the information services in an economic manner into those areas. We believe that we would assist the independent telephone companies in bringing information services to their territories. In fact, I don't think they will get there unless we are in the game.

I would also like to correct something on the New Jersey case, if I might. Mr. Fogel said that we have a limited capacity 976 service in New Jersey. That is correct. It was installed in 1976. so information services have been available in a limited way at least since then. There are new kinds of technologies that are in place in four of our other States.

What happened last summer, as I think the committee knows, is we got into an issue in the public forum about the adult kinds of services. In Bell Atlantic we instituted a program which said the customer will have the choice, the customer will have control over whether or not they want to make those calls to adult services and live services. All of those kinds of adult and obscene service issues are in courts in different places. We have a waiver before the decree court. We are going to wait until all that stuff clears up before we consider what to do in New Jersey.

Mr. TAUKE. Mr. Chairman, I would like to have each of the witnesses submit for the record their observations on how we can best get information services to the rural parts of the country. Not only the rural areas served by the Bell operating companies, but also the rural areas that are served by non-Bell companies. Perhaps if they could answer that in writing, that would be helpful.

Mr. MARKEY. I think that would be very important. I think the whole concept of universal service is something we want to maintain as a high priority. Without objection, we will submit that to you and hopefully you will respond to us in a timely manner.

The gentleman's time has expired. The Chair recognizes the gentleman from Ohio, Mr. Oxley.

Mr. OXLEY. Thank you, Mr. Chairman.

Traditionally our role and I think the role of government is to provide the most benefits to our consumers, to our constituents, and to those people who consume the product. The consumer is king in this country.

Mr. Fogel, with all due respect, the Federal Government doesn't owe you a living. What we owe is the opportunity for our constituents to have as much information available to them as possible in a freely competitive market.I guess that is what this argument is all about.

Mr. Sinback, are you afraid to compete? General Electric has a big plant in my district. I have a lot of respect for the company. Are you afraid to compete against the RBOC's?

Mr. SINBACK. No, I'm not afraid to compete against the RBOC's if the playing field is level. The position that ADAPSO has taken, and as a matter of fact we at General Electric support that, is that we have never resisted nor tried to deny anybody entrance into the industry. I said that in my opening statement. The only condition that we place on it is that the playing field should be level. As long as it is level, we welcome RBOC's and anybody else.

Mr. OXLEY. Do you think that it is physically impossible for the Congress to craft legislation that would create that difficult to reach yet obtainable hopefully in the future level playing field?

Mr. SINBACK. No. I said in my opening statement that I think that if the line of business restrictions are walked away from and you look for legislation with some other type of safeguard that the next best thing is a fully separated subsidiary, and if it is fully sep-

arated, although it doesn't solve all the problems, it certainly goes a long way toward solving them and at least makes visible those activities that are anticompetitive.

Mr. OXLEY. Mr. Sinback, the FCC last year stated that open network architecture "should not only ensure equal treatment of enhanced service providers, it should promote efficient use of the network by BOC's and by unaffiliated ESP's."

How would you respond to that? Do you agree with that?

Mr. SINBACK. I think the FCC's objective and philosophy here was great. I said in my statement that there are very few information service providers, in my opinion, which ONA will offer much to. We have looked at the ONA offerings that are being proposed. In the first place, many that were requested have not been offered, are not being proposed, and second, of those that are being offered, they really don't offer much to an information service provider, particularly an information service provider who has an existing network.

One other point to be made is the matter of pricing. It depends on what these services cost. As a matter of fact, in many of the submitted ONA plans there has been an attempt to do something other than cost-based pricing; that is, some sort of a strategic or value type pricing.

Mr. OXLEY. Mr. Collins, I see you champing at the bit.

Mr. COLLINS. This discussion about the need for safeguards and the fears of the RBOC's takes me back to probably 1978 and 1980 when I heard all the same arguments about CPE. The FCC put in a separate subsidiary only to find that the market didn't develop as well as it might. They took the separate subsidiary away, replaced it with accounting separations and rules. Those rules have been tested.

As a matter of fact, we don't have any lion's share. I would guess we have less than 20 percent of the CPE business. There are absolutely no complaints about the misuse of customer proprietary network information, network disclosure information. I think we are being frightened here and people are uncertain of where we are going. The FCC, I believe, would be capable of managing this as technology and rules change.

Mr. OXLEY. Did you have a comment on that, Mr. Prince?

Mr. PRINCE. I was going to comment on the ONA. I believe we and other value-added network service providers had presented to FCC five basic service elements. The RBOC's sent in to the FCC 120-some-odd BSE's. One RBOC had one of the things we requested and the others had something that we couldn't use that did meet the letter of request.

I think the ONA process was started out as a nice process, but I think it has just fallen apart.

Mr. OXLEY. Mr. Fogel.

Mr. FOGEL. Mr. Oxley, I am sorry if I left the committee with the impression that the government owes Phone Programs a living. Quite frankly, I would just like to agree with Mr. Prince. A level playing field is all we ask. We just don't feel that we would have that in competing with the bottleneck.

Mr. MARKEY. The gentleman's time has expired.

We are trying in these afternoon sessions to abide by the 5-minute rule. The Chair has not asked any questions yet and intends to ask questions and then go yet another round. I think in a very brief period of time we can go right through the members again and then call it a day.

Does the gentleman from Louisiana have any questions?

Mr. TAUZIN. No questions.

Mr. MARKEY. The gentleman from New Jersey.

Mr. RINALDO. No questions.

Mr. MARKEY. I would like to begin by complimenting you, Mr. Collins, on this fine piece of work "Delivering the Promise" which Bell Atlantic has put together. I have reviewed this and I think it is an excellent piece of analysis. It gives a real vision of where your company sees the telecommunications revolution moving. I want to give you my compliments.

On the one hand there are those who would say that separate subs are inefficient. Others would say that even if you had a separate sub that the telephone companies are so untrustworthy that they would still find some way of cross subsidizing. What I would try to begin here is the process of trying to find a way in which we can solve this problem, if possible, in terms of how a separate sub might be constructed that would satisfy all people's needs.

What I would like to do first, Mr. Collins, is ask you a question with regard to the distinctions on separate subs. Do you find separate subs to be inefficient in the delivery of cellular phone service?

Mr. COLLINS. Yes, they are inefficient. We would prefer to integrate them in with the telephone companies.

Mr. MARKEY. Can you live with it, though?

Mr. COLLINS. We manage cellular as a separate business, yes.

Mr. MARKEY. Is it profitable?

Mr. COLLINS. Yes.

Mr. MARKEY. Very profitable?

Mr. COLLINS. Yes.

Mr. MARKEY. So you have been able to learn how to live with a separate sub?

Mr. COLLINS. Yes.

Mr. MARKEY. Are there other areas that would fall into that category, that are basically nonnetwork?

Mr. COLLINS. We have a number of separate subsidiaries, but actually we are trying to get the rules revised. The FCC is now allowing us to integrate our marketing efforts, and that gives us the kind of interface with customers. When you go out you can compete against others who have a full range of services, and we do have the rules in place that protect from cross subsidies.

Mr. MARKEY. Do you have a separate sub in manufacturing?

Mr. COLLINS. We do not manufacture. We have a limit on it. We would like to get that removed.

Mr. MARKEY. In the distribution of computers?

Mr. COLLINS. We have a maintenance company and we do distribute some computers. That is a separate subsidiary. Again, at the marketing level we are permitted to joint market in our telephone companies with an accounting separation. What we do is take the cost through the accounting process below the line. It is not part of the regulated telephone business.

Mr. MARKEY. Mr. Sinback, can you live with a separate subsidiary if properly constructed as a protection against cross subsidization or predatory practices?

Mr. SINBACK. Certainly that has been the position that ADAPSO has taken for a very long time. Before the FCC, at the time of the Computer II inquiry, we supported the idea of a separate sub, and as you know, it was incorporated in the Computer II rules.

We also took that position before the Judge Greene court with respect to a separate sub.

I guess the operating question is, how separate is separate? If it is fully separate, as I described in the statement which I gave you copies of in advance, then I think that would go a very long way toward satisfying ADAPSO's concerns. I can't speak for my committee, of course, because it is a bunch of independent minded companies that take their own position. Certainly, if history is any judge, I would say that we would find it satisfactory.

Mr. MARKEY. Mr. Glaser.

Mr. GLASER. We obviously operate several subsidiaries. In fact, our yellow pages company is in a separate subsidiary. But I would go back to look at history when you look at the separate subsidiary question. In CI–II, yes, there was a separate subsidiary requirement for CPE and enhanced services. As a result of that requirement, the services that are just coming to market known as custom calling II, or CLAS, are first coming to market once that separate subsidiary requirement was reduced in CI–III. So the customers paid the price there.

In addition to efficiency, can you bring the services to market? In the information services world, when content is defined to include editing, manipulating, transforming data, functions that as technology moves may or may not be closely tied with the network, I think a separate subsidiary requirement there could hold back services to customers.

Mr. MARKEY. On the other hand, your competitors in that field are de facto in separate subsidiaries right now, trying to gain access to your company, trying to streamline their procedures. Does it not seem that you should be able to construct some kind of separate subsidiary that would be able to meet the same kind of cost efficiencies and maybe improve upon them as a way of being competitive in that marketplace?

Mr. GLASER. Under CI–II, we found

Mr. MARKEY. What is CI–II?

Mr. GLASER. Computer Inquiry II.

Mr. MARKEY. We do not allow jargon in the subcommittee.

Mr. GLASER. We found no way to be able to do that and bring any kind of enhanced services, which is what the Custom Calling II or CLAS services were described as. Because of that, the comparably efficient interconnection ONA and the accounting rules served to prevent the cross subsidy. If we still had the separate subsidiary requirement, we could not bring services to market today.

Mr. MARKEY. Mr. Fogel.

Mr. FOGEL. As you described it, sir, under the ideal conditions of the perfect separate subsidiary and protection, we certainly would have no objection. we just wish you luck in trying to structure it.

Mr. MARKEY. You don't think it is possible?

Mr. FOGEL. We haven't had any luck in seeing it done properly.

Mr. MARKEY. Do you think it is impossible?

Mr. FOGEL. I think it is not possible, but if it could be done, we certainly could live with it.

Mr. MARKEY. Can you tell me why it is not possible?

Mr. FOGEL. Because there has been no indication with the laws in place today—I hate to keep beating a dead horse—that the telephone companies have followed those laws. We can't imagine how you would protect us from cross subsidization.

Mr. MARKEY. So you don't think that we can construct a wall that protects competitors from the inherent character defects that exist in the Bell operating companies.; is that what you are saying?

Mr. FOGEL. I guess that would be as fair a characterization as I would make.

Mr. MARKEY. Do you agree with that, Mr. Prince?

Mr. Prince. No. I believe that structural separation is possible and that big walls can be developed, and the RBOC's should be able to do it well because by my count they have made 64 different separate subsidiaries. One more shouldn't hurt.

Mr. MARKEY. Mr. Collins.

Mr. COLLINS. I want to make a point that the subsidiaries we have right now are not arm's length kind of subsidiaries like they were in Computer Inquiry II. If you have that wall structured too solidly, there is no way we can work with each other. In fact, we can work with others better than we can work with our own subsidiary.

I suggest to you that what you are trying to accomplish is the nondiscriminatory use of the network and the protection against cross subsidy. An accounting division or separate subsidiary that does not have an arm's length arrangement like there was in CI–II and nondiscriminatory rules of how you use the network and how it is priced is a better answer.

Mr. MARKEY. The Chair's time has expired. The Chair recognizes the gentleman from Kansas, Mr. Slattery.

Mr. SLATTERY. Thank you, Mr. Chairman. I apologize for not being able to be here earlier. I hope my questions are not questions that have been previously asked.

Mr. Glaser, I am interested in your response to an assertion that was made earlier at one of these hearings by a representative from ANPA. The representative from the ANPA argued that the entry into electronic publishing by the Bell operating companies. would harm existing information service providers. I would like to hear your response to that assertion.

Mr. GLASER. It is certainly not, from my viewpoint, in our interest to harm existing information providers. In fact, we are in competition today with the newspapers with our printed yellow pages product. I have got brochures here from the Wichita Eagle Beacon that read "Don't Buy Your Yellow Pages Ad Until you Talk to Us."

Given that degree of competition, it would seem the charge that we have the incentive to degrade their service to their classified ad department or somehow not maintain their telecommunications would be there today, and yet there is absolutely no evidence of any kind of conduct like that on the part of Southwestern Bell.

Mr. SLATTERY. Let me ask you something else somewhat unrelated to this. There seems to be a legitimate question, at least in this member's mind, about just how technically the Bell operating companies are going to be able to maintain the confidentiality of customer information, about usage of line, and this sort of thing, that the Bell operating companies. would have access to and competitors would not. How are you going to be able to assure a competitor that in fact that information is not going to be available to the company that is operating the highway, so to speak?

Mr. GLASER. As Mr. Collins testified earlier, a similar type concern was expressed 4 or 5 years ago in the CPE business. There are guidelines currently in place on treatment of customer proprietary network information; there are guidelines in place that we use to protect interexchange carrier billing information. With those guidelines in place as it relates to those businesses, I am not aware of any complaint—I know the FCC has had none; we have had none—of misusing customer proprietary network information for CPE or with interexchange carriers. So I think we have a model that shows it can be done.

Mr. SLATTERY. What is the observation of the other members of the panel?

Mr. FOGEL. I don't see the parallel between CPE and the telephone company having all of the marketing information necessary to compete with an information provider such as Phone Programs.

Mr. SLATTERY. Mr. Glaser.

Mr. GLASER. I think specifically as it relates to an individual customer's usage data, as to the information provider himself, or the calling characteristics of end user customers toward information providers it can very easily be restricted to the billing functions and the core telephone company functions, not to the provision of information services, as it has been done for CPE. Those regulations will work. It has been proven they will work in the past.

Mr. FOGEL. I thought the question was what assurance could the telephone companies give an information provider that they won't be at a competitive advantage.

Mr. SLATTERY. That was the question.

Mr. FOGEL. I am simply suggesting that the customer premise equipment story and having our marketing information are two different ball games.

Mr. SLATTERY. What are the plans right now with Southwestern Bell to press ahead in a real vigorous manner to provider gateway services to your customers in your larger markets as quickly as possible in light of the new authority the judge has given you? What plans are on the books for your company and other Bell operating companies to press ahead with the provision of gateway services?

Mr. GLASER. Our current plans are to pursue very vigorously the two trials that we have in Houston, both the videotex gateway and the audiotex gateway. We had asked for an 18-month trial. The FCC has authorized us a 1-year trial. The information that we gather out of that trial will really determine where we go from here. If it is as successful as we hope it is, we will expand that to other markets within Southwestern Bell. At this point in time I

think it is too early to tell and we don't have firm plans as to how we would roll that out after that.

Mr. MARKEY. The gentleman's time has expired. We will begin a second round. The gentleman from Louisiana.

Mr. TAUZIN. Just one question. It seems to me that the separate subsidiary notion is rather predominant in these discussions.

Mr. Collins, is it possible in a separate subsidiary with such high walls constructed to create a situation where entry would be less than fair to the Bell Cos. in terms of competitive relationships between its subsidiary and those which compete with it?

Mr. COLLINS. I tried to answer that a minute ago. I believe that you can build a wall so high that it would be more difficult for me to work with my own subsidiary than it would be with the others.

Mr. TAUZIN. That is what prompted the question. My point is that other companies operating in this field might in fact have efficiencies available to them in competing with your so-called subsidiary which would create an unfair advantage to those other companies if in fact the walls are too high.

Mr. COLLINS. I agree with you.

Mr. TAUZIN. Would you describe how that would occur?

Mr. COLLINS. I am not sure I am following all of your question. The wall can be built so high in our arrangement that we cannot jointly market, jointly understand the network. If we are limited from understanding the network and developing it, it is certainly not going to benefit the other information providers. I don't know exactly what you are driving at on the other part.

Mr. TAUZIN. My concern is that if we allow entry in such a restricted manner and with such a high wall separating the RBOC's from this new field of endeavor that in fact others who have entered this field or are in this field have efficiency advantages over that subsidiary, that we might in fact create something very much less than a level playing field that I have heard so much about in these discussions. If that isn't a fear, I would like to understand it a little better.

The obvious debate here is whether or not you want to let the RBOC's in with some protections or through totally separate subsidiaries. If you choose the second route, a totally separate subsidiary, can it be done in such a fashion as to make that separate subsidiary somehow at a great disadvantage in competing with others who are in that field other than the BOC's?

Mr. COLLINS. Yes. That subsidiary would not be able to work with the network and benefit from working with the network to the same extent that the other suppliers of information services would be able to. That is exactly what happened in the CPE environment. The wall was so high that we couldn't joint market like the other suppliers were doing and therefore we lost tremendous market share and the customers got hurt by that.

Mr. TAUZIN. Mr. Fogel.

Mr. FOGEL. If one were to check Ameritech, they have effectively done it with their gateway because that sits and resides in a separate subsidiary company. I question whether the wall is high enough. But the wall was certainly built very high for Phone Programs, and I suspect for both Mr. Prince and the other gentlemen on the panel. I can't imagine the telephone companies comarketing

with us. They have never offered that. We have asked. So why would the separate subsidiary company be at any disadvantage by not having the ability to comarket?

Ameritech has successfully asked all the questions as a separate subsidiary company of its parent company.

Mr. TAUZIN. Mr. Chairman, obviously this is going to be one of the points of real contention. If we allow the RBOC's to come into this area, how do we allow them in? It seems to me that would be an interesting point of inquiry. If we could better understand the specific elements by which a separate subsidiary might be disadvantaged in that marketplace if in fact you wall it off too much, I think we can better understand how you allow entry in a way that does indeed protect the level playing field.

Mr. COLLINS. I wonder if in the GE Information Network those suppliers of the information have access to other information from GE, like who bought a refrigerator and. a computer and a TV set and that kind of thing. If they would be agreeable to block that kind of information, certainly I might be agreeable to block other kinds of information.

Mr. TAUZIN. That is kind of what I am getting to.

Mr. FOGEL. We don't get that information. Why should you get it for yourself? We don't get it from you. You don't tell us who is calling. You don't tell us where they are calling from geographically.

Mr. TAUZIN. If you will direct your comments to me. We don't allow that.

Mr. FOGEL. I apologize.

Mr. TAUZIN. It is a point I would like to see further explored. If you all don't mind, if you have further thoughts on that, I would like to hear from you.

Mr. GLASER. In our gateway in Houston, under the existing regulations a common piece of equipment provides some system operator function, some gateway function. since we cannot provide system operator functions today, that piece of equipment is provided by the system operator and he leases capacity to us to work together on that. This is another company, not our subsidiary. If we had a totally arm's length relationship, I don't think we could do that.

Mr. MARKEY. The gentleman's time has expired. The gentleman from Iowa is recognized for another round.

Mr. TAUKE. Thank you, Mr. Chairman.

If the witnesses would look at the CPNI provisions in H.R. 2140 and offer any observations on whether or not they are adequate and how they could improved, it would be helpful. That is an area in which we have a lot of questions and a lot of concern. So I would be interested in any information on that subject.

Second, let me pursue an area which I hesitate to get into but which has to be discussed at some point, I guess. That is the area that you raised, Mr. Collins, when you started talking about the gateways in Pennsylvania. Under the MFJ the Bell Cos. are forbidden to transmit over LATA's. It has been the expressed intent of Mr. Swift and myself not to get into the area of changing in any way that restriction.

Is permitting the Bells to transmit information between LATA's the best or the only way to assure that these services are widely

available at the most reasonable price, which is what you seem to suggest in your discussion of Pennsylvania?

Mr. COLLINS. The configuration that we developed for Pennsylvania was one computer with links to each of the IATA's. The link did not carry the information itself. It was a call from the customer to the menu, a call from the customer to the directory. We didn't provide the circuit ourselves. We went out and leased a circuit from the interexchange carrier.

Mr. TAUKE. So you would not have been carrying it from LATA to LATA?

Mr. COLLINS. No. I would have used another carrier to actually make the signalling connection, the connection to get to the menu. Then when the call was established between the end user and the information provider, that was also over whatever carrier that information provider had selected.

Mr. TAUKE. Would the BOC's object to some statutory language which said that that was all you could do?

Mr. COLLINS. No. I think it ought to permit that and we ought to examine the other question later.

Mr. TAUKE. Mr. Glaser, do you have any observations on that subject?

Mr. GLASER. I would agree with Mr. Collins. I don't think we should place a restriction in legislation that might last for 50 years when we don't know how the world will change. The initial purpose of MFJ was as it related to the traditional long distance interexchange business, and I think that restriction could be left under the supervision of the court with maybe some appropriate leave for incidental interexchange.

We find that the rules change. Two years ago when we purchased Metro Media Paging Services they had a service as part of that called Metrocast, which was an emerging nationwide paging company. The ruling was that that was an impermissible interexchange service. So we divested that portion of the business. Within the last 6 months the rules changed and nationwide one-way paging is now a permitted service to us. Unfortunately, Metrocast now belongs to British Telecom; it doesn't belong to Southwestern Bell.

Mr. TAUKE. Do any of the other witnesses have any observations on that question? I know it doesn't relate directly to you as much as some of the other issues.

Mr. Prince.

Mr. PRINCE. We filed against Bell Atlantic's proposal on this, so I should comment on it. It was very unclear what they wanted to do, whether it was inter-LATA or just an inquiry into a centralized database. As I recall, the RBOC's had said that they were going to put gateways into all of their IATA's. Then they came back and said, no, we want it in a central place, and then they were going to use their own service lines. So I think it is very unclear on what should be done.

During this process, I believe that Telenet, which is one of our competitors, has interconnected with every one of Bell Atlantic's gateways. So there is an ability to go between various LATA's. We are interconnecting with them. Another company called Globenet

is interconnecting with them. Maybe the problem is moot now if it were to be used.

Mr. TAUKE. Mr. Collins, you are shaking your head.

Mr. COLLINS. You're right. In our first filing we wanted to use our official channels to reach between the LATA's. I believe that is correct. And we backed up and said we would use other carriers' channels. We have not expanded a gateway outside of the Philadelphia LATA and we are going to look very carefully at what is the best way to do that. If we did that, of course, we would use his channels to reach across the LATA boundary.

Mr. TAUKE. Let me see if I am understanding this correctly. What you are saying is that for efficiency purposes you would prefer not to have gateways in every LATA.

Mr. COLLINS. We would like to have a gateway in every LATA with a computer that runs the gateway in one central place.

Mr. TAUKE. And then you would lease the lines from other carriers to hook the computer to each of the gateways?

Mr. COLLINS. That's correct. By the way, that computer, as far as we know, would handle the capacity of the gateways throughout Pennsylvania for a long time.

Mr. TAUKE. Mr. Glaser, would that be the same kind of structure you would be looking for in your area?

Mr. GLASER. Yes. I think it is critical to bring services to the rural areas, the less populated LATA's, like a Waco or Abilene, TX.

Mr. TAUKE. So you don't need to be able to reach across the LATA's yourselves in order to be able to bring that service to the rural areas?

Mr. GLASER. It would be more efficient if we could do it, because we already have facilities there for our own operation of the telephone business, but we would be willing to lease those from inter-LATA carriers.

Mr. TAUKE. Thank you, Mr. Chairman.

Mr. MARKEY. The gentleman's time has expired. The Chair recognizes the gentleman from Washington State, Mr. Swift.

Mr. SWIFT. I thank the Chair. I apologize for not being able to be here. I had a conflicting committee meeting. In deference to all of you who were here, I won't take any time of the subcommittee at the present time.

Mr. MARKEY. The Chair will recognize itself for another round of questions.

I would like to address this to Mr. Sinback, to Mr. Fogel, and to Mr. Prince. It relates to Mr. Glaser's testimony, which taken as a whole lays out several levels of participation in the information services field which falls short of complete involvement as an unregulated provider. In particular, he mentions progressively more involved roles as facilitators for gateway users, participants in joint ventures, and then content originators.

Since lesser levels of direct involvement arguably would require lower levels of safeguards which would be required, is there a case that can be made for progressively relaxing controls as increasing involvement by the Bell Cos. is evaluated and determined not to be anticompetitive?

In other words, can we construct something on a phasein basis that looks at particular services and particular safeguards that can

be applied that would then give us some confidence that the problems that you may in your gut believe are there, Mr. Fogel, can be resolved affirmatively on behalf of the telephone companies? Is there something that you could suggest?

Mr. FOGEL. I think that is a terrific idea, the concept, if I am understanding you correctly, sir, of the phasing in of different things.

Mr. MARKEY. What would you pick first?

Mr. FOGEL. I really don't feel qualified to be able to tell you that, but I think the concept in general is a good one and I think it would give the Congress an opportunity to see how things worked.

Mr. MARKEY. Are you feeling qualified today, Mr. Prince?

Mr. PRINCE. No. I am getting close to the mike so you won't have to tell me to speak up.

Mr. MARKEY. Mr. Sinback, any suggestions?

Mr. SINBACK. I guess I would answer that this way. I really don't see any penalty at all to speak of that the RBOC's would pay for a fully separated subsidiary. It seems to me that is as good a starting place as any. Certainly for those who are concerned and who have concerns about what might happen, it certainly makes visible the whole relationship between the company and its subsidiary and offers some certainly at least that anything that is reproachable behavior is visible. That to me seems a good starting point here. Any other approach to this, it seems to me, is a very subjective, sort of squishy kind of a solution, which I think would be extremely difficult, first of all, to describe, and second, to administer, to enforce.

Mr. MARKEY. Mr. Collins.

Mr. COLLINS. Mr. Chairman, I submit that we are going through a piecemeal approach right now administered by the judge. As best I can tell, the French Minitel system, has been cheered as the leader in information services. I hate to see us fall further behind and have the foreign interests come here by the technology and by the small information entrepreneurs and undercut the ability of this country to do it.

Mr. MARKEY. You don't want the French model, do you? You don't want that conduit separation structure, do you?

Mr. COLLINS. I don't believe they have a conduit separation. Do they?

Mr. MARKEY. Mr. Prince.

Mr. PRINCE. I don't know if they have a law for it, but to the best of my knowledge, the French PTT has not gotten into content.

Mr. MARKEY. With the exception of yellow pages?

Mr. PRINCE. Yes.

Mr. FOGEL. I think the content of Minitel is rumored to be 70 percent pornography. So I wouldn't call it a success.

Mr. PRINCE. Could I make a comment on what you said on phasein?

Mr. MARKEY. Yes.

Mr. PRINCE. I would suggest that we look and try to not phase in. I think one of the problems that has happened in the last 6 to 8 years is the unstable environment that we have been going through. There is always another step. When you think about small organizations, if they say, gee, this is going to change, then you will just wait and not make investment until you know how it is going to end. Maybe it is the only way to do it, but if the number

of phases could be limited, it would sure be better. If you go back through Computer I and Computer II and Computer III, for a small organization it's a pain in the rear end.

Mr. MARKEY. Mr. Sinback.

Mr. SINBACK. There is an inference in something that Mr. Collins said that I want to respond to. It has been more than an inference by many, many people that somehow the United States has slipped behind and the entire world is leading the United States in information services. The point I would like to make is the Department of Commerce put out a report in 1986. I don't think it has been updated since then, but I suspect the data is not too much different. The United States at that point had $19.5 billion in information services; Japan was the closest second, with $3.5 billion; and Europe in total was $3 billion. This myth that a lot of people circulate that the United States has fallen terribly behind is just totally incorrect.

Mr. MARKEY. Mr. Glaser.

Mr. GLASER. I think that report bears close examination as to exactly how widely you describe information services industry, as to what is included in it, some of which, I think, is well beyond the scope of what we are talking about today.

The other point I would make is that while that is a very large number, we have information haves and information havenots. Large businesses and affluent people in the cities have access to information services; many in the rural areas and the less affluent do not.

Mr. MARKEY. Good point.

The Chair recognizes once again the gentleman from Kansas, Mr. Slattery.

Mr. SLATTERY. Thank you, Mr. Chairman.

I want to come back to the question that my friend from Iowa was driving at earlier. I want to make sure I understand what your perception of existing law is and how it needs to be changed with respect to how the RBOC's can move information from one LATA to the other.

Did I understand in response to Mr. Tauke's question that currently an RBOC's could own a computer and that computer could be used to meet the gateway service need and then you would lease long distance lines that would carry traffic between LATA's and access the computer that might be in one LATA and not in the other? Is that correct? The question is whether that computer could also be used to facilitate the transmission of information. Did I understand that conversation correctly?

Mr. GLASER. The current regulations would not allow us to have the computer located in some other LATA based on the latest ruling of the divestiture court, which I believe is under appeal. Under current regulations we would have to have a separate gateway computer in each LATA.

Mr. SLATTERY. Even if you were leasing the lines that carried the traffic?

Mr. GLASER. Even if we lease the lines carrying the traffic from an interexchange carrier, we are prohibited from doing that.

Mr. SLATTERY. Is there no way around the duplication of those computers under existing law?

Mr. GLASER. That's correct, I believe.

Mr. SLATTERY. One other issue that has been raised in previous hearings that I would like to raise again here and hear your response to, Mr. Glaser, is this whole question about whether allowing the Bell operating companies. to be involved in information services would help or hinder the development of smaller entrepreneurial companies in the provision of information services. You state in your comments that Southwestern Bell cannot facilitate others who own content and the telephone company is unable to be a facilitator. I am curious what you mean by that and if you would comment further on the telephone company's capacity to really chill the development by entrepreneurial companies of other information services.

Mr. GLASER. As I mentioned in my direct testimony, the two examples are the Better Business Bureau in Houston and the Department of Health in Houston that had information but didn't have the capability to format that information in order to place it in the gateway in a way that consumers could access it. Because the content prohibition at this point includes any manipulation, formation, transformation of that customer's content, we are not allowed to do that.

Mr. SLATTERY. Can you consult with them and tell them what kind of form that information must be in to accommodate your gateway?

Mr. GLASER. We can certainly do that. We can tell them what the protocols are, how it operates. In this particular case neither of them had the budget nor could they find anyone who was willing to facilitate it at a fee that they could afford to put it on the gateway.

Mr. SLATTERY. When you talk about facilitate, is that a word of art?

Mr. GLASER. I guess I use that to encompass all those, whether it is the creation, the editing, the graphics, of building the screens that are going to show up on a videotex terminal, for example. Those are the facilitating things that need to be done that most small entrepreneurs or public service organizations don't have the capability to do for themselves. There are people that could do it. Certainly there are companies available that know how to do it just as well as we do. Being the gateway operator, we have some incentive to try to help those people get on the network just as the French PTT does.

Mr. SLATTERY. What do you do in that case? An interest comes to you and says we would like to be able to provide this service. Do you say we can't talk to you? What do you do?

Mr. GLASER. We provided them some names of some companies they could contact to try to provide that service. They were unable to work out any kind of satisfactory arrangement, so the service is not on the gateway.

Mr. FOGEL. There is another reason, sir. There are some terrific people in that business. Quite frankly, TAS, which works with you, and their sister company, the manufacturer. This company could have done it or could have referred them to a company like us, and if the pricing structure was one in which we could recoup money so we could afford to take on the Better Business Bureau, we would

be delighted to do it. What is being left out is that the pricing structure and the configuration of the gateway just doesn't make it worthwhile.

Mr. SLATTERY. Was the pricing structure a function of what the telephone company was doing? What was the problem with the pricing structure?

Mr. FOGEL. The pricing structure of the telephone company was too expensive for us to make a buck.

Mr. MARKEY. The gentleman's time has expired. The Chair recognizes the gentleman from Washington, Mr. Swift.

Mr. SWIFT. I was just wondering if we are approaching a consensus on one piece, at least the general outlines of one piece of this. It goes without saying that everybody wants a level playing field. In fact, if we could get a dollar for every time we have heard that in this committee, we could forego a pay raise for a decade.

Everybody wants it. There is nothing wrong with that. I am always reminded that a former Senator in my State, however, said all anybody ever wants in this business is a fair advantage. So you do have some disagreement on what a level playing field is. If it tilts in my direction, it looks level to me.

It seemed to me that Mr. Fogel said just leave well enough alone; don't mess with this; everything is just fine.

Mr. Sinback, said, well, there are ways in which this can be done, but they've got to be fully separated subs.

Then there was some discussion as to how high the walls around the subs might be, again maybe people kind of angling to tilt the level playing field just a little bit their way.

Is there a consensus on the concept that if we can make the safeguards right it is okay to let the Bell operating companies. in to provide these information services?

Mr. Fogel, I gather you started out saying that you didn't agree with that. Have you changed your mind?

Mr. FOGEL. No. If you are asking me about the concept, the concept works for me. I am talking practical experience. I just don't see it being able to be done.

Mr. SWIFT. What is your alternative? You say don't do this and leave everything the way it is. You think it is right for the courts to run telecommunications policy in this country.

Mr. FOGEL. I think at this juncture things are up for appeal and the Congress should let that be sorted out, because the telephone companies just haven't left me with the impression——

Mr. SWIFT. The fact that that is wholly inconsistent with the whole thrust of how our government functions and the lines of accountability and who is supposed to be doing what doesn't bother you at all.

Mr. FOGEL. I don't understand why you say that, sir.

Mr. SWIFT. Fundamental to this is how do we make telecommunications policy in this country. You are suggesting that it is fine to let the courts just mess around until they finally run out of it and then maybe we can take a look at it. That's our business; that's our job; that's our responsibility under the Constitution. For you to sit there and suggest just leaving everything the way it is to suggest that Congress should continue to abdicate its responsibil-

ities in this area, and that is unacceptable. I find that simply irrelevant.

So then we get back to what I consider to be very relevant, and that is the circumstances under which the Bell operating companies. are permitted into providing these services. Absolutely legitimate. I have said from the beginning that is going to be where the central core of the legitimate debate on this issue is going to be.

Do we have some consensus that if we could agree on what the level playing field was and if we could agree on how high the walls are that it is appropriate for the RBOC's to get into the information business? Is that a consensus of these four gentlemen?

Mr. PRINCE. Yes.

Mr. SWIFT. If we can begin now to make some decisions between ONA, separate subsidiaries, those kinds of questions, begin to try to get some definition, begin to talk about what those safeguards will be with specificity, we may be gaining on this whole thing. Would you all agree with that?

I think if we made it that far, this hearing has been enormously valuable. I think it pretty well indicates what the agenda of future sessions is going to have to be.

I thank the Chair.

Mr. MARKEY. I thank the gentleman.

With that, we will end the time for questions from the subcommittee.

I would like to make a motion to have the meeting that we had here last week in the afternoon of May 31 incorporated into the hearing record.

Without objection, it will be incorporated into the record.

I would also like to ask each of you to submit for the record a matrix of information services, going from formatting of network-related services all the way to origination of content and the appropriate safeguards.

I wish you would take this as perhaps a think piece, Mr. Fogel, and not automatically reject out of hand the potential for it to be made possible.

And a timetable for a phasein approach. If you could spend some time to think about that.

The subcommittee will send you questions that we want to have answered and would request an expeditious return to the subcommittee. This is the only way that we will be able to handle these questions.

To the extent to which you would absent yourself from the process, the process will continue. I think you would be better off, as will all, to be participating in this ongoing discussion. You can stipulate all along that you don't believe that ultimately it is possible, but at least give us, in your best estimation, what you think it should look like if it is going to happen.

I thank all of you for your participation here today. I would like to commend to all of your reading this document produced by Bell Atlantic, "Delivering the Promise." I think it is excellent and I think it is something that all of you should take some time to familiarize yourself with. I think it is a good piece of work and something that has had an influenceon me in terms of my thinking about these issues, and I think it can help to shape the way in

which I think other industries interested in this issue might [want to be presenting information to the subcommittee.

With that, we thank you. We will be meeting again next week to discuss manufacturing. The hearing is adjourned.

[Whereupon at 3:50 p.m. the subcommittee was adjourned, to reconvene Wednesday, June 14, 1989.]

[Text of the meeting of May 31 follows:]

MODIFIED FINAL JUDGMENT

WEDNESDAY, MAY 31, 1989

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ENERGY AND COMMERCE,
SUBCOMMITTEE ON TELECOMMUNICATIONS AND FINANCE,
Washington, DC.

The subcommittee met, pursuant to notice, at 2:10 p.m., in room 2218, Rayburn House Office Building, Hon. Edward J. Markey (chairman) presiding.

[Mr. Markey called the meeting to order and waived members' opening statements, then proceeded to the first witness, Mr. Laseau.]

STATEMENTS OF JOSEPH LASEAU, EXECUTIVE VICE PRESIDENT, ASSOCIATION OF TELEMESSAGING SERVICES INTERNATIONAL; JOHN R. GUNTER, VICE PRESIDENT, INFORMATION SERVICES AND MARKET PLANNING, BELLSOUTH CORP.; RICHARD H. SHRIVER, SENIOR VICE PRESIDENT, INFORMATION SYSTEMS AND TECHNOLOGY, MCGRAW-HILL, INC.; LEE G. CAMP, VICE PRESIDENT AND GENERAL MANAGER, INFORMATION SERVICES GROUP, PACIFIC BELL; AND GEORGE M. PERRY, VICE PRESIDENT AND GENERAL COUNSEL, PRODIGY SERVICES CO.

Mr. LASEAU. Customers won't say anything. That means they have it and we don't. The CPXI rules also let the telephone companies get the first crack at all new subscribers. By the time we know there is a new subscriber, they have already been offered voice messaging. That is not fair either.

I will skip over open network architecture to meet your timeframe. I hope that will come out in the questions. We have quite a bit to offer on that.

The FCC's nonstructural safeguards, the rules which are supposed to level the playing field, are being tested in the market place today. In the interests of time, I will cite two examples.

In PAC Bell's tests on voice services right now, PAC Bell guaranteed its customers a certain level of service. That is, they would not get over so many busies. When one of the customers discovered they were getting many more busies than promised, PAC Bell packaged additional basic telephone lines.

Ostensibly, of course, PAC Bell, or the voice message service, will pay for those telephone lines and just make it part of their service. Sounds good. It is legal.

If I want to package a telephone line into our service, I have to buy it for real. When PAC Bell does it, they take it out of one packet and put it in the other. We can't do that.

BellSouth filed a tariff in Nest Palm Beach, FL, in 1988 for call forwarding features long requested by our industry. At the same time, they announced initiation of their own message offering. A NTSI member immediately asked for those connections.

Initially, he was told they could not be made available because they were designed only for voice messaging. That was a new twist we never heard of apparently. That is what they were told.

This misunderstanding was cleared up and he was assured he would be able to obtain the services. Eight months have passed. Our members have been informed that because of technical reasons, we will not be able to have these services.

So much for the safeguards.

What do we think should be done to resolve this problem? We think the answer lies in separate subsidiaries. Not the kind initially brought about in Computer

Three, but the kind that response to telephone companies' concerns about not being able to use the efficiency of the network.

More about those for the question period. There, of course, should be appropriate mechanisms for monitoring and enforcing the safeguards to be sure they are working.

Finally, we believe the XPNI rules should be written the same for everybody. Whatever the rule is for telephone companies, it should be the rule for us.

In conclusion, I would point out something Congressman Synar related at your May 4 hearing. The Bell System Cos. have been dragged before the courts three times. Never mine who was right or wrong.

If the BOC's are allowed entry and care is not given as to how they are permitted to enter into competition with their customers, the issue will certainly at some point be back before Congress or back before the courts a fourth time.

We are not interested in telephone companies that are not viable, effective, that are not doing very well. As an industry, we cannot exist without them. We depend upon them.

As I said earlier, without the telephone communications system, we would be out of business. It was John Maynard Keynes who said the short term is all that matters; in the long term, we are all dead.

The practical result of not having fair terms and conditions in the market place are unfair competition in the short term and the elimination of competitions and all competition in the long term.

Thank you, Mr. Chairman. I hope I made my 5 minutes.

[Testimony resumes on p. 63.]

[The prepared statement and letter of Mr. Laseau follow:]

Testimony of Joseph Laseau
Executive Vice President
The Association of Telemessaging Services International

Before the

Subcommittee on Telecommunications and Finance
Committee on Energy and Commerce
House of Representatives

May 31, 1989

ATSI members have long provided Telephone Answering Services (or TAS), in which live operators answer calls and take messages on customers' behalf. Messaging bureaus are also making increasing use of voice storage and retrieval technologies either to enhance live operator service or to provide electronic alternatives to traditional TAS service.

Irony of Recent BOC Entry

The current push for BOC offering the public telemessaging services is ironic since the messaging industry arose because telephone companies for many years chose not to provide messaging services to their customers themselves. In the early years of telephone service, the telephone company operators themselves took messages when callers were unable to complete their call. As automation occurred, telephone companies abandoned this service. Outside entrepreneurs then stepped in to fill the void and the independent telephone answering industry began. Although phone companies voluntarily stayed out of the market, their networks have long been an integral part of the voice messaging industry because messaging bureaus must use local exchange facilities and services in order to conduct their business. Although some telecommunications users may be able to implement new technologies to bypass the public telephone network and reduce their dependence on telephone company facilities, messaging bureaus must be able to answer calls originating from any point in the public switched network, making private network arrangements unviable. Thus, in contrast to some other telecommunications service providers, messaging bureaus simply cannot survive unless they have access to the local exchange.

There are approximately 4,200 messaging service bureaus, operating in every city and state in the United States today and providing service to 1.5 million subscribers. Of these bureaus, approximately 100 offer voice messaging only (without live operators). These subscribers include 1.2 million users of live operator answering services and 300,000 users of

electronically stored voice messaging services. An additional 1.7 million voice messaging users are served by privately owned systems. Estimated annual revenues for the telemessaging service bureau industry in 1987 were $988 million.

Despite the importance of such access to the voice messaging market, local telephone companies — which hold a monopoly over local exchange facilities and services — have long refused to provide messaging bureaus with adequate connections to their networks, even where such connections were technically possible. This lack of appropriate facilities has made it necessary for telemessaging bureaus to have to purchase more services than needed in order to jerry-rig around the inappropriate facilities. This has clearly impeded the full development and provision of voice messaging services to the American public.

March 1988 Court Decision Granting Entry

In March 1988, Judge Harold Greene decided to allow the Bell Operating Companies (BOCs) to provide electronically stored voice messaging services on a deregulated basis. Since that time, Regional Holding Companies have entered the messaging services marketplace, and have begun competing vigorously with ATSI's members.

ATSI continues to question the wisdom of permitting the BOCs to provide voice messaging services in competition with their customers. The decision to let the BOCs into the market was premised on the faulty assumption that, without BOC participation, voice messaging services will not become widely available to the American public. In fact, the voice messaging market is already highly competitive, and already serves a million and a half subscribers across the country. The only thing preventing wider availability of voice messaging services to small and residential users is the persistent and historic refusal of local monopoly phone companies to provide messaging bureaus with the necessary network connections which would promote more widespread service at lower price.

Not only is there no pressing need to have the BOCs participate in the voice messaging market, there are also valid reasons for keeping them out of the market. As providers of local exchange service, the BOCs are monopolists in their own service areas and essentially serve as the gatekeepers for others — such as messaging bureaus — seeking access to the local exchange. The BOCs' traditional reluctance to provide messaging bureaus with necessary connections to their networks strongly suggests that they will continue to use their monopoly status to engage in anticompetitive conduct against existing messaging bureaus, who are now not only their customers but also their competitors. In the absence of any real need for BOC participation in the market, the best solution to preserving competition obviously is to keep the BOCs out of the market in the first place.

It has been argued by some, of course, that the BOCs will not be motivated to upgrade their networks unless they are able to provide enhanced services that depend on the implementation of advanced network technologies. It would appear, however, that there are other incentives that could be used to motivate the BOCs to build an advanced network infrastructure, such as ensuring that they receive a fair return on their capital investment. The traditional market structure has worked well and has generated substantial revenues for the telephone companies.

Unaffiliated messaging bureaus are and always have been in the business of completing calls which would otherwise go unanswered. This increase in call completion generates additional revenues (roughly 16,000,000 dollars per year) for the telephone companies and increases the efficiency and cost-effectiveness of its basic networks. Messaging bureaus also pay an estimated $260,000,000 per year directly to the telephone company for necessary interconnection features from their local exchange carriers and the additional calling traffic generated by messaging activity. BOCs entry into new enhanced services markets is destabilizing this mutually beneficial arrangement and creating disincentives harmful to the public interest.

In any event, ATSI recognizes that the MFJ court has already decided to let the BOCs into the market about which ATSI is most concerned — the voice messaging business. As a result of that decision, ATSI members now face considerable competition from the BOCs in the voice messaging marketplace. Their experience to date demonstrates that, at a minimum, government action is required to help level the playing field between messaging bureaus and their BOC competitors. Although regulatory safeguards have been implemented to prevent the BOCs from acting in an anticompetitive fashion in the voice messaging market, the simple fact is that those safeguards are woefully inadequate.

Current Trials and Entry

All seven BOCs have taken at least initial steps toward offering voice messaging services; some of these trial efforts are fully matured.

BOC activities may be briefly summarized:

Bell Atlantic market trials are currently underway in Germantown, Maryland, and Plainfield, New Jersey. Both business and residential services are being sold. Voice messaging from pay phones is being tested in Washington and Philadelphia.

Bell South has begun a voice messaging trial in West Palm Beach, Florida, and is launching a service offering in Atlanta, Georgia.

Pacific Bell is trialing service with residential and small business users in Milpitas and San Pedro, California, as well as large scale applications with three corporate users in the San Francisco area.

Southwestern Bell has been trialing various voice messaging applications for nearly a year in St. Louis, Kansas City, Austin, Little Rock, Oklahoma City, Dallas/Fort Worth, and Waco.

U.S. West is heavily marketing its voice messaging service in Boise, Idaho, with plans to expand to numerous undisclosed locations.

Nynex had announced trials with large business users in New York and Boston. However, neither of these trials were actually undertaken. Nynex has announced no firm plans at this time.

Ameritech, unlike the other BOCs, has decided *not* to integrate competitive and monopoly operations, maintaining a fully separate subsidiary for voice messaging offerings. It has acquired TIGON, one of the largest independent voice messaging service bureaus in the nation. Additionally, it is currently trialing joint ventures with unaffiliated messaging bureaus in Milwaukee, Chicago, Indianapolis, Detroit and Columbus. Under this arrangement, Ameritech provides network interconnections, billing and collection services for the voice services actually provided by the unaffiliated bureaus.

With the exception of the Ameritech joint operations, there has been no participation by unaffiliated bureaus in telephone company voice messaging trials, despite efforts by the industry to so involve themselves. These trials could have been designed to demonstrate the safeguards work. Clearly, that did not turn out to be the case.

Inadequacy of Regulatory Safeguards

1. Privacy and Customer Proprietary Network Information

Perhaps the most blatant example of the inadequacy of regulatory safeguards is the FCC's rules concerning Customer Proprietary Network Information (CPNI). CPNI is the information the BOCs record about their basic service subscribers, and includes data on the types of services ordered by telephone company customers, traffic studies revealing information such as customers' calling patterns and number of unanswered or busy calls, and credit information such as a customer's bill payment history. Clearly, enhanced service providers who have ready access to this type of information can use it to identify who their potential customers might be and to make informed decisions about how to market their services.

Under the FCC's current rules, the BOCs have unlimited access to CPNI when marketing voice messaging and other enhanced services. This access can only be restricted if a customer specifically requests, in writing, that his phone records be restricted. The BOCs are under no obligation, however, to inform residential and single line business customers that they have

the right to request such protection, and it is not something that these types of small users are likely to ask for on their own.

a. Problems with CPNI Rules

One of the most troubling aspects of this set-up, of course, is that it fails as a practical matter to protect subscribers' legitimate interest in maintaining the privacy of their telephone records. Those records clearly contain a considerable amount of information that can be quite personal and confidential. Yet subscribers can only prevent the BOCs from using that information if they happen to learn that they have the right to request in writing that such information not be made available to their telephone company.

A second, and equally significant, problem with the current CPNI rules is that they give the BOCs virtually unlimited access to critical marketing information about their residential and small business customers. By using the valuable information included in CPNI, the BOCs have the instant ability to identify probable candidates for their voice messaging and other competitive enhanced services.

By contrast, the FCC has held that the messaging bureaus represented by ATSI, who compete directly against the BOCs, cannot gain access to CPNI unless they obtain advance, written approval from each customer. This means that ATSI members must attempt to define who their potential customers might be before they can even ask for access to the information — CPNI — that will help to identify such customers. Thus, messaging bureaus competing with the BOCs are caught in a bizarre Catch-22: they cannot gain access to CPNI to learn who potential customers might be unless they first identify the customers whose CPNI they would like to use.

A third, and most threatening, problem is that the telephone companies can readily identify that class of users who are most likely to be customers of our telemessaging bureaus. An answering bureau's only recourse to protect against this is to require each of its customers individually to take the affirmative step of writing to the telephone company and requesting protection.

The unfair competitive advantage that this regulatory scheme confers on the BOCs cannot be overstated. BOCs providing voice messaging services are able, through their unrestricted access to CPNI, to contact a new basic service subscriber and make a sale of voice messaging services before competing service providers can even learn of the new subscriber's presence in the market. This unfairness is only exacerbated by the fact that the FCC encourages the BOCs to jointly market basic telephone services with their competitive enhanced services. Thus, as soon as a new customer calls the phone company and asks for

basic telephone service, the BOCs are in a position to simultaneously sell the subscriber competitive services such as voice messaging.

b. Problems of CPNI Implementation

If properly administered, the CPNI rules would be deficient. However, these rules have been implemented in a way that makes it expensive and operationally difficult for telephone subscribers and independent messaging bureaus, not the Bell companies themselves.

In the Southwestern Bell region, for example, bureaus which availed themselves of the limited CPNI protections by asking that their own CPNI be restricted from access by telephone company personnel involved in unregulated, competitive offerings were recently informed that because of this they may no longer deal with their local BOC account executive. Instead, all orders for new interconnection services, and changes or repair/maintenance requests for their vital, basic telephone facilities must go through remote account executives especially established as "basic service only" personnel. The siting of these personnel at distant locations results in significant inconvenience and delay for necessary and routine interactions with the phone company.

Many bureaus, to protect their confidential and proprietary records, have urged their customers to also restrict CPNI. (A messaging customer's basic telephone CPNI provides extraordinarily sensitive information on the messaging bureaus operations.) Customers who, either to support their messaging bureaus legitimate propriety interests or because they don't wish their basic service records to be market fodder for unrelated, competitive services being introduced by the telephone companies, face the same inconvenience and delay as a result of asserting even the minimal privacy rights current CPNI rules allow them. These problems create an inappropriate inducement for subscribers to cancel their privacy requests.

c. Solution: Prior Authorization

There is, of course, a very simple regulatory solution to the problems created by the current CPNI rules. In order to protect subscribers' privacy interests and level the playing field in the enhanced services marketplace, the government should preclude the BOCs from gaining access to CPNI for use in a competitive enhanced service unless they have first secured the permission of the customer. This simple rule would put the BOCs and their enhanced services competitors on equal footing: each would be required to secure the consent of the customer before using information about that customer to market competitive enhanced services. In addition, such a requirement would further ensure that consumers are aware of their right to protect confidential information about them contained in telephone company records.

A prior consent rule would be easier to enforce, moreover, if the BOCs were required to provide enhanced services through a separate subsidiary. In this way, a BOC would not have to implement complex procedures to prevent its competitive service employees from gaining access to information about basic service subscribers. Rather, the BOC subsidiary would have to submit a CPNI request to those basic service subscribers using the very same procedure that any other enhanced service provider has to follow.

2. Open Network Architecture

Open Network Architecture (ONA) is a network design concept with which the BOCs must comply before they can begin providing enhanced services on an unseparated basis. In theory, BOCs successfully implementing ONA will create networks that are so open and unbiased that competitive service providers will be able to connect to the network under fair and reasonable terms. Such companies will also be able to use the network as they see fit, regardless of how it is being used by their BOC competitors. Ultimately, then, accomplishing ONA will significantly reduce the BOCs' ability to engage in anticompetitive conduct, and will ensure equal access to all service providers.

Unfortunately, the initial ONA plans filed by the BOCs more than a year ago reveal that we have a long way to go before ONA becomes a reality:

> ***Bundled Offerings:*** Instead of unbundling network services into discrete components that can readily be "mixed and matched" by enhanced service providers, the BOCs in essence repackaged existing services that add little variety or flexibility to network functions and features already available.
>
> ***Deployment Schedule:*** The BOCs' plans included little detail on how and when new services, functions and features that their competitors might need or like will be integrated into the network. ONA requires equal access, but not all "central office" telephone facilities are equal. When and how they are made equal is under the control of the telephone company.
>
> ***Geographical and Technical Limitations:*** The BOCs made it clear that many ONA services will only be available in certain geographic areas (generally, the large metropolitan areas where the BOCs wish to provide enhanced services themselves) for a number of years to come.
>
> ***Pricing:*** The BOCs virtually ignored the issue of how they intended to price ONA services when eventually offered to enhanced service providers.

When reviewing the BOCs' initial ONA plans, the FCC has recognized that a truly open network architecture that provides equal access to all BOC competitors will not exist for many, many years. Nevertheless, the agency has concluded that, with some modifications, it could approve the plans as being an appropriate first step toward implementation of ONA. The FCC has taken such action even though critical issues — such as the pricing and tariffing of ONA services — remain unresolved.

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This means, of course, that the danger of discriminatory access and pricing isn't eliminated. Although the BOCs have made an important first step toward the ultimate ONA goal, the network still remains in the monopoly control of the BOCs. In order to prevent anticompetitive abuses from occurring, therefore, it would be appropriate to insist that the BOCs provide enhanced services through a separate subsidiary.

3. Cross Subsidy Rules

Policymakers have long been convinced that subscribers of basic telephone service should not be forced to subsidize new competitive enhanced services that might be offered by the BOCs. To this end, the FCC has promulgated joint cost allocation rules that are intended to prevent such cross subsidization from occurring when a BOC provides both basic and enhanced services to its customers.

As valid and reasonable as those rules may be in theory, however, there is little hope that the new regulations can be effectively enforced by the FCC. Indeed, when adopting the rules, all three FCC Commissioners admitted that the agency was not capable of policing the BOCs to determine whether they were applying the rules properly. A study by the General Accounting Office has confirmed this shortcoming, finding that "the level of oversight that the FCC is prepared to provide will not, in GAO's opinion, provide telephone rate payers or competitors positive assurance that the FCC cost allocation rules are properly controlling cross subsidy."

The possibility that the BOCs will in fact attempt to engage in unlawful cross-subsidization is very real, as is shown by the recent experiences of some of ATSI's members. One member in California, for example, recently complained about several anticompetitive actions taken by its BOC competitor in the voice messaging market, Pacific Bell.

Specifically, Pacific Bell has been providing its paying voice mail customers with extra business lines — a tariffed service — at no cost to the customer. Even if Pacific Bell were to claim that it is paying for these additional facilities itself, no other competing messaging bureau would be able to take the money from one of its pockets and put it into another in order to provide free service to its customers. Pacific Bell has thus given itself a competitive edge in the marketplace that no other enhanced service provider is in a position to match.

Similarly, when conducting residential and small business trials for its voice mail service, Pacific Bell has been giving away free voice messaging mailboxes in an effort to attract subscribers. This predatory practice is already affecting the market in two cities, and could eventually hamper competition state-wide. As with the provision of free business lines, enhanced service providers simply are not able to compete with the free mailboxes being offered by Pacific Bell. (It should also be noted that Pacific Bell is using a seven-digit number for customers to call when seeking more information about Pacific Bell's voice messaging service. By contrast, competing voice messaging services must use an 11-digit 800 number, which is clearly less convenient for potential subscribers.)

These few examples show that the BOCs continue to have considerable ability to cross subsidize their voice messaging operations with revenues obtained from monopoly service rate payers. Moreover, the experiences of ATSI's members prove that the BOCs will *in fact* cross subsidize where such action gives them a competitive edge in the voice messaging market. The only way to curtail this anticompetitive behavior is to impose a separate subsidiary requirement that forces the BOCs to engage in the same type of arms-length dealings for basic telephone services that every other competitor in the market must employ.

4. Billing and Marketing Practices

The current regulatory regime also encourages the BOCs to use the advantages inherent in their billing practices to discriminate against competing enhanced service providers. In particular, the BOCs are able: (1) to market their voice messaging services simply by inserting advertisements and other information in bills for basic telephone services; (2) to consolidate the billing for their voice messaging services with their basic telephone service; (3) to use basic service personnel to collect unpaid voice messaging bills; and (4) to waive telephone installation or termination charges for voice messaging customers. It should be stressed that the BOCs' ability to bill for voice messaging services in this fashion does not arise because they are unusually efficient, but because they already have billing procedures for one monopoly business — basic telephone service — which they can easily use for another competitive one.

By contrast, competing messaging bureaus have none of these built-in advantages. Rather, they are required to replicate the entire billing process, which is very time-consuming and expensive.

A truly level playing field would require all participants in the market to face the same sorts of obstacles when billing customers. Clearly, a separate subsidiary requirement for the BOCs would go a long way toward achieving this goal.

5. Other Discriminatory Practices

The BOCs' ability to engage in anticompetitive conduct is confirmed by positions they have taken in recent rulemakings before the FCC. In the ONA proceeding, for example, several BOCs stated that they intended to engage in "value-based pricing" when offering ONA services to enhanced service providers. Under value-based (or "strategic" pricing), a BOC would be able to charge its competitors what it thought they would pay for a particular service, rather than base its prices on actual costs. Although the BOCs stated that their new pricing strategies would be applied to their own voice messaging operations and their competitors alike, the new, higher rates would have seriously disrupted their competitors' operations, giving their existing subscribers an incentive to look around for a new service provider — such as a BOC.

Similarly, in the same proceeding, Pacific Bell and Nevada Bell suggested that ONA does not obligate the BOCs to provide enhanced services on a level playing field, but entitles them to any number of unique advantages arising from their local exchange monopolies. In particular, these BOCs claimed that the FCC's nonstructural safeguards are intended solely to

allow the telephone companies to enjoy "definite and distinct advantages . . . from integration" — advantages they are not required to provide to other enhanced service providers. These bald assertions are potent evidence that, in the absence of government intervention, the BOCs will continue to use their leverage as monopolists in the local exchange market to the disadvantage of competing enhanced service providers.

Solutions

For many years, enhanced service providers, including ATSI's members, have argued that the BOCs should not be permitted to provide enhanced services over the same network that they control. These arguments have been based on genuine fears that the BOCs would use their monopoly position as local exchange carriers to engage in anticompetitive and discriminatory conduct against the very businesses that need the telephone network to survive.

Recently, the messaging bureaus represented by ATSI have faced real competition from the BOCs in the voice messaging market. Although the FCC has attempted to impose safeguards on the BOCs to prevent any anticompetitive abuses from occurring, the fact is that those safeguards simply are not adequate. Indeed, ATSI's experience to date is that the current regulatory framework does little to curb discriminatory conduct and is not able to detect and correct such conduct when it does occur.

Short of keeping the BOCs out of the voice messaging market altogether, ATSI believes that there are several steps that can be taken to help ensure that the market for enhanced services such as voice messaging will be healthy and truly competitive.

Arm's Length Dealings: BOCs wishing to offer enhanced services should be required to do so through subsidiaries that are completely separate from local exchange companies offering basic telephone service. Such enforced "arms-length dealing" is the only way to control the abuses that will inevitably arise if the BOCs are permitted to provide enhanced services under today's regulatory framework.

Statutory Safeguards: The current regulatory safeguards should be modified to prevent the BOCs from engaging in anticompetitive conduct against their competitors in the enhanced services market. By increasing the effectiveness of the present safeguards, policymakers would help to put everyone in the market on an equal footing and give every competitor the same chances of success. In particular, CPNI rules should be modified to treat equally all enhanced service providers, whether or not affiliated with a telephone company.

Workable Enforcement: Increased enforcement mechanisms should be developed and implemented so that regulatory safeguards will be worth more than the paper on which they are written. Clearly, the best safeguards in the world will have no effect on the BOCs' behavior unless the regulators are able and willing to enforce those safeguards when breached by a local exchange carrier.

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ATSI
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JOSEPH N. LASEAU
Executive Vice President

June 19, 1989

The Honorable Edward Markey
United States House of Representatives
2133 Rayburn House Office Building
Washington, D.C. 20515

Dear Mr. Markey,

Thank you for your interest in listening to our concerns and for attending the May 31 hearing at which I testified. As was demonstrated by the attendance at the hearings, fair competition is an important issue for many telecommunications groups and information services providers.

Since telemessaging is the lead telecommunications industry that the RBOCS have entered, no group is more concerned than ours. Competitive safeguards are an extremely important issue with our members. They are keenly aware of the fact that without proper safeguards the telephone companies advantages would make competition impossible.

Regrettably, the hearings had to be cut short and left some important points untouched. I wish to reiterate my willingness to elaborate on the issues with you in person or to send any additional information that might be helpful.

I have enclosed a short document that addresses factors impacting the future growth and competitiveness of the telemessaging industry. I think you will find it helpful in reaching a better understanding of our industry's concerns.

Again many thanks.

Sincerely,

Formerly Associated Telephone Answering Exchanges, Inc.

FACTORS IMPACTING GROWTH AND COMPETITIVENESS OF THE INFORMATION SERVICES INDUSTRY

Far from being "at the threshold" of the information age, the United States is clearly well advanced into that age with a wide range of companies competing to find new and creative ways to provide services which meet every conceivable consumer need. While there is a well established and growing information services industry, service availability to date and future growth have been or may be limited by factors relating directly to the local exchange telephone companies continued bottleneck control of vital facilities.

The Federal Communications Commission has put in place a series of competitive safeguards which are designed to allow the monopoly telephone companies to fully integrate their competitive and monopoly service operations while, at the same time, creating a "level playing field" for competitors in the information services market. Many of these safeguards, however, are new, untested, undeveloped and, in some instances, seriously flawed.

The ability of the local exchange telephone companies to unlevel the playing field, despite the safeguards now in place, are examined briefly below.

Adequate Interconnection Features

Key to each segment of the information services industry is a dependence on basic, local telecommunications services as their link to customers. Telephone company tardiness or failure to provide desired, interconnection features has had a chilling effect on industry efforts to bring information services to the marketplace. Particularly disturbing, from a competitive policy perspective, has been the telephone companies' failure to provide the necessary infrastructure to support or expand a market segment until their own entry into the competitive market has been permitted.

A good case in point is the telemessaging industry.

The original telephone answering service (or TAS) industry provided service by having an extension of each customer's basic phone service wired to the bureau location. In the late 1970s, telephone companies re-priced this type of line, making this mode of operation increasingly expensive. The local exchange, monopoly telephone companies, however, introduced no new technologies as an alternative for the TAS industry to the traditional, off premise extension line. Enterprising TAS providers, however, managed to combine two, unrelated telephone company services which had been designed for other purposes (direct inward dialing (DID) numbers and call forwarding) to create an alternative customer connection. Not surprisingly with a juryrigged solution, there are severe functional limitations to this type of customer interconnection and, until very recently, only limited availability. DID/Call Forwarding has nonetheless become a mainstay for the industry and enables telemessaging bureaus to offer more cost effective services to smaller users.

In 1981, the Bell System was prepared to introduce significant advances to call forwarding technology which would have made this form of interconnection not only cost efficient, but also functionally superior to the more costly hardwire. The Bell System, however, planned to make these new, interconnection features available only to customers who connected to Bell's planned voice messaging services. In 1982 the Federal Communications Commission ruled that the Bell System could only offer voice messaging if they made these enhanced interconnection features available to all messaging service providers on an equal basis. Rather than do so, Bell elected to withdraw these services altogether. The resulting lack of anything but the crudest interconnection arrangements from the telephone companies has greatly limited the development of the telemessaging services industry and inhibited widespread, public availability of these services.

The Regional Bell Operating Companies (RBOCS) only recently began to respond to telemessaging industry requests for advanced call forwarding features and other network services which will further open the market for both live operator and voice messaging services. This new responsiveness to messaging industry needs coincides exactly with regulatory and legal clearance being given for their own entry into the messaging market.

Open Network Architecture (ONA)

One positive step toward relieving this situation is the adoption by the FCC of a policy requiring Open Network Architecture, or ONA. ONA is a policy which encourages the evolution of the basic telephone network into one in which all information service providers (whether affiliated with the telephone company or not) have fully equal access to the technical capabilities of the network and a high degree of flexibility in designing and implementing interconnection arrangements which meet their specific needs.

The concept, however, is many years, if not decades from practical implementation. Initial ONA plans filed by the seven RBOCs offer a very limited number of technically imperfect Basic Service Elements (BSEs) which will be available only in a limited number of primarily large, urban areas. Even in those metropolitan areas where ONA services are made available, the geographic coverage will be limited.

Moreover, the FCC has specifically exempted the 1400 local exchange carriers serving areas not covered by the Bell companies from any requirement to implement ONA.

ONA could offer tremendous opportunities for the future. But, while giving due credit for the sincere efforts and hard work of the telephone companies and information services industry alike to begin the evolutionary process, the network is not and will not for the immediate future be appreciably more open than it is today.

Pricing of ONA Services

No responsible member of the information services industry ever suggested that information service providers should get basic network services needed to access their customers at a subsidized or less than fully compensatory rate (That is, cost plus the same level of contribution to residential, basic service which other business services pay). A significant problem for the future growth of the information services industry, particularly in efforts to expand offerings to residential and small users, is the telephone companies' efforts to price ONA services at a premium rate. This so-called "market-based" or "strategic" pricing of monopoly services artificially increases the price above customary cost plus contribution.

Raising the amount which the information service provider pays to the telephone company for interconnection services forces the price to the end user of the information service itself to rise. Particularly for residential and small users, this often drives the cost of the service above the market's willingness to pay.

Besides unnecessarily depressing the market for and availability of information services, this situation has some disturbing competitive implications. The telephone companies enjoy the extra profit from overpriced interconnection services used by both its own and unaffiliated information service providers. It can afford to operate its own competitive, information service at a break even basis or even at a loss in order to generate revenues from interconnection services. Unaffiliated information service providers do not enjoy this same advantage and must price their service to fully recover interconnection costs.

While the short term results may have some perceived benefit to the basic network and universal service goals, the long term effect will be to eliminate competition in the information services industry. This would not only deprive the American public of the advantages of having diverse and price competitive information service offerings available to them, it would eliminate the substantial revenues from necessary interconnection services which a thriving, independent information services industry will generate for the telephone companies' basic network.

Billing and Collection

Residential users typically have relatively small monthly bills for their limited or infrequent use of information services. Another key aid in better reaching this market would be the ability to bill and collect information service charges as part of the customer's regular telephone bill (just as long distance companies currently include their charges on the customers local telephone bill). Unfortunately, the telephone companies have consistently refused to bill for any but their own information services and the Federal Communications Commission has declined to exercise its authority to compel such support.

Accounting Safeguards

Accounting safeguards are designed to prevent cross subsidies between a telephone companies' regulated and unregulated activities. Bookkeeping solutions, however, have never proved effective in the past, even in the much simpler environment in which monopoly and competitive services were kept separate. Moreover, the General Accounting Office has determined that the FCC is only capable of performing an audit of phone company practices only once in every sixteen years. This is a serious concern since even a very modest misallocation of costs would result in enormous dollar amounts being charged to basic telephone subscribers which should be attributed to competitive services. For example, in the voice messaging market, Dr. Peter Huber estimates that a misallocation of as little as one percent would result in $3.5 million in BOC messaging services costs being added to basic service customers.

Joint Marketing and Customer Proprietary Network Information (CPNI)

While safeguards like ONA and Cost Allocation Manuals are sound concepts which are unfortunately lacking in practical effectiveness, other safeguards simply give unfair advantage to telephone company competitive operations at the expense of competitors and basic telephone customers alike. These include Customer Proprietary Information (CPNI) regulations and joint marketing provisions.

Customer Proprietary Network Information (CPNI) is the data on basic, monopoly telephone service subscribers which is accumulated by the telephone company. Current FCC rules allow the telephone companies' information service marketers unrestricted access to CPNI unless the customer specifically requests that such access be denied. The telephone companies are only obligated to inform large business users that CPNI may be used by telco marketers and that subscribers have the right to restrict such access.

Competing information service providers, on the other hand, have no access to CPNI unless each individual specifically releases it to them.

Not only does CPNI provide telephone company information service marketers with invaluable information about who and where its potential customers are, it raise serious privacy concerns for basic service subscribers.

FCC rules also permit telephone company sales personnel who take orders for new phone installations to market information services. Before competing information service providers could possibly learn of a new phone subscriber's existence, that party will either have subscribed to the telephone company's information service or have considered and rejected the telephone company's offer to subscribe to the same service.

Furthermore, when an information service provider is able to close a sale, his new customer must order necessary interconnection services from the telephone company . . . giving the telephone company an opportunity to counter-sell their own competitive service offering.

Mr. MARKEY. Unfortunately, we do have a bottleneck problem over here. Fortunately, we have a solution which is that if we suspend the proceedings right now and everyone is willing to quickly move upstairs to room 2322, we can reassemble at exactly 2:30 and recognize our next witness, Mr. Gunter.

The next witness is Mr. John Gunter, vice president for information services and market planning for Bell. Welcome, Mr. Gunter.

STATEMENT OF JOHN R. GUNTER

Mr. GUNTER. Mr. Chairman, on behalf of Bell, I thank you for convening this session and inviting us to participate with you in exploring this important topic. I believe you have demonstrated another important sense of urgency in addressing the subject before you today.

The issue needs to be addressed and dealt with during this 101st Congress. I command Congressmen Swift and Tauke for introducing H.R. 2140. We applaud their initiative and the initiative of this subcommittee in bringing the debate to the appropriate forum.

I am responsible for directing Bell's activities and information services so I have a keen interest in today's topic.

The United States is a leader in telecommunications technology and computer technology. We are a leader in the deployment of infrastructure but not a leader in information services in this Nation.

I believe one of the reasons for that is that we have kept the Southern Bell holding companies on the bench while we have fallen further and further behind in the game. I would like to address what is needed to bring about the critical mass of information services in this country.

While I think there are several factors, there is one I think is particularly important and that is content and specifically content that meets customer needs. Let me give you a real world example.

We have in operation today in Atlanta, GA, a program called the Transparent School at the middle school in the south part of Atlanta, GA.

We have introduced a service that allows parents and teachers to communicate with each other. That does not seem like too big a deal.

But educators tell us that that is one of the reasons for the decline in education in this Nation right now, that parents and teachers have ceased to communicate. There are lot of good reasons: two-wage-earner families to keep people's schedules such they can't get in touch. A professor of education tried an experiment some time back when he equipped each teacher with a regular conventional answering machine and asked the teacher to place on the greeting of that answering machine a brief synopsis of what the assignment was for the next day.

And the parent could dial the number of their student's teacher and find out the assignment for the next day. That got rid of a lot of excuses such as "the dog ate it", "we don't have any", or all the things students have come up with when asked by their parents about their homework.

We have taken that idea a step further and put in an audio text gateway which now allows a parent to dial in. They can use the tone dialing telephone to secure a message from a principal, a guidance counselor, or navigate specifically to their son or daughter's teacher in a particular subject and find out a brief synopsis of what went on in class today and also what the assignment is for the next day.

Furthermore, since we have assigned each teacher a voice mailbox, they can then leave a message for the teachers that they are concerned about why Johnny or Mary is not doing quite so well on this subject and ask for perhaps other things they might do to help them along.

Our role in that service right now is limited because of the restrictions. The consultant we have been using has explained this service to school districts throughout the southeast. We now have requests if a number of States where they would like for us to bring this demonstration to try it.

In the areas where it has been used, carefully documented studies have shown an increase of 500 percent, a fivefold increase in parent-teacher communication and parent-teacher interaction.

Think about the possibilities if we could expand this service, get across the ladder boundaries so we can take this rather expensive equipment and reach out into other areas. It is not a matter people want to do on a line of communication.

They, frankly, could care less where the box sits. They do want to have low cost and economical service. This type of incidental interladder usage we believe is in the public interest.

Suppose we could expand that? Think about such things as perhaps an electronic PTA that might meet the needs of parents and teachers to further their interaction.

There are a number of other examples I would like to discuss. I hope we can get to them in the question and answer period. We have had examples in the health field, public safety, things we believe we can do in the rural community.

I want to close with a brief mention of one thing I think is going to be vitally important as we try to spread this electronic information infrastructure out to all the people in the Nation. I have heard some of you comment about your concern about the haves and the havenots in the information world.

Clearly, that is a very valid concern and one that is very prevalent. There are indeed a small group of haves and a large group of havenots. When I try to explain information gateways to people, I frequently use the analogy of the shopping mall.

The shopping mall operators have learned they need anchor stores and specialty stores. We believe the electronic yellow pages can be an anchor store in the electronic shopping mall. It is not the only anchor store, but we think it is a vital one.

Just as anchor stores draw traffic in shopping malls, we believe the electronic yellow pages will draw traffic in the electronic telecommunications field.

We also think if we are going to bring these services to the rural areas, we have to get around the incidental interladder prohibition. Re cannot afford to put the expensive processors in every ladder where density is low.

If that is not removed, it is going to mean those who live in the urban areas who have a wealth of information service available to them will continue to be the information haves and those who live in the less densely populated areas will be the information havenots.

I hope we are going to have the opportunity to explore those and other questions later in the question and answer period. It seems to me in conclusion, the overarching question this committee must face is will the benefits in the information age come to the greatest number of Americans if we maintain the status quo?

Obviously, I believe the answer to that is no. If we need change, what should we do? I believe we need to remove restrictions on the Bell companies to meet customer needs. We recognize safeguards must accompany the removal of these restrictions.

We are prepared to work for reasonable solutions to reasonable concerns. Let's get the United States out of this position we are now in today that is preventing us from reaching our full potential.

[The prepared statement and letters of Mr. Gunter follow:]

PREPARED STATEMENT OF JOHN R. GUNTER, VICE PRESIDENT, INFORMATION SERVICES AND MARKET PLANS, BELLSOUTH CORPORATION

Mr. Chairman. Members of the Subcommittee. My name is John R. Gunter and I am Vice President, Information Services and Market Plans at BellSouth Corporation. It is my responsibility to direct BellSouth's entry into information services and coordinate our marketing strategies.

BellSouth appreciates the opportunity to share its views on the information services marketplace. I commend Chairman Markey for convening these sessions, and Congressmen Swift and Tauke for introducing legislation that brings these issues to our Nation's attention.

The United States is the world's leader in the development and deployment of computer and communications infrastructure, but we are not the world's leader in the strategic information services business. Why, with this tremendous advantage in technology, is America not in its rightful place of leadership in information services? I believe one reason is that the Bell holding companies are being held on the bench while the U.S. falls farther and farther behind in the game.

Because of constraints built into the modification of Final Judgment (MFJ), seven of the most technologically advanced companies in our Nation are being denied the opportunity to participate fully in the development of a robust information services industry that can advance the economic and social goals of our Nation and strengthen America's competitive position in the global marketplace.

Other governments do not place such constraints on their leading high-tech companies. Singapore, for example, has positioned itself as an electronic crossroads in the global financial transactions marketplace, thanks to the coordinated development of public policy and technology.

In America, the information services market has developed to the point that businesses, particularly larger businesses, have reasonable access to data bases that serve their information needs. However, the same economies of scope generally are not available to smaller businesses and residential customers. We believe America's interests will best be served by policies that encourage the widest possible deploy-

ment and use of services that technology will allow. But other Nations are much further along than the United States in making information age services attractive and economical to the average consumer.

While I do not suggest that the U.S. follow the French model in developing its information services infrastructure, I do applaud their success. According to a recent estimate, the French make 67 million videotex calls per month, compared to only 6.5 million per month in the U.S. In the French Minitel system, more than 8,000 services are available, including home banking and shopping, and health information and medical alert services.

We believe that if the Bell holding companies were free to fully and actively participate in the information services business, we could further accelerate the growth and availability of information age services in America. Our telephone networks provide access to nearly every household in our service area. We have the financial, technological and people resources to extend the reach of information services to a broad base of American people, particularly those in rural areas.

The Court's March 1988 information services order opened up limited opportunities for BellSouth to contribute to the emerging information services industry through the provision of gateways, electronic mail services and voice messaging services. But the order did not go far enough. As long as our hands are tied by the restrictions of the MFJ, we'll not be able to tap into our full capabilities to serve our customer's needs and interests. It is important to remember too that not only were information services not a part of the original antitrust suit, the two parties to the settlement, AT&T and the Department of Justice, agree that the information services restriction has outlived its usefulness.

Specifically, we seek permission to provide information services content that is of value to consumers. Electronic yellow page directories and advanced 911 services are two such examples. Secondly, we seek incidental inter-LATA relief that will allow us to deliver information gateways and other services to all consumers regardless of where they live, but particularly those who reside in rural communities, without needless redundancy of facilities. Finally, we seek the flexibility to invest our resources in the design and development of new products and technologies that will help build a critical mass for information age services.

The MFJ defines information services as "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing or making available information which may be conveyed via telecommunications."

Examples of information services are home shopping, news retrieval, travel information and scheduling, specialized bulletin boards such as job lines, financial data and investment opportunities, health news, research and consultation, special interest forums and local interest data. In fact, all of these services are now offered over existing gateways, and are primarily used by businesses, professionals and computer hobbyists who have the wherewithal to spend thousands of dollars on a home computer and modem.

In a U.S. District Court order on March 7, 1988, the Bell holding companies gained permission to engage in the transmission of information, but were prohibited from the generation of information content. Specifically, the order allowed the Bell companies to offer audiotex and videotex gateways, electronic mail and voice messaging services. The intent of the order was to make information services available to a broader base of residential and small business consumers.

BellSouth has acted quickly and decisively to take advantage of these opportunities. In August of 1988, BellSouth became the first RHC to offer a videotex information gateway. Today, approximately 1400 Atlanta consumers are signed up to access the 26 local and national information service providers on the gateway.

In February, 1989, our voice messaging service, MemoryCall, was launched to the businesses of west Palm Beach, Florida. MemoryCall will be introduced to businesses and residences in Atlanta this summer, pending approval of the associated tariffs for specific features necessary to offer the service.

Voice messaging already is being used at a school in Atlanta to improve communications between teachers and parents. The service called Transparent School allows parents to call at any hour of the day or night to find out their child's assignments or leave messages for teachers. Parents and teachers have applauded this service as a positive step forward for education.

BellSouth's audiotex service, Big Call, was demonstrated at both political nominating conventions last summer, and received over 17,000 calls. In March, BellSouth introduced a mobile information service that provides Atlanta commuters who have car telephones with up-to-the-minute traffic reports and news about sporting events, concerts and other local activities. A new voice messaging service became available to Atlanta users of car telephones in April.

Last week, BellSouth announced the introduction of Message Central Electronic mail, an information delivery system that can help businesses gather sales reports, enter and verify orders, manage inventories, consolidate forecasts and distribute financial information. It is being marketed in major cities throughout the Southeast.

These few examples illustrate the commitment of BellSouth to participate in the information services marketplace.

Because of the Court's strict interpretation of restrictions on inter-LATA connections and manufacturing, the promises of gateways and messaging services cannot yet be delivered economically outside major metropolitan areas. Unless these restrictions are modified or eliminated, the benefits of information age technologies will not reach the vast majority of Americans.

Electronic mail systems offer a new way to deliver timely, accurate information for increased productivity for America's businesses, schools and hospitals. Today, these services are either too expensive or too complex for many small and nonmetropolitan users. BellSouth is positioned to make Message Central Electronic Mail available throughout its service area. However, current MFJ restrictions require our E-mail users to designate one or more inter-LATA transport providers each time they use the service. The requirement to break these services apart not only has a crippling effect on the marketability of the Bell company services, it is inconsistent policy because current E-mail providers are not under comparable constraints. They can bundle their services for the user's ease and convenience.

The current situation with gateways is even more dramatic. Gateway service is a key infrastructure component for delivery of information services. It permits individual users to gain access to a variety of information services using a single telephone number. Public gateways may offer America's best hope for delivering, at a reasonable cost, a wide range of local and national information services to masses of information consumers in nonmetropolitan areas. The Bell companies are particularly well qualified to help gateways achieve their promise because of their ubiquitous network connectivity, mass market experience and ordering, billing and support capabilities. However, the Bell companies today are prohibited by the MFJ inter-LATA restrictions from crafting the most economical network architecture.

In an opinion filed January 24, 1989, the MFJ Court held that the architecture contemplated by BellSouth for its videotex gateway constituted prohibited inter-LATA service. In the absence of a successful appeal or waiver, this opinion will very likely cause BellSouth to drastically scale back plans to deploy a videotex gateway.

The Court has ordered that the gateway processor must be in the same LATA as the customer accessing the gateway. With this order, every technological advantage of centralizing the expensive part of a network and widely distributing inexpensive remote access points has been thrown out the window. The requirement for redundant computer equipment in each LATA is not only an obvious misuse of national resources, the likely outcome is a further entrenchment of the present dividing line between today's information service "haves" and "have nots."

If the rule remains in place that a gateway processor must be in the same LATA as a gateway user, then gateway processors will only be placed in the few LATAs that contain major metropolitan population concentrations. These are the same places that have universities, libraries, museums, daily newspapers and a wide variety of local television and radio stations. In short, the same people who already have access to conventional information sources will be the only beneficiaries of the new gateways. The rural LATAs, the "have nots" of conventional information gateways, will still be the "have nots" of electronic information gateways. Unless we establish reasonable rules on inter-LATA connections, we cannot hope to have an effective information services business that is widely available in this country.

BellSouth believes that a useful gateway must not only offer many services, it must be well-designed, user-friendly and easy to access. Today, there are thousands of information data bases offered through various gateways. But to reach them the consumer has to know a multitude of access telephone numbers, complex network routing codes and a wealth of computer instructions. How can we expect the average consumer to embrace a technology so difficult to use?

This complex process could be simplified with well-designed software and menus on the gateway. Today, the MFJ restriction on content creation and manipulation prevents us from adding this functionality to the gateway. While many people point to the Prodigy service as a model of an easy-to-use gateway, BellSouth does not have the same opportunity to configure the service because the MFJ's information service prohibition is so broad. For example, not only does it prohibit us from providing information data bases, which are content, it also prohibits us from providing the most user-friendly gateways we can devise because the necessary software is also prohibited content.

The MFJ's manufacturing restriction is another threat to the development of a robust information services industry. Economic development and delivery of new technologies and equipment are crucial to establishing a critical mass for information services, especially in rural areas. The need for low-cost terminal devices is important, although we also believe the information services industry will become successful only when consumers have access to software that meets their information needs. Inexpensive terminals designed to work with videotex gateways could make information services available to many people who cannot afford personal computers. Without these terminals, and attractive software, the market is not likely to develop.

Because the Court has defined "manufacturing" to include virtually all the critical product development and delivery functions, the Bell holding companies are being denied the opportunity to help alleviate this problem.

In our view, this restriction must be eliminated to allow the Bell holding companies to work with the full range of interested parties to stimulate new product development. We need the freedom to joint venture and invest in companies that can design and develop a series of new terminals for the consumer at affordable prices. Any product resulting from Bell holding company involvement would be available to others on reasonable and nondiscriminatory terms.

Such terminals could serve many purposes, including video display, data and graphics. Such terminals would offer substantial opportunities in home information services, including shopping, news distribution, data base management and advanced two way video communications. They would enable small businesses to access gateway data base services that are normally available only through personal computer programs. Kiosk-type displays, with inexpensive terminals, could be placed wherever visitors or tourists are likely to be—at Welcome Centers, Tourist Information Centers, or in hotels, museums or parks. They could be used in medical and educational applications as well.

While the development of low-cost, feature-rich terminals is important to the future of information services, having the right information content is even more fundamental to developing a robust industry. I have a firm conviction that software sells hardware, and not the other way around. Why do people buy television sets? It's not because they enjoy electronic gadgetry or because they need an additional piece of furniture. No, the reason they buy the hardware is to receive the software of entertainment, news and sports programming. Why do people subscribe to cable TV? They rent that hardware to obtain the existing software of over-the-air programming or cable programming. When did personal computers begin to appear in business offices? It was when a piece of software called Visi-Calc introduced the new idea of an electronic spreadsheet. At that point, business people ventured into what had previously been the exclusive domain of the computer hobbyist. They purchased the PC hardware that had been around for several years in order to run the spreadsheet software.

I am convinced that information services for the masses will take hold for exactly the same reasons. We must have a wide variety of information service providers if information service gateways are ever going to catch on. These services must meet the information needs of consumers, and the marketplace will determine which services are of value. BellSouth is merely asking to be one content provider among the many who will offer their services through the gateway. In a recent nationwide survey, 78 percent of the respondents said they believe the Bell companies should be allowed to provide new information services, including health monitoring, home security services, electronic banking, databases and other services.

At the top of our list is an on-line electronic version of the yellow pages. Imagine how such a service would work. The customer would have access to continually updated listings of business customer name, location and telephone number on request. In electronic form, the user could store or organize the information according to his or her needs—by geographic area, business category or other special interest classifications. The consumer could find street directions from his or her location to the business listed address, and could initiate data base searches when the correct spelling or location is not available.

Although we don't think of them as data bases, the paper versions of these telephone directories are one of the most widely used data bases in this country. The vast majority of yellow page users, if asked if they know how to use a data base, would say "No." If you asked the same people if they know how to use and do use the yellow pages directories, they would say "Of course." And that's precisely the reason to provide electronic yellow pages; those who know how to use the yellow pages, but think they don't know how to use a data base, are the people we can bring into the information age.

If the yellow pages were available in an electronic medium, average consumers would have an easy, comfortable, nonthreatening way to learn about using electronic information. Knowing how to navigate a paper data base to find a particular auto repair shop or restaurant, they could transfer those skills to the electronic data base and find the same information. With newfound confidence, users could then boldly branch out into other data bases. Electronic yellow pages would become the magnet that draws these consumers into the new world of electronic information.

Electronic yellow pages could be particularly beneficial for businesses and consumers in rural areas. Since the cost of producing electronic directories is likely to be much less than the paper version, small specialty businesses in small town America could afford to advertise in urban directories, opening up new markets. They would have easier access to suppliers in larger markets. Likewise, consumers in rural areas could access electronic directories in urban areas to locate product and services not available in rural areas.

In explaining gateways, I favor the analogy of a shopping mall. Just as one building houses hundreds of vendors, a gateway is an electronic doorway that opens a passage to hundreds of information providers. Mall operators learned long ago that they need anchor stores and specialty stores to attract shoppers. So does the gateway. I believe electronic yellow pages can be an "anchor store" in the gateway, part of the software that will encourage Americans to buy the hardware necessary to connect to the gateway. BellSouth has no illusions that it will be the only store in the electronic mall or even the only anchor store. Just as every mall needs a wide variety of attractive merchants, so too do we need a wide variety of information providers. In fact, we want to use our resources to help bring entrepreneurs and their specialities into the mall, and design networks that will simplify and lower the cost for consumers to enter the mall.

A related information content service that would provide significant consumer benefits is an on-line, enhanced white pages directory service. In the March 1988 order, BellSouth was given permission to provide a basic form of electronic white pages, but that offering was limited to names, addresses and telephone numbers. By denying the Bell companies the ability to allow user searches other than alphabetical listings, the Court has put the service in a straitjacket, severely limiting its utility and value to the consumers.

If enhanced electronic data bases were allowed, users could easily search for listings when the correct spelling or exact location is unavailable. If they wanted to find a laundry service or a dentist located close to their home, they could search by general product or business category or by geographical location. Residential users also could create their own directories of frequently called telephone numbers. This enhanced directory could be used by businesses for direct marketing and promotional lists, and new listings and recent relocation data could be targeted for special marketing campaigns. The enhanced directory could include facsimile and electronic mail addresses that would be useful for business to business communications.

Transaction services are another area of information content where BellSouth could make a valuable contribution. Today, a number of institutions offer transaction processing, but most involve a closed relationship between the service provider and the customer. Financial institutions have made some progress in allowing consumers to gain access to multiple service providers; the proliferation of ATM machines that recognize multiple bank cards is one example. These systems still have limitations; if I travel from Atlanta to Washington, my bank card is not recognized by the ATM machines in your area.

In the medical services industry, some insurance carriers offer electronic processing of claims to doctors, dentists and pharmacies, but the majority are still handled by mail. For electronic transaction processing to become widespread, multiple insurance carriers need the ability to communicate electronically with multiple types of health care providers.

The Bell holding companies are well situated to serve as a clearing house between the client and customer in both the financial transaction and medical transaction examples. Because we are not a bank, and have no interest in becoming a bank, we can serve as a neutral presence between the bank and its customers. We can maintain the privacy of the bank's data without entrusting it to one of its competitors. However, any clearing house that is prohibited from crossing LATA boundaries is bound to have very limited application. This is another example where incidental inter-LATA relief could help develop new information services with practical consumer and business applications.

Similarly in the medical industry, we would uphold the confidentiality of all records and business transactions, while providing a service that improves the cash

flow for patients in both rural or urban areas by providing a faster, more accurate method of processing claims.

The problem in these examples is that the Bell holding companies currently are not allowed to provide the routing/delivery and editing functions currently associated with these services without switching in and out to third party vendors. This approach raises the cost of the service and complicates the process considerably. When the huge additional costs associated with the inter-LATA restrictions are added to this equation, it becomes impossible to deliver these services to rural America economically.

Enhanced 911 Service is one information content-related service that the Bell holding companies are allowed to offer under waiver granted by the Court at divestiture. Since these emergency reporting systems were first introduced, they have saved thousands of lives. BellSouth currently is deploying Enhanced 911 systems that provide addition protection by automatically identifying originating telephone locations and optionally routing calls to the appropriate Public Service Answering Point.

If permitted by the Court, further advancements to E911 could provide additional dispatch information and management reports to aid responders in emergency situations. Information could be supplied to Public Service dispatch personnel, including driving instructions for responding fire/police stations and vehicles and personalized data on the caller or dwelling where the call originated. Caller health data might include coronary histories, drug allergies, diabetes, or wheelchair-bound conditions. For businesses, the information might alert the team of the presence of hazardous materials, or emergency entrances and exits. Another advance could provide management reports for Answering Point personnel, enabling local government administrators to manage the E911 systems effectively and better utilize operating funds.

The information services industry currently is made up of a number of formidable companies including Dun and Bradstreet, members of the American Newspaper Publishers Association, Dow Jones, IBM, Quotron, McGraw-Hill, EDS, Digital Equipment, General Electric, Sears, Arthur Anderson, AT&T and others. All are likely to be significant participants in the information services marketplace.

Many parties strenuously oppose Bell holding company participation in information content. They argue that Bell company involvement as a content provider would impede competition. They contend that each of the RHCs has monopoly control of the local telephone network and could use that control to engage in anticompetitive practices. In my view, Federal and state regulatory safeguards already in place were specifically designed to prevent anticompetitive practices.

In addition to the guarantee that all interexchange carriers be provided equal access to the local exchange networks, the Bell holding companies are required by the MFJ to provide nondiscriminatory access to the various information service providers. We are required by the FCC to provide Comparably Efficient Interconnection and Open Network Architecture for enhanced service providers. The FCC's network disclosure rules require timely disclosure of network technical information and interconnection requirements to equipment manufacturers. The FCC has established rigorous accounting rules for the Bell companies regarding the provision of information related services. These rules require the strict separation of joint and common costs between regulated and nonregulated operations. Additionally, the FCC and various state regulatory commissions require vast amounts of reporting on operational and financial results, regularly conduct audits of our records, and seek the comments of all interested parties in regulatory proceedings which come before them.

Another concern raised to preclude Bell company entry into the information content market is local exchange company access to customer proprietary network information (CPNI). Under existing rules, however, the potential for misuse of this information has been eliminated. Residential and single line business CPNI must be made available to any information service provider designated by the customer. The customer also has the right to instruct a local exchange company to withhold CPNI from that company's affiliates. The FCC also requires aggregate CPNI, a compilation of CPNI of a general nature, to be made available to unaffiliated information service providers on the same terms and conditions that a local exchange company makes such information available to its affiliated companies. Therefore, we believe existing FCC rules address and eliminate potential misuse of customer proprietary network information.

Beyond these regulatory safeguards, there is a common sense argument about why we would not engage in anticompetitive practices. Discriminating against other information service providers does not make good economic sense for BellSouth. We're all trying to build a strong information services marketplace, and offering a

wide, diversity of choice is a key to consumer acceptance of information age services. As the information gateway provider, it's to our benefit to have a rich array of content providers beckoning consumers to use the gateway.

BellSouth is working hard to develop these varied providers. We have spent considerable time and resources approaching, negotiating with, and persuading existing information providers to be on our gateway. We are pleased to have them, and we want their businesses to grow and flourish.

We also have encouraged some people to enter the electronic information business who never would have been able to do so on their own. For example, we have a local hospital that is now an electronic information provider. Piedmont Hospital in Atlanta offers a cardiac risk questionnaire, tips on diet and exercise, and information on wellness. If the patient is of the four-footed variety, we have a gateway to a service called Ask-A-Vet. The consumer logs in and asks for information about pet health care. These questions are fielded by two veterinarians who also are entering the electronic information business for the first time.

I believe these local, entrepreneurial information service providers will be the forerunners of exciting services yet to come. And it is in our enlightened self-interest to see that they prosper, and that's what we will continue to do.

Many diverse groups have an opinion on how America should claim the promise of the information age. But we all share the vision of strong and dynamic strategic information services industry where America leads the world in using information resources for competitive advantage. And many of us believe the promise of the information age should not be limited to the "haves" of our society, but also should extend to the "have nots"—the small businesses and consumers of our Nation who are not residents of metropolitan communities.

BellSouth believes America's ability to develop and maintain a robust information services industry will depend on building a sufficient customer base—a critical mass—that will support information services and products. As we have said on numerous occasions, this critical mass will not develop without the combined effects of four elements: 1) quality software; 2) services that meet consumer needs; 3) economical, user-friendly systems, i.e., the hardware of gateways and access terminals; and finally, 4) strategic alliances between information vendors, providers of transmission systems, consumers and equipment suppliers.

No single company, including BellSouth, can make this industry a success by operating alone. But we would like to use our expertise and resources to their full potential as a major participant in the information services challenge. We would like the freedom to consider all avenues for bringing information services to market. We need to be able to analyze the full spectrum of service offerings, including content generation services such as electronic directories and transaction services. We need modifications to the inter-LATA restrictions when such facilities are incidental to offering our primary services. And we need the ability to fund new product design and development by other companies that will make it easier for consumers to access and use information services.

In response to a question about future controversy in the information services market, John F. McLaughlin, Executive Director of the Harvard Program on Information Resources Policy said in part: "We know the controversies are there and we know that most of them are insoluble, especially when people debate theoretical offerings in advance. What we really need is an environment that allows for a lot of market experimentation, an environment in which regulatory paralysis does not cause every new idea to arrive stillborn. Creating such an environment will not guarantee success for new services, but the absence of such an environment will guarantee failure."

There are no guarantees in the information services business, but we believe elimination of the MFJ restrictions I have described will give our Nation the best chance for its information services to grow and prosper. In fact, we believe the full participation of the Bell holding companies will accelerate that growth, and encourage the widest possible use of such services that technology will allow. We are firmly convinced consumers will benefit from the growth of a vigorous and diverse information industry that delivers health, education, public safety, and other services that enhance the quality of life for all Americans.

On behalf of BellSouth, I thank you for the opportunity to appear before the Subcommittee and comment on this important matter.

BELLSOUTH CORP.,
Atlanta, GA, June 29, 1989.

Hon. MICKEY LELAND,
Rayburn House Office Building, Washington, DC.

DEAR CONGRESSMAN LELAND: I appreciated the opportunity to present my testimony before the House Subcommittee on Telecommunications and Finance on May 31.

I received your June 19 letter and appreciate your concern about the development of minority and small businesses in the information services industry. In my view, allowing the Bell Companies to be full participants in the industry will have a positive effect on the development of these businesses. I'd like to explain that position in more detail in my written response, which I will provide to you in the next several weeks.

Sincerely yours,

JOHN R. GUNTER,
Vice President, Information Services and Market Plans.

BELLSOUTH CORP.,
Atlanta, GA, June 30, 1989.

Hon. EDWARD J. MARKEY,
Chairman, Subcommittee on Telecommunications and Finance, Washington, DC.

DEAR MR. CHAIRMAN: I appreciated the opportunity to provide my testimony before the House Subcommittee on Telecommunications and Finance on May 31. I will be happy to respond to the additional questions from the members of the subcommittee that you communicated in your June 23 letter.

Unfortunately, I have been out of the country and just returned on Monday of this week. I will give thoughtful consideration to each question, and provide you with an appropriate response in the near future.

Sincerely yours,

JOHN R. GUNTER,
Vice President, Information Services and Market Plans.

Mr. MARKEY. Our next witness is Mr. Richard Shriver, senior vice president, information systems and technology from McGraw-Hill.

STATEMENT OF RICHARD H. SHRIVER

Mr. SHRIVER. Thank you very much, Mr. Chairman.

On behalf of McGraw-Hill, we welcome this opportunity to participate in this briefing session and I hope by our contribution, we will aid in your consideration of the important issues facing the telecommunications and information industry today.

I should point out that this is the first time in nearly a decade that McGraw-Hill has presented any testimony before Congress. I am here because like many other information service providers, we are concerned, McGraw-Hill is concerned, about the future of the information services industry and the telecommunications infrastructure on which the industry relies.

As one of the Nation's leading information service providers, we have an obvious and significant stake in the development of the markets for information services in this country and around the world. To a large degree, continued growth in those markets depends upon the availability of efficient, low cost communications and gateway services, particularly those provided by the Bell operating companies.

Congress, too, has played and should continue to play an important role in assuming the American public enjoys all the benefits of the information age.

McGraw-Hill services worldwide information markets in areas of education, business, industry, the professions, government. In each of these areas, McGraw-Hill is either established or is in the process of developing online data bases that are accessed by the public, principally businesses, small businesses, government and individuals both in the United States and abroad. In addition, dozens of McGraw-Hill's services, which are outlined in the written submission are available online through Mead Data Central's XEXUS Dialogue Information Services and others.

So the information services industry is growing vigorously. The United States is the acknowledged world leader in the provision of information services.

No other country comes close yet. This country continues to be a net exporter of information services. This very positive economic picture could change dramatically if the BOC's—the Bell operating companies.—are allowed to enter the operational services market on a full-scale basis at this time. We are not concerned about fair

competition from the Bell operating companies. We have many aggressive and innovative contributors including Dun & Bradstreet, Knight-Rider, the list goes on and on.

Our concern is simple: no matter what safeguards are devised, they will be wholly inadequate to prevent the BOC's from creating a substantial unfair competitive advantage at this time in the information services market.

The eventual result, Mr. Chairman, could be just the opposite of what H.R. 2140 is trying to achieve: reduced competition, fewer and less diversified information sources, and the possibility that, as a Nation, we will lose our competitive edge in the global market for information services.

Why don't we believe competitive safeguards will work at the present time?

Primarily because the anticompetitive behavior will be difficult to detect, difficult to prove, and virtually impossible to enforce. I cannot envision a legal person sitting looking at the safeguards and not devising means, totally legal, to put forth what we would consider anticompetitive capabilities.

Like all vendors of electronic information services, McGraw-Hill relies on the Bell operating companies.' monopoly, transmission facilities. We have virtually no practical alternatives today.

Given the Bell operating companies.' monopoly over local transmission services and its customers' information, we believe they would have the ability to cherrypick which information services to develop or acquire or which customers are the best consumers of information and which are the most creditworthy. These are just some of the critical considerations that we have addressed.

Another very key concern stems from the Bell operating companies.' ability to discriminate in the quality of the communications services on which we depend despite the best of intentions.

Up to a point, consumers are willing to trade information quality in favor of reliable service, speed of delivery, and ease of use. We at McGraw-Hill with many online services and services that demand up-to-the-second delivery for traders and various stocks, bonds, commodities, oil price and so on, we are often blamed and we lose customers because of communications outages over which we have no control.

This means that the Bell operating companies. have a powerful means of disadvantage—of being disadvantageous to the vendors. Re are also concerned about the pricing of communications services on which we rely.

Telecommunications costs make up a significant portion of the total costs of providing information services. The industry average we are told is between 20 and 30 percent.

Despite the FCC's rule requiring parity pricing, we see many possibilities for the BOC's to sat prices for their basic communications services so as to unfairly advantage their own information offerings.

We believe that the main focus of Congress today should be to assure that the Bell operating companies. remain committed to upgrading their transmission capabilities and rapidly deploying their gateway systems.

The Bell operating companies. have a crucial role to in operating both the highways and gateways of the information age.

We as information providers are attempting to plan for Bell operating companies.' introduction of new technology and features into their basic networks.

The deployment of these new technologies should continue significantly to the growth of the information services market. They will make it easier, more efficient and more economical for us to reach a wider audience.

This does not mean that we believe the Bell operating companies. should never be allowed to offer information services. But it is a matter of timing.

The information industry has demonstrated its readiness to meet consumer demands from all segments of the market including any that I have heard mentioned here today.

There is a right time and a wrong time for every service and because McGraw-Hill and other electronic publishers do not have the luxury of a regulated rate base from which to draw considerable resources needed to develop, test, implement, and market online data based services, our decisions must be based on thorough risk analyses and intimate knowledge of the market.

Timing is also important in terms of the Bell operating companies' fullscale entry into the information services market. In our view, the time could not be worse for the Bell operating companies' entry into this market.

Congress should allow ample time for the recent impending changes to settle before it lifts the information services restriction. We encourage you to direct the FCC to carefully monitor these developments over the next several years.

In conclusion, Mr. Chairman, we urge Congress to study the record that is being developed here as well as the extensive record before the divestiture court.

[Testimony resumes on p. 103.]

[The prepared statement and attachments of Mr. Shriver follow:]

PREPARED STATEMENT OF RICHARD H. SHRIVER, SENIOR VICE PRESIDENT, INFORMATION SYSTEMS AND TECHNOLOGY, AND CHIEF TECHNOLOGIST, MCGRAW-HILL, INC.

Good afternoon. On behalf of McGraw-Hill, I welcome the opportunity to participate in this briefing session, and hope that our contribution will aid in your consideration of the important issues facing the industry today. I should point out that this is the first time in nearly a decade that McGraw-Hill has presented testimony before Congress. I am here because, like many other information service providers, McGraw-Hill is concerned about the future of the information services industry and the telecommunications infrastructure on which the industry relies. As one of the Nation's leading information service providers, we have an obvious stake in the development of the markets for information services in this country and around the world. To a large degree, continued growth in those markets depends upon the availability of efficient, low-cost communications and gateway services, particularly those provided by the Bell Operating Companies ("BOCs"). We believe that Congress has played—and should continue to play an important role in ensuring that the American public enjoys all of the benefits of the Information Age.

As senior vice president, Information Systems & Technology, for McGraw-Hill, I am responsible for managing the telecommunications system on which we rely to generate our information services and distribute them to subscribers. These systems are also used for McGraw Hill's internal communications needs. In this capacity, I am responsible for monitoring developments that offer McGraw-Hill new opportunities to reduce its telecommunications costs. As Chief Technologist, I am also constantly on the lookout for new technology applications that will improve the formatting and delivery of McGraw-Hill's many and varied information services.

McGraw-Hill is a century-old multimedia publishing and information services company. The company, of course, is well known for its many print publications—for example, Business Week, Shepard's Legal Citations, Standard & Poor's financial reports, and educational textbooks, to mention only a few. But we also offer a wide variety of information by electronic means, using communications services provided by local exchange and long distance carriers.

McGraw-Hill serves worldwide information markets in the areas of education, business, industry, the professions, and government. Some of the specific industries covered by our information services and products include construction, computers and communications, legal services, health care, aerospace and defense, finance and commodities, and the energy and process industries. In each of these areas, McGraw-Hill has either established, or is in the process of developing, on-line databases that are accessed by the public both in the United States and abroad. Let me cite just a few examples: Standard & Poor's Market Scope is a real-time international investment advisory service; Aerospace On-Line provides international news and information concerning the aerospace industry; Dodge DataLine provides information to various segments of the building industry concerning construction activity; DRI's Global Information System provides up-to-date business and financial information on the United States and its major trading partners; Platt's Global Alert is the worldwide petroleum industry's principal source of spot news and live price quotes from major ports around the world; Numerax provides shippers with up-to-date tariff and rate information; McGraw-Hill Byte Information Exchange ("BIX") is an information retrieval and computer conferencing service for residential microcomputer enthusiasts here and abroad; and McGraw-Hill Information Exchange ("MIX") is an interactive educational computer conferencing service used by students and others to access information provided by university professors, professional researchers and others.

In addition, dozens of McGraw-Hill's services are available on-line through Mead Data Central's Nexis, Dialog Information Services, Dow Jones News/Retrieval, Compuserve, and others. For example, some of you may have used Shepard's on-line when accessing Mead Data's LEXIS service.

At the present time, the information services industry is growing at a robust pace. According to a 1989 report issued by the Commerce Department, demand for electronic database services is projected to increase by 20 percent annually through 1993, with revenues reaching $16 billion. The United States is the acknowledged world leader in the provision of information services; no other country even comes close. And, this country continues to be a net exporter of information services—one

of the few categories of goods or services about which that can be said. McGraw-Hill's offerings include many information services of global interest that we are successfully marketing outside of the United States.

This positive economic picture could change dramatically if the BOCs were allowed to enter the information services market on a full-scale basis at this time. Our concern is not based on fear of competition by the BOCs. We are already competing against some of this country's most aggressive and innovative companies in the information services market, such as Mead Data, Dun & Bradstreet, and Knight-Ridder. Our fundamental concern is that, no matter how many safeguards are devised, or how cleverly they are crafted, they will be wholly inadequate to prevent the BOCs from creating a substantial unfair competitive advantage for themselves in the information services market. They will be able to do this by leveraging their monopoly control over local transmission facilities in the adjacent information services market. The eventual result: reduced competition, fewer and less diversified information sources, and the possibility that, as a Nation, we will lose our competitive edge in the global market for information services.

Why don't we believe that competitive safeguards will work at the present time? Primarily because the anticompetitive behavior we are most concerned about will be difficult to detect and even more difficult to prove, and safeguards designed to prevent such conduct will therefore be virtually impossible to enforce. Until the BOCs' ability to engage in anticompetitive conduct diminishes as a result of technological advances that loosen their control over the local loop, safeguards simply will not be effective.

It is preposterous for the BOCs to suggest that they no longer exercise bottleneck control over the local exchange upon which McGraw-Hill depends. Like all vendors of electronic information services, McGraw-Hill relies on the BOCs for the transmission facilities used to collect and process database information, and for the delivery of information services to subscribers. The BOCs provide essential communications links between our host databases and the various long distance carriers and value-added networks that we use, and at the other end, between those networks and our subscribers. McGraw-Hill is a major user of the BOCs' switched and private line offerings in many areas of the country. Last year, our total communications costs ran into the tens of millions of dollars, and a substantial portion of the communications expenses associated with our information services were paid to the BOCs. It is important to recognize that, except in a few areas, even a volume user of communications services like McGraw-Hill has no viable alternative to the BOCs for local exchange and access services.

The BOCs' provision of both conduit and content raises many competitive concerns. One of our principal competitive concerns involves the preferential access which the BOCs' information service operations will have to valuable marketing information concerning their competitors and their competitors, customers. In the parlance of the regulators, this is called "Customer Proprietary Network Information" ("CPNI"). By monitoring the calling patterns of users accessing a competitor's information services via a BOC gateway, a BOC could, for example, develop a marketing profile of potential users and general demand patterns for particular services based on time, geographics, frequency of use, etc. Combine this with the BOC's unique knowledge of its basic service customers' credit histories and the structure of its competitors, communications networks, and the BOC would have a powerful tool to "cherry pick" which information services to develop, which customers to target, and which geographical markets to exploit. In short, the BOCs' information service operations would have superior access to data that are available to them solely because they are affiliated with monopoly providers of essential communications services.

In light of the BOCs' continued monopolies in the provision of local transmission services, I can think of no form of safeguard—short of prohibiting the BOCs from providing electronic publishing services—that would be effective in preventing their information service operations from taking unfair competitive advantage of their preferential access to sensitive information concerning basic service customers. I should point out that the FCC's CPNI rule provides the BOCs with an inherent—and substantial—competitive advantage. The rule stipulates that a BOC's information service operation can access individual subscriber information unless the subscriber notifies the BOC not to release such information. By contrast, an unaffiliated information service provider may not have access to the same information unless the customer affirmatively authorizes the release of the information in writing. Even if the FCC's CPNI rule were revised to reflect a more even-handed approach, as a practical matter, it would be virtually impossible to police.

Another of our key concerns stems from the BOCs' ability to manipulate the quality of the communications services on which we depend. Up to a point, consumers are willing to trade information quality in favor of reliable service, speed of delivery and ease of use. We at McGraw-Hill are often blamed for—and we lose customers because of—communications outages over which we have no control. When such an outage occurs, the customer really doesn't know or care who is responsible for the service interruption. McGraw-Hill's name is on the service, and the customer holds us accountable.

Consider a financial information service, the success of which depends on the ability of the information service vendor to get the service to the subscriber instantaneously and without interruption. A BOC could easily manipulate the communications lines used to provide the service—such as by allowing them to degrade over time, delaying repairs, or inadequately conditioning them. If you were a stockbroker faced with two comparably useful information service alternatives—one provided by the telephone company, which can virtually guarantee the quality of the underlying communications facilities, and one offered by an unaffiliated vendor, which cannot make such guarantees—which would you choose?

We are also concerned about the pricing of the communications services on which we rely. Telecommunications costs make up a significant portion of the total costs of providing information services—the industry average is between 20 and 30 percent. Despite the FCC's rule requiring "parity pricing," we see many possibilities for the BOCs to manipulate the prices of their basic communications services so as to unfairly advantage their own information services.

These competitive concerns take on a special significance in the context of information services. Because of the BOCs' monopoly control over the local loop, they have the ability to exercise control over—and, in the long run, eliminate—competing information sources. At the moment, the BOCs have no incentive to do either. Since they now provide the conduit and the gateway, but not the information content, they have a vested interest in maximizing the number of information services passing over their facilities. That means more traffic and, thus, more revenues for the BOCs. It also means a diversity of information sources for consumers. We think this is a healthy state of affairs for both the communications and information service industries, and for the American public.

This does not mean that we believe the BOCs should never be allowed to offer information services. But the dangers of allowing the BOCs to provide both the conduit and the content far outweigh any perceived benefits at this time. In fact, it is hard to think of any benefits that the public would obtain if the BOCs were to provide information services today. The market is vigorous and diversified in large measure because the BOCs have been prohibited—in one form or another—from providing information services since entry of the 1956 consent decree.

The industry stands ready to meet consumer demands from all segments of the market. Market demand for information services cannot be jump-started, however. There is a right time and a wrong time for every service, as past experience with mass-market videotext services confirms. McGraw-Hill's own experience demonstrates that timing is everything.

Let me offer an example: For nearly a century, McGraw-Hill's F.W. Dodge Group has published a variety of reports concerning building and renovation activity and other data of interest to the construction industry. For several years, McGraw-Hill closely monitored the market to determine whether sufficient demand existed in the construction industry—which includes many small businesses—for an on-line database containing similar information. Three years ago, when conditions seemed ripe, McGraw-Hill decided to go forward with the development of a family of automated Dodge services and products. This required an investment of over $40 million, but we have succeeded in creating a single national database and have automated the gathering, processing, and distributing of all Dodge data. One of these services—Dodge DataLine—offers subscribers such features as key word search capabilities which enable them to retrieve information by, for example, geographic region, project type, dollar value, or special project categories (such as set-asides for minority small businesses).

This example illustrates the importance of timing in service development and implementation, and of avoiding the twin traps of "too much too soon," or "too little too late." Because McGraw-Hill and other electronic publishers do not have the luxury of a regulated rate base from which to draw the considerable resources needed to inaugurate services like Dodge DataLine, our marketing decisions must be based on thorough risk analyses and intimate knowledge of the market.

Timing is also everything insofar as the BOCs' full-scale entry into the information services market is concerned. In our view, the time could not be worse for the

BOCs' entry into the electronic publishing market given the fact that the regulatory climate is in a complete state of flux. ONA is still largely a concept waiting to happen. The BOCs' compliance with the accounting safeguards is only now being reviewed by the FCC after the first independent audits. The FCC has just announced its decision to give the BOCs substantial pricing flexibility within a year by abandoning rate-of-return regulation and applying price caps to their basic services. The BOCs have only just begun to deploy their gateway offerings pursuant to Judge Greene's March 1988 decision. Moreover, the FCC has just instituted a proceeding that resuscitates the controversial issue whether carrier-type access charges should be imposed on information service providers. Meanwhile, the electronic publishing restriction that has applied to AT&T since divestiture is expected to be lifted this August.

Congress should at least wait until the dust has had time to settle on the momentous changes now confronting the industry before it injects a substantial anticompetitive factor into the equation. Indeed, we encourage you to direct the FCC to carefully monitor these developments over the next several years, together with technological advances that may eventually eliminate the BOCs' local exchange monopolies.

We believe that the main focus of Congress today should be to ensure that the BOCs remain committed to—and are not distracted from—upgrading their transmission capabilities and rapidly deploying their gateway systems. The BOCs have a crucial role to play in operating both the "highways" and the "gateways" of the Information Age. We in the electronic publishing industry are attempting to plan for the BOCs' introduction of new technologies and features into their basic networks. You have all heard the "buzzwords"—Data-Over-Voice, ISDN, CCS7, BSES, etc. The development and deployment of these services should contribute significantly to the growth of the information services market, since they should make it easier, cheaper and more efficient for us to reach a wider audience. It would be a serious mistake to allow the BOCs to be diverted from their all-important role as the operators of the local loop.

I would like to emphasize that the district court's Gateway Decision offers information service providers and the BOCs the opportunity to join forces to make available diverse, low-cost, and user-friendly information services with convenient billing arrangements. We look forward to entering into new information service ventures with the BOCs in connection with their provision of gateway services. McGraw-Hill—like other information service providers—is actively exploring ways of working with the BOCs to find ways to deliver information to our subscribers more efficiently and economically.

For example, we currently are conducting a pilot project with BellSouth to explore the viability of distributing McGraw-Hill News Service to electronic mail users who access BellSouth's public network. McGraw-Hill News is a videotext service that reports fast-breaking corporate, industry, government, and stock market news, and augments it with analyses and interpretations by McGraw-Hill's editors and reporters. The service is accessed mainly by users in the business community. BellSouth is providing the transmission and gateway functions, which is what it does best. And McGraw-Hill gathers, processes, organizes, interprets, and presents the information, which is what we do best. We think this approach allows both partners in the venture to draw from their respective strengths and to provide the most efficient and useful information services.

Faced with a glut of data and competing demands for their time, consumers expect information services to provide them with all the pertinent information (but no more), at the right time, in the right place, and at the lowest possible cost. Ventures like the one in which we are involved with BellSouth will allow us—in cooperation with the BOCs—to meet consumer demands. Unfortunately, the climate of uncertainty that has prevailed in recent months due to the possibility of the BOCs' entry into the information services market appears to have put a damper on their enthusiasm for ventures with potential electronic publishing competitors. By contrast, we would expect a surge in BOC ventures with electronic publishers if the Congress were to definitively decide that now is not the time to lift the information services restriction.

In conclusion, we urge Congress to study the record that is being developed here, as well as the extensive record before the divestiture court. Based on that review, we urge you to conclude that the existing restraints on the BOCs' provision of information content should remain in place—either by leaving the MFJ intact for the time being, or enacting legislation which codifies the information services restriction.

McGraw-Hill, Inc.
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Richard H. Shriver
Senior Vice President

July 12, 1989

The Honorable Edward J. Markey
Chairman
Subcommittee on Telecommunications
and Finance of the Committee on
Energy and Commerce
Room H2-316
House Office Building, Annex II
Washington, D.C. 20515

Dear Mr. Chairman:

On behalf of McGraw-Hill, Inc., I am pleased to respond to the questions posed by Members of the Subcommittee in connection with the testimony presented at the May 31 hearing concerning the Modification of Final Judgment and its impact on the information services industry. Each of the questions is answered in turn below.

1. Components of an Electronic Gateway

In our view, the divestiture court's decision of September 10, 1988 authorizes the RBOCs to provide the necessary elements of an electronic gateway, namely: protocol conversion, data storage in the gateway, electronic mail, address translation, billing management services, and introductory information content (including welcoming pages, help capabilities, instructions for use of the gateway, provider listings, search capabilities, etc.). At this time, we are unaware of any other gateway-type functions that would be of use to us or our subscribers which are not authorized by the court's gateway decision. If the need or demand for additional gateway functions arises as the market for information services matures, expansion of the authorized list of RBOC-provided gateway services could be considered.

Because most aspects of the RBOCs' gateway services are offered on a competitive basis, market forces should serve to encourage the RBOCs to price their gateway information services reasonably, provided that appropriate safeguards to prevent cross-subsidization are enforced. From a user perspective, moreover, it is important that the types of billing arrangements which the RBOCs enter into with information service providers that use their

gateways be carefully monitored. The court's gateway decision authorizes the RBOCs to enter into revenue sharing arrangements with information service providers so long as such billing arrangements are nondiscriminatory. Under no circumstances should the RBOCs be allowed to favor those service providers from which they have extracted the most favorable revenue sharing arrangements, such as by providing them with preferential listings, more advantageous "help" capabilities, etc. It will be necessary to carefully observe these arrangements to ensure that there is no whipsawing activity on the part of the RBOCs or preferential treatment of selected information service providers. Similarly, the RBOCs should not be permitted to discriminate between or among information service providers with respect to the billing services they provide. In more concrete terms, provider listings should be displayed in a nondiscriminatory order and format so that the kinds of problems which have arisen with respect to airline-owned reservation systems do not occur in the RBOCs gateways. Similarly, help and search capabilities should be designed so as not to favor one information service provider over another. In addition, the RBOCs should be required to offer their billing services to all information service providers on a nondiscriminatory basis in connection with their gateway offerings.

2. The Need to Apply Competitive Safeguards to the RBOCs' Provision of Gateway Services

The primary value of the RBOCs' gateways will be in making it easier, more efficient, and more economical for subscribers to access information services. The gateway should serve as a neutral, user-friendly interface between providers and consumers of information services. As I noted in my testimony, McGraw-Hill is enthusiastic about the new opportunities that the RBOCs' gateways should provide us in distributing our information services to the public.

A number of concerns have arisen with respect to the RBOCs' provision of gateway services, however, even though they are not permitted to offer other types of information services. These concerns arise, in part, because the RBOCs' gateway offerings include basic communications services (such as data transmission) as well as information services that are closely related to the RBOCs' basic service offerings (such as protocol conversion). Indeed, many of the RBOCs' gateway information services evidently will be offered using software loaded into the same switches which the RBOCs use in providing basic communications services. It is

far from clear, at this point, how effective the FCC's nonstructural safeguards (ONA/CEI, the accounting separation rules, etc.) will be in preserving competition in the provision of gateway services. In the absence of effective safeguards, there is a very real danger that the RBOCs will eventually become the monopoly providers of electronic gateway services for most applications within their regions. As a consequence, even if the RBOCs are limited to the provision of gateway information services (as we believe they should be, for the present), it is critical that effective competitive and nondiscrimination safeguards be applied to their gateway offerings. As long as there is viable competition in the provision of gateway services, users concerned about RBOC misuse of billing or marketing data obtained through the monitoring of gateway traffic will at least have the option of going elsewhere to obtain gateway services.

Additional safeguards will be required if the RBOCs are allowed to provide information services in addition to their gateway offerings. If they are authorized to do so, they will have not only the ability, but also strong incentives, to use the gateway-related information in their possession to gain an anti-competitive advantage over their information service competitors in other segments of the market. For that reason, more information service providers are likely to use the RBOCs' gateways if they are assured that the RBOCs will not be competing with them in the near term (and relying on sensitive gateway marketing and billing data in doing so). As explained in my testimony, the RBOCs' gateway operations will provide them with unique opportunities to obtain competitively sensitive commercial information regarding unaffiliated information service providers that make use of the RBOCs' gateways, and such providers' customers. Examples of the kinds of information which the RBOCs could obtain from monitoring the calling patterns of gateway users, or associated billing data, would include the marketability of particular types of information services in specific geographic areas or segments of the population (such as a particular income bracket, as determined by the average size of the subscriber's information service charges or identification of the exchange or area code from which the majority of the calls originate). The data would also provide the RBOCs with competitively sensitive data regarding their competitors' customers, which would enable them to target potential subscribers for the marketing of RBOC information services.

As I indicated in my testimony, McGraw-Hill does not believe that expansion of the RBOCs' existing authority to provide information services is either necessary or likely to produce a

net benefit to the public, given the substantial competitive problems that their entry would generate. If Congress nonetheless concludes that the RBOCs should be allowed to provide additional types of information services at this time, it should require, as a minimally necessary safeguard against RBOC misuse of gateway marketing and billing data, that the RBOCs be required to provide all authorized information services -- including their gateway information service offerings -- through fully separate subsidiaries. This would include the use of separate physical facilities and marketing organizations for the provision of all authorized information services. In that way, the RBOCs' information service affiliates would be similarly situated to unaffiliated information service and gateway providers. The other nonstructural safeguards that are currently applicable to the RBOCs' provision of gateway services would also have to be maintained and enforced to ensure that the RBOCs did not favor their own information service affiliates over their competitors in the provision of gateway services.

3. Getting Information Services to Rural Areas

If, as we have suggested in our testimony, the Subcommittee makes clear that the RBOCs will not be authorized to provide information services beyond those necessary for the provision of gateway offerings at the present time, it will provide the RBOCs with a strong incentive to focus on the development and improvement of the communications infrastructure and the deployment of their electronic gateways. The introduction of more advanced network technologies into the local exchange will help ensure the ubiquitous, efficient and economical delivery of information services to all segments of the population, and to all geographic areas of the country. If, by contrast, the RBOCs are allowed to offer a broad spectrum of information services at this time as well, they are likely to focus their attention on the development and acquisition of information services, instead of the development of their basic communications networks and the deployment of electronic gateways.

It is highly unlikely, moreover, that the RBOCs would make the provision of information services to rural areas a top priority if they were allowed to enter the market, unless there were a demonstrable demand for information services in the communities in question. But if that were the case, independent providers of information services would be there to fill the breach in any event. The crux of the matter is that there will

be insufficient demand for information services in any area -- rural, urban or suburban -- unless the price is right. And that depends, to a significant degree, on the cost of the underlying communications services, including the RBOCs' local exchange and ONA offerings. For that reason, we believe that the course most likely to yield the maximum benefit to the public would be to encourage the RBOCs to focus their attention on increasing the efficiency of their basic communications networks and deploying their electronic gateways, while allowing others to focus their efforts on providing the information content, without fear of anticompetitive abuse by the RBOCs.

We do see one concrete way in which the RBOCs' efforts to provide efficient information gateway services to rural areas might be aided. That would be by authorizing each RBOC to use the interLATA communications facilities of third parties to query a centralized gateway database located within their respective regions, and to then transmit the information back to the originating LATA. This could in all probability be accomplished without legislation by means of an appropriately justified waiver request submitted by the RBOCs to the divestiture court. (Unfortunately, when Bell Atlantic asked the court to consider the provision of interLATA transport for this purpose, it attempted to persuade the court to rule that a waiver of the MFJ was unnecessary, on the dubious ground that interLATA transport to the gateway constituted an "official service" and therefore did not require a waiver of the MFJ's interexchange prohibition. The court rejected Bell Atlantic's request for a declaratory ruling, but it did not rule out the possibility that a waiver might be justified. See opinion of the court, a copy of which is enclosed as Attachment A.)

It appears that a good case could be made for allowing the RBOCs, subject to appropriate safeguards against cross-subsidization, to use interLATA transport provided by another carrier for the limited purpose of querying a centralized gateway computer. According to the RBOCs' own testimony, this would make it more efficient and economical for them to provide gateway services in general and, in particular, to transmit information services to the more remote and rural areas of the country.

Additionally, because the cost to consumers of accessing information services will be a key factor in further expansion of the market for information services, it is important that the RBOCs not be permitted to impose common carrier-type access charges on information service providers. The FCC has recently

instituted a rulemaking proceeding (CC Docket No. 89-79) which could lead to a substantial increase in the access charges imposed upon information service providers by the RBOCs and other exchange carriers. Furthermore, on the pretext of offering "new" Open Network Architecture services, several of the RBOCs have introduced substantially higher access charges for information service providers interested in obtaining Basic Service Elements, such as by pricing access on a two-way, measured basis. Congress should carefully monitor developments at the FCC to ensure that information service provider access charges remain at a reasonable level.

4. Feasibility of Separate Subsidiaries for RBOC Information Services

The RBOCs plainly would be capable of providing information services through fully separate subsidiaries, and there is no reason to suspect that they could not prosper if authorized to do so. It should be recognized, however, that a structural separation requirement, even if carefully crafted and vigorously enforced, would reduce, but not eliminate, the RBOCs' ability to engage in anticompetitive conduct. For example, no matter how impregnable the structural barriers, an RBOC's basic service operating company would still be in a position to favor its own information service affiliate in the provision or maintenance of basic service facilities, without the need for actual collusion between the two affiliates. For that reason, we urge the Subcommittee to conclude that the RBOCs should not be allowed to engage in electronic publishing at all, until they can demonstrate that they no longer control the means by which their competitors disseminate electronic publishing services.

5. Inadequacy of H.R. 2140 Provisions Concerning Customer Proprietary Network Information (CPNI)

The CPNI "safeguard" contained in H.R. 2140 is essentially the same as that adopted by the FCC in the Third Computer Inquiry, and it suffers from the same serious defect. Specifically, H.R. 2140 provides that a telephone operating company shall disclose CPNI to an information service provider upon the request of a customer. Thus, if McGraw-Hill wishes to obtain CPNI relating to customers or potential customers in a particular geographic location, it must contact each and every individual or firm in that area and request them to advise the serving RBOC to disclose the data in question. This obviously would be a very costly and

time consuming endeavor, and many of the parties contacted might understandably be reluctant to authorize the release of the requested CPNI.

By contrast, the FCC (and, by apparent reference, H.R. 2140) does not require the RBOCs' information service operations to obtain advance authorization from customers before they obtain access to CPNI. The RBOCs' information service operations may be denied access to such information only if a basic service customer informs the RBOC that he or she does not want the RBOC to make such information available to its information service operation. In our view, the only basic service customers that are likely to be sufficiently informed to exercise this "no authorization" option are the RBOCs' information service competitors.

The CPNI "safeguard" set forth in H.R. 2140 thus provides a patent and substantial unfair preference to the RBOCs' information service operations. At a minimum, the rule should be modified to require the same CPNI access for all information service providers, including the RBOCs' own information service operations. We recommend that all information service providers -- including the RBOCs -- be required to obtain advance authorization from customers before they are allowed to obtain access to the telephone company's CPNI. Obviously, if the RBOCs are allowed to provide a wide range of information services, a structural separation requirement would be minimally necessary to help ensure that the RBOCs' information service operations did not gain unauthorized access to telephone company CPNI.

6. Proposed Matrix of Information Services and Corresponding Safeguards

As stated in my testimony, the RBOCs should be precluded from providing electronic publishing services until they can demonstrate that they no longer exercise monopoly control over the local exchange. Any safeguard short of complete prohibition could (and, no doubt, would) be circumvented by the RBOCs. The result would be diminished competition in the provision of electronic publishing services, less innovation and creativity, higher prices, and a reduction in the number and diversity of information sources.

It is unclear where (or if) a line should be drawn between "electronic publishing" and other information services. In our view, it is doubtful that a relaxation of the existing information services prohibition would be in the public interest

for any services but gateway-type offerings at this time. As discussed above, as well as in my testimony, it would not be in the public interest to allow the RBOCs to offer information services beyond the gateway offerings they are already authorized to provide for two important reasons, in addition to the serious competitive concerns raised by the prospect of their full-scale entry into the market: (1) it would be unwise to allow the RBOCs to divert their attention from the considerable task of developing and upgrading their basic networks and deploying electronic gateways; and (2) non-RBOC information service providers have proven themselves able and willing to satisfy consumer demand for information services as demand develops, and there is thus no need for RBOC-provided information services.

For these reasons, we are unable to develop the type of matrix suggested by the question, except as follows:

- Gateway information services should be subject to the nonstructural safeguards established by the FCC in the Third Computer Inquiry (e.g., the ONA and accounting separation rules), plus the nondiscrimination requirements imposed by the divestiture court, and a more equitable CPNI safeguard (as discussed above).

- The BOCs should not be permitted to provide any other information services except (a) based on a reasonable demonstration that a particular type of service is essential to the RBOCs' provision of information gateway services, or (b) based on clear and convincing evidence that the RBOCs no longer exercise monopoly control over local exchange facilities.

7. Effect of RBOC Entry on Small and Minority Information Service Providers

The U.S. information services industry comprises a large number of small businesses. Although we have not been able to locate any current industry-wide figures, there are numerous indications that a sizeable majority of information service providers are companies with annual revenues of less than $10 million.

For example, the Information Industry Association ("IIA"), an organization of nearly 800 information content providers (including McGraw-Hill) and related vendors, is made up

predominantly of small businesses. IIA has advised us that more than 60 percent of its members have annual revenues of less than $10 million. A study on the information services industry published by IIA in 1983 includes a table depicting the U.S. information market by size of company, a copy of which is enclosed as Attachment B. (Unfortunately, this aspect of the report has not been updated recently.) The table shows that, as of 1982, 55 percent of the industry had annual revenues of $1 million or less, and 88 percent of the industry had annual revenues of $10 million or less. Another study of the data processing industry which was published in 1982 by INPUT, in cooperation with ADAPSO, indicates that at that time there were 1100 firms in the industry with annual revenues of less than $1 million, 1000 firms with revenues of between $1 million and $10 million, 50 firms with revenues of between $10 million and $25 million, and 59 firms with revenues of over $25 million. There is no reason to suspect that there have been any significant changes in the size distribution of industry participants since these studies were conducted.

A closely related market which also comprises a large number of smaller businesses is the software industry. (The RBOCs are allowed to provide software, which is appropriate; their control over the local loop does not provide them with any unusual abilities to engage in anticompetitive activities in that market, since the software industry does not depend on telecommunications.) There are a number of recent studies on the make-up of the software industry, and they support the conclusion that small businesses are very much alive and well in the information industry in general. For example, a publication that has just been issued by the Massachusetts Computer Software Council, entitled "The Complete Guide to the Massachusetts Software Industry," profiles 800 firms. The Council reports (at page 58) that 86 percent of the companies surveyed are privately held and, of those, "51 companies are minority- and/or woman-owned, representing 7.4 percent." The Council also reports that, of the firms that reported annual sales (70 percent of the total), 41 percent had annual sales of less than $1 million, and an additional 33 percent had annual sales of between $1 million and $5 million.

These figures are not surprising. The information industry has thrived in the United States because of the ingenuity and creative energies of small entrepreneurs. These smaller providers serve mass markets as well as niche markets, and they play an integral role in the industry.

The information services marketplace is thus currently very hospitable to small and minority-owned businesses. That is not likely to continue to be the case, however, if the RBOCs are allowed to enter the market on a full-scale basis while they still have monopoly control over local exchange facilities. As I have testified, if the RBOCs are authorized to provide information services, they will have both a strong incentive and the opportunity to engage in anticompetitive abuse. Their anticompetitive activities are likely to have the greatest -- and swiftest -- adverse impact on those companies with the least amount of resources to withstand an extended, anticompetitive "war of attrition." Thus, the RBOCs' full-scale entry into the information services marketplace can be expected to have a decidedly negative competitive impact on small information service providers as well as minority-owned providers (which tend to be smaller in size). It would be prudent for the Subcommittee to monitor the impact of the RBOCs' provision of gateway information services on small and minority-owned information service providers before allowing the RBOCs to offer other types of information services.

* * *

We hope that the additional information we have provided in response to the Subcommittee's follow-up questions, along with my testimony and the written statement submitted by McGraw-Hill on June 16, 1989, will assist you in your consideration of the difficult issues raised by the prospect of the RBOCs' entry into the information services marketplace. Please let us know if we can provide you with any additional information in this regard.

Sincerely,

Richard H. Shriver

Richard H. Shriver

Enclosures

ATTACHMENT A

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA,

Plaintiff,

v.

WESTERN ELECTRIC COMPANY, INC., et al.,

Defendants.

Civil Action No. 82-0192 (HHG)

OPINION

In its Opinions of September 10, 1987 and March 7, 1988, the Court removed so much of the line of business restrictions in the decree[1] as to permit the Regional Companies to engage in the transmission of information services.[2] By virtue of those decisions, the Regional

[1] Section II(D) of the decree. See United States v. AT&T, 552 F. Supp. 131, 227-28 (D.D.C. 1982).

[2] United States v. Western Electric Co., 673 F. Supp. 525, 587-97 (D.D.C. 1987); United States v. Western Electric Co., Civil Action No. 82-0192 (D.D.C. 1988).

Companies were allowed, inter alia, to own and operate gateways.[3] The Court emphasized, however, that the newly-established authority for the Regional Companies "did not modify the interexchange prohibition of the decree when it allowed Regional Company participation in the transmission of information services."[4] A request now before the Court implicates these decisions.

I

Bell Atlantic[5] has filed a motion for a declaratory ruling[6] that gateway architecture it proposes to deploy[7] does

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[3] A gateway is part of the infrastructure necessary for the transmission of information services. It is accessible by customers who may dial a local telephone number and through the gateway achieve a useful and informative connection with the actual providers of information. The gateways perform such functions as address translation, data transmission, protocol conversion, billing management, and introductory information content. 673 F. Supp. at 592.

[4] United States v. Western Electric Co., 690 F. Supp. 22, 28 (D.D.C. 1988).

[5] Other Regional Companies, e.g., U S West, are supporting the Bell Atlantic motion, and could be expected to follow the Bell Atlantic lead with respect to implementation if the motion is granted.

[6] The motion is opposed primarily by the Department of Justice and by MCI.

[7] For the time being, there would be only one system to serve the Pennsylvania area. If the Pennsylvania experiment is a success, presumably Bell Atlantic, and other Regional Companies, would extend the architecture on a nationwide basis.

not offend the decree restrictions as modified last year. That architecture consists basically of two parts: (1) so-called PAPs,[8] each to be located in and serving one of the five LATAs in Pennsylvania, and (2) a single central gateway "processor," to be located in the Philadelphia LATA to serve the entire system without regard to LATA boundaries. The system would work as follows.

Customers seeking to use a Bell Atlantic gateway for achieving access to information services would dial a local telephone number to reach a PAP in their own LATA. The PAP, in turn, after performing relatively limited functions (see infra), would then turn the customer and his inquiry over to the central processor which would perform a number of other functions in order to attain the contact between the customer and the information he seeks.

As indicated, the issue before the Court is whether this system violates the line of business restrictions of the decree. That issue may appropriately be divided into two questions: (1) does the process proposed by Bell Atlantic represent the performance of an interexchange service prohibited to the Regional Companies by the decree, and (2) if the answer is in the affirmative, may the Regional

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[8] PAP is an abbreviation for what Bell Atlantic calls a protocol agile packet assembler-disassembler.

Companies nevertheless perform the functions comprising the process on the basis that it constitutes Regional Company "official services"?[9]

II

The question whether gateway services such as those contemplated by Bell Atlantic constitute prohibited interexchange services was first presented to the Court by MCI in connection with the Court's reconsideration of several questions following the so-called triennial review. Noting the absence of a full factual record and briefing, the Court declined to rule on the issue at that time.[10] Based on the facts now presented, and upon consideration of the briefs of all the interested parties, the Court concludes that the Bell Atlantic proposal would, if implemented, violate the decree prohibition on interexchange services.

Section IV-K of the decree defines "interexchange telecommunications," insofar as here relevant, as telecommunications between a point or points in one LATA and

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[9] United States v. Western Electric Co., 569 F. Sup. 1057, 1097-1101 (D.D.C. 1983).

[10] 690 F. Supp. at 29.

a point or points located in another LATA.[11] In general, therefore, when a call, transmission, or service crosses LATA boundaries, it is interexchange in character, and as such, under section II(D)(1) of the decree, it is reserved to the interexchange carriers (e.g., AT&T, MCI, US Sprint) and prohibited to the Regional Companies. It is difficult to see on what basis it could seriously be contended that, in view of the decree definitions, the proposed Bell Atlantic operation is not an interexchange service.[12]

In every significant respect, it would be the central, multi-LATA processor, not the local PAP, that would be the information services gateway. The local PAP would do little more than to determine the characteristics of the customer's terminal before connecting him to the processor for the performance of all the necessary gateway functions. These would include, inter alia, the provision to the customer of a "welcome page" screen, a "menu" listing of the various available information service providers, an index of specific

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[11] Section IV-P of the decree defines "telecommunications service" as the offering for hire of telecommunications facilities or of telecommunications by means of such facilities. 552 F. Supp. at 229.

[12] Indeed, it could not reasonably be contended that the interexchange portion is a mere incidental or auxiliary part of the whole (although even if this were so, the service would still not be allowable to the Regional Companies under the decree).

services with a listing of the providers of the services, and the network "intelligence" supporting these services. The customer would communicate to the central processor the name of the information service provider he wished to access, and once that was accomplished the central processor would direct the PAP to connect the customer to that provider, and it would then disconnect its link to the PAP.

It is apparent from this summary description that the central processor is the keystone of the proposal, and that the information and the services at the heart of the gateway service would be provided by that processor.[13] However, as noted above, the processor may be located in an entirely different LATA than the customer himself or the PAP, and it would perform its functions on an inter-LATA or interexchange

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[13] In its June 1988 Opinion, the Court said

> If a subscriber is considered to have accessed the gateway upon achieving contact with the PAD, there would by definition be no inter-LATA transmission and the Regional Companies could provide the service. On the other hand, if access to the network is found to occur only when the subscriber interacts with the gateway functions, stored in another LATA, an inter-LATA communication will have occurred.

690 F. Supp. at 29.

In the Bell Atlantic proposal, access to the network occurs when the customer interacts with the central processor.

basis.[14] On these bases, the conclusion is inescapable that the gateway architecture Bell Atlantic is proposing would operate on an interexchange basis, and that it would therefore constitute an interexchange service prohibited by section II(D)(1) of the decree.

III

The inquiry as to the consistency of the proposed architecture with the decree does not end with the finding that the service involves interexchange services. Bell Atlantic contends that the transmission provided in the context of the gateway service does not violate the decree because it is analogous to the Regional Companies' provision of "official services" across LATA boundaries which this Court approved shortly after the breakup.[15] According to the Bell Atlantic motion, the proposed services, like the directory assistance arrangements, for example, are not prohibited interexchange services because they are not

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[14] It is immaterial whether a Regional Company would provide the services directly or through use of facilities leased from interexchange carriers, for the decree prohibits these companies from providing interexchange services, not merely from engaging in interexchange transmissions. United States v. Western Electric Co., 627 F. Supp. 1090, 1100-02 (D.D.C.), rev'd on other grounds, 797 F.2d 1082 (D.C. Cir. 1986).

[15] 569 F. Supp. at 1098-1100.

offered "for hire," especially since the caller may be regarded as indifferent to their inter-LATA nature.[16]

While it is true that, in determining that certain communications between the Regional Companies and their customers were official services, the Court did consider whether the service was "for hire" and whether the customer cared where the systems were located, these factors were not cited as constituting the operative definition of official services.[17] The fundamental reason for the Court's approval of the provision by the Regional Companies of official services on a centralized basis was that these services comprise essentially those communications within an Operating

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[16] Bell Atlantic's Motion for a Declaratory Ruling Approving its Proposed Gateway Architecture, at 7 (October 7, 1988).

[17] The Court only said that the "strict terms of the decree" did not "require[ ]" prohibiting the Regional Companies from managing their own business through their own official services networks. 569 F. Supp. at 1100.

Indeed, if the Regional Companies' definition of "for hire" services or the customer's indifference were decisive, many services not regarded as official services by any rational definition could be so classified. For example, under that definition, the Regional Companies could offer any interexchange service, as long as the caller was connected only to the Regional Company, did not receive an unbundled bill, and therefore did not care where and how the call was routed. The official services exception -- adopted for narrow, strictly limited "internal" purposes -- would in the end swallow up the fundamental interexchange services restriction.

Company and between the company and its customers that are necessary to run the telephone system.[18]

The official services decision was made at the time the Court approved the AT&T plan of reorganization, recognizing that the official services were an inherent part of the provision of exchange communications within a Regional Company. The alternative would have been in effect to

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[18] The four categories of official service approved by the Court were:

> (1) The Operational Support System Network . . . used by the Operating Company to monitor and control trunks and switches . . . .
>
> (2) The Information Processing Network . . . used to transmit data relating to customer trouble reports, service orders, trunk orders from interexchange carriers, and other information necessary for carrying out the Operating Companies' businesses.
>
> (3) Service Circuits . . . used to receive repair calls and directory assistance calls from Operating Company customers . . . .
>
> (4) Voice communications . . . used by the Operating Companies for hundreds of thousands of calls relating to their internal businesses.

569 F. Supp. at 1098 n.179.

require a separate telephone company to be set up for each LATA -- an absurd result.[19]

What also weighed heavily with the Court was that, since the official services had always been provided by the individual Operating Companies and the lines were already in place and functioning, to require these local companies

> to redesign their Official Services systems so that none of their internal communications crosses LATA boundaries . . . would result in a loss of the operational and cost efficiencies produced by the centralization which currently exists in the local phone system.[20]

This reasoning highlights the differences between the contemplated gateway services and true official services. The information generated by the centralized processor is not an inherent part of any service being legitimately provided by the Regional Companies. It is not only entirely unrelated to the role of these companies in providing their basic, monopoly exchange service; it constitutes the heart of a new

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[19] 569 F. Supp. at 1099. To compare requiring entire telephone companies in every LATA to requiring dispersed processors, as some of the Regional Companies do, is like comparing apples and oranges.

[20] 569 F. Supp. at 1099. No centralized gateway system is currently operating, and to prohibit the Regional Companies from providing this service would not destroy an operation that already exists. Bell Atlantic's proposal is simply an effort to reduce the cost of providing a new service in competition with others.

and competitive service. On that basis alone, the attempted analogy with "official services" has no reasonable basis.

As indicated, it is also argued that the proposed service is identical in concept to directory assistance, in that subscribers will merely obtain the necessary information about information providers and the link will then be disconnected. But directory assistance, too, was permitted as an inherent part of the Regional Company exchange service rather than as a separate information service to be provided in a competitive market.[21] See also, text to note 24, infra.

Moreover, even the "for hire" question weighs against Bell Atlantic's motion. The cost of the Bell Atlantic gateway private lines would be recovered through that company's overall rates for gateway services. To be sure, Bell Atlantic's customers would not receive an unbundled bill, separately accounting for inter-LATA transmission but that is a distinction without a difference. They would be charged for the time they are connected to the distant processor. This approach would of course permit Bell Atlantic to require those subscribers who are located in the

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[21] The FCC has noted that "[t]here are a number of existing gateway services, such as those of CompuServe, Genie, and Prodigy, that presumably will compete with Bell Atlantic's gateway." FCC Gateway Order, ¶ 11, n.27.

same LATA as the gateway to cross-subsidize the service with respect to its inter-LATA characteristics.

Finally, the subscriber would interact with the centralized processor far more extensively than would a subscriber calling directory assistance. Subscribers would be able to search for providers of specific kinds of services, and they would be able to change the information they provided to the centralized processor at any point during their search.[22]

For all these reasons, the Court has consistently interpreted the official services exception narrowly. In 1983, Bell Atlantic, together with several of the other Regional Companies, sought clarification that time and weather services were official services and that their facilities could therefore cross LATA boundaries. The Court rejected the contention that these services were official services, stating that such a finding would set an undesirable precedent. The Court instead required and granted a waiver allowing the time and weather services to

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[22] MCI's Response to the Court's November 10, 1988 Order, at 3, citing In re The Bell Atlantic Telephone Companies, Offer of Comparably Efficient Interconnection to Providers of Gateway Services, DA 88-1512, ¶¶ 3-4 and n.9 (FCC, released September 30, 1988).

continue on a limited inter-LATA basis.[23] Similarly, the Court rejected a subsequent motion by Bell Atlantic to classify its provision of directory assistance service to customers of independent telephone companies as an official service. The Court decided once again that a waiver was required.[24] That principle applies here a fortiori.

The Court holds that the operation of a centralized gateway processor is not an official service.[25]

IV

More than mere technical interpretations of the decree are involved.

1. Bell Atlantic derides the Department of Justice for its concern about the potential expansion of the

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[23] United States v. Western Electric Co., 578 F. Supp. 658, 661 (D.D.C. 1983).

[24] United States v. Western Electric Co., Civil Action No. 82-0192, slip. op. at 6 and n.9 (D.D.C. Feb. 6, 1984).

[25] Bell Atlantic also argues that its centralized information processor performs a routing function similar to that performed by the Regional Companies on a centralized basis in connection with 800 service. The centralized processor does provide information to the PAP to enable it to send calls to the proper information provider. Were this all it did, the 800 analogy might be apt. According to Bell Atlantic's own description, however, the centralized processor does much more than simply to route calls. As noted, it is the key to the entire service. In fact, of the components of the gateway system, it is the PAP rather than the centralized processor whose function is primarily to facilitate and route calls.

communications between the centralized processor and subscribers in the following scornful words:

> The danger, apparently, is that the kids will sit there all night, just reading the menu -- and once that occurs, Bell Atlantic will soon be claiming the right to put up interlata links to provide other information, similarly "unrelated" to exchange and exchange access services.[26]

If the past is any guide, that is precisely what is likely to happen. The history of the attitude of some of the Regional Companies toward the decree has been that judicial interpretations that loosen the strict and literal words of that document are mere building blocks toward yet further removals.[27]

The Bell Atlantic sarcasm regarding the Department of Justice's comments is particularly inappropriate here in view of the Regional Company effort, in the very papers now under consideration, to construct from such poor materials as their authority to render directory assistance an edifice that will allow them in effect to enter the prohibited realm of interexchange services. Thus, the Court quite agrees with

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[26] Bell Atlantic Reply at 4 (November 2, 1988).

[27] United States v. Western Electric Co., 592 F. Supp. 848, 867 (D.D.C. 1984); see also, 673 F. Supp. at 545 (imprecise waivers of judicial orders cause Regional Companies to "nibble incessantly at the edges of the restrictions, in the expectation that this would result in their complete entry into the prohibited markets").

the Department: to construe the official services exception to encompass the proposed new service notwithstanding the considerations enumerated above would be to invite further movement on the slippery slope upon which the Regional Companies invite the Court to venture.

2. The Court has construed the decree to permit only a very limited entry of the Regional Companies into the area of information services. The Opinion permitting such entry recognized the potential for anticompetitive conduct,[28] and it expressly allowed the companies to provide only the information necessary to permit subscribers to select the information providers they wish to contact. And the Court emphasized shortly thereafter that it was not in any way modifying the interexchange prohibition of the decree when it allowed Regional Company participation in the transmission of information services. Moreover, the Court has emphasized again and again the reasons for guarding against the erosion of the interexchange restriction.[29] That is what is, at bottom, involved here.

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[28] 673 F. Supp. at 592 ("It is obviously essential, however, that the necessary infrastructure components be defined with as much detail as possible in order to avoid conferring upon the Regional Companies the authority to market content-based information services, a result that would prohibitively increase the risk of anticompetitive conduct").

[29] See, e.g., 673 F. Supp. at 540-52.

For the reasons stated, the Bell Atlantic motion is denied.

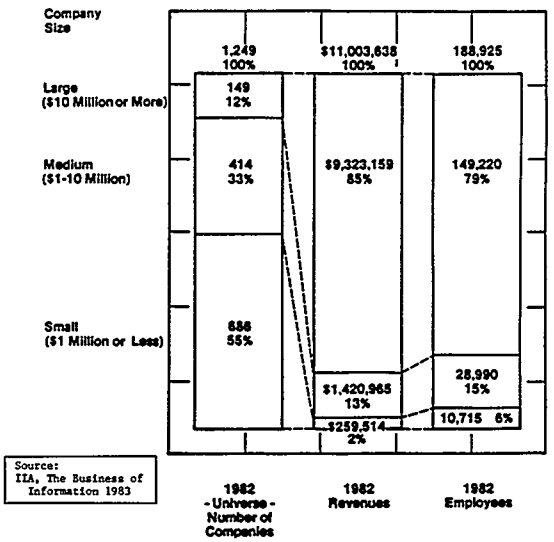
January 23, 1989

HAROLD H. GREENE
United States District Judge

ATTACHMENT B

1982 UNITED STATES INFORMATION MARKET BY SIZE OF COMPANY

(000's)



Mr. MARKEY. Our next witness is Mr. Lee Camp, vice president and general manager, information services group, Pacific Bell.

STATEMENT OF LEE G. CAMP

Mr. CAMP. I want to applaud the leadership of Congressmen Swift and Tauke as well as the cosponsors of H.R. 2140. Pacific supports this bill and looks forward to these proceedings as well as the ones that will follow as an opportunity for further dialogue and clarification of the key issues.

I would like to make four key points today. Number one is that I believe information services have the potential an will, in fact, change how we live in this country. Information services is not a technology. It is not a capability. It is not just as some have evolved in their thinking over the last year just a gateway.

Its information services, technology or capabilities which have been transformed into useful applications that enhance how people do the every day things that they normally do.

For instance, if we were able to work together with others to manipulate data and store and forward it, we would be able to work in partnership with alarm services as well as emergency agencies to store information about the layouts in factories, offices, and homes to be able to help pinpoint when a fire occurred what room the fire was in or perhaps to direct the fire service to where the trapped child might be.

We could play through information services, I believe, a vital role in managing a number of the key concerns of this country. In my testimony, I cite examples on how we—information services could significantly help U.S. competitiveness in the world market place, health care, education, just to name a few.

In addition, we have looked at the situation in California which is a State with a diverse population with a lot of immigrants. It is going to dramatically change in the next decade.

Information services has the potential to offer the translation of communications between languages, between different language groups. It could become a virtual Rosetta Stone for our economy and society.

These are all things that are possible. People keep asking what are the possibilities for information services.

I recently got a copy of a booklet Bell Atlantic has produced that outlines a day in the life of nine people about 10 years out.

I commend it to your reading. It signifies the kinds of things information services can do in people's lives.

I would also submit that the limits for information services are only what your imagination and our imagination together can produce.

Experience tells us in the market place for productions and services that the developers of products and services come up with one idea, the users come up with thousands of ideas.

That is what we have before us. That is my point number two.

This isn't science fiction. This is not something that may happen some day in the future. It is happening right now overseas in other countries.

We have often had cited transportation and its experience. Just one example of how this is developing.

Phillips has put an online information regarding repairing services. They have that information available to 12,000 repair shops throughout the country. That means you have repair people out there who would not otherwise be trained in a particular procedure or particular part able to access information online and apply it to a particular situation.

That saves education, cold storage education. It also helps keep people in touch with what is going on.

On the other hand, what do we have in the United States? I believe when you talk about the average person, we are far behind. I believe the United States is an anomaly in the world today.

I think it should be disconcerting to you. It certainly is to me. We have the largest concentration of PC's of any country in the world. We developed most of this technology.

In other technologies we have been able to demonstrate we have been able to assimilate them into or environment. It is not happening here, not the same way.

Something is happening here. Something is wrong. What is wrong?

When I was before you a year ago, I said there were four things we felt needed to be in place. One was intelligent terminals, another was intelligence infrastructure. The third were magnet applications, things people could access they would be intrigued by.

Behind those magnet applications would be thousands of other applications people would be drawn to use as they became experienced with the technology and with the process.

I believe the most important among those is the magnet application. What we need is something in our system that is as easy as referencing a guide, turning on a TV set and selecting a channel. Re need magnet applications in this country that axe different than elsewhere.

This is a diverse population. You axe a different kind of person than you and than me. We all have different interests.

We need magnet applications that will be attractive to different people. I consider it to be not unlike the food industry, trying to develop new products for us. They go through hundreds of ideas, a few make it to market tests and a few make it to the supermarket shelves and are sold to us.

We have in this country not a mass market as I and others once said, but mass of markets. We need the kind of environment in this country that will encourage us to work together as partners rather than as adversaries, that will inspire us to commitment and to market experimentation rather than—and risk taking rather than the environment that we experience today.

That is my third point. In the United States today we do not have an environment that is conducive to the joint development and the explosion of information services. Instead, we have one that is governed by the modified final judgment, a decision whose genesis was in antitrust and which lacks the flexibility to accommodate rapid changes in the market in technology, and in customer expectations.

Second, it purports to have broad bright lines for people to work within, saying the Auerbachs can't do these things. Attached to my testimony is a continuum. They aren't bright, they are broad. They are sweeping. In the case of content, it is everything from generating a report out of a network system that would enable users to see what their usage is on a real time basis to the other extreme, which is what I think people tend to think about with content—producing movies or editorials.

The fact of the matter is the modified final judgment creates an environment where we are asked to bring into being this infrastructure. We are asked to put an intelligent infrastructure in place. Again, we are asked to put equipment out there we can't define specifically, development and manufacture.

By the way, that equipment that we need to deploy out here has to be duplicated in each geography, which means duplicate investment. The result is we can't use interladder facilities to be able to access those. We have to put more investment out there.

Lastly, we are called upon to be participants and try to offer consumers compelling benefits through those magnet applications. There is another place where we can't generate it, manipulate, repackage it, fund it, or sponsor it when it is worthwhile information out there for the public.

What we need in this country is a mandate that is much similar to the money your predecessors gave this country 55 years ago when the said we needed universal services. we need something that requires you not to adjudicate between us, but to cause us to act together, not spend money on litigation, and legal fees, but to share and take the risk.

In making that kind of change, you are going to be confronted by warnings, warnings from people the environment is not ready for this, the market isn't there, or let it work, it will work itself out. Or you are going to have people tell you that there are hypothetical harms that are going to occur if the RHC's are allowed to fully participate.

Let me encourage you to look at history and the rules in history, or the experiences in history. Let me read you a quote. "This telephone has too many shortcomings to be seriously considered as a means of communication. The device is inherently of no value to us." Who said that? Western Union in 1866. There are other quotes in my testimony that suggest this is not uncommon.

In conclusion, this is not an issue about what technology will work or whether the marketplace is ready. The question is a question for Congress. You have to answer it.

Are the American public and the Nation's economic health better served by having the regional holding companies in or out of the telecommunications business?

When you have decided that, the terms for that can be decided upon in an orderly process. Until that time, I believe small business and consumers out there will be waiting and waiting and waiting.

Mr. MARKEY. Thank you.

[Testimony resumes on p. 116.]
[The prepared statement and attachments of Mr. Camp follow:]

PREPARED STATEMENT LEE G. CAMP, VICE PRESIDENT AND GENERAL MANAGER, INFORMATION SERVICES GROUP, PACIFIC BELL

Mr. Chairman and members of the Subcommittee, thank you for inviting me to appear. I am Lee Camp, Vice President and General Manager of Information Services at Pacific Bell (a Pacific Telesis Company). As an independent business unit of Pacific Bell, my charter is to develop and bring to our customers information services which enable the growth of the Information Age in California. As the largest communications company in the nation's most populous state, Pacific Bell provides more than eight million residence lines, and more than four million business lines, serving more than 22 million customers.

In my testimony today, I want to paint a vision of how information services are changing how people live—and the quality of their lives—in America today. I believe information services can have a far reaching impact and can play a vital role in helping you find solutions to some of our country's most urgent concerns, such as education, health care and U.S. competitiveness. I want to describe how the MFJ restriction on information services impedes our ability to bring those services to the marketplace rapidly. I want to respond to some of the naysayers who oppose our entry into information services. And, finally, I want to lay a challenge before you, Mr. Chairman and your fellow members, to make the fundamental decision to move America into the Information Age.

One of the major steps in coming to that fundamental decision began a few weeks ago with the introduction of H.R. 2140, the "Consumer Telecommunications Services Act of 1989." Pacific Telesis Group supports this bill as a timely effort to move the legislative process forward. We will be looking to achieve additional clarity on some of the terms and conditions of our entry into the information services market. We, like the sponsors of this bill, want to ensure that the legislation encourages competition in the marketplace and that Congress is back in the driver's seat, setting telecommunications policy.

Information-Services have come to be characterized as a technology or capability. Particularly since the District Court's order last year, theyhave come to be viewed even more narrowly, as "gateways". My first point is to dispel that notion: neither technology nor gateways are the full extent of information services.

To be useful, technology must be tamed and transformed into familiar services, that are as easy to use as a television or CD player, as everyday as the photocopier, and more widespread than the automated teller machines we have come to expect on every street corner.

Information services are applications of technology to the ordinary things people do every day. They enhance information exchange and transactions by giving people more flexibility over when, and where and how they do ordinary things.

Let me give you some examples.

The MFJ restriction on information services does far more than preclude Regional Holding Company (RHC) provision of electronic yellow pages. "Information" has been interpreted very broadly and includes everything from creating content to "manipulation" of content—and therefore consumers are denied valuable, even life-saving benefits.

—The ability to "manipulate", store and retrieve information would allow the RHCs, in partnership with others, to provide detailed information to alarm companies and fire departments, such as the location of childrens' rooms, the floor on which the alarm sounded, the type of building and access locations, the location of hazardous materials, and the number and location of people normally in the building at various times of day. The MFJ precludes the RHCs from offering that service today—at a cost of precious minutes, and potentially lives, in emergency situations.

—Someone gets a temporary job assignment beginning the next day and they call directory assistance to get the names of the nearest child care facilities. With the MFJ's content restriction the RHCs can only provide name, address and telephone number in electronic form—not any sorting of that information by location or even business type. That's why you can't get "yellow page"-type information from a directory assistance operator except, perhaps, on a manual basis in an emergency situation. The burden is even greater for the blind or physically challenged; they are precluded from comparative shopping through asking the DA operator for the names of several suppliers of a needed item—all in the name of "competition".

I said a moment ago that I wanted to address some of the issues with which Congress has to deal.

—To improve U.S. competitiveness, we must find ways to enhance our efficiencies so that we can reverse the trade imbalance and ensure that U.S. firms remain competitive into the 21st century. Information services, through streamlining transactions and sharing common data and tasks, can be used to realize and increase efficiencies for many businesses. They can enable small businesses to have greater access to more markets and even, in some cases, compete head-to-head with larger corporations. Information services can bring businesses and customers closer together, resulting in new and better products and services.

—In health care, we need new ways of containing costs and streamlining the processes that complicate the practice of medicine today. Information services can move monitoring, diagnostics and even some treatment out of the hospital and into the home. I'm reminded of a conversation I recently had with a doctor friend who was lamenting that too much of his time and money were being spent on paperwork and bureaucracy and not enough on "doctoring." Those costs, of course, get passed on to his patients. Information services that link doctors, hospitals and insurance companies can standardize administrative procedures, dramatically reducing the time and money spent on them, and free doctors to do more of what they should be doing—treating patients.

—In education, functional illiteracy and deficiencies in math and science are prime examples of the problems for which information services offer a possible solution. They can be used to reduce overcrowded classrooms by offering teachers and students the invaluable opportunity for one-on-one electronic instruction. They can bring "experts" and "specialists" into the classroom. They can extend the period of instruction beyond the normal school day into the home . . . even to evenings and weekends. I read somewhere that the average American spends 6 hours and 50 minutes per day watching television. If a fraction of that time were spent on education, it would go a long way towards solving our educational problems.

—And let me point out that these examples cut across a wide range of income levels, age groups, and business and individual consumer applications. The dry cleaner may want the fire department to know the location of his flammable solvents just as much as the paint factory owner does—and the fire chief wants it as well. Electronic traveller's assistance can help the low-income traveller at the bus station as much as the business executive at the airport. In California, our ethnic diversity would make a real-time language translation service a virtual Rosetta Stone that unlocks the door to every culture. The only limit to the variety of useful services we might have is the extent of our collective imaginations.

Information services are not science fiction. They are beginning to flourish elsewhere in the world:

—The traveller in France can use a public Minitel terminal located at train stations to discover the name, location, rates and room availability of hotels within the vicinity. The weary traveller can even print out a map right there! In this country? Forget it. Let the traveller thumb through the yellow pages—if there happens to be one at the bus station's pay phone—and then make multiple phone calls to determine the price and availability of rooms.

—Also in France, the multinational manufacturing corporation, Phillips, offers a Minitel service that uses artificial intelligence to provide real-time, step-by-step instructions for repairing machinery that the local mechanic has never worked on before. This saves the repair person the time and expense of having to be retrained as equipment is constantly changed and improved. In this way, the repair person and Phillips stay competitive.

What is disconcerting is that the United States has become an anomaly in the world, with its relatively small base of active information services users. Frankly, this is alarming. Considering the large number of households with computers . . . the fact that most of the underlying technology was developed in the United States . . . that we have a track record of harnessing technology for day-to-day use; considering all this, something is clearly wrong with the development of information services in the United States.

Let's take a look at the possible reasons. What we believe is happening is that we are missing the simultaneous availability of four key elements for success: easy to use terminals . . . which can access and navigate through an intelligent infrastructure . . . through which are available magnet applications with compelling benefits to consumers . . . behind which exist thousands of diverse applications.

Perhaps the most difficult element to achieve is the mix of magnet applications that will attract consumers. In France, poor and outdated directory assistance information created with willingness on the part of consumers to experiment and grow comfortable with Minitel's electronic directories. In the United States we do not have that application. In a way, the telephone companies of America are a victim of their own quality standards!

Even more importantly, in the United States there really is no "mass market." We are a very diverse culture with many different interests. He have what I term "masses of markets" which vary considerably in size, location and composition. The result is that there is no one single, lucrative information services application that will attract the entire market.

Putting these four elements in place is a complex situation and no individual, no single firm or industry can do it all alone. The task is simply too great. To achieve these four key elements requires an environment that encourages cooperation rather than adversarial relationships; that inspires commitment, market experimentation and a willingness to accept risk.

Do we have that environment today in America: I believe not.

The MFJ has established broad and supposedly bright lines defining what the RHCs cannot do. In fact, it has created more confusion than clarity.

There are two particularly troubling elements of the MFJ's restriction on information services. First, the genesis of the MFJ was antitrust. The MFJ simply lacks the fundamental flexibility to accommodate the rapid changes in technology, the market, and customer expectations.

Second, the prohibition on content is so sweeping that it casts a wide shadow across the entire continuum—at one end of the spectrum we are prohibited from generating real-time usage reports and analyses for our customers—or using our own directory assistance operators to give out yellow page information such as the names of three plumbers who serve your neighborhood—and we cannot create databases of useful information—at the other end of the spectrum we are prohibited from producing motion pictures. I am sure you will agree that this is a very broad definition of content.

It has created an ambiguous environment which encourages caution rather than market experimentation and prudent risk taking. Even more insidiously, it provides a platform competitors can, and I believe do, use to protect their own self interests. Taken together with the District Court's warning from the March 1988 Order on Information Services, the MFJ creates a very stultifying environment.

Let me illustrate how difficult it is to make that Information Age vision a reality under the confines of the MFJ. To achieve "success" in this environment, the RHCs must somehow:

—Distribute terminals without designing, specifying, developing, funding or manufacturing the terminals.

—Build an intelligent infrastructure with equipment we cannot design, specify, develop or manufacture.

—Duplicate equipment deployment, and investment, in multiple locations rather than access and connect them via interexchange facilities.

—Offer consumers compelling benefits through magnet applications and diverse content without generating, manipulating, repackaging, funding or sponsoring applications and content.

As you can see, the weight of those restrictions does not make it an easy task.

And who loses? Certainly, some large businesses might prefer to have Pacific meet their needs rather than develop their own in-house expertise and incur the capital expense. But I submit the real losers are consumers and small businesses—those who others have not found the time or inclination to serve—who could benefit from network-based services to meet their information needs. As an example, we currently have a complete electronic directory assistance capability in Pacific, but the MFJ considers the mere retrieval of listings for a person in a distant exchange to be a prohibited interexchange function, even if the database is in the local exchange!

This country needs a challenge for information services that is comparable to the vision of universal service your predecessors created fifty-five years ago in the 1934 Communications Act. We need to remove those seemingly bright lines established by the MFJ. Instead of devoting the corporate resources of the industry to legal fees, let us apply our resources cooperatively toward the evolution of information services. Let us encourage companies like ours to join with others to share both the risk and the awesome task of blending technology and applications to seed the market with information services available to all.

As you contemplate a change in this environment, you would hear from others who claim, as they have for years, that there is no market for information services. You will hear warnings of future, hypothetical harm if the RHCs are allowed to participate fully in creating the Information Age in the United States. When you hear these claims, please be reminded that history is littered with hollow warnings from naysayers, usually competitors, who said that things either could not be done; would not work; or should not be done. A few examples:

—"This 'telephone' has too many shortcomings to be seriously considered as a means of communications. The device is inherently of no value to us." And who said that? . . . Western Union—in 1876.

—"If picture transmission is used to distribute miniature billboards in the home, its growth will be stifled at the outset. The public is not going to buy the receiving apparatus to have itself exploited by advertisers." And the author? . . . Radio Broadcasting—in 1928.

—"Newspaper publishers had better wake up or newspapers will be nothing but a memory on a tablet at Radio City." The author . . . James G. Stahlman, publisher of the Nashville Banner and president of the Southern Newspaper Publishers Association—in 1932.

—". . . VCRs are like millions of little tapeworms which are eating away at the core of the American movie industry." Jack Valenti, president of the Motion Picture Association of America.

I raise these examples to point out that the rhetoric of potential competitors is not new. That of the newspaper industry is especially curious, coming from an industry whose members own and control much of the information it transmits through its newspapers.

Over fifty years ago, they railed against the fledgling radio industry, fearing competition for advertising dollars. Today, of course, radio and newspapers coexist among other providers to meet the voracious appetite of American consumers for information. Similarly, the RHCs can be an additionalnot a substitute—provider to meet that growing demand.

This leads me to the challenge I want to place before you.

Allow me to pose the fundamental question you must answer. This is not an issue about what technology will work . . . or whether the marketplace is ready . . . or whether protocol conversion is OK but electronic yellow pages are not. The real question for policymakers is: Are the American public and the nation's economic health better served by having the RHCs in or out of the information services business?

This is the seminal question you must address. Once you decide the answer, we can then move on to a constructive dialogue with respect to the terms and conditions of that market entry.

And until you address that question, the senior citizens . . . the Hispanic students . . . the small businesses . . . wait—and wait—and wait.

Thank you.

MFJ Information Services Restriction

Network and Systems Related	Processing of Third Party Information	Resale	Ownership (Non-core related)
Derived from Core	Conversion to facilitate use	Selective re-packaging at BOC discretion	Objective data and Product Service information
Related to Core	Repackaging by customer request		
	Limited editorial input		News / Entertainment

MFJ Manufacturing Restriction

Restricted Activities may be viewed as a continuum:

- Software Integral to Hardware
- Design and Development
- Prototypes/Special Assemblies
- Investment/Equity Participation
- In-House Fabrication
- Aquisition of Manufacturer

MFJ InterLATA Restriction

Restricted Activities may be viewed as a continuum:

- Signalling
- Voice Mail/E Mail Connectivity
- Re-Sale Large Business Only
- Re-Sale Out of Region
- Re-Sale In Region
- Re-Sale All Customers
- Least-cost Routing
- Facilities Based Out of Region
- Full Facilities Based

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PACIFIC BELL
A Pacific Telesis Company

June 30, 1989

The Honorable Edward J. Markey
Subcommittee on Telecommunications and Finance
United States House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

I want to first thank you for the opportunity to speak before your subcommittee on May 31, 1989 regarding the Modification of Final Judgment and its effect on the information services industry. The purpose of this letter is to provide a detailed response to allegations raised by Mr. Laseau of the Association of Telemessaging Services, International. It is my understanding these allegations are based upon the claims of AMVOX, a voice mail competitor and a member of the ATSI. The specific allegations are embodied in a complaint filed with the California Public Utilities Commission and it is most appropriate for me to comment on those specifics.

AMVOX alleges illegal and anticompetitive practices relating to Pacific's Voice Mail services. I will respond to these allegations separately, but first let me say we have done nothing illegal or anticompetitive. The allegations are merely grumblings of a competitor who does not understand or like the existing rules. To fully appreciate the existing environment and rules, let me share some background with you.

First, the process leading up to allowing Pacific and the other RBOCs to "enter" the information services market (albeit on a limited basis) has taken some 20 years, involved hundreds of companies and their lawyers, countless thousands of hours of analysis and briefing, and reams of paper for pleadings and orders. Most of the FCC's decisions in this area are the product of deliberation and compromise, and should not be lightly set aside.

Second, in its Computer Inquiry III, the FCC examined the real world impact of over five years of experience with structural separation for the provision of enhanced telecommunication services by the Regional Companies and concluded that structural separation did not serve the public interest. The FCC invited comments from all parties and deliberated over the terms and conditions for RBOC entry into the information services market. Having found structural separation unsatisfactory, the FCC adopted rules permitting structural integration with appropriate safeguards for the provision of information services. In promulgating these rules, the FCC sought to benefit customers (not simply competitors) in ways that were not possible through structural separation. Critical among these safeguards are the accounting rules which provide for nonstructural separation of the RBOC's information services and basic network operations so as to prevent cross-subsidy of information services. AMVOX blithely ignores this fact, mischaracterizing the competitive safeguards and, in my opinion, distorting the facts.

Third, many of the complaints raised by AMVOX were considered previously by the FCC in its Computer Inquiry and Open Network Architecture proceedings. In reaching its decisions, the FCC struck a balance between the interests of consumers and competitors.

Before any of these allegations were made public, we talked with AMVOX regarding their concerns and explained the FCC safeguards. AMVOX appeared to understand the facts. We were then surprised when AMVOX proceeded to repeat their allegations before the CPUC in public hearings, to CPUC commissioners by direct correspondence, to the state assembly and through Mr. Laseau's testimony before your committee. Following all of this public posturing, they filed a complaint with the CPUC and were most recently featured in the Los Angeles Times. It is quite disconcerting that non-regulated competitors can use the regulatory process in such a manner. Although the effort may prove futile, Pacific is willing to meet with AMVOX anytime to again explain the rules and facts.

Now let me turn to the specific allegations and address them in turn:

AMVOX alleges: Pacific guaranteed a specific level of voice mail service and ordered additional Centrex lines at no cost to the customer to meet that commitment. AMVOX claims that Pacific is, therefore, unlawfully giving away tariffed services.

Pacific's response: First, guaranteeing a specific level of service is not anticompetitive. It is good business practice and an indication that the provider has confidence in its service. When the customer was provided voice mail service, the "busy level" (the number of times a caller reaches a busy signal rather than the voice mail machine) was heavier than desired. The customer authorized additional Centrex lines to terminate on the voice mail machine and asked that the bill for these Centrex lines be sent to Pacific's Information Services Group (ISG) as its authorized representative. As the customer's authorized representative, ISG is charged full tariff rates for the additional lines. The tariff rates charged for these Centrex lines are included in the cost of providing voice mail service (much as the cost of steel is included in the price of a car). This billing methodology is a common and accepted business practice. AMVOX, as a customer's agent, can order additional lines for its customers in the same way.

AMVOX alleges: Pacific's voice mail offering to Centrex customers is in violation of the California Public Utilities Commission's rules regarding tests and trials of new services.

Pacific's Response: Pacific's Voice Mail Centrex offering is neither a test nor a trial, it is a service offering. Furthermore, as AMVOX was well aware, the CPUC granted Pacific authority to offer voice mail on November 9, 1988.

AMVOX alleges: Potential customers are urged to dial a seven digit (811-7700) toll free number to obtain information about the voice mail service. "811" service is not available to competitors, and the only toll free number alternative is "800" service which AMVOX laments is too expensive and requires the dialing of eleven digits instead of seven. AMVOX believes that Pacific, therefore, has an unfair competitive advantage.

Pacific's Response: First, "811" service is used to answer customer inquiries and take orders and trouble reports. This is exactly the type of customer benefit the FCC tried to preserve in adopting the nonstructural safeguard rules. "811" is not a free service for Pacific Bell's Information Services Group. In accordance with the FCC Accounting Safeguard rules, Pacific's Voice Mail is assigned fully distributed costs for the "811" service.

Second, the FCC has determined that services used for administrative purposes, such as "811", need not be tariffed and offered to the public. The FCC has recognized that allowing Pacific the use of its administrative services, like "811", strikes a balance between competitive and consumer interests. Third, it is misleading for AMVOX to suggest that by use of "811"

Pacific has a competitive advantage. "811" may not be used by Pacific's Voice Mail customers to get toll-free access to their voice mailboxes. As it stands today, because of the MFJ's prohibition on the provision of interLATA service, Pacific's customers must incur toll charges to call their voice mailboxes when travelling outside their local service area (LATA). If we were permitted to purchase interLATA "800" service, as AMVOX is, we would use that service to provide customers with toll-free access to their voice mailboxes. In actuality, it is AMVOX who has the distinct competitive advantage.

AMVOX alleges: Pacific is offering free message-taking service to launch its voice mail offering, and is pricing "group-messaging" in a predatory fashion. AMVOX feels that Pacific has priced its service this way in order to drive them out of business.

Pacific's Response: Pacific is not offering free voice messaging service. For Pacific's Milpitas and San Pedro residence voice mail service, messages are priced at $.25 for the first message, and $.15 for each additional address (called "group messaging"). Customers may open their voice mailboxes and receive messages without charge. The price for sending messages is intended to cover the cost of the mailbox, just as the price of razor blades often covers the cost of the razor or as a postage stamp covers the cost of sorting and delivery for the post office. This pricing structure is clearly not predatory. AMVOX is free to price its service in precisely the same way. It may be of interest to note that AMVOX charges customers $.25 for sending a message to the first addressee, with no additional charge for each additional addressee, up to 250 total addressees. AMVOX apparently believes it is a predatory pricing practice if done by Pacific, but good business practice if AMVOX does so itself.

We find AMVOX's claims completely without merit. We are deeply concerned that AMVOX and others will be permitted to use the Commission's complaint process to gather important marketing information, particularly sensitive information about Pacific's costs.

Since these issues are very important to Pacific, I sincerely hope you will supplement the record with this response. If you have any additional questions, please do not hesitate to contact me or Pacific's Washington office.

Very truly yours,

Lee L. Camp

L. G. Camp
Vice President

Mr. MARKEY. Our final witness is Mr. George Perry, vice president and general counsel from Prodigy.

STATEMENT OF GEORGE M. PERRY

Mr. PERRY. I want to thank you for your invitation to appear before you today.

As many of you know, Prodigy Service Co. provides an advanced consumer information service to a rapidly increasing number of Americans through the Prodigy Interactive Personal Service. After less than 9 months of full marketing effort, more than 50,000 families and 75,000 individual members are enjoying the Prodigy service. Re axe well on our way to having millions of members in the early 1990's.

In a real sense this demonstrates the United States is not the technological or information wasteland that some portray it to be. In fact, the information age is rapidly on its way and America stands in a leadership position. Re think that Prodigy's early success provides a solid basis for understanding what is required for the success of any information service.

The first ingredient is an affordable delivery system. Prodigy uses POTS, or plain old telephone service. Others may need more sophisticated service, such as Auerbachs' Gateways. My point is that should be neither a conscious nor de facto policy that limits the concentrations of network facilities and customer technology. The field should be wide open for the enterprising providers to choose the delivery means best suited for their services.

Second, the success—to be successful, an information provider needs certain support services such as billing collection, credit verification, promotion, and the like. Because of our system design, we are able to do most of this ourselves, but many others are not.

The third ingredient for a successful consumer information service is attractive, desirable and valuable information content. An information service must provide content the customer wants in an attractive format and it must be very easy to use.

Finally, the service must be affordably priced. This is paramount if we are to reach the average American home. Prodigy believes flat rate pricing of information services to the public is a key factor in consumer acceptance. On the other hand, we believe time sensitive charges tend to chill experimentation, usage, and consumer acceptance.

The Prodigy service is designed to allow on a mix of advertising fees, revenues, and transaction fees, which allow us to offer the consumer the service at a flat monthly charge of $9.95. We believe making services available to ordinary people in nonmetered, affordable, flat rate fashion is changing the whole psychology of on line information services for consumers.

These are the four basic components, we believe, of a successful service. But it is also important for policy makers to recognize that various industry participants have significantly different abilities in each of these areas.

I am reminded of the slogan of the fast food chain that says "we do chicken right." The truth behind that slogan is the maxim that efficiency is maximized when each person concentrates on what it does best. Telephone companies are good at operating telephone networks. That is why we were created in the first place, and given the luxury of monopoly power. They are also well suited to provide services. National policy should recognize and focus their strength on these functions.

In contrast, while information providers have some capabilities in delivery and support, we all know their specialty is content. Significantly, no party should have an advantage in pricing a service to consumers unless, of course, the telephone companies are permitted to leverage their information services off their monopoly networks.

The challenge facing Congress is to establish policies that provide the catalyst with proper incentives for information providers and telephone companies to devote their energies over the next decade or so to providing services rather than quarreling about rules and roles.

A word about incentives. For information providers, the most important incentive is stability, especially in rates and regulations. Nothing kills the interest of an entrepreneur more quickly than instability. Yet, today we have neither regulatory nor pricing stability.

As on example, we are now in battle again with the FCC over enhanced services access charges. He thought that issue was settled a year ago with the bipartisan support of the members of this subcommittee.

Other FCC policies affirmatively disseminated today in favor of the telephone company. Yet, telephone companies are constantly pressing the courts, the Congress, FCC, and the State regulatory commissions for further changes in the rules.

These unending disputes over the rules and roles serve no useful purpose, and distract valuable time, money, and effort from the important work that needs to be done.

The best incentive Congress can give the telephone companies is a firm national policy, affirming their role as carriers and information gateway operators, not content generators. They should be implemented to fully implement the authority they now possess and to rapidly deploy existing technological enhancement to the network, such as NISDN, that will hasten the day when their monopoly control of the network will no longer be a major impediment to information content.

That way, we can achieve widely available, diverse information services with telephone companies serving as carriers and gateway providers earning profits from increased network utilization and the sale of support services. Congress has a very important policy role to play in this matter. My specific suggestions for congressional policy direction are in my prepared testimony, which you have.

Prodigy stands ready to work with the subcommittee and with the Congress, in bringing these policies about. I to thank you, Mr. Chairman.

Mr. MARKEY. Thank you very much, Mr. Perry.

[Testimony resumes on p. 132.]

[The prepared statement and attachments of Mr. Perry follow:]

PREPARED STATEMENT OF GEORGE M. PERRY, VICE PRESIDENT AND GENERAL COUNSEL, PRODIGY SERVICES COMPANY

As you know, our company has developed and is currently marketing a new information and transaction service called the Prodigy interactive personal service, that is targeted to average American consumers and is in operation today. In a real sense, the Prodigy service and other information services in place today demonstrate that the Information Age is alive and well and on the rise in the United States. America undeniably stands in a leadership position in the worldwide information services marketplace.

At the outset, I want to express Prodigy's support for what appear to be the telecommunications goals of this Committee. As we see it, these objectives include: Affordable Mass Market Services.—Promoting the availability of affordable mass market information services for all consumers, both business and residential; Fair Competition.—Creating the conditions for open competition by an participants in an equal and fair environment; telecommunications Productivity.—Encouraging the maximum productivity and efficient use of America's telecommunications resources; Common Carrier Responsibility.—Reinforcing that the telephone companies' paramount obligation is to serve as common carriers for all users; Network Enhancement.—Advancing the technological evolution of the network; and Industry Cooperation.—Fostering a spirit of action and cooperation to move the industry forward in a stable environment to develop a wide diversity of information services.

In testimony before this Subcommittee little more than one year ago, Prodigy Services Company's President and Chief Executive Officer, Ted Papes, urged the telephone companies and governmental authorities to seize the opportunity created by the Bell System divestiture court's "Gateways" decision and to get on with the task of making the Information Age a reality for all Americans. My message today is the same.

Ultimately, Prodigy's goal is fair competition for all. To that end, Government should promote the establishment of effective safeguards and incentives that can, in a stable and predictable environment, encourage all players to cooperate in the development and delivery of valuable services to the public. While adjustments are necessary, we believe that the essence of the existing market structure, which focuses the efforts of key participants in their areas of greatest expertise, sets the proper framework for guiding that policy into the future.

Let me take a moment to describe briefly for you what Prodigy is doing to make the Information Age a reality for Americans. I do this not as an advertising pitch for the Prodigy service, but to explain, based on our experience, what types of technological, regulatory, and supporting structures are vital for the development and growth of information services. We provide a case study on bringing a broad-based consumer-oriented information service "to market."

Using existing telephone technology and state-of-the-art system design, the Prodigy service makes a wide range of services and information readily available to American consumers. Through the Prodigy service, American families, using computers in the convenience of their own homes, can quickly and inexpensively attend to such daily needs as news and weather information, financial advice, travel and

recreation planning, educational and other research, sending and receiving electronic mail, and conducting banking, shopping, and investment activities.

Research and development on what became the Prodigy service began in 1984. In October 1988, Prodigy Services Company, a partnership of IBM and Sears, launched full scale marketing efforts. Today more than 50,000 households and 75,000 people are using the Prodigy service in 14 major markets in this country, and the number of markets is steadily growing. This is the fastest start of any home computer-based service, and we are on track to achieving our goal of reaching millions of American households in the early 1990's.

We believe the timing is right. Today there are nine million homes in America with computers compatible with the Prodigy service, a market of about 25 million individuals. That market is presently growing at 25 to 30 percent a year. By the middle of the next decade, more than 30 million homes will be able to use the Prodigy service.

Just as the VCR market "took off" when inexpensive tape rentals provided a popular use for those machines, so the Prodigy service will give millions of people a low-cost use for the computers they have at home. And it win give millions more a very good reason to buy a computer.

We believe Prodigy is at the forefront of what is characterized as the Information Age. We started with the vision of providing American families with better options for organizing and enriching their lives by conducting a wide range of transactions, communicating, and selecting useful information—simply, quickly and at low cost. Our underlying technology is complex, but the face presented to our membership is simple. We use the full power of today's advanced home computers, but we avoid "computerese" and put our commands in a language people understand.

The rapid acceptance of our service by consumers reflects several key characteristics. These include its simplicity of use and its value to consumers. We are able to deliver our service at an affordable price because, like newspapers and magazines, revenues come from both subscriptions and commercial advertising. Consumers can access the Prodigy service through the convenience and low cost of a local telephone call because Prodigy has built local computer sites within the local telephone exchange calling areas of our members.

The Prodigy service delivery architecture is unique because most of the electronic interaction between user and database takes place at the local level, much of it right in the member's personal computer. This distributed network architecture expands use of the telecommunications network and utilizes America's electronic highways most efficiently.

Based on our experience, we believe that the formula for a viable consumer-oriented information services industry consists of four essential ingredients. Whether it is Prodigy or any other service, the ingredients are the same: (1) delivery; (2) essential support services; (3) content; and (4) price.

Understanding these elements will also provide useful insights into the proper direction of future policies. Let's examine each of them in a little more detail before I get to the questions of who should provide which of them and why.

Obviously, an information service needs an affordably priced, technologically suitable means of access to the home or office; in essence, a transmission system and some widely distributed form of receiving equipment. The following factors are of key importance:

Ubiquity. Today, the telephone network provides the only available means of ubiquitous access to the home and small business. This is especially the case for an interactive service such as the Prodigy service.

Because of the critical importance of the telephone network to deliver information services, information providers should not be required to utilize any particular network service or technology, including gateways. Rather, information service companies should be free to choose the delivery mechanisms best suited to their needs.

Affordable Access. Access itself must be affordable if the services are to be broadly available and used. We know that the demand on the part of consumers for information services is highly responsive to the price of the service. To be successful, a service provider's costs, including the cost of access to the consumer, must be priced reasonably.

Stability. As important as affordable cost are regulatory and pricing stability, especially stable and objective pricing policies. Stability enables information providers to anticipate their costs, in turn allowing providers to price their services to users at a known and reliable rate. This benefits consumers as well by meeting user expectations and reducing turnover. Stability also creates an environment conducive to investment, research, and thoughtful product development. In contrast, lack of stabili-

ty drives away innovators and, just as importantly, venture capitalists willing to fund startup services.

The second required ingredient consists of essential support services. Of particular importance to information service companies are: Billing and collection services; promotion; credit verification; network developed information, such as subscriber lists and traffic patterns; and network diagnostic services.

These services are indispensable. Lacking adequate support services, even the best information service will fail.

The third ingredient for a viable consumer information service is attractive, desirable, and valuable information content. An information service must provide content that the customer wants, whether it is news, sports scores, movie reviews, product information, consumer information, or shopping or banking at home. In addition, we believe that it must be presented in an attractive format, and must also be very easy to use so that the subscriber is comfortable with its operation.

Finally, the service itself must be affordably priced. This is paramount if you are to reach average Americans' homes. Prodigy believes that flat rate pricing of information services to the public is a key factor in consumer acceptance of information services. On the other hand, we believe that time sensitive charges tend to chill experimentation, usage, and consumer acceptance.

The Prodigy service is designed to rely on a mix of user subscriptions, advertising revenues, and transaction fees, which allows it to be offered to the consumer at a flat monthly charge of $9.95. We believe that making valuable services available to ordinary people at nonmetered, affordable flat rates is changing the whole psychology of on-line information services for consumers.

I have set out this formula to illustrate that all consumer-oriented information services share the fundamental requirements of delivery, support, and content—at affordable prices. In laying the framework for Information Age services, governmental policies should encourage all interested parties to cooperate in ways that make optimal, efficient use of their particular capabilities in each of these areas.

Economists speak of the Law of Comparative Advantage. In a nutshell, the law of comparative advantage teaches that economic efficiency is advanced when each participant focuses on what it does best. This principle applies equally to information services. In Prodigy's view, the Committee's telecommunications goals will most likely be achieved if telephone companies and information service companies are provided incentives to concentrate their efforts on their strengths.

The comparative advantages of the telephone companies vis-a-vis information service providers are discussed below, and can be summarized as follows: Delivery.—Telephone companies have expertise and experience in delivery; information service companies rely on the telephone network; Support Services.—Telephone companies also have a great deal of experience with billing and collection and other network-related support services; information service companies may or may not have experience in these important support services, depending on their size and the nature of their services; Content.—Telephone companies have no unique expertise in providing or packaging content. In contrast, providing and packaging content is precisely the area in which information service companies specialize. We at Prodigy have been at it for the better part of five years; Pricing.—Significantly, no party has a comparative advantage with respect to pricing of the actual service, so long as the telephone companies are not permitted to cross-subsidize from regulated activities or otherwise uniquely leverage their monopoly network.

Prodigy believes that the objective of bringing broad-based information services to all Americans can best be served by policies carefully crafted to maximize the comparative advantages of the different participants while encouraging their cooperation in achieving this goal. Regulation alone cannot ensure that the industry participants will focus their energies and resources on their strengths or even on effectuating the policymaker's declared goals. Rather, as privately owned businesses seeking to maximize shareholder value, market participants will respond to the inherent incentives arising from their various positions in the marketplace.

For these reasons, policymakers need to understand the relevant incentives and their implications both for different policy alternatives and for the "formula" for information services' success.

As regulated local common carriers, the telephone companies have a set of economic incentives that distinguish them from other participants. Because regulated services constitute their primary sources of traffic and revenue, their business incentives understandably favor maximization of their returns from those services. Congress should be aware that these incentives can conflict with the goal of encouraging the widespread growth of information services.

For example, it is in the telephone companies' interests to promote concepts such as price caps, two-way usage-sensitive pricing, and "strategic" (what the market will bear) pricing of basic network services because these policies will increase their regulated revenues. However, those same pricing policies can inhibit the development of information services markets. While pricing flexibility and access charge-like rates provide telephone companies with enhanced earnings from their regulated basic services, the higher rates and rate churn (unpredictable and frequent changes in prices) they will produce is counter to establishing the stable and affordable pricing of underlying network services so critical to information services.

Prodigy's extensive market research and our experience to date confirm that consumers want inexpensive flat-rate priced information services. Not only are consumers value conscious, but they are used to free broadcast TV, flat-rate priced cable TV, and inexpensive magazines and newspapers.

BellSouth's recent effort to impose two-way usage pricing on information service companies in its region is a good example of the inherent conflict in pricing policies. While usage pricing may meet BellSouth's regulated services business goals, we are convinced that it will discourage consumer acceptance of information services, especially newly emerging data services.

In setting telecommunications policy, Congress should therefore take into account telephone companies' unique economic incentives, which in many respects run counter to the goal of fostering a strong information services industry. Allowing them into the business of information services content will not change these incentives, but could place the telephone companies in a position to do serious harm to others in the industry.

A number of recent regulatory actions have also reduced user protections and, thereby, contributed to regulatory and pricing uncertainties for information service companies.

ESP Access Charges. As you know, in 1987 the FCC proposed, for the first time, to impose switched access charges on information service providers. Although the FCC terminated that proceeding, in large part due to pressure from the Congress and the information services industry, the issue has been recently resurrected as part of the FCC's proceeding on possible alternatives to continuation of the so-called "ESP access charge exemption." Not only would the adoption of any such proposal severely cripple the development of the industry, the fact that it repeatedly is placed on the table is sufficient to chill both information entrepreneurs and the capital markets upon which they depend for financing.

Inadequate Regulatory Safeguards. Many of the current regulatory mechanisms also contribute to the business uncertainties facing information service companies. The wideranging problems with the Computer III, ONA, Cost Allocation, and other rules, which are detailed in an attachment to this testimony, illustrate the difficulties in crafting an effective set of safeguards to protect ratepayers and information service companies.

As before, Congress should assume a leading role to assure that the FCC does not impose access charges on information service companies or otherwise adopt new policies that would cause radical increases in prices. Furthermore, Congress should require that safeguards are firmly in place to ensure fair competition, and provide the means for rigorous enforcement. Prodigy would be pleased to work with the Congress in effectuating these policies.

There has been an unprecedented amount of market activity and attention to consumer information services since March 7, 1988, buoyed by the Bell System divestiture court's ruling. Most of the Regional Bell Companies have entered the market in some manner. Prodigy and others have developed new information services, entered into joint ventures, or expanded current services, all aimed at serving the consumer market.

However, as positive as this may seem, there is great uncertainty. As a participant in the industry, I can tell you that there is: (1) a pervasive feeling of uncertainty about the future; (2) confusion surrounding the legal and regulatory environment; and (3) a hesitant, "wait and see" attitude on the part of many in the industry.

To the extent that certain positive incentives can be accelerated and negative incentives can be reversed, the availability of information services to the public would be enhanced. Telecommunications policy should address establishing the appropriate incentives in the following areas.

The BOC gateways, as we see them today, are primarily designed as early market tests. Business relationships with information service companies and operational, technical, and service issues are being identified and addressed. Over time, with the development of expertise and feedback from service providers and consumers, gateways will be an important contribution to the development of information services.

However, these new gateway offerings are still in their infancy, by anyone's measure. The BOCs have much to learn and much to prove in these new businesses. Many of the BOC market trials have not taken advantage as yet of the permission to provide electronic mail or white page directories. Both the messaging and directory capabilities are widely recognized as valuable catalyst services for gateways.

Most of the gateway offerings also fail to include a storage capability for information service providers' databases. This capability, also permitted under the existing market structure, could substantially reduce information service providers' startup costs and, thus, substantially increase the number and diversity of offerings. To date, the majority of services made available on the gateways are already available to consumers through other non-BOC gateways or service bureaus. Few truly new services have been made available as a result of the gateways.

At Prodigy, we have spent more than five years developing our service and we recognize the size and scope of the undertaking. We understand the range and complexity of the challenge before the telephone companies in exercising the freedoms they currently enjoy. We feel there has simply not been enough time to prudently evaluate the impact of the current legal and regulatory environment on us all and, ultimately, the American public. The Congress should implement policies that will encourage the BOCs to build and improve the transmission and storage authority they now have before greater authority to enter new information service areas is allowed.

The BOCs should also be encouraged to upgrade the network itself in ways that could dramatically improve the delivery of information services to the public. While Prodigy's delivery system now uses only "TOTS"—plain old telephone service—and cannot use gateways as they are currently configured, the rapid deployment of known network technologies, like ISDN, would substantially increase the efficiencies and economies of the delivery of all information services. It would go far in accelerating the speed of delivery of services and dramatically improve the visual quality of graphics-based services. Such deployment might also, in combination with an effective regulatory structure and other technological enhancements (such as fiber-to-the-home), reduce competitive concerns by limiting telephone company control over the bottleneck.

I have here identified a number of independent factors which have contributed to the current state of the information industry and made some recommendations as to how positive developments might be encouraged. Contrary to the claims of some, however, the telephone companies' inability to provide "content services" has not materially contributed to any perceived shortfall in the availability of services to the public.

Telephone company involvement in the content of information service offerings would create additional incentives for them to discriminate against the information services offered by others. It would also be inconsistent with their traditional common carrier role, which is premised on a prohibition against control of the content of the messages being transmitted so as to preclude any incentive for interference with the delivery of that message. As a competitor, the telephone companies would have an incentive to favor their own services over those of other providers, and regulation historically has been inadequate to the task of policing such problems.

Moreover, the trend over the past few years has been towards substantially weaker regulatory control and enforcement than in the past, and some existing regulations even authorize preferential treatment of the telephone companies. It is, therefore, not surprising that Commissioner Dennis of the FCC recently stated that Judge Greene could not be faulted for declining to rely upon the FCC's Computer III and related regulations to prevent anticompetitive conduct, because the FCC itself is not yet satisfied that they will "work in practice."

Under these circumstances, Prodigy and other information services providers understandably are concerned with the prospect of having to compete in all aspects of its business with its monopoly transmission suppliers.

Prodigy believes that the Congress has an important part to play in creating stable conditions in which many of these concerns can be alleviated and information services can develop in a cooperative environment that emphasizes the relative strengths of all players. In particular, Congress has a vital role in establishing the agenda for the Federal Communications Commission, the telephone companies, and the courts so as to encourage the future development of information services.

Most importantly, Congress can assert its policymaking responsibility to clarify national objectives and to establish the necessary stability in the information industry. Prodigy believes that Congress should adopt and promote policies that: (1) Create the proper incentives for common carrier telephone companies to provide de-

livery and related network functions and for information service companies to develop consumer-oriented services; (2) encourage technological evolution; (3) facilitate the delivery of diverse services to the public; (4) contribute to reducing existing bottlenecks in essential delivery mechanisms; (5) promote regulatory and pricing stability; and (6) establish effective safeguards for ratepayers and information service companies.

I want to again thank you for this opportunity to appear before you and to share Prodigy's views on these very vital issues.

ATTACHMENT A

EXAMPLES OF SOME INADEQUACIES OF CURRENT REGULATION

ONA Pricing Problems. The FCC has proposed to extend uneconomic ongoing policies to ONA services generally. The agency has tentatively rejected requiring cost-based pricing for ONA services and is considering permitting "strategic"—a euphemism for "what the market will bear"—pricing of those offerings. Simply put, strategic pricing, which would permit carriers to earn substantially in excess of their authorized return on selected services, is absolutely contrary to the interests of information service companies and to the goal of widespread availability of information services.

The FCC has also noted that it expects ONA services to be placed under price caps when they are filed next year. Under the agency's price cap proposal, local telephone companies will be free to increase the rates for individual services without regard to cost, thereby distorting economic signals. Moreover, price cap flexibility will allow those carriers readily to adjust rates to disfavor the services used by competitors. These regulatory initiatives undermine information provider requirements for affordable, stable, and predictable prices for delivery services.

ONA Structural Problems. The FCC's Computer III rules and ONA Order deny information service companies access to critical services on a reasonable basis. For example, the telephone companies will be permitted to charge information providers usage-sensitive, access charge-like rates as a prerequisite to acquiring new ONA functions under federal tariffs. This constitutes a user restriction for which there is no technical justification.

The FCC to date has also refused to require the carriers to provide: Unbundled switching and transport services; billing and collection services under reasonable terms and conditions; and network diagnostic services which would permit information service providers better to manage their offerings.

Unfair and Discriminatory Rules. In other respects, the FCC's Computer III rules are simply fundamentally unfair to nontelephone company information service providers: Collocation.—The FCC repeatedly has refused to require a BOC to offer collocation at its central offices for competitors' equipment, but has permitted the telephone companies exclusively to enjoy the economic and other benefits of that arrangement; CPNI.—The FCC has established a double standard for access to customer proprietary network information ("CPNI"). It permits BOCs to have access to this important marketing resource absent a request for nondisclosure by the customer, but requires competing information service providers to secure affirmative customer consent, in writing, prior to releasing the information. In addition, the FCC has not even given most residential customers the right to be informed about their ability to protect their privacy by preventing disclosure of their CPNI. This will enable the BOCs easily to identify likely subscribers while competitors will first have to contact individual users and then obtain their consent to the release of CPNI. Of course, by that time, the CPNI would have little value to the information service provider because he would already have identified the potential subscriber to his service. This double standard in treatment of access to CPNI not only raises privacy concerns regarding unauthorized BOC access to telephone subscribers' CPNI, it confers substantial marketing advantages and cost savings on the BOCs.

Delays in Responding to Tariff Problems. FCC tariffing practices similarly fail to ensure that rates for services used by information service companies will be reasonable. Even in those cases where existing FCC policies do not completely foreclose user complaints regarding telephone company tariffs, FCC action has been slow and frequently has failed to deal with the merits of the problems raised: Inordinate Delays.—Tariff investigations, such as that involving strategic pricing, can go on for years while the offending rates remain in effect. The recent enactment of Section 208(b)(1) of the Communications Act to require completions of tariff investigations generally within 12 months, while providing some relief, obviously does not

solve the problems of an information service company who is required to pay unreasonably high communications charges for that lengthy period; Lack of Reviewability.—Because most tariff orders are not immediately appealable to the Courts, the FCC has been able to avoid judicial review of many of its important pricing decisions. This, in turn, frustrates Congressional oversight of those decisions because the FCC cannot be held to the standards embodied in the Communications Act.

Inadequacy of Joint Cost Allocation Rules. In its recent order on strategic pricing of exchange carrier special access services, the FCC discounted as arbitrary and ineffective the same types of cost allocation procedures upon which it relies to prevent cross-subsidization between regulated and unregulated services. Moreover, a 1987 study by the General Accounting Office concluded that the FCC lacks the resources to assure that its rules can control cross-subsidies. The agency has not reconciled these conflicting findings, which appear to undermine its ability to ensure that ratepayers do not bear the costs of a telephone company's unregulated ventures.

July 12, 1989

Prodigy Services Company
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Telephone 914 993-8000

Office of the
Vice President

Honorable Edward J. Markey
Chairman
Subcommittee on Telecommunications
and Finance
Room 2133
Rayburn House Office Building
Washington, D.C. 20515-2107

PRODIGY
Services Company

Dear Congressman Markey:

Enclosed are my responses to your list of questions that Members of the Subcommittee have posed to panelists to follow up testimony presented regarding the Modification of Final Judgement. These written responses supplement my oral testimony presented May 31, 1989.

Prodigy Services Company appreciates the opportunity to continue a dialog with the Subcommittee on issues of importance to the information services industry.

Sincerely,

George M. Perry
Vice President and General Counsel

cc: Hon. Matthew J. Rinaldo
Ranking Republican Member
Subcommittee on Telecommunications
and Finance

Prodigy Services Company Responses to
House Subcommittee on Telecommunications and Finance
Members' Questions on the Modification of Final Judgment

Q1. Please provide an analysis of what you believe-- with as much specificity as is practicable--what the makeup of an electronic gateway should entail, and the costs (on a per unit basis), of providing the gateway (including terminals) on a universal basis.

A1. The Regional Bell Operating Companies (RBOCs) currently have the authority to provide information transmission to offer information gateways, store the databases generated by others and to offer electronic mail and voice mail services.*

The makeup and cost of deploying an electronic gateway can vary widely depending upon the overall business strategy of the gateway provider, the technology approach selected and level of commitment. Some of the factors that affect cost and deployment are:

- o market characteristics - density, geographic scope
- o estimated demand
- o engineering and design
- o functionality and features provided
- o integration with existing networks and systems

Prodigy Services Company (Prodigy) is an integrated information services provider, and is not in the gateway business per se. Therefore, it is not in a position to provide actual gateway cost data. Prodigy offers the PRODIGY® interactive personal service to consumers via a comprehensive delivery system which utilizes today's telephone network infrastructure. Its distributed delivery system today does not require RBOC gateway functionality.

Prodigy believes that RBOC gateways as an infrastructure element for information services should, at a minimum, support the following implementation principles:

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* See Addendum No. 1: Summary of MFJ First Triennial Review. Prodigy's responses address only RBOC entry into information services activities beyond those authorized in the first triennial review.

1) Affordability. Gateways should be provided in a way that allows for affordable and easy access to both information services providers and end-users.

   While Prodigy today does not use RBOC gateways, affordability of monopoly network services, whether they are provided via a gateway or are purchased through the local telephone company, is critical to the growth of information services in America, particularly for consumers. The PRODIGY service was designed with affordability to consumers as a basic principle. Prodigy delivers its service to members for a flat rate of $9.95 per month without on-line charges.

2) Flexibility. The role of the gateway provider should be to support a wide variety of information service delivery approaches. During the developmental stages of the industry, gateways should be open to innovation and support ideas of those committed to this industry. Neither technologies nor market choices should be arbitrarily precluded or pre-determined. The gateways should seek to support the widest diversity of market participants, and be flexible in supporting evolving delivery requirements to most effectively respond to market demand for information services.

3) Technology Integration. Technologies for delivering information services are rapidly changing, particularly for data communications. Improved local loop technologies such as fiber transmission, data over voice and ISDN are important capabilities that will affect the performance and economics of the delivery of information services. RBOC gateway implementation should integrate these new technologies to increase delivery quality and efficiency.

   The availability and expected lower costs associated with these technologies should be extended to information providers and end-users.

4) Intelligent Terminal Support. Prodigy, unlike most information providers, has developed a distributed delivery system whereby the intelligence of the system is placed as close as possible to the end-user, including a significant amount of software that resides in a member's personal computer. This advanced delivery system has not been accommodated by the initial implementation of RBOC gateways.

Prodigy believes the role of the RBOC gateway should be to support the diversity of participants who will continue to innovate and address this market opportunity. Gateways should be open to accommodate forward looking technology that harnesses the intelligence and power of the growing number of personal computers. For example, our analysis show that mass markets are most economically served by leveraging the power of personal computers, and we have implemented our system accordingly.

Q2. If the RBOCs are allowed to compete on the same gateway as their competitors, what safeguards would prevent the RBOCs from making use of the billing and marketing information that they could conceivably have access to as the RBOCs would be monitoring traffic through their gateway? Please provide the Subcommittee with a detailed technical explanation of what safeguards would ensure that proprietary information could not be accessed by the RBOCs in processing competitors billing information.

A2. Prodigy supports a competitive enhanced services industry in the U.S. where any and all participants, including RBOCs, have a fair opportunity to compete. Today, however, the RBOCs have monopoly bottleneck control over the local exchange, especially to consumers' homes, and they are information providers' sole supplier of delivery services. A sole supplier who is also a competitor has both an incentive and the ability to gain competitive advantage, absent effective and stringent safeguards.

Prodigy knows of no failsafe way to prevent misuse of proprietary marketing and billing information. The revisions to the CPNI rules discussed in Prodigy's response to question number five on page five, addresses same of the related issues.

Q3. What is the best possible solution for getting information services to rural areas of the country, including the areas served by the non-Bell companies. Please elaborate upon how we can guarantee the concept of universal service with respect to information services.

A3. Information services are quickly becoming recognized as valuable and necessary consumer services. Prodigy today brings an advanced information service to a rapidly increasing number of Americans through the PRODIGY service, using the most universally available delivery

network - the public telephone. We are rapidly on our way to making the PRODIGY service available to millions of Americans in both metropolitan and rural communities.

Prodigy began full scale marketing of the PRODIGY service in September 1988. By mid April, more than 50,000 households and 75,000 people were using the PRODIGY service. Growth continues at a very rapid pace, making this the fastest start up of any home computer based information service.

Q4. If the RBOCs have been able to prosper in the area of cellular phones as a separate subsidiary, why couldn't the RBOCs create the same safeguards and accounting procedures for information services and manufacturing?

A4. Prodigy is not in the cellular phone business and cannot address the effectiveness of the separate subsidiary safeguard in that industry.

The issue is not whether the RBOCs could prosper in information services businesses using fully separated subsidiaries. It is very likely that they could. As the Department of Justice pointed out in its first review of the MFJ, there appear to be no significant integration efficiencies inherent in RBOC provision of content services. However, their prosperity must not be achieved at the expense of a competitive marketplace. Indeed, that is why the MFJ line of business restrictions are in place.

To ensure fair competition, safeguards must prevent the RBOCs, as they enter information services, from gaining advantage through the leveraging of their monopoly bottleneck. Safeguards must at a minimum ensure:

- Non discriminatory, fully equal access to network services, and related services including but not limited to ordering, maintenance and network information.
- Fully unbundled network services.
- Pricing rules that are based on costs and that don't permit prices information service providers pay to be increased radically. The means for determining the definition of "cost based" should be objective and measurable against an outside standard.
- Effective cost allocation safeguards to prevent cross subsidization from regulated services to unregulated services and unregulated services to regulated services. (FCC existing cost allocation rules are inadequate in many respects.)

- o Reliable protection of and equal access to sensitive customer information (CPNI).

As Prodigy indicated in its response to questions in the May 31, 1989 hearing, separate subsidiaries permit easier detection of some types of safeguards violations, but are not a panacea. Prodigy knows of no failsafe way to implement the safeguards listed above.

Q5. Please comment on the CPNI provisions of H.R. 2140 and offer any observations whether or not they are adequate and how they could be improved.

A5. The CPNI provisions of H.R. 2140 are not adequate to resolve the problems of the FCC's current regulations.

The CPNI provisions of H.R. 2140 merely replicate the CPNI provisions developed by the FCC in the Computer III proceeding. As such, they suffer from the same defects, which were summarized in the attachment to Prodigy's May 31, 1989, testimony before the Subcommittee.

In sum, the CPNI provisions in H.R. 2140:

- o Perpetuate the current double-standard under which RBOCs may have access to this important marketing information absent a request for nondisclosure by the customer, but require competing information providers to secure affirmative written customer consent prior to release of the same data by the BOC to the information provider
- o Would not confer upon most residential users even the right to be informed about their ability to protect their privacy by preventing disclosure of their CPNI.

These provisions should be improved by requiring affirmative written consent prior to using the CPNI of all customers, singleline or multiline, residential or business. If blanket consents are solicited through the RBOCs' billing operations, such opportunities should be equally available to other information providers.

Q6. Please submit for the record a matrix of information services, going from formatting of network-related services all the way to origination of content and the appropriate safeguards.

Q6. The Information Industry Association (IIA) has prepared a matrix outlining the interrelationships of eight segments within the information services industry. Prodigy feels this work offers the correct perspective for viewing the evolution of the information services industry. The IIA matrix is attached for your consideration as Addendum No. 2. The safeguard principles discussed in question four would be applicable to all forms of information service content.

Q7. Please comment on the development of minority and small businesses in the information services industry, and the effect the entry of the Bell companies will have on these businesses.

A7. The information services industry today is in its infancy and is characterized by many small businesses. According to NTIA's Telecom 2000 report*, information services available via the public telephone networks can be generally categorized into seven types and subcategorized into 222 business and consumer applications. In 1987, more than 3,369 databases were available via 528 on-line services, and the industry continues to grow rapidly.

Important factors in encouraging entrepreneurs to enter information services businesses are stability and predictability of the business environment. The continued uncertainty regarding the RBOCs role in this industry (and the continuing threat of access charges) are disruptive.

As indicated in Prodigy's testimony on May 31, 1989 the formula for a successful consumer oriented information service includes four critical elements:

1) A ubiquitous, capable, and affordable delivery system together with appropriate receiving equipment, all operating in a stable regulatory environment;

2) The availability for essential support services such as billing and collection, credit verification, network-related information, and network management capabilities;

3) Attractive and valuable information content; and

4) Affordable pricing to the user.

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* NTIA TELECOM 2000: Charting the Course for a New Century, National Telecommunications and Information Administration, U.S. Department of Commerce Washington DC, October 1988

The telephone companies have the greatest experience in delivery systems and many of the related support services. But information providers, comprised of many entrepreneurs, specialize in developing a wide range of application and content services. Existing telephone company authority to deploy information gateways and other new technologies hold promise to reduce entry barriers and to otherwise encourage entry of information providers.

ADDENDUM NO.1

Summary of
MFJ First Triennial Review*

Regional Bell Operating Companies (RBOCs) are permitted to engage in the following activities:

- Provide information transmission (data transmission, protocol conversion, address translation, billing management, introductory information content)
- Deploy information gateways
- Engage in voice storage and retrieval
- Offer electronic mail
- Provide electronic White Pages
- Store databases generated by others

RBOCs are prohibited from engaging in information services activities which involve the manipulation or generation of content.

- Provision of electronic yellow pages is prohibited
- Electronic white pages are limited to straightforward listings

RBOCs are prohibited from having a direct financial interest in information content firms.

* Opinion dated March 7, 1988

APPENDUM NO. 2--Retained in Subcommittee Files

Mr. MARKEY. When we scheduled this session, it would have been impossible for us to have known of Claude Pepper's death,. They are scheduling votes on the floor within the hour on the resolution on the appointment of members of the delegation to Senator Pepper's funeral and a resolution for Senator Pepper to be allowed to lie in State in the Rotunda, plus an additional vote on the rule, which is not controversial, but there will be a rollcall. They expect all of that to take place before 4 o'clock. I just note that in the presence of about eight members in trying to allocate the time that might be available for us to question the panel.

I would ask each member, if they could, to try and keep their questions and answers to a very brief period of time. Hopefully, we will get 25 minutes and each member can have 3 minutes or so. If we are lucky, we can return and go through the same cycle.

The Chair recognizes the gentleman from Iowa, Mr. Tauke.

Mr. TAUKE. Thank you, Mr. Chairman.

I want to thank all of you for your testimony. Let me try to focus on what Mr. Laseau, Mr. Shriver and Mr. Perry were talking about with information services, whether you are against the BOC's in it generally or whether you are with them because of their potential abuse of monopoly power by asking this: Do the three of you favor or oppose permitting the Bell operating companies. to offer information service outside of their own regions?

Mr. Laseau.

Mr. LASEAU. As for our industry, which is the voice messaging service industry, we don't have any objections to them offering those services. In fact, the very ones mentioned here with the school situation we have been doing in one city for 2 years. But the problem is not that they are in the competition with us, but that they are able to leverage some kind of disadvantage toward our industry.

That is our concern.

Mr. TAUKE. What if we let them offer themselves outside their system, but not in their region, any service they want to?

Mr. LASEAU. The cross-subsidy issues are probably still there, and we are a little concerned, have a little concern about that, but if they are in separate subsidiaries that considerably reduces the concern we would have on that.

Mr. TAUKE. Mr. Shriver.

Mr. SHRIVER. We believe that would not be adequate, that certainly the proviso that permits outside of the country is fine, but within the country there—it is inevitable that we would wind up competing somewhere in the country and we would wind up being the customer somewhere in the country.

Mr. TAUKE. Well, if U.S. West, for example, can only offer in U.S. West territory, how do you compete with the person that is providing the——

Mr. SHRIVER. Take Nynex, they are a very big provider of services to us in the New York area. If they have a service outside of the New York—their region, where they are competing with us, we compete nationwide. Could they exercise any kind of discriminatory control over ourselves in New York? It would be very, very important to us to eliminate any conflict of interest.

Mr. TAUKE. Mr. Perry.

Mr. PERRY. Yes, thank you. Just briefly, I believe I agree with the previous comments in the sense that we are also going to be a national service. In fact, we are a national service today, and so competition within the region or without the region is not so much a relief to us because they can still have the same kind of anticompetitive effects even though they are not competing with us in their own region.

Mr. TAUKE. Thank you.

Mr. MARKEY. The Chair recognizes the gentleman from Kansas, Mr. Slattery.

Mr. SLATTERY. Thank you, Mr. Chairman. In the time that I have, I wanted to focus on this question that was raised in an earlier hearing about exactly who would monitor the traffic over the gateway, and it seems to me a legitimate question was raised about the fact that the Auerbachs could, by virtue of the fact they were monitoring the traffic, have a major advantage over competitors in terms of just market survey.

I would like to hear from Mr. Gunter in response to that. What can be done. In other words, to alleviate this concern.

Mr. GUNTER. I think it is a valid concern, and I think it is one that can be handled.

Mr. SLATTERY. How?

Mr. GUNTER. All right, the best way I think we can handle it is probably just put a wall around the billing front. The fact of the matter today is the billing is largely untouched by human hands. It is recorded by computers, billed by computers, machines stuff the envelopes and it is largely untouched by human hands.

It would not be difficult for us to quarantine that information to the employees who have to render bills. We do that today in the CPE world. It is somewhat tough to try to split the world. If a competing vendor or PBX equipment wants to order dial tone fox its customer, we do not let our marketing people know the order has been placed.

We keep that insulated. He keep a wall around it.

Mr. SLATTERY. Can you provide my office and the committee also with a detailed technical explanation of precisely how you can achieve that so as to alleviate any concern that I might have as an entrepreneur in competition with you potentially that you would not have access to all of this information?

Can you provide that?

Mr. GUNTER. Yes, I can do that, and I would be delighted to do that. I might add that typically it is not the entrepreneurs who are worried about that. Typically they axe delighted to have us to help them provide the service and bill for it. It is typically the larger firms such as you have heard from today, but I will provide you that detailed assurance, and I believe we can effect a very adequate solution to that problem.

Mr. SLATTERY. Okay. As you may know, earlier at our hearing on May 4, I believe it was, Mr. Easterly with the ANPA. He was a witness here for the ANPA, raised some questions about BellSouth's willingness to treat the Atlanta newspaper that he was associated with fairly.

I am just interested in what response you might have to his assertion that, in fact, you were not providing them with fair treatment.

Mr. GUNTER. Yes, sir. I was very disappointed in the comments Mr. Easterly made because we have worked diligently with the Atlanta Journal and Constitution to try to provide them premiere service for our gateway. We have taken them into our confidence in the beginning, and we have told them what our plans were, but we also told them we were in uncharted waters.

He made the assertion that we promised we would begin promotion of the gateway on January 1 and did not do that. At the time that he was testifying we had already placed orders with his newspaper, by the way, for advertisements to resume promotion, but he didn't mention that to you.

But the reason that we had the delay, and we have communicated this fully to his people, is that in the interim between the time we launched the gateway in August 1988 and the time when we thought we would resume promotion in January 1989, we had a very unfortunate event occur when the court ruled that we could not use interlife facilities to connect central processors to remote locations.

Mr. SLATTERY. I would also like for you to provide the committee and my office with a detailed response to those.

Mr. GUNTER. I will be happy to do that, sir. I assure you the facts are different from the way they were represented to you.

[The following material was submitted:]

BELLSOUTH

John R. Gunter
Vice President—Information
Services and Market Plans

Suite 1926
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Atlanta, Georgia 30367-6000
404 249-3850

June 27, 1989

The Honorable Jim Slattery
1440 Longworth House Office Building
Washington, DC 20015

Dear Congressman Slattery:

I appreciated the opportunity to appear before you and the other Members of the Subcommittee on Telecommunications and Finance on May 31 to discuss BellSouth's views on information services. At the hearing, you asked me to respond to remarks made recently by Mr. David Easterly, president of Cox newspapers, regarding the BellSouth gateway.

Because of time constraints, I could not fully respond to your question at the hearing. The attached material is relevant to the discussion and provides a summary of BellSouth's position on these issues. I respectfully request that this information be made part of the hearing record.

In a separate question, you asked me to explain how BellSouth would ensure that billing data would not be used to competitive advantage if we were allowed to provide information content. I understand your concern, and we are working out the details of the concept I outlined for you in the hearing. We have had some experience in using internal procedures to protect against the potential misuse of information, both in the handling of CPE vendor information and interexchange carrier billing. Shortly, we will provide you with details on how similar processes could be used to protect the confidentiality of billing data of information services providers.

Thank you for your interest in these matters. Please let me know if I can be of further assistance.

Sincerely yours,

John R. Gunter

Attachment

Copy to: Edward J. Markey
Chairman, Subcommittee on Telecommunications and Finance
Matthew J. Rinaldo
Ranking Member, Subcommittee on Telecommuniations and Finance

I appreciate the opportunity to provide a BellSouth response to statements made by David Easterly on behalf of the American Newspaper Publishers Association to the Members of the Congressional Subcommittee on Telecommunications.

In Mr. Easterly's testimony and subsequent letter to Chairman Markey, he suggests that BellSouth is trying to slow down the evolution of the information services market until we have the full freedom to participate. Citing gateway promotions and requests for usage data as examples, he states his belief that "BellSouth is deliberately doing as little as possible to establish the gateway service to serve their political purposes."

I would like to explain our approach with the gateway, in hopes that this discussion will clear the air and enable us to move forward together to ensure the gateway's success.

BellSouth was the first Bell company to establish a public information gateway after the Federal Court for the District of Columbia decision to allow Bell-provided gateways. We felt gateway deployment was critical to the development of a robust information services industry, and we wanted to contribute to that development.

How should we enter that market? In our view, a broad scale approach would not have been prudent use of resources, given the uncertainties of the market. Conversely, we did not want to delay entry until extensive market and product development could be completed in a test lab. We decided that a limited introduction in a metropolitan area offered the best opportunity to test the market and financial viability of this service.

We began the introduction of the TranstexT Universal Gateway (TUG) in Atlanta on August 31, 1988. We were open with the press and the information providers about the uncertainties of marketing a new service in an untested market. We explained that the limited introduction would allow us to alter or modify the gateway based on marketplace demands.

What was our promotion plan for the gateway?

In the early months, we focused on recruiting information services providers and users. We worked to bring local information providers onto the gateway, believing their services would be of value to Atlantans and accelerate the growth of the gateway. The Atlanta Journal and Constitution became our fourth local provider in November of 1988.

For the introduction of the gateway, our initial target was 1,000 users. Once we reached that number, we planned to evaluate the gateway and make adjustments as appropriate.

Mr. Easterly contends that we did not promote the gateway until May, but this is true only as to newspaper advertising.

For recruiting new users, direct mail proved very effective. We conducted two campaigns. The first mail-out in September and October was sent to a total of 15,000 prospects. The December/January promotion was mailed to an additional 4,000 prospects plus all existing gateway participants. It listed all the information providers on the gateway. As a result of these campaigns, we met our target of 1,000 users before the end of December.

To stimulate gateway usage, we began providing a TUG Access Guide to new users in September. It included a description of each service on the gateway, and was periodically updated. In October, we sent out a three-page TUG update to all users, answering the most frequently asked questions and listing all services on the gateway.

In addition, a series of generic BellSouth advertisements was developed late in 1988, one of which mentions the TranstexT Universal Gateway by name. These ads began running in January on CNN, and have aired on CBS in 1989 during various PGA tournaments, including the BellSouth Atlanta Classic in May.

Since the beginning of the gateway, BellSouth has openly shared plans for gateway promotions with information providers and solicited their input. Although Mr. Easterly's quote of a promised "media blitz" is overstated in our view, BellSouth marketing personnel did inform various information providers last Fall of additional promotions planned for early 1989.

Operational, market and regulatory factors forced us to delay these plans. The most significant setback was the January decision by the Federal Court that gateway processors cannot be shared over multiple LATAs.

This decision had a direct impact on our Atlanta gateway promotions. BellSouth's original business plan for the gateway was built on the assumption that we could deploy the gateway throughout the BellSouth region, placing the most costly parts of the gateway in a central location and then reaching out to less densely populated areas using less expensive remote access equipment. The January decision by the Court requires that we put a separate gateway processor in each LATA served by the gateway.

The Court decision so heavily impacted the fundamentals of our gateway strategy that we had to step back and reevaluate the totality of the business plan, including promotions. For example: was it wise to invest the major funding originally contemplated for the Atlanta market when the region-wide feasibility for the service had been seriously undermined by the Court's decision?

We decided to extend the introduction in Atlanta and to further deliberate expansion plans. In conversations with the information providers, including the Atlanta Journal and Constitution, we told them that the introduction had been extended, and to expect additional promotions in May/June.

During February, March and April, we began work on several promotions to stimulate usage among existing gateway users: a TUG brochure, a final TUG Access Guide, and a bi-monthly newletter. These were all completed between late April and early June.

The first newspaper and magazine ads began appearing in May, but not in response to the ANPA testimony. Ads were placed in the Atlanta Journal and Constitution, which ran May 7 and May 8, and in the May issue of both the Atlanta Business Chronicle and Computer Spectrum Magazine, as well as the May and June issues of the Atlanta Computer Currents Magazine. All of these ads were purchased prior to the ANPA testimony on May 4.

We agree that promotions are important to the gateway's future, and we are discussing additional promotional ideas with our information providers. Our promotion plans for the rest of 1989 were sent out in writing this month to all information providers on the gateway. These plans continue to place emphasis on stimulating usage among existing gateway participants in addition to attracting new users.

Mr. Easterly also stated in his testimony and subsequent letter that BellSouth had failed to share user information with his company despite repeated requests.

To substantiate which gateway service is most popular, BellSouth would have to release comparative data on the services of the various information providers. BellSouth believes the policy that best serves all providers is not to disseminate that information.

BellSouth agrees, however, that information providers should have access to data on the use of their own services. In the May 11 letter from BellSouth Executive Vice President R.L. McGuire to Chairman Markey, we indicated that we had no record of any request for such information from Cox newspapers. When we investigated further, we learned that we have received verbal requests for usage data, and BellSouth has responded verbally to these requests.

The first usage data was supplied after the first full month of billing data for the newspaper's information service was available in January. We provided the number of users and the number of calls for the newspaper's service. We continued to provide updates of this information to the Atlanta Journal and Constitution on an as-requested basis. We are now furnishing written monthly reports to all information providers. It includes the above information and total minutes of usage on the individual provider's services.

BellSouth had always intended to supply each information provider with the names and addresses of the customers accessing his individual services. As the gateway provider, we are an intermediary between the customer and the information provider, and the information providers have a legitimate business need to know who their customers are.

Unfortunately, we did not have the ability through our gateway software to extract this information initially. Our software had to be modified to add that functionality to our reporting system. Until it was modified, BellSouth could retrieve names and addresses of all users of the gateway in the aggregate, but we could not call up user lists specific to each information provider.

Given the size of our introduction, this customer specific data did not appear to be a high priority with the information providers. Consequently, our energies have been focused on other operational issues of importance to them, such as customer service procedures and the implementation of billing services.

We are finalizing a system now that will provide customer information efficiently. In the next few weeks, we hope to release to each information provider the names and addresses of all the customers who have accessed its services. Our contract with the information providers states that this information is provided solely for purposes of billing, security and permitting them to correspond directly with end users. It prohibits any other use of such information, including selling or providing customer or mailing lists to third parties, without obtaining permission directly from the end users.

Again, I appreciate the opportunity to provide BellSouth's perspective on the Atlanta gateway. We are trying to build a strong information services marketplace, and we believe that public gateways are a key infrastructure component in the equation.

With the introduction of the gateway in Atlanta, we have taken an aggressive, but reasoned business approach to test the viability of the service. Our gateway roll-out has been a learning process for everyone, but we believe that our relationship with participating information providers has been open, cooperative, supportive and credible.

To achieve widespread consumer acceptance of information services, we realize that the gateway must offer a wide diversity of both national and local information services. We are pleased to have the Atlanta Journal and Constitution and other local providers on the gateway, and we would like to see their services grow and prosper. We are committed to making the gateway a success for BellSouth and its information provider clients. We will continue to work with Cox Newspapers and the Atlanta Journal and Constitution toward that end.

John R. Gunter
Vice President—Information
Services and Market Plans

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404 249-3850

August 15, 1989

The Honorable Jim Slattery
1440 Longworth House Office Building
Washington, D.C. 20515

Dear Congressman Slattery:

When I testified before the House Subcommittee on Telecommunications and Finance on May 31, you asked me to describe how BellSouth could protect the confidentiality of the billing data of information providers if we were allowed to provide information content. We have had some experience in using internal procedures to protect the confidentiality of CPE vendor and interexchange carrier information. The attachment explains how the information of IPs could be similarly quarantined within the corporation.

A question much like yours was posed in a June 23 letter from Chairman Markey. On July 28, the seven Regional Bell Companies submitted a joint response to all the questions that were included in that letter. This attachment provides a more detailed, BellSouth-specific answer to Question #2 of Chairman Markey's letter.

I hope that you will find these answers helpful. Please let me know if I can assist you further.

Sincerely yours,

John R. Gunter

Attachment
copy to: Edward J. Markey
Chairman, Subcommittee on Telecommunications and Finance

Matthew J. Rinaldo
Ranking Member, Subcommittee on Telecommunications and Finance

During my May 31 testimony, Mr. Slattery asked me how BellSouth can protect the confidentiality of information provider information if BellSouth monitors traffic on the gateway and is also allowed to provide information content services. I described a concept by which billing information could be quarantined within the corporation.

This is not a new situation for BellSouth. For several years, we have been entrusted with proprietary information from CPE vendors and interexchange carriers that must be protected. We have successfully handled the situation in two specific ways. First, we have set up organizational partitions that confine the information to authorized persons. Secondly, we use an electronic screening process to block unauthorized persons from gaining access to proprietary information on our customer databases.

If we were allowed to provide information content services, we could similarly quarantine the billing and marketing data of the information providers (IPs) within BellSouth. All providers of information content services, including those from BellSouth, would participate on the gateway under the same rules. Using organizational and electronic database safeguards, BellSouth would only allow each IP to see information about his own services. Below is a detailed description of how that can work.

Organizational Partitioning

BellSouth personnel responsible for developing and marketing the TranstexT® Universal Gateway (TUG) product have access to the billing and marketing information of the information providers. They discuss marketing strategies and promotions, provide each IP with usage statistics on his services, and establish pricing policy. They handle billing and collections functions associated with the gateway for both the end users and the IPs.

These TUG sales and marketing support groups would be partitioned within the organization from persons who develop, design, sell or support information content products provided by BellSouth. If electronic yellow pages (EYP) were sold by our directory forces, for example, these EYP salespersons would not be able to access IP marketing and billing information, nor see the IP charges on end user bills.

BellSouth has eight years experience in making this work. The Vendor Marketing Center (formerly the Centralized Operations Group) was established in 1981 as a separate unit from the Network Marketing organization to coordinate and administer service requests from Customer Premises Equipment (CPE) vendors. Today, the VMC provides a full range of pre-sale design and implementation support to over 2100 CPE vendors in the region.

These vendors compete directly with BellSouth. Initially, they too were concerned about their proprietary information being shared inappropriately. They were afraid that if Bell employees in the VMC knew what equipment the CPE vendor was recommending to a customer, we would share that information with our network sales and/or CPE organizations and steal their sale. However, the VMC has proven itself over time. The vendors are a vocal group, but they have not voiced these concerns in several years.

If BellSouth were allowed to provide content services, we would use a similar organizational design for the gateway marketing function to protect the confidentiality of IP data.

Electronic Database Screening

The billing services we provide for information providers are of two types. We bill the information providers for their participation on the gateway. We also bill end user customers for the IP services they use on the gateway. Both contain valuable information and both must be protected.

As the gateway matures, we expect IP billing to be administered by the Operating Telephone Companies and the staff organization, BellSouth Services. We expect that end user billing of IP gateway services will be included on the monthly bill from the Bell Operating Companies, just as we bill end users for interLATA services on behalf of approximately 30 interexchange carriers today. The carrier billing contracts specify that all information generated during the performance of these services is proprietary and confidential to the interexchange carriers. We have successfully protected this information using organizational partitions and electronic database screening mechanisms for over five years.

If BellSouth were marketing content services, we could erect a similar "electronic wall" around IP-related billing data and confine it to authorized persons.

The billing information of the telephone operating companies is kept on electronic databases. Using a BellSouth Services software system called the IMS Security System, individual users of these systems are assigned a personalized set of security codes. These codes define the applications the user can enter and the transactions he can perform within that application. If there is not a match between his security user profile and the information he asks to see, the user will be blocked from gaining access to that information. With this security system, persons associated with information content services could be blocked from seeing sections of the bill that contain IP proprietary information. This process is used today to screen designated employees from gaining access to specific portions of the billing databases.

If we were able to offer content services, we would also protect against the ability of unauthorized personnel to extract management reports involving IP data. The Marketing Information Systems (MIS) group processes requests for summary information taken from the databases. Before any report is run, the group screens the request to make sure that the requesting party is authorized to have that data. In addition, designated line and staff marketing personnel have direct on-line access to business customer databases. Any IDs that the IMS Security System had blocked from seeing the IP portion of customer records would also be prevented from obtaining summary IP data.

Conclusion

Our combined track record with interexchange carriers and CPE vendors demonstrates our ability to protect against the misuse of confidential information. Using a combination of organizational partitioning and electronic database screening, we are confident that we can successfully protect the billing and marketing data of information providers.

Mr. MARKEY. The gentleman's time has expired. The Chair recognizes the gentleman from Pennsylvania, Mr. Ritter.

Mr. RITTER. Thank you, Mr. Chairman. We are witnessing some 300,000 or so users of information services, and even the main providers such as Prodigy and Copyserv still target what is another income marvel. How do those information services leadership here deal with this question of the universal, the more universal information service?

How do you justify keeping the mainstream financial player like BellSouth when we have yet to approach the density of information services in some of our competitor nations?

Mr. PERRY. If I might, Congressman, the second part of your question assumes that somehow the Bell companies have some unique ability to bring information services to the broad base of consumers, which I don't believe they have any unique ability to do that.

Mr. RITTER. They might have unique financial resources available.

Mr. PERRY. As do many other companies in this opportunity that may or may not wish to get into the business, but the main point you were addressing, I believe, I think Prodigy Service is really addressing that as we speak. We have a service available today for $9.95 a month flat fee. That is very affordable to the average individual.

As I said, we have only been marketing the service actively for about 9 months. The early returns are very encouraging. We believe that in the early 1990's we are going to have a service that has millions of members, so I believe that we are well on our way to achieving those kinds of more ubiquitous information services.

Mr. RITTER. What level of terminal capability do you need to access Prodigy?

Mr. PERRY. Prodigy Service is accessible by a personal computer, minimum 512 K-RAM. Today that is a—you can hardly buy anything less than 512 K-RAM today, and you are really on the low and of the market. You know, I started with Prodigy when it first began 5 years ago. Somebody had asked me then what I thought was the biggest chance. The biggest risk of our not succeeding was the penetration of enough computers of enough function into the market. That is so far down on my list of why we may not——

Mr. RITTER. You are basically saying Prodigy is about to move out very smartly into this mass market of millions?

Mr. PERRY. We are doing it today. We are doing it as we speak.

Mr. MARKEY. A quick answer, please?

Mr. CAMP. First of all, I want to make it clear I applaud what Prodigy is doing. I think there is room for more than one gateway in this country and more than one service like that. The kind of service that they are providing, which does integrate the access, the content, the processing, et cetera, I think it is important to note that Mr. Perry is right.

There are 35 or 40 million computers out there in this country, depending on what statistics you want to use. I have seen many different things quoted. I think that it is appalling that we only we three or four hundred thousand of those use, and then there is another whole sat of markets out there. I think we need to be encouraged to work with other people to produce additional terminals that would be lower priced that would be available to others.

That is something that needs to be in this marketplace as well. The only people I have found willing to speak about that subject so far are the Japanese.

Mr. MARKEY. Your time has expired. The Chair recognizes the gentleman from Tennessee, Mr. Cooper.

Mr. COOPER. Thank you, Mr. Chairman. I would like to ask Mr. Gunter and Mr. Camp, if we don't need to worry about the improper use of billing information, if there are no concerns about that, then would you be willing to go ahead and put the billing function of telephone companies in a separate subsidiary so that all transactions and crossflows of information could be monitored?

Since there are no flows presumably that would be occurring, why not let's put them in a separate utility subsidiary?

Mr. GUNTER. I think, Congressman Cooper, we can achieve the exact result you want short of a separate subsidiary. There are some inefficiencies going with setting up a separate subsidiary. What I offered was to keep those who are in the marketing organization from having any access to the billing information, and that I think is the concern that has been raised here, and we can do that quite easily without going to the added expense of setting up a separate business group.

Mr. COOPER. Our friends in the securities interest assure us there is a Chinese Mall between the mergers and acquisition department and between the arbitrage

department. If you believe that, I have a bridge in Brooklyn I would like to sell you, too.

It seems to me you are saying there is a good Chinese wall in your business, so good we don't need to worry about it, but when we ask that a real wall perhaps be put up, you say that is unnecessary.

Mr. GUNTER. It is considerably more expensive, but if necessary, sir, you involve setting up separate parallel systems, separate buildings and a number of other things that are only going to add cost and provide no more protection.

Mr. COOPER. Mr. Camp.

Mr. CAMP. I just wanted to add to Mr. Gunter's comment. First of all, while I run a separate business unit, it is not fully separate in terms of structural corporation with the kind of distance that one might be considering, but consistent with the rules around this, my organization doesn't have access to information that is the information not to be disclosed, and the FCC has ordered a password, pass code system to be instituted that would actually block accessibility from people.

This is a day and age of information services, and the opportunities to do those things are right there with that capability.

Mr. COOPER. The second question would be is TV an information service and if it is, since it is so popular with the average American, they watch 8 hours a day, why isn't it the economic engine that would help propel America into the information age, yet the telephone companies certainly don't headline it in the testimony as being an information service they are anxious to provide.

Mr. GUNTER. Television service is very definitely an information service, six, and we have in other forums indicated our support for the repeal of the cross ownership restrictions.

Mr. CAMP. That will stand.

Mr. COOPER. Is it a priority with you?

Mr. GUNTER. Yes, we have a——

Mr. COOPER. Was it mentioned in your testimony today?

Mr. GUNTER. We were invited here to talk about the H.R. 2140 information services, but it is very definitely an area we have an interest in.

Mr. COOPER. Thank you, Mr. Chairman.

Mr. MARKEY. The gentleman's time has expired. There is 15 minutes to the rollcall on the floor. I think if we continue to divide the time as we have, we can recognize each member for a few minutes apiece. The Chair recognizes the gentleman from Washington, Mr. Swift.

Mr. SWIFT. The central question I would like to ask the two Bell companies, it seems to me that if we could boil down the concerns that have been expressed by this panel and expressed by others earlier, it is simply if you guys own the conduit you shouldn't control the content.

As that is the central thrust against you, what is your response? We will start with you, Mr. Gunter.

Mr. GUNTER. I think that is the allegation that was raised, but I think the question we ought to examine in looking at that allegation is what is the power of the so-called bottleneck. It has basically got two powers. Either you can block passage, and that is immediately detected.

Anyone can tall that that has happened or you can impede or slow down passage. In this electronic age, that is instantly detected. If the power that a bottleneck would have to either block or to impede is effectively denied us because it can be instantly detected, then it really is not, in my opinion, grounds for bargaining.

It is grounds for safeguards, but it is not grounds for bargaining the participation.

Mr. SWIFT. Thank you, Mr. Gunter.

Mr. Camp.

Mr. CAMP. First of all, I would also reference the attachment to my testimony, which demonstrates content is not just a matter of ownership of a particular piece of information. The way it is defined today it also involves manipulating, repackaging, presenting, moving something from one place on a screen to another, all of those kinds of things.

So I think it is important to recognize that. Second, with respect to the conduit issue, I think it is important to recognize we are in a whole different day and age than ever before. ONA is moving along, open network architecture. There are nonstructural safeguards in place for the businesses that I provide. I have to buy services at tariff rates the same as anybody else, and so there are basically, I think, safeguards in place that divide the line fairly well now, and when you see those same safeguards in place.

You ask yourself on the other side why wouldn't you want people such as us in this environment to help try to stimulate and create this market. Why remove one of the key resources of this country from trying to create something, if it is in fact a priority for Congress.

Mr. LASEAU. Mr. Swift, your characterization of the central point here, which I concur with foreign information services slides right by our industry. We don't generate content. Our industry, the voice messaging service industry, is part of the conduit. We store it, keep it, turn it back over to the users when they want it.

Our concern has to do not with them having content but also doing the same storage, forwarding it, retrieving it that sort of thing for customers inside the network operation. When we can't get inside that same network, they of course have advantages over us.

Mr. SWIFT. So you are suggesting that people doing this would have a slightly different concern than information service providers?

Mr. LASEAU. Yes, the content providers. The protections are a little bit different that we are looking for.

Mr. MARKEY. Your time has expired. The Chair recognizes the gentleman from Louisiana, Mr. Tauzin.

Mr. TAUZIN. Mr. Camp, have you already responded to the allegation that was made, I think, in Mr. Laseau's testimony about the case of Pacific Bell in California, providing free tariff service to customers paying voice mail customers?

Mr. CAMP. I have not. Thank you for that opportunity.

First of all, we have done nothing with respect to providing information services to our customers that any of our other competitors could not do. We purchased tariff services at tariff rates within the tariffs.

We put those tariff services into the product in the same way that an automobile manufacturer puts steel into a car, and then that becomes a product that is sold to the end user customer, and I think that this is one fact that gets somewhat distorted in the communications.

Communications elements are just one piece of raw material in the provision of information services. They are not an end in themselves.

Mr. TAUZIN. Do you have access to those services which you say you are purchasing and packaging at better rates than the competitor?

Mr. CAMP. No, I pay the same tariff rates for those services as anybody else. To the other issue of service is not being available simultaneously, I believe there is a rule, maybe it is just a California rule that they have to be available either from 60 to—60 days to 90 days before we can order them. They have to be available to competitors for 60 to 90 days.

Mr. TAUZIN. The charge is also made your customers can use a 7-digit number to seek information while competitors must use an 11-digit 800 number which makes it less convenient for them to get information. That is a growing concern in the customers that we relate to as constituents about accessing with all these strange codes and numbers.

Is that a real concern?

Mr. CAMP. I don't know about it from a customer's concern. I would love to have the ability to have 800 services available for my customers because those services axe largely inter LATA service today and it is considered to be a sale of inter LATA services. I can't provide my customers with the capability when they are traveling to Washington to appear before a subcommittee to call back to their voice mail machine in California at no charge the way my competitors can, so I believe that is a real benefit that I would like to have.

Mr. TAUZIN. In fairness, would you like to respond?

Mr. LASEAU. To that first part of it, when he talks about packaging those services together, regulated and unregulated, it sounds very good, but there are all kinds of rules about tariff services.

The customer has to pay for, in most jurisdictions, any tariffed line. If you want to order a line that we will use to serve you, you order the line. And you have to pay for it.

Mr. TAUZIN. You couldn't order it and package it the way Pacific Bell is?

Mr. LASEAU. In some jurisdictions.

Mr. TAUZIN. In some you could not.

Mr. LASEAU. We would have to go for tariff changes to do that. In fact a lot of tariffs are designed to keep us from doing the very thing he is doing.

Mr. CAMP. I think it is only fair to speak especially about California. Within California we haven't done anything that our competitors can't do for those services.

Mr. TAUZIN. I am trying to move quickly. Apparently, Mr. Shriver made three concerns about the bottleneck. Perhaps you can handle this.

One was with reference to the customer propriety network information. The second was manipulation of the quality of the central transmission services that are provided. I take it that is the part where you said you could either block or somehow hinder the movement of information through the bottleneck?

Mr. SHRIVER. That would be one thing. It has already been pointed out. It is instantly detectable. Mr. Shriver said he could instantly detect any deterioration. I am sure the telephone company didn't consciously deteriorate their services.

Mr. TAUZIN. The same thing between discriminatory pricing practices.

Mr. GUNTER. We do not engage in discriminatory pricing. We buy at the same prices our customers buy at.

Mr. MARKEY. Mr. Shriver, you get the last word here.

Mr. SHRIVER. Mr. Chairman, I have to comment on the entire area of safeguards.

Mr. MARKEY. You have 30 seconds.

Mr. SHRIVER. Yes, six. It is much like in the national security area where you are dealing with measures versus countermeasures versus counter countermeasures. What this H.R. 2140 provides is a whole list of countermeasures. I submit that there is no end of ingenuity that will produce quite legally countermeasures that would defeat the purpose of your bill.

Mr. MARKEY. Thank you, Mr. Shriver. The gentleman's time has expired. The time for this hearing has expired.

We intended to have this continue for an additional hour. There are very important matters that are going to be taken up on the floor in addition to the three rollcalls, plus meetings subsequent to the conclusion of the rollcalls.

What we would like to be able to do, gentlemen, because you are clearly amongst the most knowledgeable in this field in the country is to ask that you make yourselves available to answer written questions from the subcommittee members, those who have been unable to attend this afternoon and others and to please return the answers to us as quickly as possible because we are going to need them as we are moving along.

We need to know where each of you are coming from. We thank you all. We apologize to everyone else.

The meeting is adjourned.

MODIFIED FINAL JUDGMENT

WEDNESDAY, JUNE 14, 1989

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ENERGY AND COMMERCE,
SUBCOMMITTEE ON TELECOMMUNICATIONS AND FINANCE,
Washington, DC.

The subcommittee met, pursuant to notice, at 2 p.m., in room 2322, Rayburn House Office Building, Hon. Edward J. Markey (chairman) presiding.

Mr. MARKEY. Following the same format of the past 2 weeks, we will dispense with members' opening statements and proceed to the first witness, Mr. Wade.

STATEMENTS OF WINSTON WADE, PRESIDENT, INFORMATION, TECHNOLOGIES GROUP, U.S. WEST, INC.; ALLEN R. FRISCHKORN, PRESIDENT, TELECOMMUNICATIONS INDUSTRIES ASSOCIATION; DANIEL LATHAM, GLOBAL TELECOMMUNICATIONS, MARKETING MANAGER, DIGITAL ELECTRONICS CORP.; HERBERT E. MARKS, COUNSEL, INDEPENDENT DATA COMMUNICATIONS MANUFACTURERS ASSOCIATION; CASIMIR F. SKRZYPCZAK, VICE PRESIDENT, SCIENCE AND TECHNOLOGY, NYNEX; AND JIM G. KILPATRIC, SENIOR VICE PRESIDENT, LAW, AT&T

Mr. WADE. Good afternoon. I am Winston J. Wade, president of the U.S. West Information Technologies Group. I am also a vice president of our parent company, U.S. West, Inc. U.S. West provides telephone and telecommunications services in 14 Western States. These States together make up 42 percent of the landmass of the continental United States. I have held my present position since 1985. Before that, I was vice president of Mountain Bell Holdings, Inc., a subsidiary of U.S. West. I began my Bell System career as an engineer for Northwestern Bell in Omaha, NE. I then held a number of positions in Nebraska, Iowa, Minnesota, and South Dakota, including district plant manager, plant supervisor and assistant vice president of planning.

Just before divestiture, I spent a year with AT&T, preparing for the breakup of the Bell System. My organization, the U.S. West Information Technologies Group, employs some 5,600 of U.S. West's 69,000 people. The Group provides research, engineering and new product development for U.S. West. It also designs our telecommunications networks and engineers, develops and operates U.S. West's computer systems.

The U.S. West Advanced Technologies Division of my group is the research and development arm of U.S. West. It was established in 1985, making it the oldest and largest R&D organization created

by the seven regional companies. We are planning to build a new R&D facility in Boulder, CO. U.S. West Advanced Technologies today employs about 500 researchers, developers, and support professionals. We have recruited some of the best R&D talent available from across the United States and around the world. Our people have some 180 advanced degrees, in disciplines ranging from electrical engineering and computer science to psychology.

We work to bring advances in telecommunications technology to the average citizen, to small businesses, to the elderly and to the disadvantaged. We focus on making sophisticated technology easy to use. At present, 49 scientists and researchers conduct applied research into emerging technologies that show potential for future new product applications. Another 149 engineers and developers take these technologies and turn them into new products and services. Eighty-nine members of technical staff design network and computing systems that will deliver new services to our customers.

An additional 100 engineers and software developers create the computer systems we will need to support and manage U.S. West's new services. U.S. West Advanced Technologies performs applied research in areas that include processing speech so that voices on the telephone can be more understandable to the hearing impaired; rewriting the huge software programs that support our telephone network, to make them more efficient and to allow the speedier introduction of new products; using computers to diagnose routine problems in our switching offices and recommend solutions, leaving our human experts free to work on more critical problems; allowing our telephone network to recognize and respond to spoken English; and, making our customers' interactions with our network as simple and friendly as possible so that, in the future, our products adjust to the way customers want to use them, not the other way around.

At U.S. West, applied research and development means using new technologies to help our customers manage their working day and create precious moments of quality time away from the pressures of the workplace. We know that our customers want to take technology for granted. They want the result to be easy to use, or they will not use it. To produce such user-friendly products, using systems that depend on complex technologies for their operation, requires a sophisticated, multidisciplinary R&D organization.

In 1988, U.S. West spent some 2 percent of its revenues, or about $185 million, on applied research and development. That figure includes the money we spent at U.S. West Advanced Technologies and our contribution to Bellcore, the R&D consortium we own jointly with the other regional companies. I represent U.S. West on the board of directors of Bellcore.

The Modified Final Judgment significantly affects the amount of R&D we can do. It causes us to work inefficiently and, in some cases, to stop pursuing innovative, yet easy-to-use products and services for our customers. The MFJ's legal process constricts what we can do and changes all the time. We find ourselves trying to define black-and-white boundaries where there are only shifting shades of gray. The language of the decree is vague about what is permitted and what is not.

We operate under a set of rules that apply only to us, not to other industries and certainly not to our foreign competitors. But to make matters worse, we are not even sure what those rules are. The research, development, design and manufacture of new communications products and services is a complex process with no clear distinction between its various phases. In most industries, considerable interaction, overlay and feedback between researchers and their suppliers and manufacturers are normal. This allows researchers to design and develop with a clear understanding of how the product will be manufactured.

This is how R&D should be done. It is certainly the way our foreign competitors do it, because they don't have the uncertainties of the MFJ. Can we cooperate with our suppliers on the kind of joint R&D that is normal in other industries? Can we share information and experience back and forth with our suppliers, leading to better, more economical, more timely products and services? We don't know.

Instead, we use extreme caution in developing new products. We have lawyers, as well as engineers, on the development team. With all due respect to our lawyers and their profession, they will be the first to tell you that their presence slows down the R&D process and leads to conservative thinking. Conservatism, when applied to R&D, means maintaining the status quo. It is the antithesis of innovation. It casts a chill over our ability to develop innovative new products and services for our customers.

For example, our lawyers have just asked our engineers to severely curtail work on a portion of a project that would bring enhanced 911 service to rural communities using one of our vendor's switching machines. It's not that we're proposing to do anything clearly illegal; we're just unsure whether it conforms with the vague wording of the MFJ.

This is an example of the farreaching chill that the MFJ places on innovation across not only our own industry, but our suppliers' industries as well. Normally, our suppliers actively solicit their customers' input in the very early stages of developing new products. But they can consult with us only under carefully monitored circumstances. When we discuss projects with them, they have to ask their lawyers what they can say to us, just as we have to ask our lawyers what we can say to them.

Let me describe the kind of uncertainties that we and our suppliers face. The MFJ draws an artificial distinction between hardware, software, and firmware. To summarize the court's rulings, we cannot research, design, develop or manufacture hardware; we develop certain kinds of software; and, we probably cannot research, design, develop or manufacture firmware even if it is software-related. Hardware is the wiring and circuitry that makes up a piece of telephone equipment. The decree bars us from the research, design, development or manufacturing of hardware.

Software is the set of instructions, commonly stored on a disk, that tells a piece of equipment about its current task. We are allowed to develop certain kinds of software.

Under the MFJ, however, we probably cannot design or change a machine's operating system software. This software tells the equip-

ment how to do its assigned task and most directly controls the operation of the hardware.

Firmware is a hybrid in which a software program is written directly and permanently onto the equipment's memory chips. By this operation, software that used to reside only on a disk now becomes transformed into hardware, and changes the way a machine accesses its instructions. Whether to embody a machine's instructions in software or in firmware is an engineering tradeoff based on the specific functions, desired performance, and cost of the equipment.

My point in dwelling on this ambiguous terminology is that neither our scientists nor a court of law, nor the U.S. Congress, should be drawing fine legal distinctions on such a technical subject. Unfortunately, the Modified Final Judgment requires that we do so. U.S. West is very interested in firmware technology because it has proved to be a very effective way to customize general purpose hardware that is heavily used for repetitive tasks, especially when those tasks require speed in the execution of commands.

Many telecommunications engineering problems, whether they involve a customer's phone or one of our switching machines, have these characteristics. The MFJ's vague wording, however, has forced us to avoid this promising technology. We feel we must take a constricted approach and ignore firmware because, even though it involves software, our intentions could be misinterpreted when tested against the MFJ's hazy distinctions.

We have a similar problem with circuit design. To test R&D ideas, it is often necessary to design and build prototype circuits. Again, we are not certain how far we can go in this area without violating the MFJ. As a result, we limit ourselves and we limit what American companies can offer the American consumer. A scientist working for Japan's NTT or Germany's Siemens has none of these constraints.

Let me check off some specific examples of the MFJ's effect on R&D and on our customers. Hearing-impaired people would like to have easy access to our phone system. Today, the only way they can communicate with someone who does not have a special Telecommunications Device for the Deaf is to use an operator-assisted relay station. We have done research into a possible telecommunications system for the deaf that would use computers to translate typed commands from the deaf person into spoken words understood by the hearing person.

The system would also, eventually, use computers to translate speech from the hearing person into words printed on the deaf person's telecommunications device. we are uncertain, however, whether U.S. West can even determine the engineering tradeoffs of using firmware as opposed to disk-based software for this application. So we are not pursuing it.

I do not need to elaborate on the breadth of possible applications for a device that allows people, whether hearing impaired or not, to talk with the telephone network. But seven of the largest communications companies in the world are not able to think about it. Distance learning is now receiving serious attention as we focus on the quality of our national education system. Distance learning is a means of bringing specialized courses into rural schools.

It generally involves a teacher in one location communicating with school children in remote locations, using a combination of voice, video and graphics. In our operating territory, where communities are often many miles apart, this is a particularly important need. To make distance learning effective, U.S. West needs to develop a device for the teacher to use in focusing on specific students. This involves controlling a camera over a telephone line. one of our people has a very good idea of how to do this, but we are not proceeding because the legal hurdles are unclear.

As the world becomes a global village, the rapid flow of information, and access to that information, is becoming essential. Some have argued that without the ability to provide information easily to whoever needs it, we will create a society that is divided between an information-rich and an information-poor. To access electronic information services over telephone lines today, customers must have computers equipped with modems. Such a system frequently costs well over $1,000 and requires sophisticated training.

An inexpensive, easy-to-use terminal would increase the availability of information throughout the United States. At U.S. West, we can envision a world in which a flat, touch-sensitive screen hangs in the average American family's kitchen or family room. This screen, which responds to the touch, could be used to navigate through a home shopping service, to dial a number from a list of names, or to check the sports scores.

Without the MFJ's constraints, U.S. West could take its knowledge of telecommunications and of making computers easy to use and form a joint venture with another company to design or manufacture such a screen. However, because of the MFJ, we are not doing so. Enhanced 911 service, which provides emergency operators with the address of the phone being used to call for police, fire and ambulance, is becoming fairly common in urban areas. It is a life saver. Until now, the service has not been available to rural communities because it depends on large, sophisticated switching machines.

We thought we had a solution to this problem and that we could make the service available to smaller towns and rural areas by using software that cooperates closely with some of our vendors' switching machines. But, as I noted earlier, we've had to severely curtail work on a portion of the project because of the decree's hazy distinctions between applications software and operating system software.

Business customers in rural areas increasingly want access to the same sophisticated computer and data services that businesses in urban areas take for granted. So U.S. West needs equipment for use in remote rural areas to give these customers the ability to send and receive data as easily as making a phone call. Large manufacturers are not interested in building this equipment because the limited quantities required will not earn an adequate return. Smaller manufacturers are very interested, but lack the financial backing needed to manufacture the equipment for us.

The MFJ is unclear whether U.S. West can provide the needed funding. So small businesses in our rural areas remain second-class citizens compared to their urban counterparts. I have been making much of the vagueness and uncertainty of the MFJ; how the decree

not only stops some research cold, but also casts a chill over innovation. My insistence raises an obvious question; why don't you just ask the Judge for clarification? We would, if we could.

The only way we can get clarification is by filing a waiver or a similar petition to the court. That process can take anywhere from 15 months to 2 years. In a recent order, Judge Greene said a filing must be made for every clarification, and that each waiver, if granted, can apply only to the specific instance described in the court papers. A waiver cannot be generalized to include similar R&D work; any variation requires a new application.

Judge Greene has also imposed his own particularly onerous burden on anyone seeking a waiver. We must prove that there is no possibility that our activities can substantially harm competition. The Judge cited this reason in refusing to grant any relief from the manufacturing restriction in the first triennial review of the MFJ, despite overwhelming evidence to the contrary. We are locked into a spiral of legal logic that has no bearing on the realities of the industry that it is regulating.

Modifying the decree through the existing waiver and petition process is no answer. We need congressional help. No industry, particularly one facing international competition, can survive for long with constraints on the speed at which new products are brought to the market. Success in satisfying customers depends on creating new products to fill timebound market windows.

More to the point, our Japanese and other foreign competitors don't have to go through such a process in developing and marketing new products in the United States. I have visited the R&D labs at Nippon Telephone and Telegraph and NEC. I see the data showing foreign companies outspending the U.S. on product and service-related R&D. And I see the pace at which they are developing new products and services. They are unhampered by our legal restrictions, yet they are selling into our domestic markets.

One way to measure the comparable effectiveness of R&D activities, as the NTIA has pointed out, is to look at patent activity. The data is revealing. In 1987, for example, the number of telecommunications patents granted to foreign entities for the first time exceeded those granted to U.S. companies. The percent of telecommunications patents granted to U.S. entities decreased from 69 percent in 1974 to 48 percent in 1987.

During this period, telecommunications patents granted to Japanese entities rose from 11 percent to 30 percent of the total, while there was no significant change in the share of patents granted to other countries. This suggests that the increase in telecommunications patent activity between 1983 and 1987 is almost entirely due to U.S. patents granted to foreign entities.

The United States will keep falling behind if we continue to separate telecommunications R&D from manufacturing. We at U.S. West want to bring the full fruits of our R&D talent, creativity and energy to our customers. We want to bring advances in telecommunications technology to the average citizen, to small businesses, to the elderly and to the disadvantaged. And we want to do this in ways that make sophisticated technology simple to us.

As we do this, we believe, we will encourage entrepreneurs, small manufacturing operations and small software houses, which

is good for the people you represent, as well as our society as a whole. But, to put it plainly, we cannot do all this unless the MFJ's manufacturing restriction is lifted.

Thank you.

Mr. MARKEY. Thank you, Mr. Wade. Mr. Frischkorn.

STATEMENT OF ALLEN R. FRISCHKORN

Mr. FRISCHKORN. Mr. Chairman and members of the subcommittee. My name is Allen Frischkorn, Jr. I am president of the Telecommunications Industry Association, TIA. I appreciate the opportunity to appear before the subcommittee today to discuss the current state of the telecommunications equipment marketplace in the United States and internationally, and to articulate the TIA's position on the public policy issues raised by legislative proposals to remove the MFJ restrictions on regional Bell operating company, BOC, entry into the telecom manufacturing business.

The Telecommunications Industry Association is a national trade association whose membership includes approximately 600 manufacturers and suppliers of all types of telecommunications equipment and related products. TIA's members are located throughout the United States and collectively provide the bulk of the physical plant and associated products and services used to support and improve the U.S. telecommunications network.

In addition, TIA members are involved on an ever-increasing basis in providing telecommunications equipment and services in other developed and developing nations around the world. TIA believes that the economic and societal benefits arising from advances in telecommunications will be more fully and immediately realized in a public policy environment which actively encourages the development and deployment of new telecommunications technologies in an open, competitive marketplace.

To accomplish this, all equipment manufacturers and suppliers must be afforded the opportunity to succeed or fail based solely on the merits of their respective products. Such opportunities were few and far between prior to the district court's entry of the Modification of Final Judgment, MFJ. By severing the tie between the divested RBOC's and Western Electric, now AT&T Technologies, and prohibiting the RBOC's from reintegrating into manufacturing, the MFJ has, in a very short period of time, had a dramatic, procompetitive impact on telecommunications equipment markets in the United States.

TIA supports congressional efforts to ensure that the line-of-business restrictions imposed on the divested Bell operating companies., RBOC's, under the terms of the AT&T antitrust consent decree, the Modification of Final Judgment or MFJ, remain consistent with the broader national interests. However, TIA believes that a careful examination of the origins of the MFJ manufacturing prohibition and its effect on telecommunications equipment markets in the United States makes it clear that removal of the restriction at this time would have a significant adverse impact on competition, innovation, consumer welfare, and the competitiveness of the U.S. equipment industry in domestic and foreign markets.

For the subcommittee's information, I have attached a brief summary of TIA views concerning the need to maintain the MFJ manufacturing prohibition. See attachment A. The magnitude of the changes which have occurred in domestic equipment markets since the MFJ was adopted and implemented is truly astonishing. Almost immediately following divestiture, RBOC equipment purchasing practices began to diverge markedly from their historic pattern, as the BOC's began to purchase on the basis of price and quality, in many cases selecting products offered by suppliers other than Western Electric.

The more open, dynamic environment created by the MFJ has produced reduced prices and stimulated innovation throughout the U.S. equipment industry, producing substantial benefits to American businesses, consumers, and our economy as a whole. The opportunity to compete for sales to the divested BOC's, the largest purchasers of telecommunications equipment in the industry, has encouraged increased capital investment in efficient U.S. manufacturers who have at long last been afforded access to the Bell market, as well as a host of promising new startup enterprises which did not even exist prior to divestiture.

The emergence of an intensely competitive equipment marketplace in the United States has also forced American manufacturers to become increasingly creative and efficient in meeting the needs of their customers and, therefore, better able to compete both domestically and in overseas markets. In assessing the validity of claims by the RBOC's that the manufacturing prohibition is no longer necessary or, conversely, that its removal would yield substantial benefits to the U.S. economy, it is important to recall the long history of antitrust litigation which led to imposition of the decree restriction in the first instance.

Entry of the MFJ ended more than 30 years of controversy focusing, to a significant extent, on the competitive problems associated with AT&T integration into adjacent, potentially competitive telecommunications equipment markets. The Justice Department's 1949 antitrust complaint focused almost exclusively on the Bell System's efforts to impede competition in the manufacture and sale of telecommunications equipment.

In the 1974 litigation, in private antitrust suits and in numerous proceedings conducted by State and Federal regulators, evidence was presented with respect to the BOC's participation in a broad range of anticompetitive conduct, including biased equipment purchasing practices, discriminatory equipment interconnection requirements, and preferential information disclosure practices, as well as the cross-subsidization of equipment prices from monopoly service revenues.

Unsurprisingly, the RBOC's contend that the long history of anticompetitive abuse and regulatory failure which led to imposition of the MFJ is irrelevant in the postdivestiture marketplace. Because there are seven of us, the RBOC's argue it is unlikely that any one of us would be able to remonopolize the equipment industry. Even assuming the validity of the RBOC's argument, is this a distinction that removes all risk to competition and consumers?

Clearly not. Even a single RBOC still has the ability, as well as the incentive, to foreclose 15 to 20 percent of the U.S. market for

many types of equipment, through self-dealing and other forms of anticompetitive behavior. The collective impact of such behavior could result in the foreclosure of more than 75 percent of the market. Nor can the potential for tacit cooperation or outright collusion among the regional companies be discounted, particularly in light of Bellcore's involvement in activities; for example, standards development, product testing; which have a substantial impact on the ability of manufacturers and suppliers to design and market equipment to the BOC's.

The RBOC's suggest that their entry will enhance competition. History and logic suggest that they are far more likely to return to patterns of behavior which would operate to limit competition and reduce the dynamism of the telecommunications equipment industry in the United States. The RBOC's and their supporters further argue that removal of the manufacturing prohibition is necessary in order to maximize our Nation's commitment of resources to the development of innovative new telecommunications technologies.

However, in making this assertion, the RBOC's rely on a static view of the marketplace which ignores the substantial stimulus which open, competitive procurement by the RBOC's now provides to prospective suppliers' research and development efforts, as well as the chilling effect which a return to closed markets would have on the ability of efficient U.S. manufacturers to attract the capital necessary to maintain and expand their R&D programs.

TIA is well aware that while the U.S. telecommunications industry has become far more competitive and open to equipment suppliers from all nations over the past decade, opportunities for U.S. firms to compete in foreign telecommunications equipment markets continue to be limited by trade barriers imposed on by certain foreign governments. Market access restrictions arising from government procurement practices, foreign investment policies, standards and certification procedures, import tariffs and other nontariff trade barriers continue to seriously impair the ability of U.S. equipment suppliers to compete in overseas markets.

These problems can and should be addressed headon, through continued bilateral and multilateral negotiations, as well as through the carefully targeted use of trade sanctions which provide incentives for our trading partners to take measures to expand market access for U.S. firms. In this regard, TIA generally supports the steps taken by the Administration in implementing the telecommunications-related provisions contained in the Omnibus Trade and Competitiveness Act of 1988.

As TVA has indicated in its recent submission to this subcommittee and in testimony before the House Energy and Commerce Committee's Subcommittee on Oversight and Investigation at its March 1 hearing concerning implementation of the 1988 Act, further steps can and should be taken by the Congress to enhance the ability of U.S. manufacturers to compete on fair and equal terms in foreign telecommunications markets. A copy of TIA's response to the subcommittee's request for recommendations to the Congress concerning national telecommunications policy is appended to my testimony. See attachment B.

However, it would be a grave mistake for Congress to view the MFJ manufacturing prohibition as a major source of this Nation's

telecommunications trade deficit and conclude that removal of the prohibition constitutes a viable means of improving the situation. The origins of the current deficit are complex and include a combination of macroeconomic and sector-specific factors. Commerce Department trade figures indicate that the bulk of the telecommunications trade deficit relates to lower end customer premises equipment; for example, telephone handsets, facsimile machines, cordless phones.

The rapid growth of imports in this area began well before the divestiture, following implementation by the FCC of its part 68 equipment registration program. While the more open, competitive marketplace fostered by the MFJ has operated to the benefit of some foreign-owned suppliers, the United States still maintains a trade surplus in switching and other telecommunications network products. Allowing RBOC entry into manufacturing is not likely to alleviate the trade deficit or enhance the competitiveness of U.S. manufacturers in domestic and foreign markets. Indeed, the most likely effect of removal of the MFJ manufacturing prohibition is the formation of RBOC joint ventures with foreign manufacturers, to the exclusion of U.S. firms.

This is a particular concern in the strategically significant central office switch market and, potentially, in other product areas as well. Even if the RBOC's do not align themselves with foreign interests, renewed RBOC foreclosure of domestic equipment markets will make it increasingly difficult for efficient U.S. manufacturers to obtain the financial support and volume of production they need to compete at home and abroad.

In short, removal of the MFJ manufacturing prohibition at this time is likely to lead to a return of practices which would, one, operate to foreclose or severely limit competition in domestic equipment markets; two, reduce innovation and consumer choice; three, impost added costs on monopoly ratepayers; and, four, impair efforts to enhance the competitiveness of U.S. telecommunications equipment manufacturers in domestic and foreign markets.

The proponents of legislation lifting the MFJ restriction purport to address certain of these concerns by allowing BOC entry into manufacturing subject to safeguards which they argue will provide adequate protection to competition and ratepayer interests. However, virtually all of the regulatory mechanisms described in H.R. 2140 or cited by the RBOC's and their supporters in support of such proposals existed in one form or another prior to divestiture.

Aside from the bare assertions of the RBOC's and some regulators, there is nothing to indicate that the manifold problems arising from integration by the Bell operating companies. into manufacturing can now be effectively contained through regulation. At the Federal level, the FCC has removed the structural separation requirements imposed under its Computer II decisions, in favor of less stringent, nonstructural safeguards. In the equipment procurement area along, the FCC expended enormous resources in proceedings spanning several decades attempting, unsuccessfully, to ensure that independent suppliers were given full and fair opportunity to compete for sales to the BOC's.

The dramatic shift in BOC purchasing patterns following divestiture clearly demonstrates the inability of Federal and State regula-

tors to prevent discrimination by the BOC's in favor of an affiliated supplier. Effective regulatory oversight is further hampered by the Communications Act's division of regulatory responsibility between the FCC and the States, uncertainties as to the extent of regulatory jurisdiction over the diversification by common carriers into manufacturing, and the uneven distribution of regulatory resources and expertise, at the State level in particular.

TIA continues to believe that the national interest would be better served by continued reliance on the straightforward, structural approach embodied in the MFJ manufacturing prohibition. However, in an effort to assist the subcommittee in its consideration of legislative proposals which purport to contain adequate safeguards, I have appended to my testimony an attachment identifying various substantive, procedural, and jurisdictional issues which would need to be considered and addressed in order to develop a comprehensive regulatory framework for BOC participation in equipment manufacturing and supply markets. See attachment C..

In closing, I would again emphasize that adoption of a regulatory approach permitting the RBOC's to reintegrate into manufacturing will, necessarily, be far less effective than the current restriction in preventing distortions of the competitive marketplace and attendant harm to ratepayers and consumers. Even with a separate subsidiary requirement, nonstructural remedies can at best merely constrain to some extent the ability of the RBOC's to engage in cross-subsidization or discrimination by making activities of this sort more easily deductible.

They do not reduce the incentives of the RBOC, once integrated into the competitive equipment manufacturing business, to engage in such behavior. Again, thank you for the opportunity to appear before the subcommittee. I would be pleased to answer any questions you might have.

Mr. MARKEY. Thank you, Mr. Frischkorn. Mr. Latham.

[Testimony resumes on p. 170.]

[The following material was submitted by Mr. Frischkorn:]

ATTACHMENT A

WHY MAINTAINING THE MFJ MANUFACTURING PROHIBITION IS SOUND PUBLIC POLICY

- The MFJ has had a dramatic, positive impact on telecommunications equipment markets
  - Prior to divestiture, non-Western manufacturers had very little opportunity to sell to the Bell Operating Companies, which collectively comprise the largest group of equipment purchasers in the industry
  - Following divestiture, BOC purchases from Western Electric (now AT&T Technologies) dropped from 92% in 1982 to approximately 60% in 1986, as the BOCs began to purchase on the basis of price and quality, rather than the corporate affiliation of the supplier
  - Competition has increased throughout all sectors of the equipment industry and the pace of innovation has accelerated
  - The opportunity to compete for sales to the divested BOCs has encouraged investment in new entrants and existing industry participants
  - Prices for equipment sold by AT&T and other manufacturers have fallen by as much as 30-50%
  - Non-price competition has intensified, and equipment is more readily available from a wider range of suppliers than ever before
  - In the post-divestiture marketplace, U.S. equipment manufacturers have had to become increasingly efficient and, therefore, better prepared to compete effectively both within and outside the U.S.
- The MFJ remains essential to the continued development of a dynamic, competitive U.S. equipment industry
  - Permitting the RBOCs to integrate into manufacturing would threaten a return to the practices which prevented the emergence of a fully competitive industry structure prior to divestiture, including biased procurement, discrimination in interconnection, preferential disclosure of network-related information, and cross-subsidization of manufacturing activities at monopoly ratepayers' expense
  - Through "in-house" purchasing practices alone, even a single RBOC can foreclose up to 20% of the market; collectively, the RBOCs represent as much as three-fourths of the market for many types of telecommunications equipment
  - Until there is meaningful competition in the end product (local telephone service) market, the BOCs will have every incentive to favor affiliated manufacturers in equipment procurement and other areas
  - Renewed market foreclosure by the RBOCs will deprive consumers and the U.S. economy of the benefits (reduced prices, increased efficiency and innovation) which a fully competitive telecommunications equipment marketplace can provide

- Regulation cannot effectively constrain the RBOCs' ability to impede competition in equipment markets
  - Virtually all of the regulatory mechanisms which are cited as "safeguards" against anticompetitive conduct by the RBOCs existed in one form or another prior to divestiture
  - The FCC attempted to develop a regulatory framework to control self-dealing and other abuses in the procurement process at enormous cost, in proceedings spanning several decades, without success
  - The dramatic shift in BOC purchasing patterns and significant reductions in equipment prices following divestiture demonstrate the inability of regulators to ensure that the BOCs procure equipment in a competitive, non-discriminatory manner
  - If the MFJ restrictions were lifted, regulators would be faced with the monumental task of monitoring seven RBOCs and their affiliated manufacturing enterprises, rather than the single integrated Bell System and its affiliated manufacturer, Western Electric
  - There is no indication that the ability of regulators to constrain anticompetitive behavior by the BOCs in equipment markets has increased since divestiture; at the federal level, the FCC has removed the structural separation requirements imposed under Computer II, in favor of less rigorous, "non-structural safeguards"
  - Effective regulatory oversight is further hampered by the existence of dual federal-state authority, uncertainty as to the extent of regulatory jurisdiction with respect to the RBOCs, and the uneven distribution of resources and expertise, particularly at the state level
- Removal of the MFJ manufacturing prohibition will not alleviate the U.S. trade deficit, and threatens to reduce the competitiveness of American manufacturers in domestic and foreign markets
  - The principal underlying cause of the trade deficit is the lack of meaningful access to foreign markets, not the RBOCs' inability to manufacture
  - There is no indication that the RBOCs would be more efficient than existing U.S. manufacturers; they have no prior experience in manufacturing, and will have little incentive to aggressively pursue opportunities overseas if they have a substantial "captive" market at home
  - Removal of the MFJ restriction is likely to lead to RBOC joint ventures with foreign manufacturers, particularly in the critical large telephone switch area, to the exclusion of domestic competitors
  - Even if the RBOCs do not affiliate themselves with foreign manufacturers, discriminatory "in-house" purchasing and other anticompetitive RBOC practices will seriously jeopardize the ability of efficient U.S. manufacturers to secure the investment capital and volume of production necessary to compete effectively at home and abroad

ATTACHMENT B

Telecommunications Industry Association
Response to House Telecommunications Subcommittee
Request for Recommendations to the Congress
Concerning National Telecommunications Policy

The Telecommunications Industry Association (TIA) is a national trade association whose membership includes manufacturers and suppliers of all types of telecommunications equipment and related products. TIA's members are located throughout the United States, and collectively provide the bulk of the physical plant and associated products and services used to support and improve the U.S. telecommunications network. In addition, TIA members are involved on an ever-increasing basis in providing telecommunications products and services in other developed and developing nations around the world.

As an association, TIA is dedicated to the support of public policies which strengthen our economy and enhance the quality of life for all Americans through improved telecommunications. TIA believes that the economic and societal benefits arising from advances in telecommunications will be more fully and immediately realized in a public policy environment which actively encourages the development and deployment of new telecommunications technologies in an open, competitive marketplace. To accomplish this, all equipment manufacturers and suppliers must be afforded the opportunity to succeed (or fail) based solely on the merits of their respective products.

TIA further believes that the Congress has a critical role to play in ensuring that the American economy reaps the full benefits of the "Information Age," by taking legislative action which provides increased incentives for research and development, facilitates the enhancement of our nation's telecommunications infrastructure, and ensures that U.S. firms have the chance to compete on fair and equal terms in domestic and foreign telecommunications markets. TIA's specific recommendations are as follows:

Modification of Final Judgment (MFJ)

TIA supports Congressional efforts to ensure that the "line of business" restrictions imposed on the divested Regional Bell Operating Companies (RBOCs) under the terms of the AT&T antitrust consent decree (the "Modification of Final Judgment" or "MFJ") remain consistent with the broader national interest. However, TIA believes that a careful examination of the origins of the MFJ manufacturing prohibition and its effect on telecommunications equipment markets in the U.S. makes it clear that removal of the restriction at this time would have a significant adverse impact on competition, telephone ratepayer interests and consumer welfare.

Under the terms of the consent decree, the divested local Bell Operating Companies (BOCs) are prohibited from entering the

telecommunications equipment business, except as distributors of telephones and other customer premises equipment (CPE). The divestiture itself ended the affiliation between the BOCs and Western Electric (now AT&T Technologies). The decree further prohibits the divested RBOCs from reintegrating into manufacturing in order to prevent the return of practices which served to preclude the emergence of a fully competitive industry structure prior to divestiture. These practices include biased procurement, discrimination in interconnection, preferential disclosure of network-related information, and cross-subsidization of manufacturing activities at monopoly ratepayers' expense.

Since the MFJ was implemented in January, 1984, the level and intensity of competition and the pace of innovation has increased dramatically in all sectors of the U.S. telecommunications equipment industry. The opportunity to compete for sales to the divested BOCs has encouraged investment in new enterprises and existing industry participants. In addition, the more open, highly-dynamic post-divestiture marketplace has provided U.S. equipment manufacturers with a strong incentive to become more efficient and creative in meeting the needs of prospective purchasers, and therefore better able to compete in domestic and in overseas markets.

Removal of the MFJ manufacturing restriction at this time inevitably would lead to a return of self-dealing and other practices which served to limit competition and impede innovation in the U.S. equipment industry for most of this century. The competitive problems arising from the integration of the Bell System's regulated local telephone monopolies into adjacent, equipment manufacturing and supply markets were repeatedly addressed prior to entry of the MFJ -- by the Justice Department, private litigants, state and federal regulators, and the Congress -- at enormous cost, in proceedings spanning several decades, without success. There is no evidence that these problems can or will be resolved effectively today, in an environment of reduced regulation and fiscal restraint, if the MFJ prohibition is removed.

Moreover, as the District Court properly concluded following its recent, exhaustive review of the MFJ line of business restrictions, the anticompetitive practices which are likely to reemerge if the manufacturing prohibition is eliminated would impose added costs on telephone ratepayers, reduce consumer choice, and impair efforts to enhance the competitiveness of U.S. manufacturers both at home and abroad.

Accordingly, TIA urges the Subcommittee and the Congress to oppose enactment of H.R. 2140 or other legislative proposals which would prematurely remove the MFJ manufacturing prohibition, thereby placing at risk the continued development of a dynamic, fully competitive telecommunications equipment industry in the U.S. [A

further explanation of the need to maintain the MFJ manufacturing restriction is contained in Attachment A.]

Foreign Market Access

While the U.S. telecommunications industry has become far more competitive and open to equipment suppliers from all nations over the past decade, opportunities for U.S. firms to compete in foreign telecommunications equipment markets continue to be limited by trade barriers imposed by certain foreign governments. In particular, market access restrictions relating to government procurement practices, foreign investment policies, standards and certification procedures, and import tariffs seriously impair the ability of U.S. equipment suppliers to compete in overseas markets.

During the 100th Congress, TIA supported legislative proposals which were ultimately incorporated in the Omnibus Trade and Competitiveness Act of 1988 (Public Law 100-418) specifically setting forth U.S. telecommunications trade policy objectives and establishing a framework for investigation of telecommunications trade barriers, negotiations for removal of such barriers, and further U.S. action, in the event negotiations prove unsuccessful.

As the Subcommittee is aware, pursuant to the telecommunications provisions of the 1988 Act, the Office of the U.S. Trade Representative conducted an investigation to identify "priority countries" which are targeted for negotiations directed towards obtaining "mutually advantageous market opportunities." Earlier this year, USTR submitted a report to the President and the Congress identifying the European Community (EC) and the Republic of Korea as "priority countries" under the criteria set forth in the Act. More recently, USTR announced that a determination has been made under Section 1377 of the Trade Act that Japan is in violation of the Market Oriented Sector Specific (MOSS) agreements on telecommunications, and designated Japan, India and Brazil as "priority countries" under the "Super 301" provisions of the Act.

TIA has provided USTR with its members' views concerning the barriers faced by U.S. equipment suppliers in their efforts to penetrate foreign telecommunications markets, and the association generally concurs in the actions taken by the Administration pursuant to the 1988 Act. TIA President Mike Frischkorn testified at a March 1 hearing conducted by the House Energy and Commerce Committee's Subcommittee on Oversight and Investigations concerning implementation of the 1988 Act, describing for the Subcommittee various market access problems encountered by U.S. telecommunications equipment manufacturers, and offering a number of suggestions for governmental action designed to enhance the ability of U.S. firms to compete in overseas markets. The text of TIA's testimony before the Subcommittee is included as Attachment B.

In addition, TIA recently submitted written comments in connection with the Section 301 Committee's May 24 hearing concerning proposed sanctions against Japan. In its statement to the committee, TIA urged that every effort be made to minimize the costs of retaliation in the U.S. economy, and offered several general principles for use as guidelines in selecting products as candidates for retaliation. [TIA's statement is appended as Attachment C hereto.]

While TIA does not believe that additional legislation directly addressing foreign telecommunications trade barriers is necessary at this time, TIA urges the Subcommittee to actively monitor implementation of the 1988 Act's general and telecom-specific market access provisions, the progress of related bilateral and multilateral negotiations, and the economic impact of any sanctions imposed under the Act.

Export Enhancement

As the foregoing discussion indicates, TIA believes that the 1988 Trade Act provides a viable framework for identifying and directly responding to trade practices which operate to limit access by U.S. firms to foreign telecommunications markets. Nonetheless, it is clear that further steps can and should be taken by the Congress to enhance the ability of U.S. telecommunications suppliers and exporters to sell their goods and services overseas.

In this regard, TIA is sensitive to the Congress' desire to avoid taking action which would increase the federal deficit. Indeed, in its testimony before the House Oversight and Investigations Subcommittee (see Attachment B), TIA noted the adverse impact which the budget deficit has on the cost of capital incurred by U.S. manufacturers, and expressed its support for efforts to reduce or eliminate the deficit.

However, while acknowledging the need for fiscal restraint, TIA strongly supports continued funding of EXIMBANK's Direct and Intermediary Credit programs, and has urged that present funding levels be increased, if at all possible, and blended with "soft" loans from AID to support export initiatives by U.S. firms. The support provided by EXIMBANK is particularly important to exporters attempting to market goods and services to developing countries, where commercial bank loans may be difficult to obtain, due to the risks associated with the extension of credit for new development projects in already debt-ridden nations. Although funding for EXIMBANK's direct loan and loan guarantee programs has been substantially reduced over the past several years, the programs remain useful to U.S. manufacturers and suppliers, particularly smaller firms who might otherwise be unable to obtain financing for overseas marketing efforts. Continuation of the programs, even at the present, reduced level will provide some modicum of support for U.S. firms in their efforts to compete in foreign markets against

foreign suppliers, whose marketing efforts are often aided by aggressive, government-subsidized export financing policies.

In addition, TIA has urged the Congress to review and revise U.S. export control and licensing policies, with a view toward eliminating unnecessary restrictions which serve to penalize U.S. firms in global competition. TIA also believes that a concerted effort should be made to address the dispersion of responsibility for telecommunications trade among various governmental agencies, as well as the need for improved inter-agency coordination and more carefully targeted use of available resources. [See Attachment B]

TIA recognizes that a number of these issues fall within the jurisdiction of other committees of Congress. However, TIA believes that their impact on the future growth and development of the telecommunications industry is significant enough to merit close attention and, where appropriate, active involvement by the Subcommittee on Telecommunications and Finance.

High Definition Television

TIA urges the Subcommittee to continue its involvement in the formulation of national policy with respect to the development and deployment of advanced television technologies, including high definition television (HDTV), in the United States. As the Subcommittee is aware, the development and deployment of HDTV technology is expected to have a dramatic impact on theentire consumer electronics industry, with important "spillover" effects in the computer and advanced telecommunications equipment industries. Advances in HDTV circuit technology may stimulate technological developments in the semiconductor industry, and lead to improvements in digital transmission technology. Moreover, the introduction of HDTV will have a significant immediate and long-term effect on the market for equipment used to deliver enhanced video services to the consumer (e.g., satellite transmission equipment, fiber optics).

Earlier this year, TIA joined with the Electronic Industries Association (EIA) in submitting a report to assist the Subcommittee and the Congress in developing a coherent, forward-looking approach to HDTV issues. A copy of the EIA/ATV Committee's report is appended hereto. [See Attachment D] The report contained a number of general public policy recommendations designed to improve the competitiveness of U.S. industry in HDTV and other new technology areas, including:

- o the adoption of a deficit reduction plan designed to achieve approximate budget balance in accordance with Gramm-Rudman guidelines,

- o reintroduction of an investment tax credit and a graduated capital gains tax,

- o introduction of a permanent R&D tax credit,
- o increased efforts to open international markets and ensure fair competition in both domestic and foreign markets,
- o amendment of the National Cooperative Research Act to encompass joint production as well as joint research activities under certain circumstances,
- o the use of government funds to encourage the formation of public-private consortia for "middle-ground" or "generic" technology projects.

The report also offered several more specific recommendations, focusing primarily on the need for timely adoption of HDTV standards and the provision of governmental assistance in the formation of R&D consortia to develop indigenous HDTV technologies.

Appended to the EIA/ATV Committee's report is a series of public policy recommendations developed by the Fiber Optics Division of TIA, urging the expeditious adoption of terrestrial broadcast HDTV standards, concurrent adoption of standards for interconnection of alternative media to the terrestrial broadcast system, expansion of national competitiveness considerations to include fiber optic technology specifically related to HDTV, and relaxation of antitrust regulations affecting the exchange of research and development information concerning HDTV-related components and systems.

TIA notes that many of the recommendations contained in the EIA/ATV report are reflected in various legislative proposals now pending in the Congress, and urges the Subcommittee to carefully weigh the public policy considerations reflected in the report in future deliberations concerning HDTV. TIA intends to work with the EIA/ATV Committee to further refine and convey to the Congress industry views with regard to specific ATV/HDTV proposals.

R&D Tax Credit

For the past several years, Congress has approved one-year extensions of the existing R&D tax credit, which is now scheduled to expire at the end of 1989. In his FY 1990 budget, President Bush proposed to make the existing tax credit for "research and experimentation" permanent, with certain modifications. Subsequently, legislation was introduced in both the House (H.R. 1416) and the Senate (S.570) which would (1) make the current 20 percent R&D tax credit permanent; (2) modify the structure of the credit to increase the incentive effect it has on R&D spending; (3) extend the benefits of the credit to "startup" firms. In addition, Representative Ritter's "High Definition Competitiveness Act of 1989" (H.R. 1267) includes a provision which would make the R&D tax credit permanent.

The current R&D tax credit provides a substantial benefit to manufacturers competing in the rapidly-evolving telecommunications equipment industry, by providing tax incentives for

privately-funded research and development efforts. Adoption of legislation which establishes the credit as a permanent feature of the federal tax code would afford manufacturers continued support, as well as greater assurance as to the tax consequences of their R&D activities, thereby reducing the risk associated with undertaking such activities.

TIA urges the Subcommittee and the Congress to support adoption of a permanent R&D tax credit which provides clear incentives for U.S. manufacturers to undertake research and development programs on a long-term basis.

REA Loan Programs

The Rural Electrification Administration (REA) makes direct loans and guarantees loans made by other qualified lenders to electric utility and telephone systems serving rural areas. In his FY 1990 budget proposal, President Reagan proposed to eliminate the REA direct and guaranteed loan programs (funded at $861 million and $933 million, respectively, in 1989), in favor of partially guaranteed, privately originated loans. President Bush's FY 1990 budget proposal adopted the Reagan Administration's recommendations with respect to REA funding, replacing the current government loan programs with a new program involving $1.365 billion in partially guaranteed loans from private sources.

By contrast, legislation was recently introduced in the Senate (S.759) to establish a new Rural Telecommunications Incentive Fund to be administered by the REA, which would serve as a source of capital for providing improved telecommunications to rural businesses, industries and public facilities. S.759 would provide annual appropriations of $30 million for five years to the REA for the Incentive Fund, which would be targeted for the support of projects that will enhance the potential for rural economic development or community improvement.

Elimination of current sources of federally-subsidized financing, in favor of an approach which relies upon private lenders, would significantly increase the cost of capital for rural telcos. As a result, their level of investment in capital improvements, including new telecommunication plant and equipment, would likely be reduced below the level which might be achieved if present programs were continued or expanded.

TIA urges the Subcommittee and the Congress to support REA loan programs which serve to encourage the investment in new technology and equipment necessary to provide rural America with high quality, "state of the art" telecommunications service.

Telco Capital Cost Recovery:
Normalization of Excess Deferred Taxes

A bill (H.R. 1150) is now pending in the House which would repeal a provision contained in the Tax Reform Act of 1986 dealing with the normalization of deferred tax reserves. The proposed legislation encountered substantial opposition in the 100th Congress from utilities and various legislators who argued that normalization of the excess tax reserve is an integral component

of federal tax policy, and noted that Section 203(e) was included in the Tax Reform Act in order to mitigate the negative impact of the Act on utilities, as well as their customers.

TIA supports the current treatment of "excess" deferred taxes and other capital cost recovery policies which facilitate modernization of the U.S. telecommunications infrastructure. An immediate flow-through of "excess" deferred reserves would substantially reduce telephone company revenues, thereby burdening future ratepayers and making it more difficult for telephone companies to finance the deployment of new facilities and the modernization of existing plant.

Accordingly, TIA urges the Subcommittee and the Congress to oppose passage of H.R. 1150 or similar proposals which would repeal the normalization provisions adopted by Congress in Section 203(e) of the 1986 Act. A copy of TIA's recent letter to the Chairman of the House Ways and Means Committee concerning this issue is appended hereto. [See Attachment E]

Spectrum Auctions

Since the Communications Act of 1934 was enacted, the FCC has awarded licenses on the basis of a comparative hearing or, more recently, through the selective use of a lottery procedure. The Administration's FY 1990 Budget proposal included provision of the use of auctions by the FCC to award licenses for a broad range of spectrum uses, as a means of conserving administrative resources and increasing federal revenues. Recently, FCC Chairman Patrick has expressed support for the "competitive bidding" (i.e., spectrum auction) proposal offered by the Administration and NTIA in the 100th Congress and reintroduced as S.170 in the 101st Congress. Current proposals would limit the use of auctions to non-mass media services. However, once the precedent has been established, the next step would likely be to propose the use of auctions for mass media (radio and TV) licenses as well.

While TIA supports efforts to reduce the federal budget deficit, TIA is concerned that the use of spectrum auctions may deprive the American public of benefits arising from the introduction of new and innovative communications technologies. The added expense of purchasing a license at auction is likely to discourage companies from implementing new technologies, whose market potential may already be somewhat uncertain. To the extent that auctions operate to deter or delay the introduction of new telecommunications services or increase their cost, consumers suffer and opportunities for economic growth are lost.

TIA urges the Subcommittee and the Congress to reject proposals to utilize spectrum auctions as a "quick fix" answer to legitimate budgetary concerns. A copy of TIA's letter to the Chairman of the House Budget Committee addressing this issue is appended as Attachment F.

Attachment C

Regulation of RBOC Entry Into Manufacturing

The following is a brief description of issues which should be confronted and resolved by the Congress, in the event a consensus is reached to enact legislation permitting RBOC entry into manufacturing, subject to alternative regulatory "safeguards":

1) Clarification of extent of FCC jurisdiction to regulate RBOC manufacturing activities for the protection of ratepayers and competition;

2) Clarification as to the jurisdictional limits of Federal/State regulation of RBOC manufacturing;

3) Clarification concerning the authority of Federal/state regulators to directly access the books and records of RBOC manufacturing affiliates;

4) Imposition of a requirement that RBOC equipment manufacturing and supply activities be conducted through a fully separate subsidiary;

5) Creation of legislative requirements for the development of procedures designed to ensure that information relating to technical standards, planned changes in the network, interface requirements and other similar information is made available to independent manufacturers and RBOC affiliates on a fair and equal basis;

6) Adoption of legislative standards for the development of competitive procurement procedures and practice which ensure that all manufacturers and suppliers have fair and equal opportunity to develop and market equipment to the Bell Operating Companies;

7) Imposition of procurement reporting requirements designed to assist regulators in monitoring BOC purchasing practices;

8) Development of legislative standards governing BOC collection and dissemination of customary proprietary network information (CPNI) to equipment suppliers in a non-discriminatory manner, with due regard for the privacy of consumers;

9) Imposition of uniform state-federal accounting and audit procedures designed to constrain, to the extent possible, the RBOCs' ability to misallocate costs attributable to their competitive manufacturing activities;

10) Adoption of legislative standards for the establishment and maintenance of "sales agency" programs which provide all equipment suppliers with fair and equal opportunities to market BOC network services;

11) Development of mandatory licensing requirements designed to ensure that intellectual property created at monopoly ratepayer expense is made available to RBOC-affiliated manufacturers and independent equipment suppliers on a fair and equal basis, under reasonable, non-discriminatory terms and conditions;

12) Development of legislative requirements designed to address the potential for anticompetitive abuse arising from RBOC participation in Bellcore;

13) Imposition of requirements designed to protect the use and dissemination of the intellectual property and ideas of competing suppliers by the BOCs and their affiliates, including Bellcore;

14) Imposition of provisions authorizing the FCC to impose appropriate monetary penalties and injunctive relief for violation of statutory requirements or FCC regulations;

15) Establishment of a private right of action allowing interested parties to seek monetary or injunctive relief, as well as reasonable attorney fees, for violations of statutory requirements or FCC rules.

16) Development of legislative requirements designed to ensure that RBOC entry into manufacturing does not adversely affect the U.S. balance of trade and/or the competitiveness of U.S. equipment suppliers.

The foregoing list was prepared to illustrate the breadth of concerns which would necessarily be implicated in any attempt to develop a comprehensive framework for regulation of RBOC entry into manufacturing. It is not exhaustive or fully descriptive of all issues which would need to be addressed, when and if the Subcommittee determines to move forward with legislation lifting the MFJ manufacturing restriction.

STATEMENT OF DANIEL LATHAM

Mr. LATHAM. Good morning, Mr. Chairman and members of the subcommittee. My name is Dan Latham, and I am director of industry marketing for the telecommunications industry at Digital Equipment Corp. [Digital].

I appreciate the opportunity to appear before the subcommittee today to discuss Digital's views on the public policies that should be adopted to encourage the development of an advanced telecommunications infrastructure and promote our Nation's international competitiveness.

In particular, I want to focus my remarks on the legal ground rules governing the interaction between manufacturers of telecommunications equipment and telephone companies during the manufacturing process.

Digital is a major participant in the converging telecommunications and computer industries. As one of the world's leading manufacturers of networked computer systems, Digital has long produced both hardware and software that is integrated into the world's telephone networks.

Over the past decade in particular, Digital has worked closely with telephone companies around the globe to provide computer-based solutions for so-called "intelligent networks" and related advanced network services.

Through its extensive experience in the telecommunications field, Digital has become convinced that certain government restrictions on research and development during the manufacturing of telecommunications products are hampering America's entry into the Information Age.

Specifically, Digital believes that certain court interpretations of the MFJ's prohibition on BOC involvement in such research and development create serious inefficiencies in the manufacturing process.

Those inefficiencies serve both to slow the introduction of new telecommunications products and services to the public, and to dull the country's competitive edge in the international telecommunications marketplace.

The basic problem can be simply stated. As you know, the MFJ precludes the BOC's from "manufacturing" telecommunications products and customer premises equipment. In a 1987 decision interpreting this restriction, District Court Judge Greene held that the MFJ forbids the BOC's not only from fabricating telecommunications equipment, but also from participating in the design and development of that equipment.

As a result of this ruling, the BOC's are not just barred from manufacturing, they are also barred from actively working with independent manufacturers engaged in research and development activities, even though such interaction is typical of general customer-manufacturer relationships and is essential to effective, efficient product design.

As I will describe more fully in a moment, Judge Greene's decision to interpret the MFJ manufacturing prohibition in this fashion was based on his assumption that telecommunications equipment used in our phone networks can be adequately developed

without any significant participation by the BOC's during the research and development stages of the manufacturing process. Digital experience, however, reveals that just the opposite is true.

Specifically, Digital has found that the complex equipment the phone system now demands cannot be manufactured effectively unless equipment vendors are able to engage in an ongoing dialogue with their BOC customers as that equipment is designed and developed.

In the absence of such a dialogue, manufacturers are forced to develop complicated telecommunications products through a trial-and-error process that is extremely expensive and inefficient.

Digital is very concerned that, if allowed to continue, the current situation ultimately will lead to decreased competition in the telecommunications equipment marketplace, increased costs, less innovation in critical information services, and serious delays in the provision of those services to the American public.

With this brief statement of the problem in mind, let me now turn to a more detailed discussion of why the problem exists and what should be done about it.

As I previously mentioned, the present dilemma stems from the fact that court interpretations of the MFJ concerning research and development issues have relied on assumptions about the telecommunications manufacturing process that unfortunately are so outdated they no longer reflect reality.

Those erroneous assumptions quickly become apparent when one compares the manufacturing process envisioned by Judge Greene with the process actually used by manufacturers such as Digital.

According to Judge Greene, the MFJ permits the BOC's to design and engineer the telephone network, but prohibits them from designing and developing the telecommunications equipment that is used in the network.

When deciding where to draw the line between permitted network design and prohibited equipment design, Judge Greene concluded that it is appropriate for the BOC's to generally inform manufacturers of the equipment features and functions they want or need by releasing generic product requirements.

Once such requirements have been issued, however, the BOC's role in the manufacturing process is completed. In Judge Greene's view, it is the manufacturer's job to complete the manufacturing process by developing detailed product specifications, designing the product, developing a prototype, and ultimately replicating the prototype through fabrication of other means.

Judge Greene clearly believes that this division of labor between the BOC's, on the one hand, and manufacturers, on the other, will lead to an efficient and effective manufacturing process for telecommunications products. This conclusion, however, is only as sound as the core assumptions on which it is based.

Those essential assumptions are: (1) That the BOC's can in fact design their networks without at the same time designing the equipment to be used in the networks; (2) that the BOC's are able to perform enough research to determine the generic requirements of the telecommunications products they will need for their networks, without at the same time developing detailed specifications for those products; and (3) that telecommunications products can be

efficiently manufactured if the BOC's are forbidden from becoming involved in any design and development activities that take place after the articulations of generic product requirements.

Unfortunately, Digital's extensive experience as a telecommunications equipment manufacturer reveals that, while these key assumptions may be accurate with respect to the fabrication of relatively simple hardware products, they no longer reflect the realities of today's sophisticated telecommunications marketplace.

It is certainly true that some large corporations are able to formulate useful generic requirements for fairly simple hardware, such as basic computer units. In these cases, manufacturers such as Digital generally are able to design, develop and fabricate that hardware to the company's satisfaction, without receiving additional company input during the design process.

Over the past few decades, however, the integration of telecommunications and computer products has vastly increased the complexity of equipment that is essential to effective operation of the telephone networks.

Through the use of new technologies, the public telephone network no longer has a simple inside and outside. Rather, the line between functions that traditionally were performed inside the network—such as transmission and switching—and functions that traditionally were performed outside the network—such as data processing and information storage and retrieval—is being irrevocably erased.

Indeed, as telecommunications and computer technologies continue to merge, the public network has begun to evolve into an open, intelligent highway capable of providing a wide variety of advanced network and innovative information services to the American public. These services cannot be supported, however, unless the network incorporates sophisticated hardware/software systems capable of performing a wide range of functions flexibly and affordably.

Not surprisingly, the process of designing and producing such systems is far more complicated than the process used to manufacture fairly simple hardware. Yet when analyzing the scope of the MFJ's manufacturing prohibition, Judge Greene failed to take these advances into account.

For example, as I've already mentioned, Judge Greene assumed that designing a telecommunications network is a process separate and distinct from designing the equipment to be used in the network. This presumption falters, however, when applied to our evolving phone network, in which complex computing systems are playing an increasingly critical role. Such computing systems are so complicated—and are such an integral part of the network—that it has become increasingly difficult to design the network without simultaneously designing the hardware/software systems to be used in the network.

Similarly, Judge Greene assumes that there is a clear difference between the process a BOC goes through to develop generic requirements that tell a manufacturer what product to make, and the process manufacturers go through when formulating the detailed product specifications that will determine how to make it.

Yet when a company such as Digital "manufactures" sophisticated hardware/software systems, the articulation of generic standards necessarily merges into the development of detailed product specifications.

By nature, such networked systems are inherently complex and must be carefully customized for a given purchaser. Thus, the very same steps that must be taken to develop useful generic product requirements will also result in detailed specifications for the "product".

Indeed, most purchasers of Digital's networked computing systems initially can articulate no more than a very broad description of what functions they would like their system to perform.

The components of the system—hardware and software—and the methods of linking those components together, are simply so intricate that typical Digital customers have neither the expertise nor the resources to specify standards that could be used by Digital to independently design and develop an appropriate computing system.

Therefore, customers will almost always work intimately with Digital during the design phase to formulate detailed product specifications. Such customer participation avoids unnecessary trial-and-error mistakes; conserves time, effort and resources; increases efficiency; and produces a customized system that provides the best possible service to the client.

Despite the obvious benefits of such customer participation, Digital and others are nonetheless precluded under Judge Greene's interpretation of the MFJ manufacturing restriction from engaging in a similar interactive process when designing complex hardware/software systems for their BOC clients. As a result, Digital is deprived of ready access to the particular areas of expertise that the BOC's possess—expertise that can be essential to the development of hardware/software systems that fully address the BOC's needs.

Moreover, without adequate BOC input, companies such as Digital must engage in drawn out, inefficient, and costly design and development efforts before they can "manufacture" appropriate telecommunications products.

The costs imposed on Americans as a result of this manufacturing process are easily identified.

First, inefficiencies in the process are starting to make the manufacturing of complex telecommunications products so expensive that many companies—especially smaller outfits—are likely to soon lose the incentive to undertake the necessary research and development activities required to produce products which respond to the BOC's needs.

The number of competitors in the networked computer systems market will then decline, and we will ultimately lose many of the benefits that robust competition in the manufacturing marketplace brings to consumers.

Second, if manufacturers are compelled to continue developing the requisite hardware/software systems through today's inefficient and expensive manufacturing process, the deployment of those systems throughout the public telephone network will be considerably slowed. The provision of innovative information services to the public, in turn, will be seriously delayed.

Third, as inefficiencies in the manufacturing process stalls the evolution of intelligent network capabilities in our country, U.S. manufacturers could fall behind their foreign counterparts. U.S. companies such as Digital already face competition in the global marketplace for networked computer systems from foreign companies that are unencumbered by government limitations on research and development activities. As a result, foreign networks are naturally evolving much more efficiently and rapidly than the U.S. networks.

The growing telecommunications marketplace is far too important for American businesses to accept anything less than a first-rate competitive position. Analysts predict that the telecommunications industry will affect 60 to 70 percent of all jobs worldwide by the 1990's, and produce products and services equivalent to 10 percent of the GNP of all industrialized nations.

It is thus imperative that the U.S. Government not impose unnecessary restrictions on essential research and development activities in the converging telecommunications and computer fields.

In closing, I would like to state for the record that Digital believes the current limitations on BOC involvement in design and development activities are impeding the prompt deployment of important intelligent network capabilities.

On behalf of Digital, I accordingly would urge policy makers and the court to consider the adverse effects that research and development restrictions have on the ability of manufacturers to engage in the kind of dialogue with their BOC customers that is essential to the promotion and development of an efficient manufacturing process.

Thank you.

Mr. MARKEY. Thank you, Mr. Latham. Mr. Marks.

STATEMENT OF HERBERT E. MARKS

Mr. MARKS. Mr. Chairman and members of the subcommittee, my name is Herbert Marks.

I appear today in my capacity as Counsel for the Independent Data Communications Manufacturers Association [IDCMA]. Since its inception in 1971, IDCMA has been an active participant in congressional, administrative and judicial proceedings, including the ongoing antitrust proceedings before U.S. District Judge Harold H. Greene.

The Association's consistent goal has been to promote competition in the markets for communications and information products and services.

The members of IDCMA manufacture sophisticated equipment that is used—both in the network and on customers' premises—to effectuate and manage the transmission of computer data.

All of these companies are highly innovative, and all are enormously successful exporters. As manufacturers and suppliers of customer-premises equipment [CPE] which interconnects to, and interoperates with, equipment used in the network [telecommunications equipment], IDCMA's member companies operate in a technology-intensive, highly competitive, unregulated environment

which would be severely distorted by the entry of the Bell operating companies. [BOC's] or their parents, the "Regional Cos."

At the present time, the Regional Cos. are among the most prosperous corporations in the Nation; American telephone service remains among the best in the world; and the Regional Cos., because of deregulation, have more ability than ever before to use their monopoly power to damage competition in the markets adjacent to, and dependent upon, telecommunications.

In the few short years since divestiture, the Modification of Final Judgment [MFJ or Decree] has been transformed from a document which prohibits all but three or four specifically enumerated activities to one which allows the Regional Cos. to do anything they want to except in three specified areas.

Yet the Regional Cos. clamor incessantly for freedom from these few remaining restrictions, including the prohibition on manufacturing. This provision of the Decree, however, remains essential to protect communications ratepayers and the competitive environment.

IDCMA's position may be summarized as follows: (1) The BOC's retain an undeniable monopoly in local exchange and interexchange access telecommunications services; (2) this dominant position enables the BOC's to wield substantial control over market conditions in areas which are dependent on local exchange services, such as the manufacturing of telecommunications equipment and CPE; (3) the Federal Communications Commission's [FCC's] rules and policies do not provide adequate safeguards to prevent the Regional Cos. from engaging in anticompetitive conduct in the markets in which they are already allowed to participate. Allowing the Regional Cos. to manufacture telecommunications equipment and CPE would make matters much worse; (4) Judge Greene reached the right decisions on September 10, 1987, when he ruled that the equipment manufacturing restriction must be retained, and on December 3, 1987, when he clarified that the term "manufacturing" as used in the Decree includes the design and development of equipment; (5) although it is entirely appropriate for the Congress to study the effects of the MFJ and the state of communications markets generally, there is no need for legislation to modify the Decree or transfer jurisdiction to the FCC; and (6) if the Congress decides to establish policy for the telecommunications industry, it should not confine itself to narrowly focused MFJ issues, as presented by the Regional Cos. Restoring effective regulation of dominant carriers must be an integral part of any legislation.

The following presentation describes the status of court proceedings and the reasons why the manufacturing restriction continues to be necessary. A separate document, submitted to the subcommittee by IDCMA on June 9, sets forth the Association's views on specific legislative proposals, including a variety of issues that are not necessarily all related to the MFJ.

The MFJ resulted from a negotiated settlement of the government's 1974 antitrust case against the "Bell System". The proposed Decree was reviewed by Judge Greene pursuant to the Tunney Act, which requires a determination that settlements in government antitrust cases be in the public interest.

During the Tunney Act process, hundreds of interested parties, including members of this very subcommittee, presented their views. Ultimately, Judge Greene granted his approval of the settlement, conditioned upon the inclusion of a number of changes.

It is important to note that these changes were very favorable to the BOC's. The original settlement, as submitted to the court, would have barred the Regional Cos. from all activities except local exchange telephone service and interexchange access services.

Judge Greene, however, required provisions that permitted the BOC's to engage in additional activities, such as publishing yellow pages and marketing CPE—the latter was premised on the notion that predatory practices would be curtailed by the prohibition on BOC manufacturing of CPE.

He also insisted on section VIII(C), a "sunset" provision, under which the line-of-business restrictions "shall be removed upon a showing by the petitioning BOC that there is no substantial possibility that it could impede competition in the market it seeks to enter."

Similarly, in ruling on AT&T's Plan of Reorganization, Judge Greene required additional changes which were intended to benefit the BOC's. This pattern continued in subsequent decisions. In the time since divestiture, the court has granted scores of waivers of the line-of-business restrictions; streamlined waiver procedures; removed the prohibition on nontelecommunications businesses; and authorized the BOC's to provide information gateways, electronic mail, and voice mail. Measured by any reasonable standard, Judge Greene has been more than fair to the Regional Cos. Those few restrictions which remain have been preserved because they continue to be needed.

For perspective, it should be remembered that antitrust abuses associated with communications equipment manufacturing not only figured heavily in the Government's 1974 suit but also were the cornerstone of the Government's earlier case against the Bell System.

The 1949 complaint recited a litany of predatory practices spanning from before the turn of the century. The 1974 suit confirmed that these practices were continuing.

The MFJ was designed to put an end to monopolistic practices in communications equipment manufacturing. It is doing so. No longer do the BOC's, for example, buy equipment from their affiliated manufacturer when equipment offering better performance at a better price is available from independent manufacturers.

It is therefore not surprising that manufacturers of telecommunications equipment and CPE, such as the IDCMA companies, are opposed to legislative proposals that would inevitably revive the kinds of conduct which inhibited competition for literally decades.

To ensure that the MFJ's restrictions would continue no longer than necessary, and in recognition of the likelihood of continuing changes in technology and the business environment, the court called for a report every 3 years on the state of competition and the continuing needs for the restrictions.

The first such report was filed in February 1987 and was exhaustively discussed in comments filed by over 100 parties. That led to the Triennial Review decision—which granted the Regional Cos.

some significant relief but unequivocally reaffirmed the need for the manufacturing prohibition.

That decision, of course, is currently under review by the court of appeals. Given the sunset provision of section VIII(C), the court of appeals will surely direct Judge Greene to grant additional relief, if there is no substantial possibility of anticompetitive conduct. The BOC's fierce efforts to achieve legislative relief are indicative of their lack of confidence in their ability to meet that test.

A few words should also be directed to Judge Greene's decision of December 3, 1987, in which the court ruled that the term "manufacturing" as used in the MFJ includes product design, development, and fabrication.

The Regional Cos. had urged that the definition, and therefore the prohibition, be limited to the fabrication of equipment.

The Department of Justice had conceded that such a redefinition would permit activities which engender the greater danger of anticompetitive conduct, but it disclaimed an understanding of what was intended by the Decree. AT&T, IDCMA, and other parties had argued that the term must be construed to include product design and development, for it is the design and development process which entails most of the opportunities for cross-subsidies and exploitation of "inside information" on network characteristics.

The court agreed.

The Regional Cos. claim that this ruling constituted an expansion of the manufacturing prohibition. IDCMA's believes that Judge Greene's ruling was correct. That dispute is also pending before the appellate courts. Again, if Judge Greene erred, the court of appeals will presumably remedy the problem. Again, the BOC's calls for legislation seem to reflect a lack of confidence in the merits of their appeal.

The single most important consideration relevant to proposals to amend the MFJ is that the Regional Cos. maintain their dominant position in local exchange services, and equipment manufacturing. As the Justice Department's consultant—Peter Huber—conceded, dangers of anticompetitive conduct are especially acute with respect to manufacturing of data communications CPE.

This equipment connects to and interoperates with the facilities of the Regional Cos. Thus, the Regional companies can eliminate a manufacturing competitor by refusing interconnection, changing the technical parameters of their network services, performing discriminatory maintenance or installation for users of this equipment, or by cross subsidizing their manufacturing operations—especially equipment design and development.

Of course, for equipment which is owned directly by the telephone company—"telecommunications equipment"—the Regional Cos. can totally foreclose competition by simply refusing to purchase equipment from anyone other than themselves—or their affiliates.

Indeed, the Justice Department has explicitly conceded that, if the manufacturing prohibition were to be lifted, the Regional Cos. would likely purchase "substantially all" of their equipment from their affiliates. And, because telecommunications equipment is used to provide monopoly services or services which are not subject to effective competition, the telephone companies can pay inflated

prices to their manufacturing affiliates and the higher costs will be passed along to consumers via increased rates for telephone services.

Increasingly, CPE and telecommunications equipment must be directly compatible. Indeed, equipment of the same type is often used as both CPE and telecommunications equipment. This trend makes it even easier for those who control the purchase of telecommunications equipment also to control the market for the same equipment when it is marketed as CPE.

The foregoing is virtually undisputed. And yet it is said that the Regional Cos. would have difficulty engaging in cross-subsidization and discrimination because of competitive safeguards imposed by the FCC. Both the Justice Department and the BOC's pressed such arguments in the Triennial Review proceeding.

The court found them unpersuasive. As Judge Greene found, and as this subcommittee already knows too well, the FCC has devoted more energy to the abolition, dismantling, or weakening of safeguards than to the creation, improvement, or enforcement of safeguards. Let's look at the record.

In a series of decisions over the past 3 years, the FCC has abandoned its requirement that regulated and unregulated activities be conducted through separate organizations with separate facilities and personnel. Thus, regulated and unregulated activities may now be commingled, making anticompetitive conduct easier to effectuate and more difficult to detect.

Cross-subsidies are claimed to be prevented by the FCC's Joint Cost rules. Over the years, the General Accounting Office and this subcommittee have repeated questioned the FCC's ability to use accounting procedures to prevent cross subsidies.

The FCC's attempt from 1965 to 1975 to use cost accounting procedures to determine the appropriate pricing of the Bell System's various interexchange services and whether they cross-subsidized its manufacturing activities became an interminable morass.

Later, the FCC determined that accounting requirements and structural separation of regulated and nonregulated activities were both essential; each complemented the other. But now the Commission has jettisoned structural separation, and proclaimed confidence in its accounting rules. Such confidence has not been shown to be justified by a single completed audit. And, even if the FCC's accounting rules were perfect, they do not even apply to two-thirds of the BOC's regulated revenues—those which are associated with jurisdictionally intrastate services.

Or consider the rules governing disclosure of information about the network. In order to design a new data communications product, it is necessary to understand technical parameters of the Regional Cos.' services. If there is going to be change in the network, it is necessary that all manufacturers know the nature of that change so that they can design new products or redesign existing products.

If a manufacturer affiliated with a Regional Co. and a nonaffiliated manufacturer are to bring their equipment to market at the same time—or to have the opportunity to try to do so—they must have the information about the changes in the underlying network

at the same time. Yet, the FCC's rules are skewed in favor of the Regional Co. affiliate.

Generally speaking, a Regional Co. is required to disclose information about changes in network operating parameters only at the time of a "make/buy" decision either with respect to equipment embedded in the network or the CPE which would rely on a change in the network. Unfortunately, the "make/buy" point comes rather late in the product development cycle.

The Regional Co. could thus perform its own research, development, and design before it has to make any disclosure. Only later, when it determines whether the fabrication should be done inhouse or by a third party, does it have to release the technical information to independent equipment manufacturers. In product terms, this can mean a 12-month, 18-month or even 24-month lead on the competition. The Commission has repeatedly refused to remedy this obvious flaw in its disclosure requirements.

There are other examples. The Commission has failed to move decisively to eliminate "strategic pricing" of the BOC's transmission services. The Commission has reneged on the promise that "Open Network Architecture" will result in significant unbundling of "Basic Service Elements", and it has expressly authorized the BOC's to engage in discrimination with respect to the collocation of enhanced service equipment in telephone company serving offices. And the rules governing "customer proprietary network information" are also patently skewed in favored of the BOC's own regulated operations.

In short, existing FCC safeguards are patently inadequate, even for the existing activities of the BOC's. Regulation of AT&T has also become notoriously ineffective. Substantial improvements in FCC safeguards should be given priority in any communications bill—whether or not it contains MFJ provisions.

Competition now exists in the data communications equipment market and, more broadly, in telecommunications equipment and CPE. Indeed, the FCC has consistently cited the highly competitive CPE market as a hallmark of its success in deregulation—even while making decisions that have begun to weaken independent CPE manufactures and vendors.

There is every indication that competition among manufacturers—whether selling equipment to the telephone companies of the old Bell System or selling CPE to users of network services—if vigorous and will remain as if dominant carriers are properly regulated and if the manufacturing prohibition is not prematurely removed.

Consequently, while the subcommittee quite properly is reviewing the state of communications and information markets, there is no need for legislation to amend—or transfer jurisdiction over—the Consent Decree. If the subcommittee decides to proceed with communications legislation, IDCMA respectfully suggests that there are a variety of issues which must be addressed.

The Association's statement of June 9 identifies many of these matters. Others may be found in the extensive record developed during the consideration of proposed communications legislation in 1975–81. IDCMA particularly recommends a systematic review of

the subcommittee's prior experience with the formulation of meaningful structural and nonstructural safeguards.

On behalf of IDCMA, I want to reiterate my appreciation for the opportunity to provide this information to the subcommittee.I will be happy to respond to your questions.

Mr. MARKEY. Thank you, Mr. Marks. Mr. Skrzypczak.

STATEMENT OF CASIMIR F. SKRZYPCZAK

Mr. SKRZYPCZAK. Good afternoon. My name is Casimir S. Skrzypczak. I am the vice president of science and technology of NYNEX Corp., located in White Plains, New York. I am very pleased to have the opportunity to address the subcommittee today regarding the manufacturing restriction of the Modification of Final Judgment. The MFJ's manufacturing prohibition is impeding the timely introduction of the benefits of new information and telecommunications technology to the American public.

Congress should assert its policy making authority in this area and remove this anticompetitive restriction from the Regional Cos. My testimony will describe the often fragile and risk-prone process of bringing new communications services and systems to the market, and the chilling effect which the MFJ's manufacturing prohibition has on that process. Substantial benefits are being denied the public and American competitiveness is being hurt by the manufacturing prohibition.

I will also address the claims made by those who do not want the manufacturing prohibition to be lifted because they seek to limit rather than encourage competition. The viewpoints expressed in this testimony are based on my 22 years of experience in the communications industry, including work in a wide variety of technical assignments. I began my career in the communications industry as a planning engineer at New York Telephone.

Additional assignments at New York Telephone, AT&T, Western Electric, Bellcore and now at NYNEX have provided me with a broad understanding and appreciation of the technical aspects of our industry. In my current position, I am responsible for the management of the NYNEX corporate research and development programs, including the operation of NYNEX's Science and Technology Center, as well as the development of our strategic technology plans.

The research and development process is a fragile and a difficult one that is prone to frequent failure. To minimize the risk involved, close linkage with the customer by the product or service developer is required throughout all phases of the process. As illustrated below, the steps in this process frequently overlap. We need the flexibility to seek optimal solutions if we are to meet the customers' needs. The risk of failure is great due to rapidly evolving technology, changing customer needs, and competitive alternatives. The MFJ prohibitions create additional burdens and discourage research and development.

Some have sought to create the impression that there has been an abundance of innovation in the communications industry since divestiture. The basis for much of that impression, in fact, was set in place prior to divestiture.

There has been some repackaging of existing services and some stand-alone CPE offerings have been developed. But, equal access aside, not a single major new national communications service has been introduced successfully in the 5½ years since divestiture.

At this point, a brief review of the steps involved in the process of creation of communications products should be useful. I would hasten to note that this process of bringing to fruition ideas that benefit customers is a complex one, involving steps that often overlap.

Thus, the five-step process which I will use here is by no means the only possible way of describing how communications products are created, but I believe it adequately captures the complexity and the general flow of this process.

The first step in this process is generally referred to as basic research. Most people in the industry include in this category the work necessary to understand the physical world, both in qualitative and quantitative terms. Basic research is done across-the-board, in virtually all areas of human knowledge, including such fields as chemistry, physics, mathematics, and psychology. We explore these areas in order to gain a fundamental understanding of them, without concern as to how our new knowledge may be applied to specific systems or products or may satisfy particular needs. America has long been preeminent in basic research and has served as a global resource of basic scientific knowledge.

The second step considers how this basic knowledge can be applied to meeting customer needs and is, thus, labelled applied research. In this phase, we in the communications industry consider how new knowledge, such as higher temperature superconductivity or new coding techniques, might be applied to the transmission, storage, and sorting of information. During this phase, and in every other phase, success depends on continuous input from and interaction with customers who will ultimately use the results of our work.

When the researchers investigating the application of basic research to real-life problems have progressed sufficiently with their work, both paper analysis and prototype testing, the third stage of the process, development of generic requirements, begins to phase in. Let me pause here to note again that these activities don't occur in a disconnected serial fashion. For example, basic research doesn't stop when applied research starts. Each step on the road to a new product tries to incorporate as much current knowledge from the previous step as is consistent with bringing the process to fruition in a timely way.

The generic requirements developed in the third stage are designed to be sufficiently flexible to permit those who implement the requirements a choice of more than one way to satisfy them. However, where our prototype experience demonstrates that a particular approach to design is clearly superior, we believe it would improve the efficiency of the process substantially if we were able to provide the specific design to potential manufacturers. We are currently prohibited from doing so by the court's interpretation of the restriction.

The fourth step, following the development of generic requirements, is frequently called manufacturing design and involves

specifying how the desired end should be achieved. If the design involves hardware, component values; for example, the size of the capacitors to be used; would be assigned during this step. In addition, some of the determinations as to the physical arrangement of the components might be made if they were critical to the design.

This step also involves aspects such as appearance and ergonomics, and answers such questions as how should the desired product be made and what components can be bought from others and incorporated into the product. Many times, such questions can best be answered by sharing with manufacturers the information which we have gained from our research efforts, including internal resources and customers. Yet, the MFJ can limit us in doing this.

The fifth and final step in this process is actual fabrication of the product. Again, let me underscore that these steps are so dependent and interrelated and iterative that much communication needs to occur during and between each overlapping step if the goal of meeting customer needs at an affordable price is to be achieved. Further, all of this must happen in a highly competitive environment, and each party involved must recover its costs, including a return on its investment of resources.

The creation process is a fluid one. The borders of each of its phases merge with those of the preceding and/or following stages. It is, of course, possible to differentiate clearly some parts of the process from others, and idea is not a prototype, and basic research is not a finished product. But the nature of the process defeats any attempt, such as the court has struggled with, to draw a bright line somewhere in the middle and say everything on this side is permitted and everything on that side is forbidden.

The rapid advance of technology alone makes any such attempt fruitless and the FCC ultimately recognized this after many unsuccessful attempts to definitively distinguish communications from computing activities. The Department seems to have recognized the futility of this effort under the MFJ and the court's attempts will not, indeed cannot, fare any better. At what precise point, for example, does a generic requirement shade into a specific design in the iterative flow that leads to a finished product?

No such points of division can be identified with certainty in the real world. Attempts to do so result in such confusion, uncertainty and delay that the creative process itself is seriously hampered.

The MFJ's manufacturing prohibition hurts the creative process. That is true both in, one, those areas in which NYNEX might pursue the creative process primarily through its own resources and, two, those areas in which we might choose to partner with another firm, in all probability, a small to midsized American firm. With regard to the first area, NYNEX has been actively pursuing technological advancements in several aspects of its services. Absent the manufacturing restriction, some of these efforts might involve detailed design work within our Science and Technology Center.

For example, in our wireless LAN work, we are attempting to ensure the development of an efficient transceiver which is needed to permit securities traders to communicate from the trading floor with their offices. The most efficient and effective way to develop this capability would be to do much of the specific design in our

own laboratory. But this could conflict with the court's interpretation of the manufacturing prohibition.

As to the second area, partnering with other firms, we have had considerable experience with the creative process,, particularly as related to prototype development. one of the things this experience has caused us to recognize is that were it not for the MFJ manufacturing prohibition, we would have been much more active in developing cooperative arrangements with small to midsized American firms. Indeed, our experience is that most of our potential opportunities for productive partnerships in communications manufacturing are related to emerging American, rather than foreign, firms.

If the manufacturing restriction were lifted tomorrow, we would expect to partner with one or more of these firms. But we have not vigorously pursued these arrangements because the manufacturing restriction inhibits NYNEX from investing the resources that we could contribute to a partnership with such an American firm.

Further, it has been suggested that if we were given manufacturing permission, the Regional Cos. would either manufacture central office switches themselves or would acquire an interest in a foreign switch manufacturer. Neither possibility is at all likely. First, to be successful as a manufacturer of central office switches, putting aside the enormous initial investment required, it is estimated that one must sell approximately 1 million lines of switching each year.

No Regional Co. has that kind of market. For example, in a typical year, NYNEX would expect to install only about 350,000 lines connected to new switches. NYNEX also adds approximately 350,000 lines in a typical year for growth on existing switches, but this additional line capacity must be purchased from the same manufacturers that provided the original switches.

Second, our experience most assuredly has not borne out the speculation by AT&T and others concerning possible arrangements between Regional Cos. and foreign manufacturers. Rather than partner with a single switch manufacturer, it is NYNEX's strategy to encourage a competitive switch market with multiple switch suppliers. While it is true that we do buy switches from foreign switch suppliers, that is primarily because there is only a single viable domestic U.S. switch supplier. In additional, many of the switches which we purchase from foreign firms are manufactured in the United States.

Our experience to date has convinced us that we gain substantially greater efficiencies through this multimanufacturer strategy in the procurement of switches.

Against this background, let me point out some of the specific problems which the manufacturing restriction creates for NYNEX. As the officer responsible for the entity which does the research and development work at NYNEX, I have had an intense interest in understanding precisely what steps are permitted to NYNEX on the road from concept to product. Many of us in the industry thought we knew what was permitted under the MFJ relative to manufacturing when the decree was entered in 1982.

I, for one, believed that the Regional Cos. were precluded from fabricating products, but not from engaging in the other phases of the new product creation process. This view was based upon my familiarity with the Department of Justice case and the MFJ. Many

of my colleagues held the same opinion. In fact, the Department of Justice seems to have been in this camp as it reviewed activities brought to its attention after the divestiture on January 1, 1984.

The Department's official in charge of the Antitrust Division testified to the Senate Judiciary Committee in May 19874 that "we did not have a historical record that manufacturing went further than fabrication." But when it came time for the Department to advise the decree court in the proceeding with respect to the meaning of the term "manufacture," the Department seemed confused. In fact, the Department said at that time it could not find a firm basis to conclude that an activity was clearly permitted or clearly prohibited.

The court entered a decision which erroneously defines the meaning of "manufacture" to go far beyond fabrication. The court's decision of December 1987 is now on appeal and I am not here to debate its merits. Yet, that decision, on its face, is a powerful argument against the appropriateness of continuing judicial intervention in this technological arena. The technical people with whom I've discussed this decision have disagreed among themselves as to the boundaries of the broad terms which the decision uses, such as "hardware," "software," and "firmware."

And the court has stated that the development of software integral to equipment hardware is prohibited to the Regional Cos. So, would a software operating system for a personal computer be offlimits under this language because the computer cannot function without some operating system and the system may thus be integral to the computer? Perhaps it would be. However, the court equated prohibited "integral software" with "firmware," "that is a matter of manufacturing design."

Operating systems, which are not classed as "firmware" in the industry, generally may be obtained in widely varying forms, for the same computer, from different software firms which are no involved in manufacturing the computer hardware, and operating systems, therefore, are not "integral" to computer hardware. Moreover, an operating system could be said not to be "a matter of manufacturing design." So perhaps it would be prohibited, it is impossible to tell with certainty from the court's opinion.

This question, and the myriad of other questions which could be raised under the court's opinion, simply cannot be resolved through judicial proceedings in any realistic timeframe, given the rapid evolution of the communications industry. As a result, we have continuing uncertainty throughout the industry as to what is and is not permitted. This confusion doesn't permit us to make efficient decisions. Most importantly, it holds innovation captive to a bureaucratic process that is cumbersome and consumes inordinate amounts of time and resources.

There have been long delays in the judicial process. For example, the issue of the meaning of "manufacturing" under the MFJ was first raised in 1985. Currently, the appeal on the court's December 1987 definition of manufacturing has been pending for 1½ years, and the lawyers tell me that it probably won't be decided for at least another 6 to 9 months.

To add to the burdens we must face, since the court issued its manufacturing definition decision, the Department has sent letters

to each of the Regional Cos. and to Bellcore initiating an investigation into research and development activities, to determine if there were any that may be impermissible under the court's 1987 interpretation of the manufacturing prohibition. Despite the appeal and the severe lack of clarity in the decision, this investigation is ongoing. It adds greatly to the highly unsettled climate in which each of the Regional Cos. must make important research and development decisions.

Moreover, this uncertainty permeates a setting which includes possible criminal penalties, to which the court has many times referred, for violation of the MFJ. These penalties include possible imprisonment as well as fines. If experts can't agree on the extent of permitted activities, which they cannot, and the possible penalty for violation is that severe, which it is, the conclusion is clear; the manufacturing prohibition has a very chilling effect on nearly one-half of the American communications industry's ability to perform research and development.

The restriction has no effect, of course, on foreign firms or upon those firms' research and development activities. Nevertheless, NYNEX is deeply committed to developing and providing innovative new services to the public. It should be clear from my description of it that the innovative, creative process that we are talking about can be a fragile and difficult one. We at NYNEX, and I assume those in the other Regional Cos., try to recruit America's best talent and encourage these people to discover technical solutions to satisfy our customers' needs.

However, we must also say to these people that we can't participate in all aspects of manufacturing engineering or in fabrication. Further, we tell them that if they do happen to engage in such activities, which we cannot define for them with certainty, they and the company may suffer severe penalties. The Department of Justice is continuing actively to pursue its manufacturing investigation.

We must, thus, present current and potential employees with the spectacle of the Federal Government monitoring our research to make sure that we do not innovate in an unapproved way, by crossing over some fuzzy line in the process from creation of ideas to fabricating a product for use in the telecommunications system of this Nation, and threatening to seek to have us punished if we do. At a minimum, this uncertainty is bound to cause delay in the introduction of new systems and services.

There is no doubt that the uncertainty surrounding the manufacturing restriction has seriously complicated our researchers' jobs. We have made considerable efforts to try to understand and convey to our employees the limitations placed on permitted activities. The result, for some, is that they play it safe and, thus, forego technological advances due to potential MFJ questions. This approach cannot and will not bring the desired competitive edge to American industry.

Other researchers may substitute a clearly permitted approach for an approach that might somehow be questionable under the MFJ, even though the clearly permitted approach may be technologically or economically inferior. For example, in our speech recognition work, we are attempting to make it possible to place a