47 C.F.R. §64.702, is amended to address the provision of enhanced services and customer-premises equipment. Carrier under direct or common control of AT&T and GTE are required to offer enhanced services and customer-premises equipment through a separate corporate subsidiary. The provision of enhanced services is not subject to regulation.

The offering of customer-premises equipment is not a common carrier activity and is severable from the provision of common carrier transmission services. Common carriers are required to detariff all customer-premises equipment.

The provision of enhanced services and customer-premises equipment is not subject to Title II regulation, nor is a regulatory scheme for enhanced services and customer-premises equipment required to protect or promote the overall objective of the Communications Act.
I. Introduction

1. Under consideration are issues addressed in the Notice of Inquiry and Proposed Rulemaking (Notice), 61 FCC 2d 103 Supplemental Notice of Inquiry and Enlargement of Proposed Rulemaking (Supplemental Notice), 64 FCC 2d 771; and Tentative Decision and Further Notice of Inquiry and Rulemaking (Tentative Decision), 72 FCC 2d 358 adopted in this proceeding. Commonly referred to as the “Second Computer Inquiry,” this proceeding focuses on regulatory issues emanating from the greater utilization of computer processing technology and its varied market applications. The thrust of this proceeding is threefold: a) to determine whether enhanced services which are provided over common carrier telecommunication facilities
should be subject to regulation and, if so, to what extent; b) to examine the competitive and technological evolution of customer premises equipment, with a view toward determining whether the continuation of traditional regulation of terminal equipment is in the public interest; and c) to determine, consistent with the statutory mandate set forth in the Communications Act of 1934, as amended, 47 U.S.C. §151, the role of communication common carriers in the provision of enhanced services and customer-premises equipment.

II. Summary of Decision Network Services

2. In addressing the regulatory problems raised by the confluence of communications and data processing, we concluded in the Tentative Decision that a revised definitional structure standing alone would not adequately resolve the issues before us. We thought it necessary to address the structure under which competitive computer processing services are provided. In so doing we distinguished three categories of service—voice, "basic non-voice" (BNV) and "enhanced non-voice" (ENV). We proposed a resale structure for the carrier provision of ENV services under which carriers owning transmission facilities would be required to provide ENV services through a separate corporate entity that would acquire the necessary transmission facilities pursuant to tariff. At the same time we proposed new definitions for distinguishing the communications or data processing nature of ENV services and proposed to eliminate our "maximum separation" policy for resale carriers, thereby allowing them to offer both ENV communications and ENV data processing services through common computer facilities. It was thought that the need to artificially structure or limit services provided to consumers would be substantially reduced under this structure. Any ENV data processing service could be provided by a resale carrier on a non-tariffed basis.

3. In setting forth this resale structure, we also identified various regulatory implications that we perceived flowing from this structure and discussed alternative means of alleviating certain regulatory constraints. We set forth specific options for consideration in reaching a final decision, and sought comment on the public interest considerations relevant to adoption of the different options.

4. In response to the resale structure and the various options put forth for consideration, the comments focused on the appropriateness of establishing three categories of service (voice, BNV and ENV), the viability of the proposed definitional structure for distinguishing the communications or data processing nature of ENV services, and whether ENV services should be subject to regulation. Concerning carrier participation in the provision of ENV services, the comments addressed whether the resale structure is appropriate, whether it must necessarily be applied to all carriers owning transmission facilities, and the appropriate degree of corporate separation required for those carriers that must offer ENV services through a separate subsidiary.
Based on the voluminous record compiled in this proceeding, we adopt a regulatory scheme that distinguishes between the common carrier offering of basic transmission services and the offering of enhanced services. Although more simplified terminology is employed, this basic/enhanced dichotomy for network services is consistent with the approach taken in the Tentative Decision. We find that basic service is limited to the common carrier offering of transmission capacity for the movement of information, whereas enhanced service combines basic service with computer processing applications that act on the format, content, code, protocol or similar aspects of the subscriber's transmitted information, or provide the subscriber additional, different, or restructured information, or involve subscriber interaction with stored information.

As the Tentative Decision recognizes, it is in the provision of enhanced services that uncertainty as to the communications or data processing nature of a service is significant. In the course of this proceeding we have made several attempts to adopt a definitional scheme that would provide an adequate regulatory demarcation between regulated communications services and unregulated data processing services. We conclude that the record does not support adoption of the definitional scheme proposed in the Tentative Decision and that any attempt to so categorize enhanced services is unnecessary under our statutory mandate and would be contrary to the public interest. Such use of a definitional scheme to classify various types of enhanced services would not result in regulatory certainty in the marketplace and would most likely result in the direct or indirect expansion of unnecessary regulation over currently unregulated vendors of enhanced services and deprive consumers of increased opportunities to have these services tailored to their individual needs.

The decision sets forth the regulatory scheme for basic and enhanced services. The common carrier offering of basic transmission services are communications services and regulated as such under traditional Title II concepts. Consistent with the determinations made in the First Computer Inquiry, we find that regulation of enhanced services is not required in furtherance of some overall statutory objective. In fact, the absence of traditional public utility regulation of enhanced services offers the greatest potential for efficient utilization and full exploitation of the interstate telecommunications network. Significant public benefits accrue to the Commission's regulatory process, providers of basic and enhanced services, and consumers under this approach.

Customer-Premises Equipment

In the Tentative Decision we proposed a regulatory scheme for carrier-provided customer-premises equipment (CPE) based on whether the CPE performed more than a basic media conversion (BMC) function. We attempted to set forth a structure under which carriers
could, separate from their basic transmission services, provide CPE that incorporated various computer processing applications. We sought comment, however, as to whether any regulatory distinction should be made between the various kinds of CPE offered by carriers, and whether all such equipment should be deregulated. We find that the public interest would not be served by classifying CPE based on whether or not more than a basic media conversion function is performed. We conclude that, in light of increasing sophistication of all types of CPE and the varied uses to which CPE can be put while under the user's control, it is likely that any given classification scheme would impose an artificial, uneconomic constraint on the design and use of CPE. In general, no regulatory distinction should be made between various types of carrier-provided CPE.

9. As to the appropriate regulatory scheme for CPE, we find that the tariffing of CPE in conjunction with regulated communications services has a direct effect on rates charged for interstate services. To the extent rates for interstate services bear costs attributable to carrier-provided CPE regulation serves to thwart the competitive provision of CPE. The continuation of tariff-type regulation over carrier-provided CPE neither recognizes the role of carriers as competitive providers of CPE, nor does it reflect the severability of CPE from transmission services. We conclude that CPE is a severable commodity from the provision of transmission services and that regulation of CPE under Title II is not required and is no longer warranted.

10. We appreciate that implementation of our decision to exclude carrier-provided CPE from regulation requires the eventual removal of CPE related costs from a carrier's rate base and its ultimate exclusion from the jurisdictional separations process. A transition period is established to allow for the orderly removal of CPE investment and other CPE related costs from the jurisdictional separations process. During this transition period, a Federal-State Joint Board will consider whether modifications to the separations process are warranted in light of the removal of CPE.

11. We consider as well whether it is necessary to apply the resale structure set forth in the Tentative Decision to all carriers owning transmission facilities. We address whether certain carriers should be required to offer enhanced services on a resale basis through a separate corporate entity and whether CPE should likewise be marketed through an entity separate from that providing basic services.

12. Weighing the public interest benefits of our objectives and the economic tradeoffs inherent in a separate subsidiary requirement, we have determined that limited imposition of the requirement will best serve the communications ratepayer and the public interest more generally. There is little need to subject carriers to the resale structure if such entities lack significant potential to cross-subsidize or to engage

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in other anticompetitive conduct. We find that only AT&T and GTE present a sufficiently substantial threat such that they should be required to establish separate corporate entities for the provision of enhanced services and customer-premises equipment. We will not require any other underlying carrier to form separate entities for the provision of these services and CPE. Accordingly, we are removing the maximum separation requirements for all carriers except those under direct or common control of AT&T or GTE. In reaching this conclusion we recognize that a reasonable balance can be struck only following a weighing of all appropriate circumstances bearing upon the risks that largely captive monopoly ratepayers will be burdened by anti-competitive conduct on the one hand and that opportunities for economic efficiencies redounding to their benefit may be lost on the other. The locus of the balance changes with circumstances. Because we have the flexibility under the Communications Act to adjust the balance as circumstances change or additional evidence is brought to light, we opt for a solution in which only AT&T and GT&E must form separate subsidiaries to offer ENHANCED service or CPE. Similarly, in establishing guidelines governing the relationship of the separated entities with their affiliates, we opt for a pragmatic approach which we can adjust when and if necessary.

13. Finally, we believe that our action does not preclude AT&T from offering enhanced services and CPE under the provisions of the 1956 Western Electric consent decree.

III. Background

A. First Computer Inquiry

14. More than a decade ago an inquiry was commenced to address the regulatory and policy problems raised by the interdependence of computer technology, its market applications, and communications common carrier services. In that proceeding, commonly referred to as the “First Computer Inquiry,” information was sought regarding actual and potential computer uses of communications facilities and services. Views and recommendations were sought as to whether there was any need for new or improved common carrier service offerings, or for revised rates, regulations, and practices of carriers to meet the emerging communications requirements for the provision of data processing or other computer services involving the use of communication facilities.

15. A number of regulatory issues were raised in the course of the proceeding. A major issue was whether communications common carriers should be permitted to market data processing services, and if

so, what safeguards should be imposed to insure that the carriers would not engage in anti-competitive or discriminatory practices. Concern was also expressed as to the appropriateness of a carrier utilizing part of its communications switching plant to offer a data processing service. The potential existed for common carriers to favor their own data processing activities through cross-subsidization, improper pricing of common carrier services, and related anti-competitive practices which could result in burdening or impairing the carrier’s provision of other regulated services. There was also concern over the extent to which data processing organizations should be permitted to engage in transmission as part of a data processing package free from regulation.

16. Two fundamental regulatory issues were addressed: (a) whether data processing services should be subject to regulation under Title II of the Communications Act, and b) whether, under what circumstances, and subject to what conditions or safeguards, common carriers should be permitted to engage in data processing. In addressing the first issue, we looked to the basic purpose of our regulatory authority as well as specific statutory guidelines and determined that data processing services should not be regulated, even though transmission over common carrier communications facilities was involved in order to link user terminals to central computers. Thus, certain communications-related services involving electronic transmission over common carrier communication facilities were not subject to regulation under the Act.

17. Regulatory forbearance with respect to data processing services made it necessary to distinguish regulated communications services from unregulated data processing services. Accordingly, in the First Computer Inquiry a set of definitions was adopted to assist in making such determinations. See 47 CFR §64.702. The thrust of this definitional approach was to distinguish between unregulated data processing and permissible carrier utilization of computers by establishing a dichotomy between data processing and message or circuit switching. We recognized that entities would offer “hybrid” services combining both communications and data processing functions. We stated that where message-switching is offered as an incidental feature of an integrated service offering that is primarily data processing, there would be total regulatory forbearance with respect to the entire service. However, where the package offering is oriented to satisfy the communications or message-switching requirements of the subscriber, and the data processing function is incidental to the message-switching performance, we concluded that the entire integrated service would be treated as a communications service. We also stated that in making such determinations we would look to whether the service, by virtue of its message-switching capability, has the attributes of the point-to-point services offered by conventional communications common carriers and is basically a substitute therefor.

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18. As to the issue of carrier participation, we recognized that provision of data processing services by common carriers might give rise to certain regulatory problems. Primarily, we were concerned with the possibility that common carriers might favor their own data processing activities through cross-subsidization, improper pricing of common carrier services, and related anti-competitive practices which could result in burdening or impairing the carrier's provision of its other regulated services. We therefore adopted a policy of "maximum separation" whereby a communications common carrier had to furnish data processing services through a separate corporate entity.²

B. Second Computer Inquiry

19. The First Computer Inquiry was a vehicle for identification and better understanding of problems spawned by the confluence of computer and communications technologies taking place at that time. The scope of the Inquiry was very broad and determinations were made based on the state of the art as it then existed. However, significant advances in computer hardware and software have been made since that time. In particular, dramatic advances in large-scale integrated circuitry and microprocessor technology have permitted fabrication of mini-computers, micro-computers, and other special purpose devices, which are capable of duplicating many of the data-manipulative capabilities which were previously available only at centralized locations housing large scale general-purpose computers. With this new technology, users now find it cost-beneficial to remove some of the computing power from a centralized computer location. The phenomenon of distributed processing allows computers and terminals to perform both data processing and communications control applications within the network and at the customer's premises. See Notice at paras. 8–10.

20. The First Computer Inquiry addressed the informational processing environment as it then existed. The definitions and policy determinations incorporated into Section 64.702 reflect the fact that data processing applications were then marketed under a service structure which employed a central host computer in conjunction with a remote, "intelligent" terminal device; The current distributed processing environment, wherein computer processing capabilities are placed throughout a data information or transmission system, compelled, at a minimum, a re-examination of the definitional structure used to distinguish regulated communications services from unregulated data processing services. Due to the inadequacy of the existing

² 47 C.F.R. §§64.702(c) and (d) require that a carrier establish a separate data processing entity having separate books of accounts, separate officers, separate operating personnel and separate equipment and facilities devoted exclusively to rendition of data processing services; and the carrier is prohibited from promoting the data processing services offered by the separate subsidiary. Carriers with annual revenue less than one million dollars were exempt from the maximum separation requirement.
definitional structure we proposed to revise the current definitional structure set forth in Section 64.702. See Notice at paras. 15–22. Essentially, we sought to define data processing positively in terms of what it is, rather than by exception as we had previously done.3 Under this approach a carrier could use a computer for any purpose that is not data processing.

21. The Notice focused on the market applications of computer processing technology within a carrier's network. Shortly after its release, however, we were confronted in our Dataspeed 40/4 decision with the issue of computer processing applications incorporated into terminal devices and whether such equipment should be offered as part of a regulated communications service.4 Because the computer rules embodied in Section 64.702 did not address the situation where data processing elements are removed from a central computer and distributed among various components within the particular service offering, a void existed in the Commission rules when it came to determining whether carrier provided computer terminals should fall within the scope of a regulated communications service. In Dataspeed 40/4 we determined that AT&T could offer its Dataspeed 40/4 terminal as part of a tariffed communications services; however, this determination was made subject to an examination in this proceeding of the issues raised by a carrier's provision of peripheral devices which incorporate computer information processing functions.

22. As a result of the Dataspeed 40/4 decision, a Supplemental Notice was issued. We proposed to enlarge the scope of the proceeding to include all processing activities, whether performed at a central location, at the customer's premises, or at intermediate locations within or interconnected with a telecommunications network. A modified definition of data processing was proposed to render our computer rules applicable to the distributed processing environment and to determinations as to the nature of a carrier's processing activities—regardless of location or system structure. We proposed that "data processing" be defined as:

the electronically automated processing of information wherein: (a) the information content, or meaning, of the input information is in any way transformed, or b) where the output information constitutes a programmed response to input information.

Supplemental Notice at para. 8. Recognizing that various computer processing functions are performed in the provision of both data

3 In the Notice we proposed that data processing be defined as: "the use of computer for the purpose of processing information wherein: (a) the semantic content, or meaning, of input data is in any way transformed, or (b) where the output data constitute a programmed response to input data."

processing and communications services, the new definition was structured in a manner so as to focus on processing activities.\(^5\) Under the new definition the determination as to whether a communications or data processing service is being offered would depend on the nature of the processing activity involved.

23. In addition to its impact on network services, we noted that microprocessor technology has clearly made it possible for terminals to perform many processing operations which they previously performed poorly or not at all by employing techniques previously limited to central computers. Microprocessor technology permits terminals to perform many sophisticated arithmetic and word processing functions at the remote location while reducing the processing load at the central location. Thus technology may have rendered meaningless any real distinction between “terminals” and computers. With the trend toward distributed processing, functions are being taken over by “smart” terminals which are (a) offered to users by the regulated carrier sector and by the unregulated terminal equipment manufacturing sector, and (b) under the control of the user—not the carrier.

24. We indicated in the *Supplemental Notice* that the confluence of data processing and communications may be such that it is no longer practical or possible to make such classifications with respect to carrier equipment offerings. The potential exists for changing the nature of the processing performed in such devices through utilization of interchangeable software programs. Comments were sought as to whether the offering of customer-premises equipment which performs any information processing activity should be considered a communications common carrier activity, and the proper institutional arrangements, terms, conditions, and regulations under which communications common carriers should be permitted to offer such equipment. At the same time comments were sought on (a) whether the proposed definition of “data processing” correctly divided “communications” and “data processing” when applied to a carrier’s processing activities, regardless of location within a service offering; (b) whether the proposed Section 64.702 would be administratively enforceable and in the public interest; and (c) whether the proposed amendment of Section 64.702 would afford flexibility in the structuring of service offerings, and, at the same time, be conducive to innovation in the communications and data processing fields. Comments were also sought on the possible relevance of the 1956 consent decree\(^6\) and its applicability to AT&T’s ability to offer various services and customer-premises equipment.

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\(^5\) A function is a separable specific operation, such as storing, merging, etc., whereas an activity is the aggregate result of a combination of functions, regardless of where they may be performed.


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C. Tentative Decision

Network Services

25. After reviewing the comments on the Notice and Supplemental Notice (Tentative Decision, at paras. 8–58), we concluded that a revised definitional structure, standing alone, would not adequately resolve the issues before us. Tentative Decision, at para. 67. Moreover, we noted that continued reliance on a pure definitional approach would merely accentuate the controversy over whether communications is incidental to data processing or data processing is incidental to communications. It became evident that any such proposal would be, at best, a short term solution and would fail to recognize and take advantage of the potential for new and innovative competitive computer services. Accordingly, we concluded that the regulatory problems arising from the interplay of data processing and communications must be addressed by way of a more comprehensive solution—a solution which accommodates the market applications of computer processing technology taking into consideration the realities of the marketplace and user needs—consistent with the mandate entrusted to us by Congress under the Communications Act of 1934, as amended. Id.

26. We proposed to address the structure under which competitive computer processing services are provided. In so doing we recognized that the confluence of communications and data processing renders unlimited the possible combinations and permutations of services which can be offered to the consumer. Moreover, we noted that the nature of these services are determined not by the transmission facilities but, rather, by the specific processing applications offered through electronic equipment attached to the channel of communication. Recognizing that a carrier's telecommunications network is a common denominator in the provision of these services, we proposed a regulatory structure which reflected this fact. However, an attempt was made to rely on a definitional approach for distinguishing regulated communications services from unregulated data processing services.

27. The regulatory structure proposed in the Tentative Decision divided common carrier communications services into three classes—"voice", "basic non-voice" (BNV), and "enhanced non-voice" (ENV) services. We defined these three categories of services as follows:

1) A "voice" service is the electronic transmission of the human voice such that one human being can orally converse with another human being. 2) A "basic non-voice" service is the transmission of subscriber inputted information or data where the carrier: (a) electrically converts originating messages to signals which are compatible with a transmission medium, (b) routes these signals through the network to the appropriate destination, (c) maintains signal integrity in the presence of noise and other impairments, (d) corrects transmission errors, and (e) converts the electrical signals to usable form at the destination. 3) An "enhanced non-voice service" is any non-voice service which is more than the "basic" service,
where computer processing applications are used to act on the form, content, code, protocol, etc., of the inputted information.

28. We noted that it is primarily when carriers seek to provide “enhanced non-voice” service that uncertainty arises as to the nature of the service and whether maximum separation applies. This is because the category of “enhanced non-voice” service subsumes both regulated communications and unregulated data processing services. We therefore focused our attention on the establishment of a regulatory structure under which carriers could provide “enhanced non-voice” services free from regulatory constraints as to the communications or data processing nature of the service. In order to provide the necessary regulatory safeguards and still foster a competitive environment where computer services can be custom-tailored to individual user needs, we concluded:

First, communications common carriers owning transmission facilities used in the provision of interstate communications services may directly provide only “voice” and “basic non-voice” services. Second, carriers owning such transmission facilities may provide “enhanced non-voice” services only through a separate corporate entity on a resale basis. Third, the computer facilities of the underlying carrier which are used in the interstate provision of “voice” and “basic non-voice” services may not be used for those computer processing applications associated with “enhanced non-voice” services and which would render the service more than a “basic non-voice” service.

*Id.*, at para. 71. In essence, we proposed a resale structure for the provision of all ENV services.

29. We found that this regulatory structure has distinct benefits over the existing manner in which hybrid services are provided. By separating out those services which must be provided on a “resale” basis, a structure is provided whereby the concerns which prompted the maximum separation policy are substantially minimized. It permits “enhanced” services to be provided under a framework that does not require the complete separation of communications and data processing services and their provision through separate entities with separate computer equipment. This removes regulatory restrictions that serve to artificially structure or limit the types of services that can be offered consumers. Moreover, it substantially reduces the impact any determination as to the communications or data processing nature of an offering would have on the availability of services to the consumer. Whereas under the existing rules a determination that a particular service constitutes a data processing service would foreclose a carrier from offering the particular service or processing application, under this structure the resale carrier could offer an ENV communications service on a tariffed basis, and could offer an ENV data processing service on a non-tariffed basis.

30. This structure obviously did not negate the need to establish a regulatory boundary between ENV communications services and ENV data processing services. Rather than adopting the definition of data
processing as proposed in the Supplemental Notice, we set forth a new definitional structure to distinguish the use of data processing in the provision of various regulated communication services from the offering of a data processing service.\footnote{The Tentative Decision, at para. 83, proposed the following definitional structure to distinguish between ENV communications services and ENV data processing services at the resale level:}

64.702 Furnishing of computer processing services:

(a) For the purpose of this subpart –

(1) “Computer Processing” is the use of a computer for processing information where the output information constitutes a programmed response to input information. The term “computer” encompasses, inter alia: general purpose stored program processors, general and special purpose mini-computers and microprocessors. “Processing” entails the use of a computer for operations upon data which include, inter alia: arithmetic and logical operations, storage, retrieval, and transfer.

(2) “Data processing” is the computer processing of input information for the purpose of providing additional, different, or restructured information.

(3) A “data processing service” is the offering for hire of computer processing capabilities for the purpose of: (a) transforming or altering for the subscriber of the service the information content or meaning of information provided by the subscriber; or (b) maintaining, managing, or providing a data information bank or information retrieval service whereby information may be selectively retrieved by or for a subscriber to the service; or (c) monitoring or controlling an on-going non-communications process or event.

(4) “Hybrid data processing service” is an offering of a data processing service utilizing common carrier communications facilities for the transmission of data between remote computers and customer terminals.

(b) Communications common carriers may utilize computer processing, including data processing, in the provision of a communications service; provided, however, that any data processing performed by a carrier as part of a tariffed service must directly relate to and be for the purpose of providing a communication service, or for meeting the carrier's own internal operational and financial management needs.

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regulated as a communication common carrier if it is only providing a data processing service. In addition, we noted that decided marketing advantages attend regulated status. A resale carrier would be able to offer any ENV service, whereas an unregulated data processing vendor would be limited to providing only ENV data processing services. Because the resale carrier would have more flexibility, one result may be an indirect forcing of currently unregulated entities to acquire common carrier status in order to have the same marketing flexibility as a regulated resale carrier.

32. We also raised questions as to the need for any regulation over ENV services. Arguments were advanced by various parties to the effect that regulation in this area restricts competitive activity, and increases the potential for regulatory responses to foster inefficiencies and misallocations of resources in the telecommunications market. We also noted that the nature of the telecommunications industry may be such that application of the resale structure to every carrier owning transmission facilities may not be necessary. With the relatively recent development of competition in selected telecommunications markets, we inquired into whether the resale structure should be applied to those carriers lacking the ability or incentive to engage in predatory pricing or other anticompetitive conduct. Finally, we sought comment on whether the requirement that carriers provide ENV services on a resale basis should apply to the international arena, particularly the International Record Carriers (IRCs).

33. In light of these concerns, various alternatives were advanced for comment prior to reaching a final decision. The thrust of the various options revolves around the nature and extent of regulation, if any, to be applied to "ENV" services; and the application of the resale structure to selected underlying carriers. We proposed that the relative merits of the following five options be considered in reaching a final decision:

1. Adoption of the Tentative Decision as proposed;
2. Adoption of the resale structure of the Tentative Decision; however, a) extend the resale structure to the IRCs, and/or b) limit the application of the resale structure to those underlying carriers having the potential to engage in cross-subsidization or other anti-competitive behavior;
3. Adoption of the resale structure of the Tentative Decision; however, exclude from Title II jurisdiction "enhanced non-voice" services;
4. Adoption of the resale structure of the Tentative Decision with enhanced non-voice services excluded from Title II regulation (same as #3); however, a) extend the resale structure to the IRCs, and/or b) limit the application of the resale structure to those underlying carriers having the

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8 See n. 42 infra.
potential to engage in cross-subsidization or other anticompetitive behavior;\textsuperscript{9}

(5) Adoption of a regulatory scheme giving specific recognition to a regulatory "gray area" under which the provider of an "enhanced non-voice" service would decide the communications or data processing nature of the service.

Customer-Premises Equipment (CPE)

34. The Tentative Decision distinguished between the computer processing capabilities within a carrier's network and the processing capabilities incorporated into equipment located on the customer's premises. We concluded that customer-premises equipment (CPE)\textsuperscript{10} should not be subject to a definitional scheme which classifies either the device or its functions as communications or data processing. Tentative Decision at paras. 104-107. Recognizing the trend toward integration of communications and information processing functions into terminal devices, we proposed to distinguish between CPE which performs a basic media conversion (BMC) function and that equipment which serves more than a BMC function. (See Tentative Decision at paras. 108-111 for an explanation of BMC terminal equipment). Delineating between various types of CPE in this manner was thought to offer a relatively stable criterion which was independent of the information processing capabilities of the equipment.

35. We found that the provision of CPE was not a common carrier activity and that CPE need not be provided as part and parcel of a common carrier communications service. Conditions were set forth under which various types of equipment could be marketed. We concluded that carriers owning transmission facilities could market only BMC devices as part of a "voice" of "basic non-voice" service. As to that class of equipment which performs more than a BMC function, we concluded that there should be no requirement that such equipment be offered as part of a tariffed communications service. Moreover, if a carrier desired to tariff such equipment as part of a communications offering, it could only be tariffed in conjunction with an "enhanced non-voice" communications service at the resale level. Under this structure the marketing of CPE which performed more than a BMC function was to be separated from the carrier's basic transmission services; such equipment, if tariffed, would be offered only in conjunction with competitive enhanced services. This arrangement

\textsuperscript{9} We noted that under option #1 we would have the discretion to waive the resale structure for a given carrier upon a proper showing that the public interest would be better served by grant of such a waiver of the Commission's Rules. Options #2 and #4 suggest the possibility of excluding at the outset certain carriers from the resale structure, as opposed to subsequent \textit{ad hoc} determinations.

\textsuperscript{10} "Customer-premises equipment" (CPE) is terminal equipment located at a subscriber's premises which is connected with the termination of a carrier's communication channel(s) at the network interface at that subscriber's premises. However, see n. 57, \textit{infra}. 

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essentially reflected the dynamics of the CPE market and the desirability of having such equipment provided on a competitive basis. It and the possibility of deregulating terminal equipment supply through a separate subsidiary were advanced as alternative approaches to achieving an enduring, consumer-oriented solution to the problems raised by the increasing intelligence of CPE.

1956 AT&T Consent Decree

36. In the *Tentative Decision* we recognized that the extent to which AT&T would be able to participate on an unregulated basis in the provision of customer-premises equipment and/or ENV services on a non-tariffed basis was not clear due to possible constraints imposed by the terms of the 1956 AT&T consent decree. We set forth the regulatory complications created by the decree, and our view as to how various plausible interpretations of the consent decree should be factored into the decision making process in reaching a final decision. See *Tentative Decision*, paras. 135-148.

IV. Comments

A. Network Services

37. As expected, the *Tentative Decision* evoked a tremendous response. Almost fifty parties filed comments. Reply comments were filed by approximately thirty parties.\(^{11}\)

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\(^{11}\) Comments were filed by: New York Public Service Commission (NYPSC); Honeywell, Inc. (Honeywell); American Telephone & Telegraph Company (AT&T); Walter R. Hinchman (Hinchman); GTE Service Corporation (GTE); Computer & Business Equipment Manufacturers Association (CBEMA); Delphi Communications Corporation (Delphi); U.S. Telephone & Telegraph Corporation (UST&T); Central Telephone & Utilities Corporation (CENTEL); Rochester Telephone Corporation (Rochester); Sperry Univac Division-Sperry Corporation (Sperry Univac); Xerox Corporation (XEROX); Western Union International, Inc. (WUI); American Newspaper Publishers Association (ANPA); Satellite Business Systems (SBS); Plexus Corporation (Plexus); COMSAT General Corporation (COMSAT); American Satellite Corporation (ASC); United States Independent Telephone Association (USITA); The National Burglar and Fire Alarm Association and The Alarm Industry Telecommunications Committee (NBFAA & AITC); Citicorp; GTE Telenet; RCA Global Communications, Inc. (RCA Globecom); North American Telephone Association (NATA); Central Committee on Telecommunications of the American Petroleum Institute (API); Bunker Ramo Corporation (Bunker Ramo); Southern Pacific Communications Corporation (SPC); MCI Telecommunications Corporation (MCI); General Electric Information Services Company (GEISCO); TRT Telecommunications Corporation (TRT); ISA Communications Services, Inc. (ISACOMM); United Telecom Service, Inc. (U.T.); Securities Industry Automation Corporation (SIAC); Aeronautical Radio, Inc. (ARINC); Tymnet, Inc. (Tymnet); Computer & Communications Industry Association (CCIA); Association of Data Processing Service Organizations, Inc. (ADAPSO); Independent Data Communications Manufacturers Association, Inc. (IDCMA); Western Union Telegraph Company (Western Union); Control Data Corporation (Control Data); National Telecommunications & Information Administration (NTIA); General Instruments Corporation (GIC); Computer Corporation of America (CCA); American Banking Association (ABA) and Department of Justice (DOJ). Reply comments were filed by: Honeywell; AT&T; GTE; CBEMA; UST&T;
38. With respect to network services, the comments focus on whether the basic/enhanced dichotomy is appropriate, the viability of the proposed definitional structure for distinguishing the communications or data processing nature of enhanced services, and whether ENV services should be subject to regulation. Concerning carrier participation in the provision of ENV services, the comments address whether the resale structure is appropriate, whether it should be applied to all carriers owning transmission facilities, and the appropriate degree of corporate separation required for those carriers that must offer ENV services through a separate subsidiary. The comments also address the extent to which the decision should be applicable to the international arena. Insofar as customer-premises equipment is concerned the comments address whether the "basic media conversion" distinction is appropriate, whether all CPE should be treated alike, and whether carrier provided CPE should be offered on a tariffed basis. Relative to both network services and CPE, the comments address various legal considerations, the implications of the 1956 AT&T consent decree, and the need for a transition period if the current regulatory scheme is significantly altered.

Basic/Enhanced Dichotomy

39. There appears to be a general consensus that a regulatory structure distinguishing between basic and enhanced services is appropriate. However, concern is expressed that in establishing the three categories of service—voice, BNV, and ENV—an artificial distinction is being made between voice and non-voice services. It is argued by various parties that any such distinction is unworkable and should be rejected since there is no fundamental distinction between voice and non-voice communications services. These parties argue that there should only be two classes of communications services—basic and enhanced—each capable of providing voice and non-voice communications indiscriminately.

40. AT&T recommends that the definition of "voice" services be modified to include recorded and simulated voice services. It fears that, as drafted, the definition of "voice" services will exclude services which it feels to be within the voice category such as the Public Announcement Services and Automatic Intercept System. Other parties think the voice category should be more limited and that it should be made clear that human to computer services fall into the ENV category. Arguing that there should be a deliberate overlap between ENV communications and BNV services, GTE requests that

XEROX; WUI; Plexus Corp.; USITA; NBPAA & AITC; Citicorp.; GTE Telenet; RCA Globeecom; NATA; Bunker Ramo; SPC; IBM; GEISCO; SBS; TRT; ARINC; Tymnet; CCIA; ADAFSO; IDCMA; WU; Control Data; NTIA; ABA; Hazeltine Corporation (Hazeltine) TDX Systems, Inc. (TDX). Motions to Accept Late Filed Comments were filed by RCA GLOBCOM, GIC, DOJ and ABA. These motions are hereby granted.
the definition of a "basic non-voice service" be modified to include any function which affects or facilitates the transfer of information. Additionally, GTE asserts that the definition of a "data processing service" should only be used to identify what unregulated firms can do without coming under regulation, and should not prohibit underlying carriers from providing data bank or information retrieval services which are related to a carrier's communications function or preclude underlying carriers from providing energy management and emergency systems.

Data Processing/Communications Definitional Structure

41. Our proposed definitional approach to the data processing-communications dilemma evoked considerable discussion. There is uniform disagreement and confusion as to the regulatory implications of the proposed definitional terms. Parties worry that the definitions, as drafted, will either foreclose carriers from offering legitimate communications services\(^\text{12}\) or unduly enlarge the scope of regulation and force unregulated data processing vendors to seek regulated status to offer the same degree of service as resale carriers.\(^\text{13}\) Parties also comment that the proposed approach will eliminate neither regulatory uncertainty nor the need for \textit{ad hoc} determinations.\(^\text{14}\) Other parties reject the proposed definitional approach as not representing any improvement and recommend that the present rules be retained.\(^\text{15}\)

42. According to AT&T, the Commission's proposed definition of "data processing" should be amended to include the processing of information for the purpose of transforming or altering its content or meaning. AT&T states that the definition of a "data processing service" is overbroad and recommends that it be deleted as it includes aspects of information retrieval and process control, and would preclude some innovative carrier communications offerings. AT&T also suggests that Part (b) of the proposed rule be modified to make explicit that carriers may perform data processing as part of a tariffed service consistent with the application of the primary purpose test.

43. IBM and others express concern that the proposed scheme for distinguishing enhanced non-voice communications and data processing services is unworkable and will unnecessarily expand the scope of regulation. IBM states that marketplace forces are bound to frustrate and quickly render obsolete any attempt to draw a regulatory boundary based on technical distinctions between enhanced communications and data processing services. It comments that the Commis-

\(^{12}\) See, e.g., comments of AT&T, GTE and USITA.

\(^{13}\) See, e.g., comments of Honeywell, Delphi, IBM, CBEMA, ABA, Bunker Ramo, CCA, NBFAA-AITC, Citicorp, and ARINC.

\(^{14}\) See, e.g., comments of Hinchman and Western Union.

\(^{15}\) See, e.g., comments of the DOJ and Western Union. Avoiding this controversy, somewhat, NBFFA-AITC urged the Commission to hold that alarm services were neither communications nor data processing.

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sion's definition of a "data processing service" is inadequate as it does not include classic data processing of customer information and suggests that the Commission not define data processing because any definition would become rapidly obsolete and difficult to apply. Bunker Ramo, supported by ADAPSO, recommends that the alteration of all data, not just customer-provided data, should be considered a data-processing service. NTIA disparages the Commission's reliance on the definition of a data processing service to distinguish between enhanced communications and data processing. In the appendix to its comments NTIA proposes a mathematical entropy criterion for distinguishing data communications and data processing functions. The merits of the proposed definition of a "hybrid data processing service" are also debated by the parties. AT&T recommends that the Commission continue to define a hybrid data processing service to underscore the fact that unregulated entities may offer computer processing capabilities for hire on an unregulated basis, utilizing carrier communications facilities where the primary purpose is to provide data processing as a service. The general consensus of the other parties is that the proposed definition of a "hybrid data processing service" is in reality an inaccurate description of remote access data processing and should be amended to include the component of incidental message switching.  

44. Various parties criticized AT&T's proposals concerning the definitions of a "voice service," "data processing" and a "data processing service" as being an attempt to expand the scope of regulated common carrier services to permit the offering of data processing by underlying carriers. CBEMA and ADAPSO claim AT&T is seeking to exempt the direct provision of future data processing services by underlying carriers from the resale structure requirements. According to NTIA, the redefinition of voice services is not necessary since services such as directory assistance, itemized billing, speed calling and call forwarding are basic and underlying carriers should be free to offer them as part of a voice service.

Resale Structure

45. The commenting parties generally support the application of the resale structure to the provision of enhanced non-voice services. AT&T supports a resale approach, but argues for internal organizational separation as opposed to the establishment of a separate subsidiary. Recommending in the alternative either a modified resale approach or reliance on a revised system of accounts, GTE asserts that the application of a separate corporation requirement to the service and equipment offerings of the GTE telephone companies would be tantamount to precluding the provision of such offerings by these companies.

46. There is a great diversity of opinion, however, with regard to

16 See, e.g., comments of ADAPSO and ARINC.
whether the resale structure should be imposed upon all communications common carriers. AT&T argues that imposing varying degrees of regulation on carriers providing the same service is inconsistent with the Communications Act, and suggests that the resale approach should be applied equally to all carriers. However, a number of parties supporting the resale approach suggest that the requirement only be imposed upon the provision of enhanced non-voice services by large monopoly or dominant carriers. They submit that while the imposition of the resale structure on enhanced services provided by dominant carriers is logical, it is not required for non-dominant carriers since they do not have the potential to engage in the anticompetitive practices that the resale approach is designed to prevent. For example, SBS, MCI and GTE-Telenet state that non-dominant carriers and the specialized common carriers (SCCs) operate in a competitive marketplace and have no monopoly power or profits with which to engage in anticompetitive behavior; furthermore, users of basic services offered by SCCs at rates intended to cross-subsidize other services have competitive alternatives. USITA points out that even with the one million dollar exemption, the resale requirement will affect 503 of the nation’s 1,527 independent telephone companies. Asserting that the majority of these companies do not have the potential to engage in cross-subsidization, it urges that the resale concept be limited to those instances where, without it, appropriate regulation in the public interest would be impossible. For its part, NTIA states that any requirement that non-dominant carriers establish separate subsidiaries will result in unnecessary costs, inefficiencies, and may inhibit the entry of smaller firms and block innovative efforts.

47. There is disagreement among the parties as to which carriers should be deemed to be dominant. NTIA, GTE-Telenet, ASC, and CCA argue that the separation requirement should only be applied to AT&T. NTIA submits, based on what it describes as a “dominant market power test,” that only AT&T poses a threat to fair competition in the enhanced non-voice market. According to NTIA, the

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17 See, e.g., comments of Western Union, USITA, UST&T, SBS, ASC, COMSAT General, SPC, Hinchman, NTIA.

18 Western Union maintains that since it is not achieving a fair rate of return, has no excess revenue, and its public offerings are subject to competition, the resale requirement should not be applicable to it. It seeks an amendment to the proposed Section 64.702 to exempt carriers whose operations depend in large measure on circuits and facilities leased from other carriers. Western Union also seeks an exemption from the proposed rules so that it may continue to offer TWX and Telex services as it does at present.

19 NTIA would define a dominant carrier as one that both 1) furnishes telecommunications service in a substantial percentage of the total number of markets for interexchange telecommunications services, and 2) has the ability, in a substantial percentage of those markets in which the carrier furnishes such services, to either raise or lower prices without significantly affecting the amount of service demanded by its customers.
magnitude of AT&T's monopoly revenues creates the clear possibility that AT&T could engage in substantial cross-subsidization of competitive services which would result in substantial injury to AT&T's monopoly ratepayers and to its competitors. In contrast, NTIA argues, other monopoly communications common carriers obtain much smaller revenues from monopoly services, and most do not provide interstate monopoly services or have substantial interstate monopoly revenues. Tymnet argues that, contrary to the proposals of GTE and GTE-Telenet, the separation requirement should be equally applicable to GTE and other entities possessing similar market power. UST&T suggests that the proposed rules should be amended to define dominant carriers as those controlling at least fifty percent of the relevant market. Xerox urges that Digital Termination Systems (DTS) carriers not be considered dominant carriers and states that the application of the separation requirement to DTS carriers will hinder their offering of new and innovative services.

48. Other parties reject the proposed dominant/non-dominant carrier distinction and urge the FCC to require all underlying carriers to establish separate subsidiaries for the provision of enhanced services. CBEMA states that the potential abuse of network ownership is no less compelling when the carrier is a "competitive" underlying carrier. ADAPSO asserts that basic transmission facilities are a limited national resource that cannot be easily or economically replicated by users or non-facility owning carriers. This limitation, according to ADAPSO, permits an underlying carrier to exercise market power well beyond that indicated by the size of its revenues; as a result, all underlying carriers, not just AT&T, have the power to engage in anti-competitive activity. Taking a similar position, NATA states that smaller monopoly carriers will simply affect a smaller percentage of users and exclude a smaller number of competitors. It is suggested by these parties that a waiver procedure be established whereby underlying carriers claiming undue hardship could petition to be exempted from the separation requirement.

Degree of Separation

49. The parties take sharply divergent viewpoints on the degree of organizational separation that should be required under the resale structure. AT&T, rejecting the need for stringent separation, recommends the establishment of internal resale organizations, separated by an internal accounting system, to provide enhanced non-voice services and sophisticated customer premises equipment. Pursuant to this

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20 See, e.g., comments of CBEMA, CCIA, ADAPSO, and IDCMA.
21 The American Newspaper Publishers Association (ANPA) did not support a general set of rules applicable to all carriers. Instead it recommended either an ad hoc approach to the maximum separation requirements or the development of a range of regulatory approaches applicable in different contexts.
22 Similarly, GTE and Centel state that the Commission's objectives can be met by

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proposal, carrier facilities used by the resale organization to provide enhanced services would be available on a non-discriminatory resale basis to all carriers providing enhanced services. If a fully separated subsidiary is to be established, AT&T proposes that the subsidiary be allowed to construct its own facilities.

50. Additionally, AT&T recommends a number of guidelines for any organizational changes. It suggests that the resale organization be able to offer basic services and equipment, that no restrictions be placed on the technology that may be employed with enhanced services and sophisticated equipment, and that there should be no condition which would either require or prohibit interconnection between providers of enhanced services. In line with this, it argues that a carrier should have the flexibility to group products and services in as many, or as few, resale organizations as it desires. Likewise, a resale organization should be free to have access to, and to fund, the research, development, and manufacturing resources of the underlying carrier without any obligation to share information or products with competitors. Finally, AT&T urges that there should be no restrictions on the purchase of equipment by the resale organization from an affiliated manufacturer or other suppliers, or on the acquisition of services, including administrative services from the carrier by its resale organization, or _vice versa_, on an appropriate cost basis.

51. Citing the enormous benefits and cost savings of its integrated structure, AT&T suggests that any conditions which separate the Bell resale entity from Bell's centralized resources will be detrimental to the entity and its customers, and will not benefit, but instead burden, subscribers of the underlying services. In particular, AT&T notes that an arm's length relationship, rather than full participation in an integrated system with Bell Labs and Western Electric, will deprive the resale entity of cost savings at all levels of the enterprise and all stages of the production process. In making this argument AT&T stresses that the integrated Bell System is a valuable source of innovation.

52. NTIA advocates a somewhat more stringent separation. NTIA's proposal would require AT&T to establish a separate entity to provide equipment performing more than a basic conversion function and services other than pure communications.\(^\text{23}\) It recommends that the subsidiary have separate books and accounts. Further, it proposes measures other than complete separation, such as an improved Uniform System of Accounts or implementation of the resale concept without the separate subsidiary requirement.

\(^{23}\) NTIA's recommendations are tentative and dependent upon the resolution of the issue of economic parity in regard to access charges. In any event, its proposal is severely criticized by ADAPSO and IDCMA. ADAPSO charges that NTIA's recommendations are skewed by its preoccupation with cross-subsidization and will create opportunities for tying and other anticompetitive activities as well as retard innovation. IDCMA contends that NTIA's proposals reflect a lack of awareness of AT&T's long, anticompetitive history.
that the exchange of customer or competitor information between a Bell company and the subsidiary should be prohibited or, in the alternative, that its mandatory release to all competitors be required. Under NTIA’s proposal, AT&T and its subsidiary would be able to exchange corporate proprietary information (research and development, entrepreneurial data gathering, etc.); however, the subsidiary would be billed for all such services. On the other hand, technical plans for the networks would be required to be shared among all competitors. AT&T would be able to supply logistical support via explicit, publicly declared terms, to the subsidiary. The subsidiary and AT&T would be able to undertake joint ventures provided that all AT&T facilities be made available to the subsidiary and its competitors on equal terms and that the subsidiary not own joint plant with the parent or any Bell system entity.

53. Taking a more rigid position than did NTIA, a variety of parties, representing a wide range of interests, support the concept of full maximal separation. They argue that the parent and subsidiary should be required to have separate officers, directors, personnel and books of accounts. Joint ventures and shared facilities and equipment, they state, should be prohibited; all basic transmission services should be acquired from the parent under tariff. Moreover, they contend that the subsidiary should not be able to obtain services relating to planning, marketing, operations, consulting, customer billing and maintenance from either the parent or an affiliate. SPC maintains that if any services or facilities are made available to the subsidiary they must be made available to non-affiliates on equivalent, non-discriminatory terms. CCIA requests that the Commission prohibit the procuring by the parent of any enhanced services from its resale affiliate except through competitive bids. These parties generally agree that all transactions between parent and subsidiary should be conducted on an arm’s length basis. This includes restrictions on joint research and development efforts, limitations on the general financing and capitalization of the subsidiary by the parent or an affiliate, and restrictions on the exchange of proprietary information.

54. In support of their position, the parties advocating maximum separation argue that full and complete separation will limit both the incentive and opportunity for anticompetitive practices, and that the benefits of separation would outweigh the costs. Various commenters, such as ADAPSO, reject AT&T’s economies of scale argument contending that such economies are not important in data processing technologies and that technological development is not necessarily spurred by vertical integration. As an example, they claim that AT&T, with its integrated structure and massive resources has lagged behind the data processing industry in terms of innovation. The parties
further state that no showing has been made that the use of structural separation will result in the unavailability of service, more costly service, diseconomies of scale, or inefficiencies. In line with this, NATA argues that even if AT&T were correct with respect to the economies of integration, the competitive advantage conferred by those artificial savings would secure for monopoly carriers the same type of monopoly power in the enhanced market as they enjoy in the basic market.

55. AT&T's organizational separation proposal is sharply criticized by the proponents of maximum separation who characterize the proposal as representing no change from the present situation and charge that it will engender problems similar to the ones the Commission is currently concerned with. For example, GTE-Telenet argues that given its anti-competitive history and integrated structure, AT&T's suggestion that accounting measures represent an adequate substitute for separation is wrong. Parties such as UST&T and IDCMA claim that AT&T's accounting approach is impractical in light of the problems with the Uniform System of Accounts, that the accounting approach ignores anticompetitive problems other than cross-subsidy, and that, at a minimum, revised accounting procedures must be accompanied by effective structural measures. They assert that the requirement that AT&T establish a fully separate resale affiliate is critical in order to minimize the potential for anticompetitive activity on AT&T's part as well is to prevent market entrants from experiencing a chilling effect.

International

56. In the Tentative Decision at para. 165 we indicated that we would consider extending the resale structure to the International Record Carriers (IRCs). This proposed option has evoked a strong negative response from the IRCs joined by UST&T and ADAPSO. RCA Globcom argues the international market is different from the domestic market in that it is competitive and there is no dominant underlying carrier and its accompanying danger of unfair competitive advantage. Additionally, international satellite facilities are already obtained by IRCs on a resale basis pursuant to tariff and, unlike the domestic area, there is little leasing or other non-ownership acquisition of international cable circuits. The IRCs also assert that all user needs are being met.

57. In further opposition various parties comment that the Commission should not and cannot unilaterally extend the resale structure to the IRCs. They note that not only do CCITT recommendations preclude resale and shared use of facilities but almost all of the foreign administrations are opposed to the unrestricted resale and shared use of international facilities.

25 See, e.g., the comments of WUI, RCA Globcom and TRT.
58. The option of extending the resale structure to the IRCs is supported by NTIA and several other parties. Citing what it sees as problems of entry, NTIA recommends that the Commission institute a separate inquiry into the applicability of the Resale decision to the international arena. It also recommends that the IRCs be required to provide enhanced non-voice services through separate subsidiaries, that AT&T be allowed to provide enhanced non-voice services internationally, and that if COMSAT enters the enhanced non-voice market, it should only do so through a separate resale entity. In reply, WUI states that it perceives no relationship between the proposed resale structure and the problems sought to be remedied.

59. Responding to the comments of various IRCs, SPC states that the argument that the IRC industry is already competitive is not supportable in the absence of a market test. SPC rejects the arguments that the resale structure should not be imposed because equal access already exists and it would place an intolerable burden on smaller IRCs. SPC points out that the contention based on the opposition of foreign administrations to resale has been rejected in past situations where the FCC has held that jurisdiction over the charges and practices of IRCs does not require foreign agreement.

Regulatory and Legal Considerations

60. A number of parties suggest that the offering of enhanced non-voice communications services should be completely deregulated. IBM questions whether the Commission possesses jurisdiction under Title II to regulate anything more than pure transmission services. Further, it argues that enhanced services are offered under highly competitive conditions and should not be regulated regardless of any features. CBEMA maintains that regulation should be limited to the provision of basic services by underlying carriers with no regulation of either resale services or the offering of enhanced non-voice services. It argues that resale carriers are "private carriers," not "common carriers," and are outside the Commission's jurisdiction under Title II. To the extent that resellers might be subject to Commission jurisdiction generally, CBEMA states that the Commission has the legal authority to forbear from regulating resale services.

61. Many parties comment that while the Commission is either required by the Act to regulate or on policy grounds should continue to regulate certain enhanced non-voice offerings, it has the authority to and should forbear from regulating enhanced offerings by non-dominant carriers. GTE-Telenet states that pursuant to our Resale decision, the offering of resale communications services constitutes common carriage, not private carriage, and as a result the Commission lacks discretion to totally exempt resale entities from Title II regulation.

26 See, e.g., the comments of ARINC and SIAC.
However, GTE-Telenet maintains that the Commission may limit the scope of its regulation of certain classes of carriers and it proposes that needless and counterproductive incidents of regulation of enhanced service carriers be eliminated. IDCMA, citing the Commission's comprehensive mandate under the Act, states that the Commission has the authority to and should exercise its power to forbear from the regulation of resale carriers not affiliated with underlying carriers. It states that the affiliates of underlying carriers should remain subject to supervision at least during a transition period. ADAPSO takes the position that although the FCC should consider the option of varying degrees of forbearance depending upon whether the resale carrier is affiliated with an underlying carrier, minimal regulation of resale carriers is needed. It suggests that affiliated resale carriers should offer separately, pursuant to cost-based tariff, the communications component of their "enhanced non-voice" services.

62. NTIA proposes that the Commission forbear from regulation of all ENV services whether offered by non-dominant carriers or by its proposed AT&T resale subsidiary. Citing a number of Commission proceedings, NTIA argues that we have traditionally recognized that economic and structural differences exist between common carriers and that these distinctions justify disparate treatment. There is, according to NTIA, ample legal authority for the Commission to decline to regulate enhanced non-voice communications services even though it retains Title II jurisdiction over these services. Forbearance, NTIA declares, is necessary to allow the full development of the extremely competitive enhanced non-voice market and should market dominance develop the Commission could always reassert jurisdiction. NTIA also recommends that the states should be preempted from imposing any regulation over ENV communications services.

63. AT&T contends that regulation under Title II of the Act is mandatory; an agency cannot decline to regulate. It argues that providers of enhanced non-voice service are clearly common carriers and therefore subject to regulation. While AT&T supports the Commission's objective of removing regulatory constraints over competitive enhanced non-voice services and customer premises equipment, it contends that deregulation of communications services requires an amendment of the Communications Act and consent decree relief. AT&T proposes a number of steps the Commission could take toward achieving its goal of more flexible regulation in the absence of legislation and modification of the Decree. AT&T is also concerned that any deregulation by the Commission would deprive state regulatory bodies of important powers in conflict with Sections 2(b) and 221(b) of the Communications Act. Taking a similar position on the question of regulation, GTE argues that the Commission must apply the requirements of Sections 201–205 of the Act to any interstate common

\[27\] See also the comments of UST&T.
carrier communications service. USITA argues that the Act requires that a common carrier communications service be regulated.\textsuperscript{28}

B. Customer-Premises Equipment (CPE)

64. The Commission's proposal to classify CPE has garnered little support. The dichotomy that the Tentative Decision establishes between equipment which performs a "basic media conversion" (BMC) function and that which performs more than a BMC is uniformly criticized. AT&T submits that the BMC function criterion is too narrow a demarcation point between basic and sophisticated non-voice customer premises equipment and requests that the criterion be located to ensure that underlying carriers may provide traditional basic functions. GTE recommends that the Commission take a fresh look at the BMC concept charging that it would establish an arbitrary classification which would interfere with economic design of equipment, limit carrier flexibility and deny valuable options to users.

65. Centel comments that it is not appropriate for the FCC to distinguish between types of customer-premises equipment. The definitions are not clear and the technology changing. Any distinctions, it argues, should be made on the basis of whether the equipment controls the entire network as the central computer once did, not on the basis of the existence or non-existence of data processing. It submits that restrictions should be determined on an ad hoc basis and be limited to media conversion devices equal in influence to distributed computer networks.

66. Other parties are equally disturbed by the proposed distinction. CCIA, IBM and CBEMA argue that the distinction between equipment performing a BMC function and that doing more is artificial and not justified. They state that the proposed distinction is unworkable, could unnecessarily expand the scope of regulation, and would increase the risk of improper cross-subsidization. IBM criticizes AT&T for never adequately defining its proposal that the category of basic CPE be expanded to include equipment that provides traditional basic telecommunications functions in addition to media conversion.

67. IDCMA recommends that the Commission classify CPE on the basis of whether it is offered in a competitive environment. According to IDCMA, the line between BMC devices and other types of equipment is not precise; it is not clear what auxiliary functions, if any, a "basic media conversion" device may perform and continue to be offered as part of a carrier's basic "voice" service. In IDCMA's opinion, the fundamental difficulty with the Commission's classification of CPE is that it attempts to deal with an economic problem in engineering terms and fails to take into account the potential for anticompetitive practices and economic considerations.

\textsuperscript{28}The optional tariffing approach which would have left the decision of whether a service should be regulated to the service vendor drew little support. It was generally contended that this proposal would not add to regulatory certainty.
68. The other primary areas of controversy are whether CPE should be tariffed and regulated, and whether underlying carriers should be required to establish separate entities for the provision of CPE. AT&T states that the Commission has an obligation to regulate carrier offerings of instrumentalities, apparatus or services incidental to transmission regardless of whether similar items are offered on a non-tariffed basis by non-carriers. Also, AT&T suggests that because of the difficulty of classifying sophisticated customer-premises equipment as primarily "communications" or data processing, any equipment with a communications purpose should be tariffable and any data processing capabilities it possesses should be considered irrelevant.

69. AT&T's proposal to allow carriers or their resale affiliates to tariff any kind of customer premises equipment "with a communications purpose" is opposed by CBEMA. It argues that, contrary to the intention of the Tentative Decision, this proposal would allow carriers to provide any type of equipment, including that which would be classified as primarily data processing under the current rules, so long as it performs any communications function.

70. NATA finds unobjectionable the notion that carriers may participate in the terminal equipment market by offering equipment pursuant to tariffs associated with their traditional voice and basic non-voice services. It states that under the Consent Decree and the Act, tariff regulation of all carrier communications services (especially those of AT&T) is mandatory. However, it submits that Docket 20828 is not the appropriate vehicle to decide the proper scheme of regulation for "conventional" terminal gear and that the issues raised in RM 3308 should not be considered here. In the absence of Commission regulation, it foresees no possibility for the development of a genuinely competitive equipment market. Market forces, NATA states, will not be sufficient to control anticompetitive activities because of carrier monopoly power in equipment and transmission markets.

71. Several of the comments suggest that the Commission limit its regulation to the provision of either basic or non-competitive customer-premises equipment. NTIA recommends that the Commission exclude the offering of all equipment performing more than a BMC function from regulation. IDCMA suggests that the Commission should not regulate the competitive equipment offerings of carriers unaffiliated with underlying carriers. IDCMA and others argue that the FCC should, at least initially, continue to regulate the terminal equipment offerings of affiliates of dominant underlying carriers until the Commission implements the resale structure. They submit that such regulation is proper even though comparable offerings would be unregulated. From a slightly different perspective, Xerox and USITA recommend that non-dominant carriers and competitive DTS carriers have the option of offering equipment on a tariffed or a non-tariffed basis.

72. A number of parties recommend that customer-premises
equipment not be tariffed and further that the Commission not regulate its provision. IBM and CBEMA assert that the Tentative Decision would impose burdensome and costly regulation in a robustly competitive marketplace. IBM recommends that the Commission deregulate all customer-premises equipment and not permit carriers to offer any such equipment under tariff as part of a basic transmission service or otherwise. To permit such an offering as part of basic service would, it states, undermine the ability to prevent cross-subsidization. According to CBEMA, the lack of competition with respect to “basic” customer-premises equipment, such as the telephone, has been attributable not to inherent monopoly characteristics but to artificial constraints imposed by carrier tariff restrictions. It submits that there is no corollary in the equipment market to the “basic” and resale services distinctions; instead there is a basic fungibility in equipment with respect to adaptability to either “pipeline” or resale services.

73. Taking a position contrary to those above, the Justice Department states that there is no need for additional FCC action regarding deregulation of terminal equipment since at present the Commission does not regulate the non-carrier majority of firms offering terminal equipment. DOJ reasons that deregulation by the FCC would in effect mean deregulation of AT&T. In opposition to this it states that AT&T's basic terminal equipment offerings are subject to state and federal regulation, and AT&T's intelligent terminal offerings are not only a minority of those otherwise available but also are currently subject to economic regulation in addition to state and federal regulation. Further, since provision of terminal equipment is not characterized by pervasive scale economies, it concludes that there is no legitimate reason to change the present deregulatory status quo that prevails in respect of most terminal equipment vendors.

74. The opinions of the parties regarding whether a carrier should be required to offer customer-premises equipment through a separate resale entity, and if so, what degree of separation should be required are similar to the opinions they expressed on these issues with respect to enhanced non-voice services. AT&T supports the resale proposal and the principle that the provision of basic equipment should be separated from the provision of sophisticated equipment; provided, however, that the resale mechanism is accomplished by means of internal organizational separation. It suggests that the organization which provides sophisticated non-voice customer-premises equipment should be permitted to offer basic equipment as well and that the Commission should not impair the ability of underlying carriers to offer under tariff a full range of customer-premises equipment in the voice category. NTIA recommends that only AT&T be required to form a separate subsidiary for the provision of sophisticated customer-prem-

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29 GTE submits that in order to effectively compete, the GTE telephone companies should be allowed to provide customer-premises equipment on an unregulated basis.

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ises equipment and that AT&T be allowed to provide such equipment through the same subsidiary that provides enhanced services. Other parties, such as Xerox, request that the Commission require not just AT&T, but any dominant carrier, to establish a separate entity for the provision of intelligent customer-premises equipment.

75. ADAPSO and IDCMA recommend that the Commission require all underlying carriers to offer competitive customer-premises equipment through a maximally separated affiliate. CBEMA and IBM make a similar request with respect to all customer-premises equipment, while NATA argues for such a requirement with respect to all untariffed customer-premises equipment. Both CCIA and IDCMA urge that the manufacturing and marketing of competitive customer-premises equipment be fully separated from monopoly carrier activities. Further, arguing that there are no significant economies of scale, IDCMA suggests that underlying carriers should have to establish separate subsidiaries to manufacture competitive customer-premises equipment as well as separate subsidiaries to market it. IDCMA suggests that until maximum separation can be fully implemented, the FCC should require the Bell Operating Companies to purchase at least one-third of their terminal, switching and transmission equipment from suppliers unaffiliated with AT&T. NATA submits that the FCC should continue to regulate interconnection standards, and Xerox recommends that all carriers be required to make public interface specifications and protocols in a timely fashion. Finally, Xerox and other parties state that the unbundling of equipment is essential.

C. Consent Decree

76. The comments exhibit a noted disagreement among the parties regarding the Commission's interpretation of the consent decree and its proposed approach towards resolving the various related issues. While several parties, including AT&T, agree with the Commission's interpretation and proposed approach, others, such as the Department of Justice, disagree with both. Still other parties argue that even if the Commission were correct in its interpretation and proposed approach, it should adopt a policy unconstrained by the Decree and should rely instead on the judgment court or Congress to resolve the various issues.

77. DOJ states that it would regard any Commission determination that AT&T's diversification into the unregulated data processing field is permissible as without determinative effect. DOJ further submits that the Tentative Decision erroneously states that the limitations the decree imposed on AT&T were adopted at a time when there was no perceived distinction between data processing and communications. The Department rejects the interpretation of the "incidental to" savings provision of the decree put forth in the Tentative Decision. It

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30 See, e.g., comments of MCI, CCIA, ADAPSO, and IDCMA.

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maintains that the decree restricts AT&T to the provision of regulated communications services and that Paragraph V(g) of the decree cannot be interpreted as creating an exception which would render the general prohibition in the judgment meaningless. Moreover, it submits that the Commission has no authority to render definitive interpretations of or to modify the decree. DOJ suggests that if the Commission believes the decree should be modified, the appropriate action would be to formally request such a modification from the judgment court. The Justice Department concludes its comments by stating affirmatively that, if on the basis of facts submitted in this Inquiry it is evident that the 1956 decree should be modified or rescinded to facilitate more effective competition, it is prepared to take the necessary action.

78. For its part, AT&T takes the position that the Commission is correct in concluding that it is in public interest for Bell to compete in the provision of integrated solutions to user needs and that the decree should not be permitted to preclude the Bell System from participation on an unregulated basis in the arena in which data processing and communications technologies converge. It argues that there is a strong basis for modification of the decree. AT&T supports the Commission's proposal to apply the provision of Paragraph V(g) of the decree to unregulated services as consistent with the language and spirit of the decree. However, since the interpretation by DOJ reflects a narrower view, AT&T is uncertain about relying on the Commission's interpretation and committing resources. It states that, absent remedial legislation or a conclusive interpretation of the decree similar to that the Commission advanced, a modification of the decree will be necessary to permit Bell to offer services of the character and in a manner suggested by the Commission.

79. NTIA generally supports the Commission's interpretation of the decree. It states that the decree would not preclude and AT&T subsidiary from offering unregulated customer premises equipment as long as it is of a type which the subsidiary manufactures for the use of the Bell Operating Companies. However, NTIA is uncomfortable with the Commission's interpretation of the "incidental to" language. It is NTIA's belief that even if the Commission forbears from regulating enhanced non-voice communications services, AT&T can market enhanced non-voice services on an unregulated basis since these services would still be subject to regulation. Furthermore, if a service were not subject to regulation because it is a data processing service, the Commission, in its opinion, could then consider whether the service is "incidental to" the furnishing of a common carrier communications service as defined in the decree. If the service were incidental to the furnishing of a common carrier service, NTIA submits that AT&T may offer it in compliance with the terms of the decree. Similarly, NTIA reasons, the provision of customer-premises equipment may be incidental to the furnishing of a common carrier service although it is excluded from regulation.

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80. A number of other parties argue for various reasons that the Commission should adopt a policy unconstrained by the consent decree. For instance, although castigating DOJ for its "wooden" interpretation of the decree and supporting modification of the decree, IBM urges the Commission not to forego a sound regulatory approach and institute needless regulation because of the decree. Parties such as GIC, CCA and SPC submit that having no valid record before it to support modification of the decree, the Commission should forego treatment of the decree in any final decision.

81. In response to the assorted comments, CBEMA states that to the extent that neither AT&T nor DOJ believes that the Commission's proposed interpretation of Paragraph V(g) of the Decree is adequate, there is no valid reason for the FCC to pursue the matter further. Taking AT&T's comments to task, CCIA maintains that AT&T's market dominance in communications, and the extent to which such market dominance would allow it to confer monopoly power on a CPE subsidiary, must also be taken into consideration. Moreover, CCIA accuses AT&T of overlooking the fact that if the decree were modified to permit AT&T's entry, it would be the non-IBM segment of the data processing market which would be injured by anticompetitive AT&T practices, thereby increasing economic concentration in the two industries.

D. Transition Period

82. The commenting parties agree that a transitional period will be necessary prior to the Commission's implementation of any resale structure. AT&T recommends that a significant transitional period will be needed because of the large number of complex legal, financial and logistical problems which would have to be resolved. Being more specific, IBM and Hinchman suggest timetables which set an outside limit of between three to five years before any resale structure would be fully implemented.

V. Discussion

A. Introduction

83. The history of this proceeding lends perspective to the issues before us. The First Computer Inquiry was initiated in 1966. Five years later in 1971, after receiving thousands of pages of comments and having an independent contractor evaluate them, the Commission issued a Final Decision, supra at n. 1. Litigation over our decisions in the First Computer Inquiry ended in 1973. A mere three years later, this proceeding, the Second Computer Inquiry, was initiated and now, after almost four more years, we are again issuing a final decision on issues raised by the confluence of technology in the offering of communications and data processing services. The significant difference now is that the evolution of a distributed processing environment makes the issues more complicated, and the resulting regulatory
uncertainty greater. We believe the time has come to address these matters in a manner which gives clear direction to the marketplace, but without restricting the types of services that may be offered to consumers. We will thus clearly set forth those offerings, resulting from market applications of computer processing technology, that will not be regulated by this Commission.

84. Voluminous comments have been filed in this proceeding addressing the public interest considerations affecting each of the various options. In weighing the comments and reaching a final decision we are guided by the mandate entrusted to us by Congress as set forth in Section 1 of the Communications Act, i.e., "... to make available ... to all people of the United States a rapid, efficient Nation-wide, and world-wide wire and radio communications service with adequate facilities at reasonable charges ..." 47 U.S.C. §151. The exercise of our regulatory authority under this mandate is analyzed in the context of rapid technological and market developments affecting communications and data processing services, the ever-increasing reliance upon common carrier transmission facilities in the movement of all kinds of information, and the need to tailor communications-related services to individual user requirements.

85. The Tentative Decision set forth various options for addressing regulation and the role of common carriers in the provision of enhanced computer services and customer-premises equipment. In considering these options we shall treat network services separately from terminal equipment issues as was done in the Tentative Decision. Insofar as network services are concerned, the options set forth for consideration in the Tentative Decision and the comments of the parties essentially focus on (a) whether the basic/enhanced dichotomy is appropriate, (b) whether there should be a distinction between enhanced services based on their communications or data processing nature, (c) whether Title II regulation should be imposed over any enhanced service, and (d) whether the resale structure should be applicable to all carriers owning transmission facilities, i.e., whether such carriers should be required to form a separate subsidiary for the provision of unregulated enhanced services and acquire the necessary transmission facilities pursuant to tariff. As to customer-premises equipment (CPE) the comments focus on a) whether all CPE should be treated the same, b) whether CPE should be deregulated, and c) the structure under which communications common carriers should be permitted to market CPE in conjunction with their transmission services. We must now weigh the public interest considerations relevant to these issues in light of our overall statutory mandate. After delineating the regulatory scheme in these two areas, we will address common carrier participation in the provision of enhanced services and customer-premises equipment.
B. Network Services

Basic and Enhanced Services

86. The structure set forth in the Tentative Decision focused on the separation of common carrier transmission services from those computer services which depend on common carrier services in the transmission of information. We proposed a resale structure for those computer processing services which would be subject to a regulatory delineation between communications and data processing. A distinction was made between basic common carrier transmission services and enhanced services; enhanced services were to be provided on a resale basis such that the requisite common carrier facilities would be acquired pursuant to tariff. Moreover a set of definitions was proposed for distinguishing the regulated or non-regulated status of enhanced services based on the communications or data processing nature of the service.

87. The benefits of this structure were set forth in the Tentative Decision at paras. 72-75. We stated there that this resale structure enables us to do away with the “separate facilities” requirement of our “maximum separation” policy for resale carriers.31 Restrictions on the use of a carrier's facilities for only regulated services would be removed; both communications and data processing services could be provided through a resale carrier's computer facilities. Moreover, an environment would be created in which the licensed transmission facilities of a carrier are equally available to all providers of enhanced services. In addition, the potential for a carrier to use its transmission facilities to improperly subsidize an enhanced data processing service without detection would be minimized. Most importantly, however, we noted the potential benefit to consumers of enabling resale entities to custom-tailor services to individual user needs.

88. The comments generally support distinguishing between basic common carrier services and enhanced services. Questions were raised, however, as to the manner in which we delineated the three categories of service—voice, basic non-voice (BNV), and enhanced non-voice (ENV). The comments raise concerns on two fronts. First, it is argued that use of “voice” and “non-voice” terminology may result in an artificial voice/data service distinction that will eventually fall of its own weight as technology evolves. Second, various parties argue that the definitions of BNV and ENV services should somehow be altered. In this regard, certain regulated carriers seek to have the BNV category expanded so as to not restrict their regulated activities. At the same time various unregulated entities seek a narrow construction of voice and BNV services so as not to unnecessarily expand the scope of regulation.

89. Unnecessary confusion may have resulted in proposing these

31 See 47 C.F.R. §64.702(c).
three service categories using voice/non-voice terminology. Continued use of these terms is not warranted. The same objective is obtainable through use of simplified and more descriptive terminology. We believe that delineating between basic transmission services and enhanced services is consistent with the thrust of the Tentative Decision and will remove any conceptual problems as to the technological merging of voice and data.

90. The “voice” and “basic non-voice” categories proposed in the Tentative Decision represent nothing more than basic transmission services. The “voice” category was limited, by definition, to telephone service and was intended to distinguish “plain old telephone service” (POTS) from other basic and enhanced services where interaction of the human voice is involved. The “basic non-voice” category was essentially defined in terms of functions necessary to route a message through the network. See para. 27, supra. That nothing more than a basic transmission service was intended by these two categories is evident from our statement that “this structure requires the facilities of the underlying carrier to be transparent to the information transmitted and for a carrier to provide a ‘pure transmission’ service which forms the basis upon which all ‘enhanced’ services are provided.” Tentative Decision, at para. 75. Accordingly, it is consistent with the Tentative Decision to refer to services that would fall within the voice and BNV categories as “basic” transmission services. Likewise, the ENV category was intended to encompass those computer offerings which are more than basic services, and it included both voice and data applications. The “non-voice” designation was given to the category to include human-to-computer services and make clear that such services were not “voice” services because of any voice synthesis or speech recognition capabilities. (See Tentative Decision, at n. 60 where we stated that the “non-voice” designation does not exclude voice transmission as part of an “enhanced non-voice” service.) Hence, deleting the “non-voice” designation in referring to enhanced services does not limit voice/data applications, and neither limits nor expands the types of services intended to fall within the ENV category. Hence the basic/enhanced distinction is consistent with the service classification structure proposed in the Tentative Decision.

91. We disagree with the first argument that an artificial distinction is made between voice and data services, or that we are imposing such a separation. The incorporation of voice and data transmission capabilities into the network is inherent in the basic service category. This dual capability is also recognized in the provision of enhanced services. To the extent confusion may have resulted over the use of “voice” and “non-voice” terminology, it should be alleviated by our use of more descriptive “basic” and “enhanced” terminology in differentiating services falling within the former “voice,” “basic non-voice,” and “enhanced non-voice” categories.

92. We conclude that the record in this proceeding supports our
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adopting a basic/enhanced dichotomy for network services. In going forward with a regulatory scheme that distinguishes a carrier's basic transmission services from its enhanced services, it behooves us to make clear our perception of what constitutes a basic service. In so doing we are mindful of the arguments raised by various parties that the basic service category should be broadly construed so as to not limit the scope of regulated services. However, based on our review of the comments and our determination, infra, that enhanced services should not be subject to regulation, we conclude that the parameters of a basic service should be dictated by the purposes of the Act and the statutory scheme set forth in Title II for the regulation of common carrier communications services.

93. A basic transmission service is one that is limited to the common carrier offering of transmission capacity for the movement of information. In offering this capacity, a communications path is provided for the analog or digital transmission of voice, data, video, etc. information. Different types of basic services are offered by carriers depending on a) the bandwidth desired, b) the analog and/or digital capabilities of the transmission medium, c) the fidelity, distortion, or other conditioning parameters of the communications channel to achieve a specified transmission quality, and d) the amount of transmission delay acceptable to the user. Under these criteria a subscriber is afforded the transmission capacity to suit its particular communications needs.

94. Traditionally, transmission capacity has been offered for discrete services, such as telephone service. With the incorporation of digital technology into the telephone network and the inclusion of computer processing capabilities into both terminal equipment located in the customer's premises and the equipment making up a firm's "network," this is no longer the case. Telecommunications service is no longer just "plain old telephone service" to the user. A subscriber may use telephone service to transmit voice or data. Both domestic and international networks allow for voice and data use of the same communications path. Thus in providing a communications service, carriers no longer control the use to which the transmission medium is put. More and more the thrust is for carriers to provide bandwidth or data rate capacity adequate to accommodate a subscriber's communications needs, regardless of whether subscribers use it for voice, data, video, facsimile, or other forms of transmission.

95. Accordingly, we believe that a basic transmission service

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32 Digital modems or datasets are widely used domestically for the permissive transmission of data over leased voice grade lines and MTS circuits and the transmission of data over international MTS circuits is also allowed as a permissive use. See Dataphone decision FCC 79-842, released February 11, 1980. Similarly the IRCs offer the ability to transmit voice over their data conditioned circuits. See Datel decision FCC 79-843, released February 14, 1980. (These decisions are currently on appeal before the Court of Appeals for the District of Columbia, Case Nos. 80-1286, 80-1287, 80-1310 (1980)).
should be limited to the offering of transmission capacity between two or more points suitable for a user's transmission needs and subject only to the technical parameters of fidelity or distortion criteria, or other conditioning. Use internal to the carrier's facility of companding techniques, bandwidth compression techniques, circuit switching, message or packet switching, error control techniques, etc. that facilitate economical, reliable movement of information does not alter the nature of the basic service. In the provision of a basic transmission service, memory or storage within the network is used only to facilitate the transmission of the information from the origination to its destination, and the carrier's basic transmission network is not used as an information storage system. Thus, in a basic service, once information is given to the communication facility, its progress towards the destination is subject to only those delays caused by congestion within the network or transmission priorities given by the originator.

96. In offering a basic transmission service, therefore, a carrier essentially offers a pure transmission capability over a communications path that is virtually transparent in terms of its interaction with customer supplied information. It is clear that in defining a basic service in this manner, we are in no way restricting a carrier's ability to take advantage of advancements in technology in designing its telecommunication network. Consistent with our Tentative Decision, a carrier maintains its flexibility to structure its communications network such that the network efficiently functions as the basic building block upon which it (in the form of a separate subsidiary in some cases) as well as other service vendors can add computer facilities to perform myriad combinations and permutations of information processing, data processing, process control, and other enhanced services.

97. Under this scenario, the regulatory demarcation between basic and enhanced services becomes relatively clear-cut. An enhanced service is any offering over the telecommunications network which is more than a basic transmission service. In an enhanced service, for example, computer processing applications are used to act on the content, code, protocol, and other aspects of the subscriber's information. In these services additional, different, or restructured information may be provided the subscriber through various processing applications performed on the transmitted information, or other actions can be taken by either the vendor or the subscriber based on the content of the information transmitted through editing, format-

In this context, "code" means the binary representation of alpha-numeric and control characters. Thus an enhanced service may modify the transmitted bit stream to change it from the ASCII code to the EBCDIC code, which a basic service may not. "Protocols" govern the methods used for packaging the transmitted data in quanta, the rules for controlling the flow of information, and the format of headers and trailers surrounding the transmitted information and of separate control messages.

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ting, etc. Moreover, in an enhanced service the content of the information need not be changed and may simply involve subscriber interaction with stored information. Many enhanced services feature voice or data storage and retrieval applications, such as in a "mail box" service.\(^{34}\) This is particularly applicable in time-sharing services where the computer facilities are structured in a manner such that the customer or vendor can write its own customized programs and, in effect, use the time-sharing network for a variety of electronic message service applications. Thus the kinds of enhanced store and forward services that can be offered are many and varied.\(^ {35}\)

98. As we stated in paragraph 90, supra., the "voice" category was intended to distinguish traditional telephone service consisting of real time human-to-human oral conversation from other basic and various enhanced services. At footnote 60 of the Tentative Decision, we stated that we are not foreclosing enhanced processing applications from being performed in conjunction with 'voice' service. We indicated that "computer processing applications such as call forwarding, speed calling, directory assistance, itemized billing, traffic management studies, voice encryption, etc., may be used in conjunction with 'voice' service." \(^ {Id.}\) The intent was to recognize that while POTS is a basic service, there are ancillary services directly related to its provision that do not raise questions about the fundamental communications or data processing nature of a given service. Accordingly, we are not here foreclosing telephone companies from providing to consumers optional services to facilitate their use of traditional telephone service. Any option that changes the nature of such telephone service is subject to the basic/enhanced dichotomy and their respective regulatory schemes. For example, voice storage or automatic call answering within the network would be enhanced services. See para. 97, supra. Thus any tariffed optional services must not change the nature of traditional telephone service.\(^ {36}\)

99. A few comments question the legitimacy of not allowing code and protocol conversion as part of a basic service. While we have concluded that code and protocol conversion are enhancements to a basic service, we recognize that they also increase the utility of the

\(^{34}\) In a typical mail-box application Party A, intending to send a message to Party B, would compose a message at its terminal, and, over a communications line, direct the message to a computer memory location having the address, "Party B." Party B can periodically communicate with the computer at times of Party B's own choosing using its own terminal, and withdraw the contents of its memory location for display at the terminal.

\(^{35}\) The offering of store and forward services should not be confused with the use of store and forward technology in routing messages through the network as part of a basic service. Message or packet switching, for example, is a store and forward technology that may be employed in providing basic services.

\(^{36}\) As a practical matter this only affects those carriers subject to the resale structure for the provision of enhanced services since carriers not so subject may offer any enhanced service as a nontariffed option.
communications channel by allowing disparate terminals to commu­ni­cate with one another. Because the universe of terminals that can communicate with one another is larger where such capabilities are offered, arguments can be made that these functions should be allowed as part of a communications service. We have weighed the relative merits of permitting code and protocol conversion as part of a basic service and affirm our determination in the Tentative Decision, at para. 69, that these capabilities are more appropriately associated with the provision of enhanced services. This conclusion is premised on two factors. First, there is the likelihood of distorting the regulatory distinction between basic and enhanced services if protocol conversion is performed as part of a basic service. Second and more significant, however, is the fact that this determination has implications only for those carrier that remain subject to resale structure and the maximum separation policy. (See discussion in Part D, infra.) Entities not so subject may offer protocol conversion to all customers regardless of whether it is viewed under our Rules as basic or enhanced. The most significant effect our decision will have is to require some carriers to offer protocol conversion and like enhancements to their basic services through separate subsidiaries. No compelling evidence has been submitted in this proceeding that this separation will impose significant efficiency losses on the carrier or the public it serves. If at some future time evidence to the contrary is submitted, we are free to re­examine the public interest ramifications and regulatory implications of allowing a given protocol conversion as part of basic services.37

100. We believe that our adoption of a differentiation between basic and enhanced services best furthers the public interest because it comports with the actual development of this dynamic industry. As the market applications of computer technology increase, communications capacity has become the necessary link allowing the technology to function more efficiently and more productively. Transmission networks have benefitted from some of the productive breakthroughs which this relatively new field has made possible. As a result, the computer industry and the communications industry are becoming more and more interwoven. We believe, and the record shows, that this trend will become even more pronounced in the future. As it does, an increasing number of enhanced services will be developed to meet the need of the marketplace. Thus, the pressure on a set of administrative rules which fail to recognize the growth in operational sophistication demanded by our nation's economy will be inexorable.

37 While the comments in this proceeding do not address protocol conversion in any detail, the question arises as to whether some flexibility should be afforded a basic service provider that is subject to the separation requirement, in the view of the structure we are setting forth. It may be that certain low level protocol conversions should be allowed as part of a basic service. In the near future we will consider a Notice of Inquiry to examine in detail the implications of forbidding all protocol translation in such instances and whether the public interest requires some exceptions to this prohibition.
101. The distinction we adopt today recognizes that development and indeed should encourage its continuation. We believe it will do so in several ways. First, it leaves undisturbed the provision of basic service, whether as a building block supporting the provision of enhanced services or by itself. Second, it allows the provider of these basic services to integrate technological advances conducive to the more efficient transmission of information through the network without the threat of a sudden, fundamental change in the regulatory treatment of that service or firm. Third, it draws a clear and, we believe, sustainable line between basic and enhanced services upon which business entities can rely in making investment and marketing decisions. Fourth, in conjunction with our decision on the regulatory scheme applicable to such services, it removes the threat of regulation from markets which were unheard of in 1934 and bear none of the important characteristics justifying the imposition of economic regulation by an administrative agency.

Enhanced Services: Communications/Data Processing Classification

102. Having affirmed the dichotomy established between basic and enhanced services, we must now address the definitions proposed in the Tentative Decision for classifying enhanced services as either communications or data processing. It should be noted at the outset that implicit in the Tentative Decision is the recognition that the interstate telecommunications network should be exploited to its fullest potential. This means that restrictions on output, whether privately or publicly imposed, are contrary to the public interest when the effect is to lessen the utility of society's substantial investment in the telecommunications network. Consistent with this principle, we seek to remove unnecessary and inappropriate FCC regulation as an inhibiting barrier to the various combinations and permutations of enhanced services that may be offered over the nationwide telecommunications network. We affirm our conclusion that a need exists to re-examine the definitional scheme established in the First Computer Inquiry in order to provide greater market certainty. The question now is whether our statutory responsibilities and the public interest will best be served by adopting the definitional structure proposed in the Tentative Decision.

103. With the advent of distributed processing, we recognized the need for clearer delineations in order to minimize uncertainties for those making business decisions related to the provision of new and innovative enhanced services. We noted the need for a revised definitional structure to address this environment, rather than attempting to artificially construe the present Section 64.702 with the prospect of ambiguity and uncertainty. The existing Section 64.702(a) is inadequate primarily because it was formulated at a time when processing capabilities were limited to large-scale central computers; its inherent deficiencies rest with the fact that it thus does not take into account the type of services marketed in today's environment of
distributed processing. See Notice at paras. 7–14, Supplemental Notice at paras. 7–8, and Tentative Decision at para. 78–79.

104. We proposed a new definitional structure as a means of classifying enhanced services as either regulated communications or unregulated data processing services. See para. 30, supra. Attention was focused on enhanced services because it is at this level that new and innovative computer services are offered and uncertainty exists as to the communications or data processing nature. The definitional scheme would affect both communications common carriers and unregulated vendors of computer processing services. We noted that, as a practical matter, when Commission findings are made that certain computer services are or are not a communications offering, a guide is provided for service vendors as to what service may be offered without coming under our Title II regulatory umbrella. It is not surprising, therefore, that the definitional scheme advanced was the subject of substantial comment.

105. Comments filed in response to the Notice and Supplemental Notice stressed the importance of maintaining some degree of flexibility under any definitional attempt to distinguish communications and data processing. Taking these comments into consideration, we made an effort to devise workable criteria for distinguishing the communications or data processing nature of enhanced services. Specific definitions were proffered with the hope that greater regulatory certainty would prevail in the marketplace. Comments were sought on the public interest considerations relevant to adoption of the proposed definitions.

106. While there is some agreement among the parties as to the appropriateness of distinguishing between basic and enhanced services, there is no consensus that adoption of the proposed definitional scheme for distinguishing the communications/data processing nature of enhanced services would be in the public interest. Without exception, every element of the definitional structure we proposed was subject to criticism by one party or another, and various changes were suggested for rewording the definition of such terms as “computer processing,” “data processing,” “data processing service,” and “hybrid data processing.” Carriers argued that certain definitions should be altered or expanded to make clear that various computer services were communications services; unregulated service vendors found certain definitions too broad and argued that their adoption would result in regulation of data processing services.

38 The communications/data processing controversy is not relevant to basic services by definition.

39 Compare Western Union Telegraph Company, 11 FCC 2d 1 (1967) (found basic SICOM service to be a tariffable common carrier communications service) and Western Union Telegraph Company, 59 FCC 2d 140 (1976) (found four collateral services to be data processing) recon. denied 62 FCC 2d 518 (1976).
107. After three attempts to delineate a distinction between communications and data processing services and failing to arrive at any satisfactory demarcation point, we conclude that further attempts to so distinguish enhanced services would be ultimately futile, inconsistent with our statutory mandate and contrary to the public interest. In coming to this conclusion we are convinced that pursuing such a course of action would not accomplish the objectives of this proceeding, i.e., "to (a) foster a regulatory environment conducive to the stimulation of economic activity in the regulated communications sector with respect to the provision of new and innovative communications-related offerings; and (b) enable the communications user to optimize his use of common carrier communication facilities and services by taking advantage of the ever increasing market applications of computer processing technology." Tentative Decision, at para. 59. It is apparent that, over the long run, any attempt to distinguish enhanced services will not result in regulatory certainty. At most, reliance on a definitional approach which uses a primary purpose standard is a stop-gap measure, which—even assuming we were able to define the services accurately—would only reflect the differences in these services as they are configured with today's technology. In a market as vibrant as enhanced services, however, this distinction may miss important new developments. Thus, the need for ad hoc determinations would continue. As the market applications of computer technology continue to evolve we believe that attempts to distinguish enhanced services either will fail or result in an unpredictable and inconsistent scheme of regulation. This is because a definitional structure is not independent of advances in computer technology and its concomitant market applications. A certain degree of flexibility must be maintained to accommodate these advances. To the extent flexibility is incorporated into the definitions, there is a corresponding degree of uncertainty. Thus the boundary line differentiating enhanced communications and data processing services can vacillate, and confidence in decisions made based on that distinction would be diminished.

108. In addition to the fact that the record in this proceeding does not support the conclusion that greater regulatory certainty would result by adopting the proposed definitional structure, there are other factors which militate against classifying enhanced services for regulatory purposes. Such a regulatory scheme would most likely result in the direct or indirect expansion of regulation over currently unregulated vendors of computer services and deprive consumers of increased opportunities to have services tailored to their individual needs.

109. To fully appreciate the significance of this, it is helpful to

40Differing definitions were proposed in the Notice, Supplemental Notice, and Tentative Decision.
understand the dynamics of the marketplace in light of our current regulatory scheme. There are literally thousands of unregulated computer service vendors offering competing services connected to the interstate telecommunications network. The services they provide are many and varied. The only limitation on the types of services offered are those arising from the constraints of their own entrepreneurial capabilities and, in a very real sense, the implicit requirement that they structure their services so as to avoid crossing a regulatory boundary that would subject them to regulation. The former recognizes the fact that the potential for new and innovative services is merely a factor of the technical parameters of the computer equipment and the associated applications programs employed; the latter is a consequence of our Resale decision which subjected resale entities providing communications services to Title II regulation, but not vendors of data processing services. The interaction of the implicit requirement to avoid crossing the regulatory boundary and the competitive nature of the enhanced service market is crucial. Even with this barrier we have concluded that the enhanced services market is competitive, GTE-Telenet Merger, 72 FCC 2d 111 (1979).\textsuperscript{41} By removing this barrier the entire market for enhanced services should be even more competitive than it has been in the presence of that barrier. In the GTE-Telenet Merger decision at paragraph 141, we discussed several potential entrants, large computer time sharing companies, that faced no barrier to entry other than the necessity to comply with the requirements of Title II. The record in this proceeding makes clear that even when the Commission's stated policies are in favor of open entry, the very presence of Title II requirements inhibits a truly competitive, consumer responsive market.

110. Computer technology is increasingly removing technical limitations as to the types of enhanced services that may be offered. Yet, a classification scheme which would categorize enhanced services as either communications or data processing inherently limits the types of services that an unregulated entity may offer. The reason for this is clear. Providers of data processing and other computer services acquire the necessary transmission facilities from communications common carriers pursuant to tariff, and resell this transmission capability as part of their enhanced offering. At the same time, an entity which acquires the same transmission facilities from a carrier and offers a "communications" service is presently regulated as a common carrier under Title II of the Act. See Regulatory Policies Concerning Resale and Shared Use of Common Carrier Services and Facilities (Resale), Docket No. 20097, 60 FCC 2d 261 (1976), recon. 62 FCC 2d 588 (1977), aff'd AT&T v. FCC, 572 F.2d 17 (2d Cir.), cert. denied, 439 U.S. 875

\textsuperscript{41} In the GTE-Telenet merger we discussed the "augmented data transmission services". These services are encompassed within the enhanced category.

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Accordingly, a resale entity is regulated as a common carrier only if it is providing a communications service.\(^{42}\)

111. This has significant public interest implications in terms of the types of services that may be offered and the scope of our regulation. First, the vendor of unregulated enhanced services may not provide an enhanced "communications" service. This means that its services must be artificially structured so as to not come under our regulatory umbrella (the guidelines for which we have already concluded would be less than precise). To the extent services must be so structured there is a corresponding inability to fully tailor services to consumer needs. This has the result of artificially restricting the supply of services provided over the telecommunications network. In the final analysis both individual consumers and society in general bear unnecessary costs where such limitations exist. This becomes even more troublesome as new markets for enhanced services open and new services open up. While these services traditionally have been directed at the business sector, increasing attention is being focused on residential markets.\(^{43}\) It is apparent that technology and entrepreneurial incentives are directed toward new markets and new means of serving them. Thus restrictions on output, which would result from a classification scheme limiting those who wish to avoid the costs and delays of regulation, will increase as these new markets open up.

112. The second public interest implication is the increased potential for expansion of regulation over currently unregulated providers of information or data processing services. We noted in the Tentative Decision, at para. 152, that the tentative conclusion that a resale carrier would be able to offer both regulated and unregulated enhanced services (with the unregulated services offered on a nontariffed basis) carried with it significant regulatory and market implications for presently unregulated firms. A resale carrier could offer any enhanced service, whereas the unregulated vendor of computer services may offer only those enhanced services that are not regulated as "communications." The effect of this is that "... the communications common carrier would have tremendous flexibility to provide new

\(^{42}\) On reconsideration of the Report and Order in the Resale Decision we stated:

Thus, if what is ultimately offered to the public is data processing or anything other than "communications," this proceeding is not applicable to such activity. The question as to what is "data processing" or "communications" is at issue in Docket No. 20828, 62 FCC 2d at 600.

The more generic question of whether any resale entity should be regulated as a common carrier is undergoing re-examination in the Competitive Carrier Rulemaking, CC Docket No. 79-252, FCC 79-509 (released November 2, 1979).

\(^{43}\) The most apparent example of this is the potential offering of teletext and viewdata type services to residential consumers. Various telephone holding companies are actively pursuing the possibility of offering these information retrieval services to residential customers in conjunction with other store and forward message service applications.
and innovative services and to tailor these services to individual user needs, much more so than a currently unregulated entity. One result may be an indirect forcing of currently unregulated entities to acquire common carrier status in order to obtain the same degree of flexibility afforded a resale common carrier.” Id. We perceive that the impetus for this to happen will increase as the computer processing applications and technologies continue to evolve and grow. In addition to increasing the scope of Commission regulation, the specter of potential regulation may impose artificial barriers to entry. Here also, this effect may grow in significance as technology advances.

113. We have gone to great length in this proceeding to build a record which would best enable us to render a decision consistent with the mandate of this Commission as set forth in Section 1 of the Communications Act. 47 U.S.C. 151. Based on this record, the mandate of this Commission in a rapidly changing technological environment, the market developments resulting from the confluence of technologies, the impossibility of defining at the enhanced level a clear and stable point at which “communications” becomes “data processing,” the ever increasing dependence upon common carrier transmission facilities in the movement of information, the need to tailor services to individual user requirements, and the potential for unwarranted expansion of regulation, we conclude that the public interest would not be served by any classification scheme that attempts to distinguish enhanced services based on the communications or data processing nature of the computer processing activity performed. Accordingly, we conclude that all enhanced computer services should be accorded the same regulatory treatment and that no regulatory scheme could be adopted which would rationally distinguish and classify enhanced services as either communications or data processing.

Regulatory Scheme

114. Having concluded that there should be no regulatory distinction between enhanced services, we are left with two categories of services—basic and enhanced. The common carrier offering of basic transmission services are regulated under Title II of the Act. This proceeding does not address the nature and degree of regulation exercised over providers of basic services. Insofar as enhanced services are concerned, there are two options—subject all enhanced services to regulation, or refrain from regulating them in toto. We believe that, consistent with our overall statutory mandate, enhanced services should not be regulated under the Act.

115. We find the public interest benefits inherent in distinguishing basic and enhanced services and regulating only the former far outweigh any regulatory scheme that attempts to regulate some enhanced services and not others. Significant public interest benefits accrue to the Commission, carriers and other service providers, and consumers under this regulatory structure. Moreover, we are con-
vinced that such a regulatory scheme offers the greatest potential for efficient utilization and full exploitation of the interstate telecommunications network. The basis for such conviction becomes apparent when the advantages of this structure are compared to the existing regulatory environment or that proposed in the Tentative Decision.

116. From the perspective of the regulator, a major benefit in not classifying services within the enhanced category is that the scope of Commission regulation is focused on those services which are clearly within the contemplation of the Communications Act and which serve as the foundation for all enhanced services. Moreover, the extent of our regulatory authority is not automatically expanded with advances in technology and the types of enhanced services that can be offered. Semantic distinctions are avoided as to whether a given service is data processing, information processing, process control, communications processing, or some other category. As such, the potential for the development of an inconsistent regulatory scheme to accommodate these services is eliminated; all enhanced services are accorded the same regulatory treatment. To the extent uncertainty creates a regulatory barrier to entry, that barrier is also removed. With the nonregulation of all enhanced services, FCC regulations will not directly or indirectly inhibit the offering of these services, nor will our administrative processes be interjected between technology and its marketplace applications. This structure enables us to direct our attention to the regulation of basic services and to assuring nondiscriminatory access to common carrier telecommunications facilities by all providers of enhanced services.

117. Service vendors also benefit under this structure. Providers of enhanced services are afforded tremendous flexibility because there is no restriction on the types of services they may provide, except those imposed by the demands of their customers. The boundary between basic and enhanced services raises no such barrier since we believe we have identified a common necessary element in our definition of basic services. The trend in technology is toward new and innovative enhancements that build upon basic services. For computer vendors and entrepreneurs the momentum is away from basic communications services, rather than toward it. As a result, the types of enhanced services they may provide is limited only by their entrepreneurial ingenuity and competitive market constraints. Services need not be artificially structured or limited so as to avoid transgressing a regulatory boundary.

118. The benefit to consumers is that services which depend on the electronic movement of information can be custom-tailored to individual subscriber needs. Moreover, information systems can be programmed so that users dictate the nature and extent of computer processing applications to be performed on any given amount of information. As greater flexibility is offered consumers to tailor their services, a broader spectrum of the marketplace can be expected to

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take advantage of information processing services. To the extent regulatory barriers to entry are removed and restrictions on services are lifted there is a corresponding potential for greater utilization of the telecommunications network through greater access to new and innovative service by a larger segment of the populace. Finally, this structure creates the proper economic incentives for vendors to segregate their services such that consumers need pay only for those services necessary for their own information processing requirements.

Legal Considerations

119. In defining the difference between basic and enhanced services, we have concluded that basic transmission services are traditional common carrier communications services and that enhanced services are not. Thus, while those who provide basic services would continue to be regulated, enhanced service vendors would not be subject to rate and service provisions of Title II of the Communications Act. Our decision here is not a radical departure from our previous policy in this area. Rather, it is a natural outgrowth of our decision in the First Computer Inquiry in which we declined to regulate both data processing and hybrid data processing services. And although we decided at that time to establish a set of definitions in order to distinguish regulated communications service from unregulated data processing services, we are convinced from our ongoing evaluation of this area, that such a framework can no longer be justified. In fact, we doubt that one could be established.

120. We have described our repeated unsuccessful efforts to identify a discrete communications component (after the fashion of the First Computer Inquiry) in what we have finally come to label “enhanced service.” We are faced with the reality that technology and consumer demand have combined to so overrun the definitions and regulatory scheme of the First Computer Inquiry that today no comparable, minimally enduring line of demarcation can be drawn. In enhanced services, communications and data processing technologies have become intertwined so thoroughly as to produce a form different from any explicitly recognized in the Communications Act. The forms of the Act should not control either the substance of enhanced service offerings to the public or the manner in which they are made available.

121. Because enhanced service was not explicitly contemplated in the Communications Act of 1934, there is no more a requirement to confront it with a specific traditional regulatory mechanism than there was, for example, in the case of cable television, which has formal elements of common carriage and broadcast television, or of specialized mobile radio services, which bears many formal similarities to radio common carriage. Precedent teaches that the Act is not so intractable as to require us to routinely bring new services within the provision of our Title II and III jurisdiction even though they may involve a component that is within our subject matter jurisdiction. In fact, in 77 F.C.C. 2d
GTE Service Corp. v. FCC, 474 F.2d 724 (2nd Cir. 1973), the court substantially affirmed a Commission decision the underlying premise of which was that not all services involving the electronic transmission of information are communications services subject to regulation under Title II of the act.

122. Precedent teaches us, also, that all those who provide some form of transmission services are not necessarily common carriers. See, e.g., AT&T v. FCC, 572 F.2d 1725 (2d Cir. 1978) (sharing of communications services and facilities not common carriage and not subject to Title II); National Association of Regulatory Utility Commissioners v. FCC, 525 F.2d 630 (D.C. Cir. 1976) (NARUC I) (SMRS); American Civil Liberties Union v. FCC, 523 F.2d 1344 (9th Cir. 1976) (CATV); Philadelphia Television Broadcasting Co. v. FCC, 359 F.2d 282 (D.C. Cir. 1966). (FCC not required to treat cable television systems as common carriers nor to employ Title II regulatory tools.) Although the term itself is difficult to define with any precision, a distinguishing characteristic is the quasi public undertaking to “carry for all people indifferently.” NARUC I, 525 F.2d at 641; National Association of Regulatory Utility Commissioners v. F.C.C., 533 F.2d 601, 608 (1976) (NARUC II) citing Seamon v. Royal Indemnity Co., 279 F.2d 737, 739 (5th Cir. 1960) and cases cited therein. While one may be a common carrier even though the nature of the service offered is of use to only a segment of the population, NARUC I, 525 F.2d at 641, “... a carrier will not be a common carrier where its practice is to make individualized decisions, in particular cases, whether and on what terms to deal.” Id. At the same time, we recognize certain inadequacies of any definition of common carriage which is dependent entirely on the intentions of a service provider. Instead, as the Court’s opinion in NARUC I acknowledges, an element which must also be considered is any agency determination to impose a legal compulsion to serve indifferently. NARUC I, 525 F.2d at 642. We have specifically imposed no such obligation with respect to enhanced service providers.

123. Even this definition of common carriage cannot be readily applied to vendors of enhanced services. Inherent in the offering of enhanced services is the ability of service providers to custom tailor their offerings to the particularized needs of their individual customers. Thus, such services can vary from customer to customer as “individualized decisions” are made as to how best to accommodate the processing needs of their various subscribers. Admittedly, vendors of enhanced services also have the ability, if they so desire, to provide these services on an indiscriminate basis. Presumably, some do. But “this is not a sufficient basis for imposing the burdens that go with common carrier status.” NARUC I at 644. We cannot conclude that under the common law providers of these services are common carriers or that Congress intended that these services be regulated under our Title II of the Act. Indeed, to subject enhanced services to a common carrier scheme of regulation because of the presence of an indiscrimi-
nate offering to the public would negate the dynamics of computer technology in this area. It would substantially affect not only the manner in which enhanced services are offered but also the ability of a vendor to more fully tailor the service to a given consumer's information processing needs.

124. This does not mean however that we are void of jurisdiction over enhanced services. Congress gave this agency the mandate "... to make available, so far as possible, to all people of the United States a rapid, efficient, nation-wide and world-wide wire and radio communication service with adequate facilities at reasonable charges ..." 47 U.S.C. §151. In carrying out this mandate Congress made clear that the Commission's jurisdiction extends "... to all interstate and foreign communication by wire or radio . . ." 47 U.S.C. §152(a). The Act defines "communication by wire" and "communication by radio" as "... the transmission of writing, signs, signals, pictures and sounds of all kinds . . . incidental to such transmission." 47 U.S.C. §153(a) and (b). The statutory language of 47 U.S.C. §152 confers on this agency broad subject matter jurisdiction. The Supreme Court has stated that this Commission was given "regulatory power over all forms of electrical communication . . ." United States v. Southwestern Cable Co., 392 U.S. 157, 172 (1968), citing S. Rep. No. 781, 73d, long., 2d Sess., 1. See also GTE Service Corp., General Telephone Company of Southwestern v. U.S., 449 F.2d 846 (5th Cir. 1971); General Telephone Company of California v. FCC, 413 F.2d 390 (D.C. Cir.), cert. den., 396 U.S. 385 (1969).

125. Further, the Act was designed to provide the Commission with sufficiently elastic powers to readily accommodate new developments in the field of communications. In FCC v. Pottsville Broadcasting Co., the Supreme Court recognized the fluidity of this environment "... and of the corresponding requirement that the administrative process possess sufficient flexibility to adjust itself to these factors." 309 U.S. 134, 138 (1940). It has been held that the Act must be read as granting the Commission "a comprehensive mandate," with "not niggardly but expansive powers." National Broadcasting Co. v. United States, 319 U.S. 190, 219 (1943). See also United States v. Southwestern Cable Co., 392 U.S. 157 (1968); Philadelphia Television Broadcasting Co. v. FCC, 359 F.2d 282 (1966). Thus, Title II and Title III provide the principal regulatory forms of the Communications Act, but the Commission also has regulatory powers independent of Title II and Title III. United States v. Southwestern Cable Co., 319 U.S. at 172. Accordingly we find that the enhanced services under consideration in this proceeding constitute the electronic transmission of writing, signs, signals, pictures, etc., over the interstate telecommunications network and, as such, fall within the subject matter jurisdiction of this Commission.

126. Even though an activity falls within our subject matter jurisdiction, our ability to subject it to regulation is not without
constraints. The principal limitation upon, and guide for, the exercise of these additional powers which Congress has imparted to this agency is that Commission regulation must be directed at protecting or promoting a statutory purpose. In some instances, that means not regulating at all, especially if a problem does not exist. *Home Box Office v. FCC* 567 F.2d 9 (1977) cert. denied, 434 U.S. 829 (1977) (Commission’s pay cable rules vacated, in the absence of evidence supporting the need for regulation). See also *City of Chicago v. FPC*, 458 F.2d 731, 742 (1971) cert. denied, 405 U.S. 1074 (1972) (“regulation perfectly reasonable and appropriate in the face of a given problem [is] highly capricious if that problem does not exist”).

127. We have examined the extensive record in this proceeding to determine whether a comprehensive regulatory scheme for enhanced services is necessary to protect or promote some overall objective of the Communications Act. We find that it is not.\(^44\) Our decision here is an affirmation of the *First Computer Inquiry* where we refused to impose regulation upon data processing services, stating:

> In view of all of the foregoing evidence of an effective competitive situation, we see no need to assert regulatory authority over data processing services whether or not such services employ communication facilities in order to link the terminals of the subscribers to centralized computers. We believe the market for these services will continue to burgeon and flourish best in the existing competitive environment.

> We expect the competitive environment within which data processing services are now being offered to result in substantial public benefit by making available to the public, at reasonable charges, a wider range of existing and new data processing services. We believe that these expectations will continue to be realized in the free give-and-take of the market place without the need for and possible burden of rules, regulations and licensing requirements. *First Computer Inquiry, Tentative Decision*, 27 FCC 2d at 297–298. (emphasis added).

128. Nothing has transpired over the past decade which would lead us to alter these conclusions. On the contrary, we find that our perception of the market environment for these types of services was largely accurate. If anything, it was overly conservative as to the extent to which market applications of computer processing technology would evolve. Not only has there been an exponential growth in data information services for business purposes, but, as indicated above, the services are now being directed at residential consumers. The market is truly competitive. Experience gained from the competitive evolution of varied market applications of computer technology offered since the *First Computer Inquiry* compels us to conclude that regulation of enhanced services is simply unwarranted.\(^45\)

\(^{44}\) We recognize, of course, that occasional problems involving enhanced services could arise which would require us to invoke our subject matter jurisdiction and intervene. But we see no need to establish a comprehensive and burdensome regulatory scheme to deal with them. In our judgment, such matters can best be left for individual resolution.

\(^{45}\) Under our *Resale Decision* the regulation of certain resale carriers (which may now
129. In our judgment, regulation of enhanced communications services would limit the kinds of services an unregulated vendor could offer, restricting this fast-moving, competitive market. Regulation also would disserve the interest of consumers and the goals of the Communications Act. Expansion of regulation to cover or threaten to cover services and vendors that have not been regulated can not be sustained in the absence of an overriding statutory purpose. Even the continuation of regulatory policies when the justification for them no longer exists can not be sustained. As the U.S. Court of Appeals for the D.C. Circuit recently observed:

Even assuming that the rules in question initially were justified ... it is plain that that justification has long since evaporated. The Commission's general rulemaking power is expressly confined to promulgation of regulations that serve the public interest. ... Even a statute depending for its validity upon a premise extant at the time of enactment may become invalid if subsequently that predicate disappears. Geller v. FCC, 610 F.2d 973 at 980 (D.C. Cir. 1979) (footnote omitted.) See also HBO v. FCC, supra. That our current regulatory framework is no longer appropriate is clearly demonstrated by the fact that it serves as an artificial barrier to entry preventing many companies from offering other enhanced services as offshoots of their highly competitive data processing services. Many of these companies are now providing various enhanced services under the Commission's current computer rules free from Title II regulation; but they are, under the Commission's current regulatory approach, prohibited from expanding to other activities which are a natural outgrowth of these services.

130. We appreciate there can be disagreement as to the line we have drawn between basic and enhanced services. Plausible arguments can be tendered for drawing it elsewhere. At the margin, some enhanced services are not dramatically dissimilar from basic services or dramatically different from communications as defined in Computer Inquiry I. But any attempt to draw the line at this margin potentially could subject both the enhanced services providers and us to the prospect of literally hundreds of adjudications over the status of individual service offerings. We have noted the danger that such proceedings could lead to unpredictable or inconsistent regulatory definitions. See para. 107 supra. Such proceedings also could consume a very significant proportion of the resources of this agency. The requirement to devote significant resources to try to make individual service distinctions would necessarily reduce the resources available

be deregulated if they are only providing enhanced services) is a result of determinations as to the communication or data processing nature of these services pursuant to the definitional structure of the First Computer Inquiry (47 C.F.R. §§64.702). Because the communications/data processing boundary was being examined in this proceeding, the regulation of resale entities under Title II was contingent on the regulatory framework established here. See n. 42, supra. Accordingly, the prospect that some currently regulated resale entities might no longer be regulated under Title II has been recognized for some time.

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for regulating basic services and ensuring non-discriminatory access to common carrier telecommunications facilities.

131. We have tried to draw the line in a manner which distinguishes wholly traditional common carrier activities, regulable under Title II of the Act, from historically and functionally competitive activities not congruent with the Act's traditional forms. We believe that the Communications Act and the jurisprudence which has grown up around it make it plain that Congress intended that substance not form govern the treatment of services within the Act's reach. We have acted upon that belief by applying traditional Title II regulatory mechanisms to basic services and applying no direct regulatory mechanism for enhanced services.

132. Finally, the nature of enhanced services and their market underscores the reasonableness of our decision. As indicated, we do not believe these are communications common carrier services within the meaning of Title II. We acknowledge, of course, the existence of a communications component. And we recognize that some enhanced services may do some of the same things that regulated communications services did in the past. On the other side, however, is the substantial data processing component in all these services. We never have imposed a scheme of regulation over data processing. Any agency regulatory decision in this area must assess the merits—as we do in this order—of extending regulation to an activity simply because a part of it is subject to the agency's jurisdiction where such regulation would not be necessary to protect or promote some overall statutory purpose. See HBO v. FCC, supra. We specifically reject any implication that in not regulating enhanced services under Title II we are abdicating our statutory responsibilities under the Act. FPC v. Texaco, Inc., 417 U.S. 380 (1974). On the contrary, we have specifically concluded that our goals under Section 1 of assuring a "... Nationwide ... wire and radio communications service with adequate facilities at reasonable charges ..." will be more effectively promoted by relying upon our ancillary regulatory powers with respect to these emerging services. In exercising these ancillary powers, we can reasonably impose certain separate subsidiary requirements where required. We can also rely on the direct regulation we retain with respect to the independent provision of basic services. As we have stated basic services form one component of the charges for enhanced services—the remaining components of which are available from the competitive resources and capabilities of the data processing industry.

B. Customer-Premises Equipment (CPE)

Basic Media Conversion Criterion

133. The technological advancements affecting developments in computer applications for consumer services are also dramatically altering the types of terminal equipment used in conjunction with these services. See Tentative Decision at paras. 91-98. In a distributed
processing environment computer processing applications can be performed anywhere—either within the offeror's network or within equipment located on the customer's premises. As a result, when carriers offer CPE with various information processing capabilities as part of their transmission services, we have been faced with determining whether the carrier is providing a regulated or unregulated service. Dataspeed 40, supra, n. 4.

134. In the Supplemental Notice we inquired into whether CPE with information processing capabilities should be offered as part of a common carrier service and the structure under which carriers should offer such equipment. In the Tentative Decision we concluded that CPE should not be subject to a definitional scheme which would classify either the device or its functions as communications or data processing. We recognized that "there simply is no design stability in the terminal equipment field . . . [T]here is constant technological change, product innovation and refinement, and development of new markets and sub-markets in this field . . ." Id. at para. 102. Additional­ly, "[t]erminal devices are taking on more functions and intelligence and are increasingly incorporating data processing characteristics." Id. at para. 103. Thus the rapid pace of technological evolution would quickly render obsolete any attempt to draw distinctions among customer-premises equipment based on processing functions. We concluded that classifying CPE as either communications or data processing could impede a vendor's ability to refine and adapt its equipment offerings to user requirements through various processing applications accomplished by simple "software" or "hardware" changes to existing equipment. Implicit in this is the recognition that the uses to which CPE may be put are under the user's, not the carrier's, control. In the extreme case, we thought such an arbitrary distinction might result in multiple devices performing separate processing applications which otherwise could and should be performed economically within a single piece of equipment.

135. We attempted instead to draw a demarcation based on a standard independent of the communications/data processing applications CPE may perform. In so doing, consideration was given to the fact that the scope of the proceeding at that point in time did not address "unintelligent" CPE, such as the standard telephone handset, key telephone or simple PBX. We proposed that a distinction be made between CPE which performs only a basic media conversion (BMC) function and that which performs more than a BMC function. Id; at paras. 108-11. We concluded that carriers could provide only BMC devices as part of a "voice" of "BNV" service; CPE which performed more than a BMC function, if provided on a tariffed basis, could only

46 See Tentative Decision at paras. 91-107 for a discussion of the technological developments and regulatory concerns that militate against classifying CPE as either communications or data processing equipment.
be offered in conjunction with an ENV communications service under the separate subsidiary structure. There was no requirement, however, that a carrier tariff equipment which performs more than a BMC function. This proposal was designed to separate a carrier's provision of sophisticated CPE from its provision of basic services. This equipment was to be provided on a competitive basis, separate from a carrier's basic transmission services. The basic/enhanced dichotomy as proposed at that time would have allowed a carrier to provide sophisticated equipment on a tariffed basis if the carrier so desired. Sophisticated CPE could be marketed on a tariffed basis in conjunction with the offering of any enhanced services classified as communications.47

136. While this approach would have addressed the issues raised by the incorporation of distributed processing applications into CPE, we indicated that it also would impose the need for regulatory determinations which would not otherwise be required if all terminal equipment were to be accorded uniform regulatory treatment. Because the BMC classification scheme was offered to reflect the fact that the Notice and Supplemental Notice did not address a carrier's provision of simple devices, such as the basic telephone, and because over time this scheme would result in more equipment being offered on an unbundled basis, separate from that of the carrier's underlying transmission services, it was deemed appropriate to inquire into whether any distinction should be made between BMC and non-BMC equipment. Moreover, we noted that, because the Tentative Decision sought to isolate the facilities and costs of the carrier's underlying transmission services, identification of costs attributable to such services would be facilitated if all CPE were unbundled from the regulated communications service and provided on a separate basis. Id. at para. 160. Thus we sought comment on whether all carrier-provided CPE should be deregulated and the structure under which carriers should be allowed to provide it.

137. The BMC classification scheme received, at best, a mixed reaction from the commenting parties. The distinction was roundly criticized by a number of parties who characterized it as artificial and unworkable. They asserted that due to the basic fungibility of equipment no distinction between types of equipment was feasible. In particular data processing equipment vendors and their representatives argued that the artificiality of the distinction could lead to an unnecessary expansion in the scope of regulation and would increase the risk of improper cross-subsidization. The support which the BMC

47 As already discussed in the previous section, we have rejected any classification scheme that would attempt to distinguish the communications or data processing nature of enhanced services. Accordingly, CPE would no longer be tariffable as part of an enhanced services. The ability to optionally tariff CPE through the resale subsidiary would have removed the possibility that AT&T might be foreclosed from offering CPE under the terms of the 1956 consent decree solely because it was not regulated through the tariff process.

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dichotomy did receive was, for the most part, qualified. Although some carriers such as AT&T supported the distinction in principle, definitional modifications were suggested which if implemented, would have substantially changed the concept. For example, AT&T suggested that the demarcation point between basic and sophisticated terminal equipment be moved so that carriers could continue to provide certain types of arguably sophisticated terminal equipment with basic services. Additionally, GTE was concerned that the distinction would potentially limit flexibility in the design of new customer-premises equipment.

138. The question of whether customer-premises equipment should be tariffed drew an equally mixed reaction. Divergent entities, such as AT&T and NATA, took the position that the Communications Act required that the provision of customer-premises equipment by underlying carriers be subject to tariff regulation. Without such regulation NATA saw no hope for the development of a genuinely competitive equipment market. Other parties contended that no CPE of any type should be subjected to tariff regulation, asserting that the CPE market was competitive and that regulation would be unduly burdensome. They recommended instead that the Commission deregulate all customer-premises equipment and prohibit the offering of such equipment pursuant to tariff as part of a basic service or otherwise.

139. Based on the record compiled in this proceeding we are not able to find that the public interest would be served by classifying CPE based on whether or not more than a basic media conversion function is performed. No strong endorsements of this classification scheme have been offered, and those comments that did not claim such a distinction would be unclear, arbitrary, artificial, unjustified, or inappropriate, suggested modifications which would have significantly altered the proposal. We conclude that in light of the increasing sophistication of all types of customer-premises equipment and the varied uses to which such equipment can be put while under the user's control, it is likely that any given classification scheme would serve to impose an artificial, uneconomic constraint on either the design of CPE or the use to which it is put. Moreover, to adopt a classification scheme now, having the benefit of comments that address issues generic to all carrier-provided CPE, would be to only partially address the regulatory concerns raised by a carrier's provision of CPE in conjunction with its transmission services. We conclude that the regulatory process, carriers, unregulated equipment vendors, and the public would be better served if all CPE were accorded uniform regulatory treatment.

Regulatory Scheme

140. Having concluded that we should not classify CPE, our attention is focused on the role of the communication common carrier in offering CPE. Specifically we address whether the objectives of the Communications Act would be better served if carriers were required
to sell or lease CPE separate and apart from their regulated 
transmission services, and whether Title II regulation of carrier 
provided equipment is warranted. Upon review of the record in this 
proceeding, we believe that our statutory mandate can best be fulfilled 
if all CPE is detariffed and separated from a carrier’s basic transmis­
sion services.

141. In weighing the merits of this conclusion, we have considered 
the nature of the terminal equipment market and the effects of 
advances in technology on equipment design and use (Tentative 
Decision at paras. 94–98), the benefits of competition, and our 
statutory responsibility to insure the reasonableness of rates charged 
for interstate services. Beginning with our Carterfone decision this 
Commission has embarked on a conscious policy of promoting competi­
tion in the terminal equipment market. As a result of this policy the 
terminal equipment market is subject to an increasing amount of 
competition as new and innovative types of CPE are constantly 
introduced into the marketplace by equipment vendors. We have 
repeatedly found that competition in the equipment market has 
stimulated innovation on the part of both independent suppliers and 
television companies, thereby affording the public a wider range of 
terminal choices at lower costs. See, for example, First Report in 
Docket No. 20003, 61 FCC 2d at 867; Phase II Final Decision and Order 
in Docket No. 19129, 64 FCC 2d 1, 602. Moreover, this policy has 
afforded consumers more options in obtaining equipment that best 
suits their communication or information processing needs. Benefits of 
this competitive policy have been found in such areas as improved 
maintenance and reliability, improved installation features including 
ease of making changes, competitive sources of supply, the option of 
leasing or owning equipment, and competitive pricing and payment 
options.

142. For the most part, these prior Commission decisions have been 
directed at removing tariff provisions that restricted non-carrier 

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48 See e.g., Carterfone, 13 FCC 2d 420, recon den. 14 FCC 2d 571 (1968); Telerent 
Leasing Corp. et. al., 45 FCC 2d 204 (1974) aff’d sub nom. North Carolina Utilities 
I); Mebane Home Telephone Co., 53 FCC 2d 473 (1975), aff’d Mebane Home Telephone 
Co. v. FCC, 535 F.2d 1324 (D.C. Cir. 1976); First Report and Order in Docket No. 
19528, 56 FCC 2d 593 (1975); on reconsideration, 57 FCC 2d 1216 (1976), 59 FCC 2d 
716 (1976) and 59 FCC 2d 83 (1976). Second Report and Order in Docket No. 19528, 58 
FCC 2d 736 (1976); on reconsideration, aff’d sub. nom. North Carolina Utilities 
Commission v. FCC, 552 F.2d 1036 (4th Cir.), cert. den. 434 U.S. 874 (1977) (NCUC 
II); Phase II Final Decision and Order in Docket No. 19129, 64 FCC 2d 1 (1977); 
Implications of the Telephone Industry’s Primary Instrument Concept (PIC), 68 FCC 
2d 1187 (1976); Second Report in Docket No. 20003, FCC 80-5, released January 29, 
1980; First Report and Order in CC Docket No. 79-143, FCC 80-88, released March 
19, 1990.

49 See, PIC, 68 FCC 2d at 1175; Second Report and Order in Docket No. 19528, 58 FCC 
2d at 740; see also First Report in Docket No. 20003, 61 FCC 2d at 867.

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provided CPE from being attached to the network on a non-discriminatory basis. Our efforts culminated in a registration program which allows consumers to connect their own equipment to the network if that equipment conforms to certain technical standards and is properly registered with the Commission under Part 68 of the Rules. The Registration Program was an outgrowth of our *Hush-a-Phone* and *Carterfone* decisions which confirmed the existence of broad consumer rights under Section 201(b) and 202(a) of the Act. Along with such rights, corresponding carrier responsibilities were established by making unlawful any unjust or unreasonable interference with these consumer rights by the carrier. Consumers have the right to use the telecommunications network “... in ways which are privately beneficial without being publicly detrimental.” *Hush-a-Phone Corp. v. U.S.*, 238 F.2d 266 (D.C. Cir. 1956). See also *Carterfone*, 13 FCC 2d at 423. In essence, our efforts up until now have focused on increasing consumer choice and have resulted in non-discriminatory access to the telecommunications network for connection of non-carrier provided equipment. This has allowed consumers to exercise their rights in the selection and use of terminal equipment that best suits their needs. Moreover, it has opened up various segments of the equipment market to new entrants.

143. The competitive potential of terminal equipment markets is reflected in the fact that there are hundreds of manufacturers and suppliers of modems, terminals, storage devices, front end processors, large and small central processing units, multiplexers, concentrators, and virtually innumerable related devices. While some segments of the CPE market may be more competitive than others, we have been given no evidence that, given certain modifications in the markets, any segment is inherently less competitive than another. In fact, the lack of any significant competition in some segments has been attributable not to any inherent monopoly characteristics, but to those artificial constraints imposed by carrier tariff restrictions which we have struck down as unlawful. There are multiple vendors for almost any type of equipment desired, and consumers are free to select equipment that best suits their needs.

144. Many different types of CPE are offered in the marketplace and it is virtually impossible for a single supplier to satisfy all the various equipment needs of a user. The number of suppliers in the marketplace and the variety of products they offer is evidence of the severability of CPE from a carrier’s transmission service. Moreover, to a large extent, the technological revolution in terminal equipment has occurred independent of common carrier transmission services. Non-regulated equipment vendors have been instrumental in applying computer technology to CPE, and have been the primary leaders in innovation in this area. The degree to which innovation occurs independent of the telecommunications network also reflects the fact that CPE is clearly severable from the underlying utility service to
which it is attached. There is nothing inherent in any carrier-provided CPE, including the basic telephone, that necessitates its provision as an integrated part of a carrier's regulated transmission service.  

145. NATA has argued, however, that continued regulation is necessary if competition is to have a chance, its concern being the extension of market power by monopoly-based telephone companies. While there may be some validity to NATA's concerns, there are other non-regulatory methods of addressing carrier extension of monopoly power. (See discussion, infra.) Continued regulation of CPE will not foster a competitive equipment environment. In the present environment in which CPE is marketed, we are hard pressed to proffer any statutory or public interest justification for rate regulation of carrier-provided CPE. Regulation is a substitute for deficiencies in the marketplace. As currently applied to carrier provided CPE, however, regulation may serve to maintain whatever market aberrations exist. From the perspective of this Commission and our overall statutory mandate, the regulation of carrier provided CPE has a negative effect on competition and the exercise of our responsibilities over rates consumers pay for interstate communication services. This is particularly applicable to CPE offered by monopoly-based telephone companies. Contrary to the arguments of NATA, the continued regulation of CPE by these carriers in conjunction with the regulated transmission service may serve to restrict competition in the relevant equipment markets and distort the basic/enhanced dichotomy since distributed processing allows for the placement of computer processing applications in CPE.  

146. Moreover, it has a direct effect on the rates charged for interstate services. This becomes readily apparent when one considers the manner in which the communication ratepayer bears the costs associated with telephone company-provided equipment that is rate regulated.  

147. Charges for carrier-provided equipment used exclusively for interstate or foreign telecommunications have been regulated by this Commission. Charges for carrier-provided equipment used exclusively for intrastate telecommunications have been regulated by the state commissions. Regulation of charges for equipment that is used in common for intrastate and interstate services—as almost all CPE is—has normally been divided. This Commission has regulated the

50 See PIC, 68 FCC 2d at 1163 where we rejected the notion that a telephone service must be linked with a carrier-supplied telephone handset, as opposed to a handset supplied by an independent vendor. While in some sense a service may be incomplete without some kind of terminal equipment, “[o]ther basic utility services, such as electricity and gas, are similarly incomplete until connected to some device such as a light bulb or gas furnace which is necessary to make the service useful.” Id. Our statement, in the Tentative Decision at para. 107, to the effect that certain kinds of CPE may properly be provided as part of a communications offering was merely reflective of the fact that the scope of this proceeding did not at that time encompass the carrier provision of simple devices, such as the telephone handset.
interstate use portion and the state commissions have regulated the intrastate use portion.

148. Such divided regulation has occurred because terminal equipment charges have been bundled into the carrier’s transmission service charges. Investments and expenses associated with terminal equipment have been allocated between the intrastate rate base and expenses and the interstate rate base and expenses in order to compute bundled intrastate and interstate rates for services and equipment. Divided regulation has also been feasible where charges have been bundled at one level and unbundled at the other level. Although the telephone companies traditionally included one basic telephone as part of the service provided to subscribers to local exchange service, telephone companies have imposed separate charges for optional equipment for many years. Inasmuch as those separate charges theoretically represent intrastate use charges, such charges have generally been tariffed with and regulated by the state commissions. Separate charges for optional equipment that is used exclusively in connection with interstate services have been tariffed with and regulated by this Commission. The Dataspread 40/4 tariff is an example of such an interstate optional equipment tariff. The interstate use portion of optional equipment and basic telephones that are used for both intrastate and interstate services have bundled into the interstate service rates that are tariffed with and regulated by this Commission.

149. In view of the many changes that have occurred in the telecommunications industry in recent years the validity of permitting carriers to bundle terminal equipment and transmission service charges at any level is highly questionable. In general, bundling of goods and services may restrict the freedom of choice of consumers and restraints their ability to engage in product substitution.\textsuperscript{51} Unless the goods and services in the bundle exactly match the preferences of consumers, consumer satisfaction may be reduced by bundling. Thus, consumer satisfaction could be increased by changes in the marketing structure that allow the users, rather than the vendors, to determine the bundle of goods and services that get purchased. When the available choices of types and sources of CPE were limited to those

\textsuperscript{51} The economic analysis of “bundling” is a subset of the modern industrial organization literature on tying arrangements. An introduction to this literature is provided by P.M. Scherer, \textit{Industrial Market Structure and Economic Performance} 582-584 (2d ed. 1980). Various viewpoints on the economics of tying contracts are provided in W. Bowman, “Tying Arrangements and the Leverage Problem,” 67 Yale Law Journal 19 (1957), M.L. Burstein, “A Theory of Full-Line Forcing,” 55 Northwestern University Law Rev. 62 (1960) and Posner, \textit{Antitrust Law: An Economic Perspective} (1976). These references do not examine, however, the economics of tying contracts in markets where a rate-base regulated common carrier supplies a bundled common carrier communications service and a related product such as CPE. A formal economic analysis of bundling useful in the present context is provided by Adams and Yellen, “Commodity Bundling and the Burden of Monopoly,” 90 Quarterly Journal of Economics 475 (1976) This reference does not consider, however, the specific case of a rate-base regulated monopoly firm.
offered by the service vendor, presumably the service providers had an incentive to offer consumers a choice of service/equipment bundles that included every combination. Today, however, with the range of diverse CPE options that are available from other sources, the continued provision of bundled offerings by the service vendors presents distinct potential for limiting the freedom of customers to be able to put together the service and equipment package most desired by them.\(^52\)

150. Bundling of equipment and service charges obviously can inhibit competition because a subscriber to the carrier's service would not be likely to obtain equipment from a non-carrier vendor if the subscriber were required to pay for carrier equipment even if he elected not to use it. Such a pricing practice would at least arguably violate the Sherman Act prohibition of tie-ins that unreasonably restrain trade. See *Cantor v. Detroit Edison Co.*, 428 U.S. 579 (1976).\(^53\)

151. Shortly after the *Cantor* decision the telephone companies revised their local exchange service tariffs filed with the state commissions to include a credit for subscribers who do not elect to use the carrier-provided telephone that has customarily been included with local exchange service. Such credits effectively create an unbundled intrastate use charge for the first carrier-provided telephone.\(^54\) The

\(^52\) If the markets for the components of the commodity bundle are workably competitive, bundling may present no major societal problems so long as the consumer is not deceived concerning the content and quality of the bundle. The bundle either survives a market test or it does not, and competing vendors find it in their self-interest to make information available to consumers making this choice. More specifically, some consumers may believe that bundling reduces the "transactions cost" of determining the individual consumer's optimal commodity bundle, i.e., the seller rather than consumer performs the "search" for the optimal commodity combination. Alternatively, other consumers may not find the commodity bundle assembled by a vendor consistent with their individual preferences and may prefer to incur the "search costs" of assembling an optimal commodity bundle themselves. The latter alternative emphasizes the benefits of unbundling as a way of improving the consumer's freedom of choice. In technical terms, it can be shown more rigorously that bundling is inefficient in terms of a static welfare criterion. See Adams and Yellen, *supra*. Nevertheless, in many real-world, non-regulated, workably competitive markets, there exist sustainable markets for both bundled and unbundled commodities. In such cases consumers decide individually whether the benefits of packaging exceed the potential benefits of buying the components of a bundle individually. In regulated markets characterized by dominant firms, there may be an incentive, however, to use bundling as an anti-competitive marketing strategy, e.g., to cross-subsidize competitive by monopoly services, that restricts both consumer freedom of choice as well as the evolution of a competitive marketplace. Restricting bundling practices in such markets reduces these impediments to improve consumer welfare.

\(^53\) Although the Court did not decide the tie-in question in that case the opinions indicate that a majority of the Justices believed that Detroit Edison probably did violate the Sherman Act by offering electricity service and light bulbs to its customers at bundled rates. That practice is obviously closely analogous to the offering of telephone service and terminal devices at bundled rates.

\(^54\) Such credits may not be offered by all telephone companies in all states. However,
carriers already had unbundled intrastate use charges for extension telephones and other optional equipment.

152. The unbundling of intrastate use charges would not solve the competition problems in the retail terminal equipment market if carriers established intrastate use charges that reflect the portion of the terminal equipment investments and expenses that are allocated to intrastate use under the Separations Manual. Inasmuch as 20% or more of those investments and expenses are allocated to interstate use, such a charge would necessarily be substantially less than a charge which reflected the carrier's total terminal equipment investments and expenses and would presumably place competing non-carrier vendors at a severe disadvantage. In various proceedings some carriers have claimed that divided regulation does not in fact produce that result because their intrastate use charges are set at a level which reflects total terminal equipment investments and costs and the excess profits are used to set local exchange rates at levels which do not cover the allocable costs for that service. We examined such claims in the First Report in Docket No. 20003, 61 FCC 2d 766 (1976), and found that they may be unfounded. A New York Public Service Commission study had found that terminal equipment rates charged by the New York Telephone Company were not covering that company's terminal equipment costs. Id. at 772.

153. We have not attempted to determine whether the intrastate use charges of any telephone company are presently set at levels which could have a predatory effect upon competing non-carrier vendors. However, the bundling of a portion of carrier terminal equipment costs into interstate service rates clearly creates an opportunity to engage in predatory pricing. Unfortunately, the problems of predatory pricing and interservice cross-subsidy have created major regulatory difficulties for us. The problems of predatory pricing and cross-subsidy are real, although both the definitions and policy prescriptions for treating these problems vary in the academic literature.55

154. The bundling of equipment and service charges also produces distortions in interstate rates which would be difficult to remedy without requiring unbundling. At the present time a subscriber who

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does not use a carrier-provided telephone, a subscriber who uses a basic carrier-provided telephone, and a subscriber who uses a speakerphone that is provided by a carrier pay the same rate for an MTS call of comparable time and duration. Inasmuch as that MTS rate includes a substantial portion of the costs of all customer-premises equipment provided by the telephone companies, some subscribers are subsidizing other subscribers. That discrimination problem conceivably could be solved by devising a rate schedule which varies with the equipment used by the subscriber, but it would be extremely difficult for carriers or regulators to implement such a solution and at the same time foster a competitive equipment environment. Unbundling appears to be the only feasible solution to this discrimination problem.

 Moreover, in a regulated market, bundling introduces complexities that make it more difficult for regulators to achieve a rate structure for regulated services that is sufficiently aligned with cost differences among services to avoid discrimination among users of different services. This Commission has repeatedly held that rates for major service categories must reflect the costs of providing those services. See AT&T (Docket 18128), 61 FCC 2d 587 (1976), recon., 64 FCC 971 (1971), further recon., 67 FCC 2d 1441 (1978); ITT World Communications Inc., 29 FCC 2d 493, 495 (1971); American Satellite Corp., Order F.C.C. 75-768, released July 2, 1975; AT&T and Western Union Private Line Cases, 34 FCC 234, 237 (1963). Keeping service charges closely related to costs is made very difficult if not impossible when those costs include both costs that do not vary with usage but that change frequently due to technological change and costs that are usage sensitive. Such bundling in turn enhances the danger that a misallocation of costs will produce service rates that will result in a misallocation of resources. Terminal equipment costs represent a large portion of the non-usage sensitive costs that are presently reflected in interstate service rates and are the non-usage sensitive portion that is subject to rapid technological change.

 Unbundling in and of itself may not disassociate all costs of providing basic services from the provision of CPE. To the extent that such equipment is tariffed in a fashion that allows the carriers to earn a regulated return on their investment there is the potential for joint and common costs to distort either the price for the CPE or the basic service. While various unbundling mechanisms can be employed in this process, it is important that the costs attributable to the regulated utility service be separated from the competitive provision of equipment used in conjunction with the service by the removal of such equipment from a carrier's rate base. This is accomplished through detariffing.

 Moreover, CPE should be detariffed lest the tariffed offering

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56 This would appear to be a factor of the number of long distance calls a subscriber makes.

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of both basic services and CPE result in the regulation of enhanced services where the computer processing applications would be performed in the terminal equipment. We have concluded that CPE should not be classified as to its communications or data processing characteristics and that no classification scheme should be adopted. Implicit in this is the fact that no demarcation can be drawn for differentiating CPE for tariff purposes. The detariffing of CPE provides a consistent scheme of regulation for computer processing applications that can be performed in conjunction with the offering of common carrier communications services.

158. Moreover, once unbundled, CPE should be detariffed because the provision of terminal equipment should be allowed to evolve on a competitive basis. The Communications Act does not subject non-carrier vendors to rate regulation. Yet, if carriers remain subject to tariff regulation when they provide CPE, it will be difficult for them to respond in a timely manner to competitive initiatives of non-carrier vendors because the carriers would be required to comply with various notice and information filing requirements, in addition to lacking flexibility to respond to competitive price initiatives. Thus, detariffing of CPE will allow all equipment vendors to compete on an equal basis in responding to market conditions.

159 In considering these matters we came to the following conclusions: First, we find that the offering of CPE in conjunction with regulated communications services has a direct effect on rates charged for interstate services when such equipment is subject to the separations process. To the extent rates for interstate service reflect costs attributable to carrier provided CPE, regulation serves to thwart the competitive provision of that CPE which is tariffed. Second, we find that a carrier should have the same regulatory status in marketing CPE as any other equipment vendor and this should be reflected in our regulatory scheme. While historically certain carriers may have offered equipment as part of an "end-to-end" common carrier service, we have rejected carrier arguments that they are necessarily entitled to provide equipment in this manner. See Carterfone, 13 FCC 2d at 424; Second Report in Docket No. 19528, 58 FCC 2d at 739-740. We have even rejected the equivalent argument that a device as basic as the telephone handset is an indispensable part of the carrier's complete telephone service. PIC, 68 FCC 2d at 1165. Third, we find that the continuation of tariff-type regulation of carrier provided CPE neither recognizes the role of carriers as competitive providers of CPE nor is it conducive to the competitive evolution of various terminal equipment markets. We find that CPE is a severable commodity from the provision of transmission services. The current regulatory scheme which allows for the provision of CPE in conjunction with regulated communication services does not reflect its severability from transmission services, or the competitive realities of the marketplace.

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160. This separation of the provision of carrier-provided CPE from the carrier provision of regulated communications services complements the regulatory scheme we are adopting for basic and enhanced services. Trends in technology enable CPE to function as an enhancement to basic common carrier services and many enhanced service applications involve interaction with sophisticated terminal equipment. The uses to which these devices may be put are under the user's, not the carrier's control. The structure we are adopting for network services separates the costs of service enhancements from the underlying transmission service. Deregulation of carrier-provided CPE would separate the costs associated with the provision, marketing, servicing and maintenance of CPE from the rates charged for interstate common carrier services. Thus, the deregulation of CPE fosters a regulatory scheme which separates the provision of regulated common carrier services from competitive activities that are independent of, but related to, the underlying utility service. In addition, the separation of CPE from common carrier offerings and its resulting deregulation will provide carriers the flexibility to compete in the marketplace on the same basis as any other equipment vendor.

161. Accordingly, we conclude that regulation of carrier-provided CPE under Title II of the Communications Act is no longer warranted.\textsuperscript{57}

Transition Period

162. The implementation of our decision to require that CPE be provided on an untariffed unbundled basis will require substantial changes in existing tariffs, accounting practices, and settlements arrangements. In some instances it will also require substantial changes in the organization of entities that provide services and equipment. We have concluded that a substantial period of time should be allowed to enable carriers to make the necessary changes.

163. Although we can implement our decision without repealing Separations Manual provisions which will become obsolete when it will no longer be necessary to allocate terminal equipment between interstate and intrastate services, adjustments in other exchange plant

\textsuperscript{57} Excluded from CPE is over voltage protection equipment, inside wiring, coin operated or pay telephones, and multiplexing equipment to deliver multiple channels to the customer. In addition, we are excluding CPE attached to residential party line service because such equipment cannot currently be registered under Part 68 of the Rules. Since the overall percentage of such carrier-provided equipment is very low this is of minimal significance, and will be less so over time as there is a trend among various carriers to phase out party line service. Moreover, the status of mobile telephone equipment is currently being examined in our Cellular Mobile Radio proceeding CC Docket No. 79-318, FCC 79-774, released January 8, 1980. Our action here in deregulating CPE under Title II is not intended to alter in any way the requirements imposed for the licensing of radio equipment under Title III of the Act, even though it may be separated from the carrier's provision of basic services. This decision applies to CPE provided in the 48 contiguous states, Alaska, Hawaii, Puerto Rico, and the Virgin Islands.
allocations may be warranted to offset the indirect effects of unbundling upon residential subscribers who do not make many interstate calls. If such users are required to pay unbundled charges that reflect the terminal equipment investments and expenses that are presently included in the telephone company’s combined intrastate and interstate accounts, such users would experience increased terminal equipment costs which would not be offset by the reduced interstate MTS rates. There are a number of means by which this consequence could be alleviated, for example by allocating a larger portion of other exchange plant accounts to interstate services in order to enable state commissions to reduce residential local exchange rates. We have concluded that a Joint Board should be asked to explore such possibilities in order to determine what revisions would be desirable and lawful. An appropriate notice will be issued in the near future.

164. We believe that the carriers and the Joint Board should be able to make the necessary adjustments and decisions in sufficient time to enable us to implement our decision on March 1, 1982. We will accordingly require that unbundled interstate service rates be filed on not less than 90 days notice to become effective upon that date and that all carrier terminal equipment be detariffed on that date.

165. At the same time we believe that residential subscribers should be insulated from any significant dislocations as a result of the transition to a non-regulated terminal equipment environment. As we explain below, we are prepared to undertake appropriate action, if necessary, to help smooth the transition. In our view, it is important that immediately after the detariffing of terminal equipment residential subscribers not be required to pay more for the combination of terminal equipment and local exchange service than they had immediately prior to it. The question of interstate contributions for the use of local exchange facilities, of course, is being dealt with in Docket 78-72, FCC 80-198, released April 16, 1980 and the Joint Board proceeding called for therein. Any socially undesirable distributional effects - assuming there are any - from terminal equipment deregulation will be considered in connection with other proceedings. See paras. 166–167, infra. We believe that the interests of the residential subscriber should be safeguarded in the following manner. By March 1, 1981 all telephone companies providing exchange service must unbundle their rates for residential service and file new local tariffs with the various state commissions showing a separate charge for the telephone instrument.58 The rate level for residential service should be no higher following this subdivision than previously. After March 1, 1982, one option which each telephone company which chooses to remain in the CPE business (either individually or through an affiliate) must offer to

58 While we could require that tariffs for unbundled equipment be filed with this Commission such a requirement has obvious practical drawbacks. Beyond that, we see no need to depart from the current practice of having telephone equipment tariffs filed with the various state commissions.
existing residential subscribers in its franchise area is the opportunity to continue leasing the instrument(s) (including maintenance) in place at the terminal equipment tariff rate prevailing immediately prior to deregulation for the life of the instrument(s). We believe that this requirement will not only diminish any severe impact upon residential subscribers as a result of the adoption of a new economic mechanism for the supply of terminal equipment, but also will afford the telephone companies an incentive to unbundle the price of residential terminal equipment from local exchange service as fairly as possible. Carriers, of course, may in addition to this option offer any other lease or sales proposals to residential subscribers which they wish and are free to offer equipment on a deregulated basis prior to the dates we have established for deregulation.

166. The deregulating and detariffing of CPE raise a number of interrelated issues that we shall address in the near future. These include depreciation rates for terminal equipment, adequacy of investment recovery, and prices at which terminal equipment is removed from carriers' rate bases. We shall also consider the relationship of the residential subscriber option indicated in the preceding paragraph to these issues. Thus, prior to the date deregulation is to take effect, it may be necessary for this Commission to participate in a represcription of the depreciation rates for terminal equipment in order to anticipate the changed conditions and assumptions that would result from deregulation of such equipment. It may be necessary to allow for more rapid depreciation of terminal equipment because of the greater market uncertainties that may accompany such a step. Questions concerning a carrier's recovery of its investment in such equipment will also have to be addressed to the extent there is any shortfall or surplus of investment recovery. Because this is related to the price charged consumers choosing to purchase their telephone instrument, we must also address the reasonableness of the transfer price of any unsold equipment from telephone companies to their separate subsidiaries or to their affiliated CPE marketing groups or to unaffiliated companies, as may be appropriate. Accordingly, we intend to initiate a proceeding that would examine into possible changes to depreciation schedules and also address the basis upon which unsold equipment should be removed from a carrier's regulated rate base and books of account.

167. The effect of this decision will be to restructure the manner in which carriers provide CPE. We have essentially set forth a mechanism whereby consumers are better able to ascertain the desirability of acquiring terminal equipment from a full range of equipment suppliers and regulators are better able to ascertain and regulate the charges for common carrier communications services. The overall economic impact on carriers should, on balance, be negligible since we are merely requiring separation of the costs of providing CPE, from the common carrier transmission offering. This is not to say that certain economic
consequences may not ensue to the extent that some or all carrier-provided CPE may be currently overpriced or underpriced, but our convening of a Joint Board to look at the separations and settlement impact and the institution of a proceeding to examine into concerns relative to appropriate depreciation and capital recovery will address any significant problems that may arise.

Legal Considerations

168. The argument is made in the comments that CPE is part of common carriage and must be regulated as communications under the Act. It is argued that the Commission may not forbear the regulation of carrier-provided CPE because the Act mandates the regulation of "all instrumentalities" which are incidental to a carrier's regulated transmission service.

169. In the Tentative Decision we set forth our view of the statutory scheme of the Communications Act relative to our jurisdiction and statutory responsibilities over carrier-provided equipment. We specifically addressed the legislative history of the "all instrumentalities" provision of Section 3 of the Act. Tentative Decision at paras. 115–118.

170. Based on our examination we concluded that the legislative history demonstrates that this Commission has a mandate which compels, at a minimum, that any carrier charge, practice, classification or regulation in connection with the offering of a communications service be just and reasonable. In conferring jurisdiction upon this agency over "all instrumentalities . . . incidental to . . . transmission," the intent was "... to give the FCC ability to regulate any charge or practice associated with a common carrier service in order to insure that the carrier operated for the public benefit." Id. at 118. Moreover, we concluded that "... the legislative history of the Communications Act manifests no Congressional intent that all carrier-provided equipment be offered on a regulated basis subject to the tariff requirements of Section 203 of the Act, or that such equipment must be offered as 'part and parcel' of a communications service." Id. at 120.

171. The Commission is given "expansive powers" to appropriately tailor regulation to suit the needs of the highly complex and rapidly changing communications industry. On numerous occasions we have exercised our jurisdiction over carrier-provided CPE when used in conjunction with an interstate communication service, and it well

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60 See, Use of Recording Devices, 11 FCC 1033 (1947); Katz v. AT&T, 43 FCC 1328 (1958); Jordaphone Corp. v. AT&T, 18 FCC 644 (1954); Hush-a-Phone Corp. v. United States, 238 F.2d 266 (D.C. Cir. 1956), decision on remand, 22 FCC 112 (1957); AT&T
recognized that CPE used for both intrastate and interstate communications is not beyond federal jurisdiction should the need arise. *NCUC II*, 552 F.2d at 1050. This is not to say, however, that we are compelled to require the carrier provision of CPE as part of a communications service. For example, *NCUC II* itself upheld our specification of the terms of interconnection of CPE to the interstate network but did not require us to regulate the rates of such equipment. In fact, we have on occasion specifically required that terminal equipment not be provided as part of certain common carrier communications services. Thus, the Communications Act does not require that the provision of terminal equipment be a common carrier service, "[n]or does the Act contain any requirement that the carrier furnish a terminal of any kind as part of any communications service." *PIC*, 68 FCC 2d at 1163. The fact that some carriers have traditionally furnished various types of equipment with their communications services does not establish that they are required to do so or warrant any universal inferences about the public interest. See *MCI Telecommunications Corp. v. FCC*, 561 F.2d 365, cert. den. 434 U.S. 1040 (1977).

172. Indeed, the Commission has never regarded the provision of terminal equipment in isolation as an activity subject to Title II regulation. Equipment manufacturers, distributors, and even regulated carriers routinely offer terminal equipment for sale or lease on an untariffed basis. Nevertheless, such activities are not necessarily beyond the jurisdiction of the Commission to the extent they are encompassed within the definition of wire or radio communications in Section 3(a) of the Act.

173. The definitions of wire and radio communications in Section 3(a) and (b) are far-reaching and include "all instrumentalities, facilities, apparatus, and services incident to such transmission." Indeed we explicitly find that all terminal equipment used with interstate communications services are within the Act's definition of wire and radio communications. However, the fact that the provision of incidental "instrumentalities," etc. is within the subject matter jurisdiction of the Act does not mandate regulation of the "instrumentalities," etc. is subject to Federal jurisdiction.


E.g., in the provision of MARISAT service we require that terminal equipment be offered on an unregulated, non-tariff basis and that MARISAT carriers providing such terminals completely separate the charges therefor from charges for the common carrier communications services. We found that "... the terminal and communication service offerings should be kept entirely separate, so that the costs of the terminal ... are in no way recovered through the charges for the communications service and there is no other compulsory tie between the sale of the communication service and the provision of terminal equipment." *COMSAT General Corp.*, 52 FCC 2d 983, 992-93 (1975).

Section 2(a) provides that "all interstate and foreign communication by wire or radio" is subject to Federal jurisdiction.
The equipment, by itself, is not a "communication" service and thus is not required to be separately tariffed under Section 203. Any regulation by tariff or otherwise of terminal equipment must be demonstrated to be reasonably ancillary to the effective performance of the Commission's responsibilities under Title II or "imperative for the achievement of an agency's ultimate purposes." The record here fails to demonstrate the need for tariff-type regulation.

174. We have concluded that the provision of terminal equipment for interstate service is a highly competitive activity. It should no longer be regulated, as it has been in the past, as an offering bundled with interstate transmission services. However, we also believe that it is necessary to prescribe under our reasonably ancillary jurisdiction certain terms and conditions under which such equipment is offered to the public by certain dominant telephone companies such as AT&T or GTE.

175. The provision of equipment has traditionally been subject to regulation both under Title II when offered as part of an end to end offering and under the Commission's ancillary jurisdiction when offered separately or in isolation. We do not believe that any parties to this proceeding have disputed that these pre-existing alternative regulatory approaches to terminal offerings are available to the Commission. The basic question before us, therefore, is whether the Commission can reasonably require certain carriers to terminate their present practice of offering terminal equipment as part of an end to end service and to make equipment available to their customers on a different basis.

176. The basic power to require this change in current practices by carriers offering interstate communications services inheres, we believe, in Section 205 of the Act. We have previously exercised our power under this provision broadly to promote competition in the provision not only of customer-provided equipment but also of interstate transmission services for purposes of resale. We view the

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63 Permian Basin Area Rate Cases, 390 U.S. 747, 780 (1968); United States v. Southwestern Cable Co., supra, 392 U.S. at 178, HBO v. FCC, supra.
64 For example, for reasons set forth below, we will require that terminal equipment be offered by these carriers through a separate subsidiary. This requirement is intended to, and should, minimize the possibility that monopoly ratepayers will subsidize competitive terminal equipment offerings. Since these terminal equipment offerings will continue to be subject to our jurisdiction under the Act, we believe we retain ample discretion to take any action in the future with respect to practices which may be necessary to assure that our responsibilities under the Act can be adequately fulfilled. The mere potential exercise of our remedial powers may also act as an effective deterrent to anticompetitive conduct by dominant suppliers of terminal equipment.
question before us as essentially a choice between two different approaches to regulation of charges for terminal equipment used in the provision of interstate services.

177. Under current procedures we engage in tariff-oriented review of these charges only to the extent that they are bundled into charges for interstate transmission services. We now believe that these charges for use of interstate services should be explicitly identified to a customer on a separate basis. We further believe that these charges in connection with interstate service should be cost-related and not stated on a usage sensitive basis. We also intend that these services should be provided by certain carriers through an entity separate from the provider of underlying transmission services. By so doing, we believe that we can more effectively than at present assure against cross subsidization of essentially competitive services by essentially distinct and separate transmission services.

178. While such an approach would not involve tariffing or service-by-service review of individual equipment offerings, we believe that we should be able more effectively to meet our responsibilities under the Act than under current arrangements. We now exercise little or no effective oversight over the offering of terminal equipment utilized jointly for interstate and intrastate communications. Faced with this choice between alternative regulatory approaches, we believe that there are extraordinarily compelling reasons for adopting a new regulatory approach to the interstate provision of terminal equipment.

179. We believe that the provision of terminal equipment on an unbundled and detariffed basis should enhance significantly our flexibility to assure cost-based provision of transmission services in an increasingly competitive marketplace. This step will also promote our objective of assuring a viable competitive market for terminal equipment. As a result of our actions in requiring interconnection in Carterfone and in subsequently establishing technical standards in this area, we are convinced that there has now developed a strong viable market for equipment which assures users a wide range of competitive alternatives.

180. Our action today is only another in a series of steps to isolate terminal from transmission offerings, increase consumer choice, and to open equipment markets to full and fair competition. By striking down carrier-imposed restrictions on requiring equipment interconnection over a decade ago, we foreclosed carriers from offering only the single option of end-to-end communications service. In implementing a registration program applicable both to carrier provided and customer provided equipment, we sought to isolate the technical standards for transmission and terminal offerings and assure competitive parity

F.2d 1036 (4th Cir.), cert. denied, 434 U.S. 874 (1977) (NCUC II); Resale and Shared Use of Common Carrier Services, supra; aff'd sub nom. AT&T v. FCC, 572 F.2d 17 (2d Cir. 1978), cert. denied, 439 U.S. 875 (1978).
among all suppliers of customer provided equipment. In the same manner, in today requiring equipment to be made available to interstate users on a cost-based non-usage sensitive basis—with equipment investment fully isolated from transmission investment and from the separations process—we hope to strengthen further the prospects for comparing competitive equipment offerings in the market.

181. We are thus convinced our goals under the Act can be more effectively promoted by relying on a different set of regulatory tools. This choice of the most appropriate regulatory mechanism is, we believe, one entrusted to our discretion, especially with respect to terminal equipment where such offerings have historically been viewed as only within the Commission's ancillary jurisdiction, not its Title II jurisdiction, when offered separately from transmission services. Congress has recognized that communications services are highly dynamic and changing and that the Commission must have flexibility to respond to these changing conditions. 66

182. The degree of discretion available to the Commission is not, moreover, fundamentally determined by the characterization of the offering of terminal equipment as merely the provision of an "instrumentality" or "facility"—not of a "common carrier service." Even if the provision of terminal equipment in conjunction with transmission service is regarded as part of the common carrier service, the Commission clearly has the authority to require "unbundling" of equipment from transmission service. 67 We do not believe that the Act requires an unbundled equipment offering to be made only under tariff. Section 203 of the Communications Act, 47 U.S.C. §203, does not expressly refer to terminal equipment. To the contrary, Section 203(a) requires that carriers file a schedule showing charges for "communication between points on its own system" and "between points on its own system and points on the system of [connecting or other] carrier[s]." (Emphasis added.) That language describes transmission services rather than terminal equipment charges. 68 While "communication" is defined in Section 3(a) and (b) to include such equipment, Section 203 does not require the inclusion of equipment in an offering.

183. We believe that the extensive record of this proceeding amply supports our conclusion that terminal equipment markets can be workably competitive so long as constraints on competition are not tolerated. Moreover, on the record and on the basis of our informed judgment about likely competitive trends in the terminal equipment


67 See the discussion of the Commission's powers under Section 205, supra, at para. 169.

68 Section 203 also requires that tariffs show carrier "classification, practices and regulations affecting such charges" and "such other information" as this Commission may require.
market we believe that we can reasonably conclude that according broad discretion to carriers to raise or lower terminal equipment rates or to enter into individual contractual arrangements with individual customers is not likely to result in users being charged unreasonable or unreasonably discriminatory rates.\textsuperscript{69} We reject the contention that in adopting these regulatory policies we are abdicating any responsibility imposed on us under the Communications Act. We also believe that the broad structural safeguards we are instituting with respect to offerings by dominant carriers will implement a scheme of indirect regulatory controls which should reduce the likelihood of undetected cross-subsidization of competition by monopoly services.

184. We recognize, of course, that as a practical matter, the states may no longer be able to regulate, as they have in the past, the charges for terminal equipment used jointly in the provision of intrastate and interstate services. Divided regulation of equipment charges is not feasible if the equipment charges are unbundled from both interstate and intrastate services. Nevertheless, we do not believe that Section 2(b) of the Act forecloses us from taking actions which have this practical effect on the states.\textsuperscript{70}

185. It is clear that the Commission has jurisdiction under Section 2(a) over all interstate communications services; and its powers include the authority to require unbundling of terminal equipment from interstate transmission services. As we have noted, the requirement that terminal equipment be unbundled allows the Commission to assure that rates are cost-based and, therefore, not anticompetitive or discriminatory. Precluding bundled or averaged usage-sensitive rates for terminal equipment used for interstate communications in whole or in part obviously will have an adverse impact on the states' ability to base rates for the intrastate usage of such terminal equipment on similar concepts. To this extent, the detariffing of terminal equipment required by this decision will affect the charges for intrastate communications services. This is because, as a practical matter, unless there were two separate phone systems with one being used wholly intrastate, unbundled cost-based pricing for a piece of equipment at the federal level necessarily precludes any other result by the states. But nothing on the face of Section 2(b) precludes this Commission from exercising its conceded regulatory authority over interstate communi-

\textsuperscript{69} Indeed, we believe that given the degree of competition in this market some individualized negotiations among terminal equipment providers and customers will result in more vigorous and effective competition than currently when services are available only on a single schedule of charges. There may be even less of a danger of unreasonable or unreasonably discriminatory rates when customers are in a position to “comparison shop” among different suppliers.

\textsuperscript{70} Section 2(b) provides that “nothing in this Act shall be construed to apply or give the Commission jurisdiction with respect to (1) charges, classifications, practices, services, facilities, or regulations for or in connection with intrastate communication service by wire or radio of any carrier . . .”
cations service in ways that might have the practical effect of displacing state authority to regulate intrastate rates.

186. In *North Carolina Utilities Commission v. FCC*, 552 F.2d 1036 (4th Cir. 1977), it was argued by the telephone companies and state utility commissions that Section 2(b)(1) mandates state control over jointly used terminal equipment and that, therefore, the Commission lacked authority to establish its terminal equipment registration program. The court rejected the argument that Section 2(b)(1) deprived this Commission of jurisdiction, even though it was conceded that the equipment was used *predominantly* in purely intrastate communications. The court explained that if Section 2(b) were construed to give the state primary authority over jointly used terminal equipment whenever state regulations conflicted with Federal rates applicable to interstate calls, the Commission would necessarily be prevented from discharging its statutory duty under Sections 1 and 2(a) to regulate interstate communication.

187. Rejecting the contention that the word “nothing” in Section 2(b)(1) overrides any potentially contrary language elsewhere in the Communications Act, the court explained that the argument misses the point. According to the court, “Section 2(b)(1) does not deny the FCC jurisdiction with respect to interstate facilities; it excludes only intrastate facilities from FCC jurisdiction.” Therefore, the court explained that:

> The terminal equipment dealt with in the order appealed from is used for both interstate and intrastate communications. The withdrawal of jurisdiction over one cannot be read to mean the withdrawal as to the other. Based on the statutory policy of centralizing control over interstate communications in the FCC, the otherwise plenary jurisdiction conferred by Sections 201–205, and the recognition by 410(c) of federal supremacy in rate base allocation, we concluded in *North Carolina I* that the “intrastate” facilities of Section 2(b)(1) were those facilities “separable from and . . . not substantially affect[ing] the conduct of or development of interstate communications.” 537 F.2d at 793. Congress’ use of the word “nothing” in no way detracts from this analysis, nor does it suggest—as do petitioners—that the “intrastate” facilities of Section 2(b)(1) are those items of terminal equipment used “predominantly” for local communication.

188. The State utility commissions also contended that Federal control of interconnection would deprive the States of “meaningful” ratemaking power reserved to them under Section 2(b)(1) because increased substitution of independently provided terminal equipment such as PBXs and key telephones will reduce revenues available to subsidized residence and one-phone consumer service. The court emphatically rejected this contention because:

> Recognition of federal primacy in the regulation of jointly used terminal equipment no more curtails state ratemaking power as a matter of statutory jurisdiction than

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71 552 F.2d at 1046.
72 552 F.2d at 1046.
would the denial of state authority to set rates for interstate calls in order to subsidize local exchange and intrastate services. In the end, the problem of subsidy reduces to the factual problem of obtaining sufficient revenues to cover the difference between providing subsidized service and the regulated price of subsidized service... Political expediency may encourage state commissions to defend their current option to bury subsidy costs in as many holes as possible, but this concern cannot be allowed to determine the allocation of jurisdictional competency between State and federal agencies."

In short, the court concluded that even if FCC actions had the effect of rendering Section 2(b)(1) "meaningless" as a practical matter, the primacy of federal jurisdiction over interstate communications under Sections 1 and 2(a) must prevail. 189. Likewise, the Commission's decision in this case to require that all terminal equipment be detariffed does not contravene the State's authority under Section 2(b)(1). Although the practical impact of our decision may be to render "meaningless" the jurisdiction of the States to establish charges for intrastate use of facilities, our decision is intended to implement our authority under Sections 1 and 2(a) over interstate service—not as a measure to deprive the States of authority. To the extent that our decision has such effect, it is only because terminal equipment is used jointly for interstate and intrastate communications. Certainly, as a legal matter, our action in this case stands on no different footing than our action which was sustained in NCUC in establishing a registration program. In both cases, even if the States are deprived of "meaningful" ratemaking power, there is "no statutory basis for the argument that FCC regulations serving other important interests of national communications policy are subject to approval by state utility commissions." 552 F.2d at 1046–1047.

D. Carrier Provision of Enhanced Services and CPE

1. Introduction

190. We now address the manner in which carriers may participate in the provision of enhanced services and CPE.

191. In the First Computer Inquiry we concluded that there should be complete separation of a carrier's regulated communications services from its unregulated data processing ventures. We adopted what has become known as a "maximum separation" policy under which carriers are required to offer unregulated data processing services through a separate corporate entity, with separate officers, operating personnel, computer facilities, and books of account. 75 This

73 552 F.2d at 1048.
74 The court pointed out that its construction of the statute rendered Section 2(b)(1) "meaningless" not because exclusively intrastate facilities cannot be built or imagined... but because state commissions prefer to avoid the economic and political costs of forcing the consumer to buy two sets of terminal equipment." 552 F.2d at 1049.
75 47 C.F.R. §64.702(c). A carrier or holding company with revenues under one million dollars is exempt from the "maximum separation" requirements.

77 F.C.C. 2d
policy was established to set forth a structure under which carriers could compete in the provision of data processing services without adversely affecting either monopoly ratepayers or monopoly services. In imposing the conditions of maximum separation we believed that they would "be conducive to removing possible anticompetitive practices and avoid the invocation of corrective measures that might otherwise be called for." Tentative Decision, First Computer Inquiry, 28 FCC 2d at 303. Eschewing regulation of data processing, we sought to limit regulation "to requirements respecting the framework in which a carrier may publicly offer particular non-regulated services, the nature and characteristics of which require separation before predictable abuses are given opportunity to arise." Final Decision, First Computer Inquiry, 28 FCC 2d at 277. The maximum separation policy and the objectives we sought to achieve were substantially affirmed in GTE Service Corp. v. FCC, 474 F.2d 724 (2d Cir. 1973). In so doing the court noted that "the expansive power of the Commission in the electronic communications field includes the jurisdictional authority to regulate carrier activities in an area as intimately related to the communications industry as that of computer services, where such activities may substantially affect the efficient provision of reasonably priced communications service." Id. at 781.

192. In the Tentative Decision we sought to modify this structure for carriers providing enhanced services. We proposed that carriers owning communications transmission facilities be required to offer enhanced services only on a resale basis, which would necessitate the acquisition of the underlying transmission facilities pursuant to tariff if they desired to offer enhanced services. As a result of this modification, underlying carriers would still be limited to the provision of regulated services, but resale carriers could offer both regulated and unregulated services with the latter being offered on a non-tariffed basis.

193. We found significant public interest benefits in this resale structure relative to our regulation of common carrier services and the types of enhanced services that could be offered to the public. As to common carrier regulation, availability of the telecommunications network would be a common denominator for any new entrant or existing provider of enhanced services; the same communications services would be available to all providers of enhanced services on the

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76 Our objectives were to assure:

(a) that such [non-regulated] services will not adversely affect the provision of efficient and economic common carrier services; (b) that the costs related to the furnishing of such services will not be passed on, directly or indirectly, to the users of common carrier services; (c) that revenues derived from common carrier services will not be used to subsidize any data processing services; and (d) that the furnishings of such services will not inhibit free and fair competition between communication common carrier and data processing companies or otherwise involve practices contrary to the policies and prohibitions of the antitrust laws. Tentative Decision at para. 34.

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same terms and conditions. Moreover, the ability of carriers to engage in predation and other anti-competitive practices without detection through their control over transmission facilities would be reduced. Competition in provision of enhanced services would be fostered between carriers and other service vendors. As we stated in the Tentative Decision:

[this] structure flows from a recognition that computer processing technology has substantial benefits for communications users and the desire to minimize regulatory obstacles to the full development of its market applications, and not solely from a concerted effort to force competition per se into the telecommunications market; It so happens that the potential for a competitive environment to evolve is very real, and such a possibility should be viewed as a positive contribution. Tentative Decision para. 149.

194. Significant benefits would also accrue to consumers under this structure because a resale carrier would be able to offer any service through its computer facilities. Services would not have to be artificially structured so that only regulated services are offered through one computer and unregulated services offered through a separate computer; any computer processing application could be performed at the resale level through the same computer.

195. Thus, we proposed to eliminate the maximum separation requirements for resale entities providing enhanced services. We also expressed concern that indiscriminate application of the resale structure policy to all owners of transmission facilities might not be warranted. With the relatively recent introduction of competition into selected segments of the telecommunications market, we questioned the need to subject to the resale requirement any carrier that lacks the inherent potential to cross-subsidize or to engage in anti-competitive conduct to the detriment of the communications ratepayer in a significant way. Accordingly, we inquired whether all carriers owning or controlling transmission facilities should be required to offer enhanced services through a resale subsidiary, and whether the resale structure should be extended to the international arena. In essence, we inquired as to the continued necessity for applying the maximum separation policy to all such carriers—the net result being that our maximum separation rules would not be applicable to any carrier not subject to the resale structure. A carrier not so subject could engage in both regulated and nonregulated services without regard to its corporate organization.

196. In addition, we also sought comment on the appropriate degree of separation to be imposed upon a carrier that is subject to the resale requirement for the provision of enhanced services. We noted that there are various cost/benefit factors associated with different levels of separation, and the same degree of separation may not be necessary for all entities operating under a resale structure. On the other hand, we recognized the need to ensure that the competitive subsidiary competes fairly in the marketplace and is not the recipient.
of improper cross-subsidization from monopoly services offered by the underlying carrier. Tentative Decision at para. 132.

197. Similar considerations were raised with respect to the carrier provision of customer-premises equipment. We concluded that the public interest would best be served if customer-premises equipment that performed more than a basic media conversion function was offered separate from the basic services of the underlying carriers and marketed through a separate resale or other subsidiary. This structure, we believed, would ensure that basic communications services were not burdened by improper subsidization to sophisticated terminal offerings while at the same time providing flexibility and incentives for new and efficient terminal offerings. Tentative Decision, at para. 122. At the same time we sought comment on whether the provision of other customer-premises equipment should be separated, especially if uniform regulatory treatment is accorded all CPE.

198. As was to be expected, the commenting parties took divergent positions on each of these areas. For example, carriers such as AT&T and GTE argued for a fairly flexible, non-restrictive approach toward separation. They recommended that the Commission avoid stringent separation requirements and instead rely on measures such as internal organizational separation and accounting systems to provide effective controls on anticompetitive activity. This approach, it was argued, would permit the resale entity and ultimately the consumer to enjoy the benefits of vertical integration. This suggestion was strongly opposed by a number of parties who asserted that there were no particular economies to be gained through vertical integration and urged the Commission to require complete separation between the underlying carrier and its affiliate. They argued that such separation was the minimum measure necessary to limit the incentive and opportunity for underlying carriers to engage in anticompetitive activities. For its part, NTIA took a more moderate approach in that it recommended against total separation. It recommended instead that the resale entity be able to undertake joint ventures with the underlying carrier as well as obtain certain information and receive logistical support from the carrier.

199. Likewise, there was little unanimity among the parties regarding the issue of the applicability of the resale structure. AT&T advocated organizational separation and use of accounting mechanisms as opposed to a separate corporate entity. AT&T further posited that, if the separate resale subsidiary is required, the Communications Act requires that all carriers be treated equally and, accordingly, the resale structure should be equally applicable to all carriers. Otherwise, it argued, those carriers subject to the separation requirement would be placed at a competitive disadvantage with regard to those carriers not so subject. Although their reasoning was different, a number of the data processing and equipment vendors also recommended that all underlying carriers should be subject to the resale structure. These
parties argued that all underlying carriers possess sufficient market power to permit them to engage in anticompetitive practices unless restrained by the resale structure. Other parties, in particular the specialized common carriers, asserted that the resale structure should not apply to non-dominant, or competitive, carriers. Such carriers, they submitted, do not possess sufficient market power to engage in anticompetitive practices. The application of the resale structure to such carriers, they stated, would be unduly burdensome.

200. With respect to carrier provision of CPE, various parties urged the Commission to require that all carriers offer CPE separate from their communications services. Going one step further, IDCMA suggested that underlying carriers should be required to establish separate subsidiaries to market it. AT&T, on the other hand, argued that a carrier should be given the flexibility to determine how equipment is to be provided.

2. Structural Separation

201. Because of the importance of the issues addressed in this proceeding, we believe it is useful to describe our perception of the advantages, limitations, and mechanics of separate subsidiary requirements in a general way before setting out the specific terms and conditions we believe should govern carrier provision of enhanced services and CPE.

202. Mechanically, the separate subsidiary requirement operates on the vertically integrated structure of the firms subject to it. It attempts to preserve as many of the putative advantages of integration as possible and to limit the disadvantages. In undertaking the task of identifying the possible advantages and disadvantages and fashioning conditions to deal with each, we take as a starting point the hypothesis that vertical integration normally represents a benign, efficiency - producing method of organizing production insofar as it permits avoidance of production and transaction costs. But it is also necessary to take account of the companion hypothesis that, as to a regulated firm's movement into non-regulated areas, vertical integration may be motivated more by a desire to avoid rate-of-return constraints than to achieve efficiencies. See F.R. Warren-Boulton, *Vertical Control of Markets: Business and Labor Practices* (1978).

203. Thus, the general learning on vertical integration counsels an effort to find some acceptable middle ground between potential economies of integration derived from more efficient production and lowered transaction costs and potential diseconomies stemming from abuses of special positions made possible by integration.

204. The essence of the separate subsidiary proposal that we are adopting today, and indeed of all such approaches,\textsuperscript{78} then, is compromise. It offers advantages, but it also has limitations. A separate subsidiary requirement, from a purely structural perspective, does not guarantee a competitive marketplace because it does not significantly change the incentives of a firm upon which it is imposed. The requirement does not impart an incentive to operate the subsidiary in a manner that would detract from the overall profitability of the parent corporation. Thus, in general, if the parent has an incentive to exercise its market power to the disadvantage of consumers and competitors in the absence of a separate subsidiary, it has the same incentive to do so after one is required.

205. Although the subsidiary requirement does not alter incentives, it reduces the ability of dominant firms to engage in predation or to do so without detection. The principal mechanisms employed are the reduction in the extent of joint and common costs between affiliated firms, the requirement that transactions move from one set of corporate books to another, and, particularly apt where communications common carriers are concerned, the publication of rates, terms, and conditions on which services will be available to all potential purchasers. The result of requiring such arrangements in the commercial affairs of corporate affiliates may be to eliminate some competitive controversies and to narrow others, but it obviously does not foreclose the possibility of predatory conduct altogether. In reality, then, a separate subsidiary requirement is a pragmatic and moderate attempt to enable dominant producers or suppliers whose participation in a given market raises special problems to participate, while reducing the risks that their customers or competitors will be disadvantaged by such participation. It balances communications consumers' interest in open entry and full utilization of the telecommunications network and related facilities with their equally strong interest in not being the source of cross-subsidies and the victims of efficiency-reducing discrimination.

206. Finally, it may be helpful to describe the calculus implicit in the determination of the specific requirements governing the separate subsidiaries. As the remainder of this Order indicates, we have attempted to examine several of the more important functions that must be performed in organizing the production and distribution of enhanced services and CPE to distinguish those whose manipulation would produce the greatest gains to a dominant common carrier inclined toward anticompetitive activity from those of less importance. We have tried to assess the benefits and disadvantages of permitting

\textsuperscript{78} The separate subsidiary mechanism is not unique to this proceeding but is one with which we have developed considerable experience in recent years. See, e.g., \textit{GTE Service Corp v. FCC}, 474 F.2d 724 (2d Cir. 1973); \textit{CML Satellite Corp.}, 51 FCC 2d 14 (1975), appeal dismissed sub nom. \textit{RCA Global Communications, Inc. v. FCC}, Nos. 75-1236, 74-1241 (D.C. Cir. 1976).

\textsuperscript{77} F.C.C. 2d
or prohibiting each to be performed on an integrated basis. With those functions that weighed heavily in the process - the sharing of operating personnel or of facilities for example, - we inclined toward disallowing integrated activities altogether; with those functions that seemed less decisive, the sharing of research and development, for example, we inclined toward assuming the risk that vertical integration poses.

207. Key to this pragmatic effort, as to any other, is its provisional quality. We have attempted to fashion a set of conditions governing the relationship of subsidiaries and affiliates that will maximize the long term welfare of consumers of communications services. The judgments embodied in this Order of necessity are premised upon existing and foreseeable circumstances and upon available evidence. Apart from the possibility that some of these decisions may be mistaken, circumstances will change and new evidence may come to light. These factors may demand changes in the conditions, just as experience may teach that we have incorrectly struck the balance between the asserted danger of carrier participation and the supposed efficiency losses brought about by the conditions. Implicit in this effort, then, is the obligation to change the conditions, or to abandon the effort altogether, as experience and changed circumstances warrant. Stated differently, the cost/benefit analysis embodied in this decision cannot be fixed. It must be recalculated from time to time to assure, in the first instance, that the balance was correctly struck here and, second, that important events have not caused a disequilibrium to develop.

Costs and Benefits of Separation

208. In relying on a structural approach to address our regulatory concerns, the primary benefits of the policy are protection for the regulated market ratepayer against costs transferred from the competitive market by the parent corporation, and protection for the general public against such anticompetitive activities as denial of access and predatory pricing. The magnitude of these benefits is not susceptible to precise quantification, but we do expect it to be substantial. The opportunities for undetected cross-subsidization that prevail in the absence of a separation requirement are so substantial that, at a minimum, protection from such abuses is very important to the telephone ratepayer. The general public would realize benefits equally substantial, if less immediate. We are making an investment today in the vitality of a competitive industry that may be important in serving the needs of the public well into the future. The cost of any avoidable anticompetitive activity permitted in the enhanced services market today may be expected to compound itself throughout the life of the industry. A denial of access, for example, by a parent corporation owning basic transmission facilities, may create a bottleneck in the supply of enhanced services—an artificial shortage that could force prices to a supranormal level. Similarly, this artificial
“bottleneck” could produce a tendency to monopoly by forcing competitors of the carrier’s separated affiliate to leave the market or by persuading potential entrants that the extraneous risks of participation are too great. In both cases, the user would be the ultimate victim.

209. In addition, an active and healthy enhanced services market should stimulate demand for underlying facilities owned by the parent corporation. Revenues from the leasing of such facilities will help to defray the cost of providing monopoly services if there are scale economies or over investment in the underlying network. Increased demand and utilization of unused capacity in the underlying facilities should also serve to lower the unit costs of transmitting information. This will only be true, however, to the extent that the market structure prevents such anticompetitive activities as predatory pricing and denial of access from diminishing utilization of the network.

210. The argument is advanced that a requirement that enhanced services or CPE be provided through a separate corporate entity is not necessary and that reliance on accounting tools is sufficient to satisfy regulatory concerns. While accounting has always been a fundamental regulatory tool utilized by this Commission in the exercise of our statutory responsibilities, its use has by no means been recognized as a substitute for structural separation. When used in conjunction with the separate subsidiary concept, accounting serves as a useful regulatory tool for identifying certain abuses. We view separation and accounting as part and parcel of a single regulatory mechanism. At a minimum, a carrier with market power and control over communications facilities essential to the provision of enhanced services could distort the competitive evolution of the enhanced services markets at the expense of the communications ratepayer through cross-subsidization and other anticompetitive behavior. Where a carrier has the incentive and ability to engage in sustained cross-subsidization, or predatory pricing, accounting may be employed to assist in the identification of such practices, but it cannot prevent the misallocation of joint and common costs associated with the provision of basic and enhanced services if provided by the same entity. On the other hand, the separation requirement serves as a structural check on the proper allocation of costs between basic and enhanced services.

211. The major cost of separation, it is argued, is a diminished rate of innovation. The degree to which vertical integration impacts upon rates of innovation, however, is far from settled. Both the economic literature and the comments received in this proceeding leave the issues unresolved. AT&T advances the conclusion that “[t]here surely can be no doubt that the Bell System, with its integrated structure, has been a major source of innovation.”79 We have little reason to quarrel with this conclusion, but we likewise have been given little reason to

79 Reply Comments of AT&T, at A–36.

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accept the implied statement of causality embedded in it. The extent to which the Bell System's integrated structure contributes to its role in innovative research and development is very problematical. In the absence of competition, there is no objective measure for the performance of the integrated firm. As has been suggested, "[w]hat appears to the outsider to be a sensible, prudent, even a progressive policy of the monopolist, may in fact reflect a lower scale of adventurousness and less intelligent risk taking than would be the case if the enterprise were forced to respond to stronger industrial challenge."  

212. AT&T offers a variety of studies to demonstrate its leadership in innovation.  
This evidence, however, is strongly disputed by other studies conducted by AT&T and by others. Moreover, the economic literature does not confirm AT&T's argument that its vertically integrated structure has yielded greater rates of innovation. One of our country's leading authorities in regulatory economics has noted that while AT&T has mounted a significant defense of vertical integration, it does not take into account the likely contributions which competition can bring, and has brought, to innovation. A. Kahn, *The Economics of Regulation* (1971). Dr. Kahn also notes that the generalized case for vertical integration by a monopolist is not without serious dangers, particularly where the company is rate-regulated and seeking to engage in unregulated activity. With the effect of vertical integration on innovation rates within the Bell System unestablished, we are unwilling to forego the likely stimulus to innovation that a "competitive" structure will yield.  

213. In any event the issue here is not the value of the Bell System's integrated structure in the design and operation of the nationwide switched network. The issue in this proceeding is whether the structural requirements that we are imposing on the provision of enhanced services and CPE by AT&T and GTE will diminish their ability to innovate, and whether the user public will suffer adverse consequences. We believe not. Our maximum separation policy should not result in significant changes in either the incentives or the ability of AT&T and GTE to innovate in these areas. As discussed above the record with respect to the importance of vertical integration on

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82 See Bell Labs, License Contract Study, Docket 19129, Trial Staff Exhibit No. 146.
innovation is ambiguous. But it is clear that the benefits of vertical integration are less in the specialized discrete areas of enhanced services and CPE than in the design and operation of a unified, integrated facility offering basic services. Further, any advantages that the operating companies now enjoy from their access to the innovative research of AT&T or GTE will also be enjoyed by a separated subsidiary providing enhanced service and CPE. As explained, infra, except as to software development the only restriction being applied at this time is that the subsidiary, if it shares the research and development product of its parent corporation, must do so on a fully compensatory basis. By the same token, AT&T and GTE will not be prevented from realizing any mass production economies that may presently exist. AT&T and GTE will presumably be active participants in a competitive technology market with a growing demand for telecommunications products, and any separated subsidiary would have the option of creating its own research and development facilities.

214. The comments raise issues of other costs which a separation requirement may effect. We have considered these costs in our evaluation of the degree of separation to be imposed, and have addressed those issues infra, where we discuss the appropriate degree of separation that should exist between the subsidiary and its parent.

Applicability

215. In ascertaining which carriers should be subject to the resale structure the decision must be based not only on a carrier's ability to engage in anti-competitive activity but also on its resources. The latter is relevant because we have no desire to foreclose entry into the enhanced services and CPE markets by any carrier. Hence, we must give due recognition to the ability of carriers to cover the costs of separation. Such costs include not only the capital expenditures involved, but also some increased risks associated with separation which would presumably be greater for the small carrier. For these smaller carriers, separation may also result in more limited access to capital markets. Another important factor is that if separation does cause some economic inefficiency, the measure of this inefficiency will decrease as the size of the firm increases. This is so because greater size corresponds to greater flexibility in effectuating the separation, thus permitting closer approximation to an economically efficient outcome.85

216. As stated above, structural separation will aid to diminish the likelihood of abuses of monopoly power through either (1) denial of

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85 A rigorous statement of the measure of inefficiency and of this result may be found in K.J. Arrow and F.H. Hahn, General Competitive Analysis, at 385ff., especially Theorem 10 at p. 399, citing R. Starr, "Quasi-Equilibria in Markets with Nonconvex Preferences," Econometria (1969), and references therein. Simple numerical examples may also be constructed to illustrate this point.
access to the "bottleneck," i.e., local exchange and toll transmission facilities or (2) cross-subsidization from the monopoly service to competitive enhanced and CPE markets. Both of these activities can generally occur where the monopolist perceives a substantial opportunity to extend its power into the adjacent markets. As explained in detail below, the abilities and incentives to attempt such conduct vary significantly among carriers.

217. In its reply, NTIA contends that the best measure of a carrier's potential for anti-competitive activity is its "total revenue generated from monopoly services—the sources of funds for the cross-subsidization of competitive services." While this might be a good measure of a carrier's ability (though not necessarily its incentive) to cross-subsidize, the measure of a carrier's ability to gain advantage by denying access is not accounted for by this test. A carrier's ability and incentive to engage in anticompetitive conduct in adjacent markets must be measured with some recognition of the parameters of those markets. Thus, what must be recognized is that while market power in the provision of telephone service may be appropriately measured within both local and national geographic markets, the provision of enhanced services and CPE has been largely undertaken, and increasingly so, on a national basis. These services, in essence, are and will continue to be directed at residential and business users spread over broad geographical markets. A carrier such as AT&T, with a nationwide network of transmission systems and local distribution plant in major metropolitan areas, could obviously harm a competitor through its control over these facilities in an anti-competitive manner. GTE, serving over 8% of the nation's telephones (see Table 1) and several major population and business centers, would also have significant ability to engage in predatory or discriminatory practices. On the other hand, a carrier like Continental, with most of its resources concentrated in rural distribution plant, would not be able to deny competitive access to any significant portion of the potential customers for enhanced services. The diminished likelihood of success in such attempts also serves to diminish the incentive to try.

218. To the extent that all firms offering enhanced services and CPE are not yet marketing their services on a nationwide basis, we believe this is largely a function of the infant yet promising nature of these markets. Regional markets, centering around large urban industrial cities where the large business users are located may currently be another appropriate area in which competition for these services can be measured. But here, too, we note that only AT&T and GTE appear to have significant abilities and incentives to engage in

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86 Reply comments of NTIA, at 16.
87 Major cities served by GTE telephone companies include Long Beach and West Los Angeles, California; Tampa and St. Petersburg, Florida; Honolulu, Hawaii; Lexington, Kentucky; Fort Wayne, Indiana; and Erie, Pennsylvania.
anticompetitive conduct, since it is in these areas where they control the local facilities. In contrast, the rural telephone companies would be hard pressed to attempt to bankrupt competitors in their local areas where such competitors may flourish in the major metropolitan areas, or throughout the nation generally. Again, we believe that the unlikely prospects of their success will in turn diminish their incentives to attempt predation, leaving the local ratepayer at much less risk than those captive to AT&T and GTE local services.

219. The importance of the control of local facilities, as well as their location and number, cannot be overstates. As we evolve into more of an information society, the access/bottleneck nature of the telephone local loop will take on greater significance. Although technological trends suggest that hard-wire access provided by a telephone company will not be the only alternative, its existing ubiquity and the amount of underlying investment suggest that whatever changes do occur will be implemented gradually. Moreover the monopoly rent that a company can extract from such bottleneck facilities is likely to bear some relation to the number of subscribers served. It is probable that many of the new information services that will be offered over telephone lines will incur developmental expenses that will require large customer bases. As we observed, many of them are likely to be national in scope. A telephone company serving a relatively small proportion of the nation's homes and businesses is perhaps less likely to pursue such activities independently. For the most part, long-term profitable entry into the enhanced services field will probably require penetration of the market on a national scale, and it is unlikely that such a national operation could be effectively subsidized from a small pool of monopoly revenues, or that it could gain any significant competitive advantage by restricting the access of its competitors to a very limited network of underlying facilities. The effectiveness of other regulatory tools available to this Commission and other authorities is also considerably improved when they are applied to smaller telephone carriers.

220. The need, then, does not exist to subject carriers to the resale structure if such entities lack the potential to cross-subsidize or to engage in anticompetitive conduct to any significant degree. We believe that with the changes taking place in the competitive makeup of the communications industry our regulatory concerns which give rise to the need for structural separation should be directed at monopoly telephone companies exercising significant market power on a broad geographic basis.

221. Non-telephone carriers do not have the kind of market power we are concerned with here. Specialized carriers, such as MCI and SPCC, lack local distribution facilities entirely, and have no reservoir of monopoly ratepayers from which to extract the excess profits necessary to cross-subsidize other services. Such carriers would be in a position to deny access on only a limited number of interexchange
transmission systems. Any private advantages from such conduct would be short-lived, as customers could readily avail themselves of alternative suppliers. Domestic satellite carriers also have no local distribution plant, and no ability to monopolize interexchange transmission systems. They are in competition not only with terrestrial systems, but also with each other, and thus, with the possible exception of their video service offerings, their market power is limited. Similarly Western Union does not possess local monopoly facilities which could be employed to deny or reduce access to enhanced services competitors nor does it generate profits or cash flow comparable to that of the larger telephone holding companies which could be employed as a source of cross-subsidies. Moreover, we would expect our recent PMS decision to result in a further diminution of any capacity Western Union might possess to engage in anticompetitive conduct on a substantial basis.88

222. Weighing the competitive changes which have occurred in the communications sector since the First Computer Inquiry, we do not believe that broad application of the resale structure is necessary to satisfy the regulatory objectives set forth there. Moreover, we have been able to monitor the development of new and innovative services, and conclude that the potential for these services to reach a greater segment of society would be substantially increased if we exercised restraint in the exercise of our discretion in applying the resale structure. Weighing these factors, and recognizing the risks involved, we find that the separation requirement should be applied only to those telephone companies having sufficient market power to engage in effective anti-competitive activity on a national scale and which possess sufficient resources to enter the competitive market through a separate subsidiary.

223. An objective standard upon which a determination can be made as to which telephone companies possess these characteristics is not easily established. However, when we examine Table 1, we see that only four companies have more than 1% of industry revenues, and a fifth is above the 1% level in terms of number of telephones. As the Table exhibits, there is a sharp distinction with respect to these shares between AT&T and the rest of the industry and between GTE and the rest of the independents. The companies ranked 3, 4 and 5 in terms of revenues form an approximate group of their own. The remaining companies possess a combination of size, geographic service area(s), and monopoly revenue base (which is typically a small fraction of the total operating revenues shown in Table 1) such that we are not convinced that the benefits of separation outweigh the costs. Even when we consider the market penetration of the top five carriers listed in Tabel 1, a fairly clear distinction can be drawn between AT&T and

GTE on the one hand, and the other telephone companies on the other hand. Because of the relative size of AT&T and GTE and the diverse national markets they serve, we conclude that, at present, the resale structure should be applied to AT&T and GTE. We realize that an argument could be made for subjecting other telephone companies to this structure, but we conclude that it would better serve the public interest to take a restrictive approach at this juncture in applying the resale structure and wait to see if competitive abuses develop which warrant further application of this structure for either enhanced services or CPE.

224. Some of the concerns in this regard may be mitigated by the fact that some of the larger telephone companies have already made independent judgments that there are benefits that derive from some organizational separation of regulated and unregulated activities. Although the rules established in the First Computer Inquiry have undoubtedly been a factor as well, as discussed below the observed organizational changes go beyond what is required by the "maximum separation" policy. We believe that such decisions regarding organizational structure comport with technological and marketplace realities, and they suggest that our limited imposition of an analogous structure may yield even greater benefits than those we have explicitly addressed. Moreover, that such steps have been taken by companies appreciably smaller than AT&T and GTE increases our confidence in our analysis that the separation requirement will not be unduly burdensome to the nation's two largest telephone companies. As noted, we are reluctant to impose regulation where it may not be necessary, and our reluctance is compounded by our desire to provide flexibility to companies that are beginning to participate in a meaningful manner in the enhanced services and CPE markets. If the factual predicate changes, we may revisit this determination. Nor, of course, does this determination preclude us from imposing conditions under our Title II, Title III or ancillary jurisdictional authority in response to specific applications as circumstances may warrant. 89

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<th>AT&amp;T and Ten Largest Independent U.S. Telephone Companies*</th>
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<td>RCA Alaska Communications 1</td>
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<td>Lincoln Telephone and Telegraph</td>
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<td>Winter Park Telephone 2</td>
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1 In 1979, RCA sold Alascom to Pacific Power and Light.

2 In 1979, Winter Park was purchased by United Telecommunications.


Data are for 1978.
225. Illustrative of the ability to maintain enhanced services and CPE subsidiaries are GTE, United, and Continental, which have already entered the data processing market through separate subsidiaries. These three companies, in fact, presently own more than a dozen subsidiaries operating in unregulated markets, and have been providing enhanced services through subsidiaries for more than a decade. GTE Data Services, Inc., formed in 1967, has primarily served GTE operating telephone companies; but United Computing Systems, also dating from 1967, with data centers in London and Zurich, as well as Kansas City, is clearly hoping to reach a wide market.

226. As indicated in its 1978 Annual Report, GTE divides its principal operations into a telephone operating group and a products group (which includes communications products). More recently, GTE formed a new group, GTE Communications Network Systems, to consolidate its operations in the data communications market. Units of the group are GTE Telenet, GTE Telecommunications Systems, and GTE Information Systems. Similarly, United Telecommunications "has reorganized itself into three operating groups as part of its program to diversify its operations beyond traditional telephone industry operations." The groups' division of responsibilities will be (1) regulated telephone operations, (2) competitive telecommunications services and distribution activities, and (3) interactive graphics, remote computing services, and international computer services activities. The current thrust of Continental Telephone is carrying it into activities different from traditional telephone operations. A newspaper article reports on Continental's recent acquisitions and credits the company with recognizing "early that deregulation presented an opportunity, rather than a stumbling block." The 1978 Annual Report of Central Telephone & Utilities continues the theme of expansion into non-traditional areas and reorganization. With regard to the first, the letter to shareholders states, "... we are actively seeking new investment opportunities. In view of our marketing and technical experience in the communications equipment and operations fields, we believe the most attractive and promising growth area for us is expansion into related communications businesses where such expertise can be utilized to our best advantage. Ideally, these are businesses which operate under little or no regulation." Concerning the latter, "Effective January 1, 1979, Centel realigned its three major business activities under the newly created positions of Group Vice Presidents to distinctly separate the Company's traditional utility operations from its new endeavors."

227. The rationale for imposing a separation requirement only on

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AT&T and GTE has even greater force when considering CPE. Only these two U.S. telephone companies have basic manufacturing operations producing large quantities of a wide range of telecommunications equipment. Both AT&T and GTE hold substantial market positions, if not market power, in the provision of certain kinds of CPE. Their significant participation in these markets indicates that these companies have substantial incentives to sustain their market positions by thwarting the provision of such equipment on a competitive basis. Their local monopoly positions, in turn, provide the opportunity (without maximum separation) to engage in such anticompetitive conduct—with the monopoly ratepayer being forced to subsidize below cost pricing of CPE. United and Continental, on the other hand, have shown little inclination to participate in the equipment manufacturing market, apparently due to the cyclical nature of profits in that market. Continental Supply and Service Corporation does provide centralized purchase and distribution of equipment and parts for Continental's operating telephone companies, and Continental Telephone Laboratories tests and recommends practical applications for equipment; but the carrier sold its primary manufacturing subsidiary (Vidar Corporation) in 1975, explaining to stockholders that "[T]he cyclical nature of manufacturing operations and other considerations have led to the conclusion that the Company and its stockholders would benefit by withdrawal from the field of manufacturing and by concentration of investment and manpower in telephone operations."93 The following year Continental completed its divestiture of manufacturing operations with the sale of the Cable Division of Superior Continental Corporation, and again cited the "volatility of earnings inherent in the cyclical nature of these operations."94 Similarly, United's subsidiary, North Supply Company, an international distributor of telecommunications products with more than a quarter of a billion dollars in annual sales, was formerly a division of North Electric Company. United sold the manufacturing division of North Electric in 1977, incurring a $2.3-million loss on the transaction, and notified stockholders that the sale, together with the 1978 sale of Central Kansas Power Company, left "United Telecom's resources concentrated in three activities—telephone service, computer services and distribution services. All are strong markets and United is well positioned in each of them."95

228. Thus we believe that continued application of our maximum separation policy to all carriers is inappropriate in the face of the present and foreseeable market applications of computer processing technology and increased competition in the provision of regulated communications services. Contrary to the approach in the Tentative Decision, we conclude that not all carriers owning transmission

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93 Continental Telephone Corporation, Annual Report to Stockholders, 1975, at 5.
94 Id., 1976, at 3.
facilities should be required to provide enhanced services through a separate corporate entity. Separation is appropriate in those cases in which there is a substantial threat of injury to the communications ratepayer and where other regulatory tools would not suffice. Both AT&T and GTE provide franchised monopoly telephone service and competitive services. Moreover, both are vertically and horizontally integrated with affiliated equipment manufacturers which supply the preponderant share of the equipment needs of the affiliated telephone companies. Thus, both AT&T and GTE have significant market positions in various equipment product lines as well as certain service categories in certain large geographic markets. We are thus concerned that both companies could exploit their dominance in these product lines to support below cost prices in more competitive markets. Weighing the public interest benefits of our objectives and the economic tradeoffs of the separate subsidiary requirement, we have determined that restricting the requirement to AT&T and GTE will best serve the monopoly and other communications ratepayers and the public interest more generally. Accordingly, we are removing the maximum separation requirements for all carriers except those under direct or indirect common control of AT&T or GTE.

229. The thrust of applying the resale structure to AT&T and GTE is to establish a structure under which common carrier transmission facilities are offered by them to all providers of enhanced services (including their own enhanced subsidiary) on an equal basis. Inherent in the resale structure is the fact that the separate corporate entity may not construct, own, or operate its own transmission facilities. In essence, the resale subsidiary must acquire all its transmission capacity from an underlying carrier pursuant to tariff. This means that the same transmission facilities or capacity provided the subsidiary by the parent, must be made available to all enhanced service providers under the same terms and conditions. Requiring the subsidiary to acquire its transmission capacity from other sources pursuant to tariff provides a structural constraint on the potential for abuse of the parent's market power through controlling access to and use of the underlying transmission facilities in a discriminatory and anticompetitive manner.

230. The separate subsidiary for enhanced services and CPE also provides a structural mechanism for the separation of these carriers' regulated and nonregulated activities, thereby lessening the potential that the communications ratepayer will be subsidizing their unregulated ventures. While we discuss below the relationship between the subsidiary and affiliated entities, the subsidiary itself is not regulated. Thus the subsidiary may not provide basic transmission services for to do so would subject it to regulation and negate the structural separation of regulated and nonregulated activities.

231. By removing other carriers from the separate subsidiary requirements of the First Computer Inquiry, they are now able to offer basic and enhanced services through common computer and
transmission facilities. However, an essential thrust of this proceeding has been to provide a mechanism whereby non-discriminatory access can be had to basic transmission services by all enhanced service providers. Because enhanced services are dependent upon the common carrier offering of basic services, a basic service is the building block upon which enhanced services are offered. Thus those carriers that own common carrier transmission facilities and provide enhanced services, but are not subject to the separate subsidiary requirement, must acquire transmission capacity pursuant to the same prices, terms, and conditions reflected in their tariffs when their own facilities are utilized. Other offerors of enhanced services would likewise be able to use such a carrier's facilities under the same terms and conditions.

232. We have already noted our belief that, while the establishment of separate subsidiaries cannot be relied on to absolutely prevent subsidization, it can make it more readily detectable by competitors and regulators. On the other hand, the provision of certain complementary goods or services by the same company may not pose unacceptable dangers of this kind while generating efficiencies in the form of reduced operating expenses or other legitimate cost savings. Consumers of telecommunications products and services should not be required to forego such economies unless they are clearly outweighed by other costs which joint operation would impose. It is in this context that we specify the particular form in which AT&T and GTE may sell or lease CPE and enhanced services.

Degree of Separation

233. Having concluded that the resale structure and the maximum separation policy are applicable to carriers affiliated with AT&T and GTE, we now address the degree of separation that should exist between separated entities. In the First Computer Inquiry we established certain minimum separation requirements which were necessary in order to meet the regulatory objectives necessitating a separate subsidiary. In this regard we required that the separate entity maintain its own books of account, have separate officers and separate operating personnel, and utilize computer equipment and facilities separate from those of the carrier in providing unregulated services. Moreover, a carrier subject to the separation requirement was prohibited from engaging in the sale or promotion of the separate entity's services and from making available any computer capacity or computer system component, used in the provision of its communications service, to others for the provision of unregulated services. See 47 C.F.R. §§ 64.702(c) and (d). We now undertake to examine, in light of experience gained since these separations requirements were adopted, whether this degree of separation should be maintained and whether other separation requirements are warranted.

234. We requested that the parties comment on the relative costs and benefits of various degrees of separation that might be relied upon.
to reduce the likelihood of anticompetitive activity. While many parties discussed the probable cost-benefit tradeoffs of a separation policy, few have addressed, with the specificity we would have wished, the costs and benefits associated with various degrees of separation. The comments of NTIA and the reply comments of AT&T are notable exceptions. In addressing the implications of a separate subsidiary requirement, the comments generally intermingle the separation concept with the degree of separation in discussing the various costs and benefits. The most thorough discussion of possible costs is found in the reply comments of AT&T which argued against the separate subsidiary requirement for enhanced services and CPE while emphasizing alleged efficiencies of vertical integration. We will endeavor to address the arguments it has raised. We note, however, that the costs of separation are difficult to quantify. The parties to this proceeding have addressed them in qualitative terms, just as we will here.

235. Various parties to this proceeding have urged stringent separation where a separate subsidiary is imposed. It is even argued that interactions between the subsidiary and affiliated entities should be the same as those between the parent and other third parties or non-affiliated entities. In certain situations this type of relationship may be warranted, but we are not prepared to adopt this standard for all intercorporate transactions between the subsidiary and affiliates. AT&T and GTE are vertically integrated corporations. To the extent there may be efficiencies within their structures they should not be precluded from capitalizing on them where countervailing regulatory considerations do not demand stringent separation. Accordingly, in addressing the appropriate degree of separation we take care to impose only the minimum necessary to address those regulatory concerns where sole reliance on accounting is an inappropriate safeguard against potential anticompetitive behavior.\footnote{For an extensive discussion of the safeguards we have applied in GTE Telenet with respect to its relationship to other GTE companies see General Telephone and Electronics, 70 FCC 2d 2249 (1979), recon. denied, 72 FCC 2d 91 (1979); GTE-Telenet Merger Authorization, 72 FCC 2d 111 (1979), modified 72 FCC 2d 516 (1979); recon. denied, 74 FCC 2d 561 (1979).}

236. Our structural approach is predicated on the use of accounting mechanisms to complement the separate subsidiary requirement. Accounting is an important regulatory tool to aid in the effective regulatory oversight not only of those carriers subject to the separate subsidiary requirement, but also of those carriers that engage in unregulated activities without structural separation. Accordingly, the separate subsidiary must maintain its own books of account, and non-separated carriers must maintain separate books of account for their unregulated activities.

237. An essential thrust of the structural approach is to separate joint and common costs associated with the provision of regulated and unregulated activities. Ideally, the parent and subsidiary should have
no joint or common costs to allocate, since the simplest mechanism for transferring competitive market costs to the regulated market is the misallocation of joint and common costs. Yet, there may be circumstances where joint undertakings should not be foreclosed based on efficiency or practical considerations. To this extent a balancing process is involved.

238. The manner in which enhanced services are provided and marketed are two areas where the potential for anticompetitive behavior and misallocation of cost is great. Because of the inherent difficulties in allocating joint and common costs, we conclude that effective regulation requires eliminating the allocations by prohibiting joint activities in these areas.

239. More specifically, the separation of regulated and unregulated activities and associated costs requires that the subsidiary have its own operating, marketing, installation and maintenance personnel for the services and equipment it offers. This means that the unregulated subsidiary must do its own marketing, including all advertising related to the offering of any service or equipment it offers. Affiliated entities may not advertise on behalf of the subsidiary. We are cognizant of AT&T's assertions that maintenance and training costs will be increased by a separation requirement. However, to the extent that the separated entity uses specialized facilities, the cost savings from sharing maintenance and training functions with AT&T affiliates would be minimal. Moreover we are not foreclosing the subsidiary from obtaining support services for sophisticated equipment purchased from any affiliated manufacturing entity on a compensatory basis. For example, the subsidiary could contract with the manufacturer for the installation, maintenance or repair of equipment, or the manufacturer could train personnel of the subsidiary to perform these functions. Aside from this, however, we are precluding entities or organizations affiliated with the parent from performing any function related to the training, operation, installation, marketing, and maintenance services associated with the subsidiary's offerings.

240. The separation of these functions, combined with the above-stated requirement that all enhanced service providers have equal access to basic transmission facilities, compels that we address the relationship between the enhanced service subsidiary and the underlying carrier. A key issue here is the joint use of physical space. In this regard we conclude that the enhanced service subsidiary should be precluded from using in common any leased or owned physical space or property with an affiliated carrier on which is located transmission equipment or facilities used in the provision of basic transmission services. The reasons for this are two-fold. First, it is imperative that there be nondiscriminatory access to AT&T's and GTE's basic transmission services. To allow the subsidiary to share physical space with an affiliated carrier is to significantly increase the potential for the carrier to discriminate in favor of its affiliated subsidiary. For example

77 F.C.C. 2d
it also offers the potential for a carrier to establish a means by which it may discriminate against other enhanced service vendors through such mechanisms as the manner in which the subsidiary is able to interconnect or through its charges for the facilities necessary to interconnect enhanced services with the underlying network where the need for such facilities by its own subsidiary might be eliminated. Separation in this area creates an environment conducive to ensuring that all vendors of enhanced services are afforded the opportunity to access a carrier’s network on a nondiscriminatory basis. Second, the sharing of physical space again raises the inherently difficult problems associated with the allocation of joint and common costs.

241. In addition, our existing separation rules require that unregulated services be provided through computer facilities separate from those of the carrier. Various parties have argued that sharing of computer capacity should be allowed. In its Response to the Tentative Decision, NTIA contends that, “most carriers . . . will need computer facilities capable of performing data processing functions to assist them in providing the basic communication services, and a separate entity with separate computer facilities will be pure duplication. Moreover, basic communications usage generally is characterized by extreme peaking, and the inability to use computer facilities to provide enhanced services during off-peak hours could result in a great deal of wasted processing capacity.” 97 Bell goes a step further—arguing that the resale entity should not only be permitted to share the underlying carrier’s computer capacity, but also the information in the computers. 98

242. Although there may be some operational inefficiencies associated with a policy prohibiting the sharing of excess computer capacity, 99 there are also some likely inefficiencies associated with a policy permitting sharing, even if other vendors were afforded comparable access. First, it is unrealistic to believe that non-Bell or non-GTE entrants in the competitive market will avail themselves of the opportunity to use AT&T’s or GTE’s excess computer capacity. If they did not there would be no way to establish whether the rates AT&T and GTE charged their subsidiaries for the use of the computer capacity were compensatory, thereby potentially burdening the communications ratepayer. Second, the existence of a regulatory policy permitting the sharing of excess capacity would tend to generate that capacity. Third, such a policy would create large non-market incentives

97 Response of NTIA, at 9.
99 We note that telephone companies do have pricing options that could reduce the peaking that is responsible for much of the excess computer capacity. Moreover, unless the usage pattern of enhanced services over time were highly negatively correlated with basic communications usage, the peaking phenomenon and the underutilization of facilities would continue even if sharing were permitted.
to rely exclusively on the parent’s computer capacity, because it would enlarge the monopoly rate base. Together, these three effects of a permissive sharing policy introduce a greater than tolerable risk of the inefficiencies of a Bell or GTE subsidiary operating below real cost in a competitive market. The regulated services would be carrying the burden of an unnecessarily high unit cost to their subscribers’ disadvantage, while the risks of failure facing the non-Bell and non-GTE entrants in the competitive market would be increased, along with all the costs associated with higher risk. Moreover, if sharing of computer capacity by the subsidiary were allowed, any structural mechanism for ensuring nondiscriminatory access to the network would be negated. It should also be remembered that computers are not as large or expensive as they once were, and they almost certainly will be even smaller and less expensive in the future. Therefore, the size of any inefficiencies resulting from the maximum separation policy is not likely to be large. Further, the cost of obtaining the computer capacity necessary for operation in the data communications market is not likely to be prohibitive of entry. Accordingly, we affirm our present proscription against the sharing of excess network computer capacity. Moreover, whatever degree of “wastefulness” might legitimately be argued to exist will be attenuated by the preponderant cost and specialized nature of software in the totality of enhanced services.

243. Intimately related to issues concerning computer facilities are those dealing with software development. Because of the significance of software in the provision of enhanced services and sophisticated CPE, there is a need to address the allocation of its costs. Electronic equipment such as that used for computers and communications is becoming more and more software driven. At the same time, relative costs are shifting from hardware to software. This reflects the rapidly declining cost of hardware as well as the human capital intensive nature of programming. Because software development, operations, and maintenance constitute such a substantial cost factor, involving the association of joint and common costs, in the provision of these services, we will require that the underlying carrier (including its affiliates) and the resale subsidiary not perform software work for each other. Moreover, we find this requirement reasonable, i.e., not onerous because software needs may be separable, based on (1) the specialized nature of the software that would be applicable to the activities of the separate subsidiary, (2) the general diseconomies of scale experienced in writing software, and (3) the continuing ability of the underlying carrier to spread the fixed cost of software development for underlying operations to its telephone companies (see, Reply

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100 Professor Scherer suggests that such deliberately maintained excess capacity may be useful to monopoly, in “scaring off new entrants or fighting them more effectively if they do enter.” F. Scherer, supra n. 55, at 876.
Comments of AT&T, A–18 through A–24). The subsidiary is, of course, free to contract with non-affiliated sources for software development, but not on a joint basis with an affiliated entity.

244. We appreciate that software will be embedded in some of the CPE distributed by the subsidiary. The condition that the subsidiary and its affiliates not perform software design and development for one another is not intended to preclude the subsidiary from marketing software integral to CPE obtained from affiliated entities. Moreover, other enhanced services hardware may be provided with the generic software (such as operating systems), but not applications programs.

245. Another area of significant concern involves the exchange of information between the separate subsidiary and other affiliated entities. There is little doubt that AT&T and GTE would be able to confer a significant competitive advantage on their separate subsidiaries and further extend their market power, if the subsidiaries are provided access to certain information that is not equally available to other vendors of enhanced services or CPE.

246. In this regard there are three areas of information flow which deserve attention. The first type of information is that which AT&T and GTE possess by virtue of their control over communication facilities essential to the nation-wide transmission of information. Within this category falls information relating to network design and technical standards, including interface specifications, information affecting changes which are being contemplated to the telecommunications network that would affect either intercarrier interconnection or the manner in which CPE is connected to the interstate network, and information concerning construction plans. This type of information must be disclosed to the public by AT&T and GTE. Moreover, when it is disclosed to an enhanced services or CPE separate subsidiary, such information must be disclosed to competitors of the subsidiary at the same time and under the same terms and conditions. It is essential to the competitive provision of CPE and enhanced services that this type of information be disclosed, just as it is essential to assuring that monopoly ratepayers are afforded their statutory right to efficient service by reducing the possibility that use of the network will be restricted for anticompetitive purpose, with resulting negative effects on unit costs.

247. The second area of information flow that offers the potential for distorting the competitive evolution of enhanced service markets is that dealing with research and development. We recognize that technological innovation will be very important to the enhanced services market, and that the established carriers are capable of making significant contributions to the emerging technology. We have no desire to restrict their participation in research and development for the competitive market beyond the extent necessary for the protection of the communications ratepayer. While we have indicated that software design or development work for a separate subsidiary must
be undertaken by the subsidiary, or an outside contractor on behalf of the subsidiary, we do not intend at this time to prohibit the exchange of work products in other areas of research and development between the parent and its subsidiary, provided such exchanges taken place on a completely cost compensatory basis. This assumes appropriate records of account are established for research and development performed for the subsidiary. Such exchanges must be monitored, and if it is determined that research and development is being performed for the subsidiary on a less than a compensatory basis, further exchanges will be prohibited.

248. The primary concern in allowing joint research and development rests in the fact that, through such mechanisms as the Bell System license contract arrangements with the operating companies, monopoly derived revenues are used to fund research and development. To the extent misallocations of these costs occur, it is the monopoly ratepayer that is burdened. We are allowing sharing of research and development by affiliated entities at this time, but we intend to examine into the license contract arrangements and other issues generic to the use of monopoly revenues to support competitive research and development. At the conclusion of this process we are free to modify the approach we have set forth here, if the facts so warrant.

249. While research and development purchased from an affiliated entity by the separate subsidiary need not be shared with other competitive service or equipment vendors, information which finds a principal use in marketing, such as customer proprietary information, must be disclosed to other competitive vendors at the same time the subsidiary receives the information and under the same terms and conditions if it is shared with the subsidiary. By "customer proprietary information" we mean any information which an affiliate acquires by virtue of the corporation's common carrier activities. Such information constitutes the third area of information flow. Because of the anticompetitive advantage that can accrue to the separate subsidiary from advance information in these areas, we are maintaining our requirement that the subsidiary have separate officers.

250. The principle upon which we have relied in our consideration of the most appropriate corporate structure for GTE and AT&T in the provision of CPE and enhanced services is that a firm with a dominant market position—either in terms of a market position insulated from effective competition or as a result of effective control of facilities essential to the operation of its competitors, or both—must be prevented from exploiting that position by extracting supra-competitive profit from the customers of one service to price another service at below cost levels. Simply relegating certain activities to a separate subsidiary may not, however, prevent abuses of market power and anticompetitive conduct. Since both AT&T and GTE have significant market positions in various equipment product lines as well as certain service categories, there are other conditions which we will require
that offer substantial benefits in return for costs that are likely to be small.

251. As to the provision of CPE, we have determined that AT&T's and GTE's dominant position in the terminal equipment market requires some special treatment. There has been some concern that requiring a separate entity for the provision, installation, and maintenance of CPE will be unduly costly, especially for residential users with "plain old telephone service." For the companies to which our separate subsidiary requirement applies, we reject this argument. In the first place these functions are performed by hundreds of equipment vendors and are part and parcel of participation in the equipment business. Implicit in the argument is the assumption that the telephone company employee responsible for maintaining the transmission line actually functions or is qualified to function as the installation, maintenance, and repair person for CPE, including sophisticated computer terminals. While we do not believe this is borne out by experience, even if it were true, costs associated with the provision of CPE should be divorced from the costs associated with a carrier's provision of basic services. In point of fact, the Bell System now dispenses more than half its new phones through almost 2,000 Phone Center Stores. We recognize, however, that it is precisely in the case of smaller telephone companies serving smaller numbers of subscribers that there may be validity to the claim that separate maintenance and installation staffs may be inefficient. In such instances, indivisibilities may cause economies of scale in the provision of such service. In such cases, a separation requirement might be unduly costly, but we do not contemplate applying the requirement to the small carriers. Moreover, consideration will be given to possible waivers for the truly rural operations of carriers under direct or common control of AT&T or GTE.

252. We believe that any AT&T or GTE resale subsidiary which provides enhanced services should also be able to lease or sell terminal equipment. It may also engage directly in the manufacturing of CPE. However, this CPE/enhanced service provider will be required to deal at arm's length with any other affiliated equipment manufacturer. The transfer of any products between this CPE/enhanced service provider and any affiliated equipment manufacturer must be done at a price that is compensatory. To police this requirement we will require


103 The Commission has discussed the issue of "arm's length" dealings in a number of its past decisions. See ITT Domestic Transmissions, Inc. 62 FCC 2d 236 (1976); Communications Satellite Corporation, 45 FCC 2d 444 (1974); CML Satellite Corporation, 51 FCC 2d 14 (1975); RCA Global Communications, 56 FCC 2d 660 (1976); Satellite Business Systems, et al. 62 FCC 2d 997 (1977); Docket 19129 (Phase II), 64 FCC 2d 1 (1977); National Aeronautics and Space Administration, 61 FCC 2d 56 (1976); and GTE-Telenet Merger Authorization, 72 FCC 2d 111 (1979), modified, 72 FCC 2d 516 (1979), recon. denied, 74 FCC 2d 561 (1979).
that any transaction between the enhanced services subsidiary and any other affiliate which involves the transfer (either directly or by accounting or other record entries) of money, personnel, resources or other assets be recorded in auditable form. Moreover, any contract entered into between such entities must be filed with the Commission, where it will be made available for public inspection. (This requirement will not apply to any transaction governed by the provisions of an effective state or federal tariff.) We will monitor these contracts and, should abuses be discovered, we will re-examine our determination with regard to the appropriate degree of separation.

253. Moreover, a subsidiary which provides both CPE and enhanced services may not market any other equipment, e.g., transmission or other network equipment, because of the potential for the communications ratepayer to bear the cost of non-compensatory intra-corporate transfer pricing that may inure to the benefit of the enhanced subsidiaries. By this proscription we are not altering the present arrangement whereby manufacturing affiliates sell directly to affiliated carriers, nor does this requirement preclude either firm from providing any of its terminal equipment product lines through another arm's length subsidiary. Thus, if either AT&T or GTE, or both, would prefer to offer certain types of terminal equipment (e.g. telephones) through the enhanced service subsidiary (perhaps for sales primarily to customers of its enhanced services) as well as through another subsidiary (perhaps for sales to residence and business customers not served by the enhanced services subsidiary), that form of corporate organization is acceptable under our decision today.

254. AT&T, in its Reply Comments, has cited a number of administrative and operational costs that it would expect to result from the creation of a separate subsidiary. However, it is not altogether clear whether many of these costs would be incurred in the process of entering the enhanced market even without a separate subsidiary requirement. In its analysis of operational cost effects, AT&T has clearly failed to consider the full cost of entering a competitive market without a separation requirement. In assessing the advisability of a separation requirement, only the marginal costs of the policy are important, not the full cost of entering the competitive market; these marginal costs are generally negligible. In discussing the marginal operating costs it is important to keep three additional points in mind. First, the regulated market will continue to interact with the competitive market; commerce will remain between the two, permitting regulated carriers to continue providing transmission and distribution facilities to carriers in the competitive market, and protecting any scale economies that presently exist in underlying facility production. Second, the separated entities will be providing services unique to the competitive market, relying, for the most part, on highly specialized facilities. Third, we are not applying the separation requirement to small carriers.

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255. In addition, we are allowing the sharing of administrative services, such as legal services, by the parent and the subsidiary on a cost reimbursement basis. This assumes, of course, the existence of an accounting system which accurately reflects the costs of administrative services provided by an affiliated entity. With an appropriate accounting system, whatever administrative efficiencies may exist are preserved. As to the scope of efficiencies alleged to exist in this area, however, we think it useful to point out the distinction between scale economies and the spreading of fixed costs over a larger base. The examples provided by AT&T generally fall into the latter category. If there truly are economies of scale, nothing in our separation requirements would preclude a non-related entity from providing services to both the underlying carrier and its separate subsidiary. If the unaffiliated entity can attract additional customers for the same service (e.g., payroll accounting and check preparation), it may be able to offer greater economies than those available to the telephone company alone. At the same time it should be noted that we are not foreclosing bulk purchase savings among affiliated entities as long as the costs are shared on a pro rata basis.

256. Addressing a different matter, we have previously noted that the separate subsidiary requirement, per se, does not change the incentives for a firm to engage in predation. One effective means of deflecting such incentives and providing protection to the communications ratepayer is to require the infusion of some independent equity financing for the subsidiary with the concomitant securities law obligations owed to minority shareholders.

257. No one, however, argues for an immediate infusion of outside capital. NTIA suggests that outside capital be "phased in over a period of years."\(^{104}\) We are not at this time mandating that there be outside financing for several reasons.\(^ {105}\) First, outside financing would subject the subsidiary to the costs of securities regulation and disclosure regulation. Second, it may affect the cost of obtaining outside equity and debt. Third, the corporate and regulatory implications of outside financing have not been addressed in any significant detail in the course of this proceeding. Prior to imposing such a requirement we believe these areas deserve further exploration. Fourth, under the structure we have set forth, AT&T and GTE are provided flexibility as to the manner in which enhanced services and CPE can be provided within parameters of their existing corporate structures. To impose an outside financing requirement at this time may serve to constrain their flexibility and foreclose certain structural options. Therefore, we

\(^{104}\) Response of NTIA at 24.

\(^{105}\) In the Tentative Decision we inquired as to whether separate directors should be required. Were we to require some degree of outside financing, the argument for separate directors would be compelling. Since we are not requiring independent financing here, we defer consideration of this issue.
believe that it would be appropriate to wait until the carriers actually submit their capitalization plans to the Commission and ascertain at that time if further action is warranted.

258. We are interested, however, in the manner in which the subsidiary is capitalized. In the Second Report and Order in Docket No. 16495, the Domestic Satellite policy proceeding, 35 FCC 2d 844 (1972), we determined that the public interest required that Comsat engage in competitive ventures through a separate subsidiary. There, as here, our concerns were, first, that transfers of assets during capitalization not serve as vehicles for inappropriate subsidies, to the detriment of basic service ratepayers, See, e.g., Comsat, 45 FCC 2d 444, 451 (1974), and, second, that the subsidiary, at the end of some determinate period, “be in a position to establish its financial independence and assume for itself the risks associated with” its competitive ventures. Comsat, 42 FCC 2d 677, 681 (1973). We do not intend to prescribe here the manner in which the carriers subject to the resale structure may formulate the financial structure of the separate subsidiary. As in the case of Comsat, we believe this to be an appropriate area for the exercise of management judgment subject to ultimate Commission approval of the proposed capital structure. See Second Report and Order, 35 FCC 2d at 853. To the extent costs are incurred in the development of enhanced services prior to the establishment of the separate subsidiary, such costs must be accounted for in the capitalization plan.

259. Our authority to examine into the relationships between carriers and “persons directly or indirectly . . . controlled by” them is explicitly set forth in the Act. See Section 218; 219(a). These sections are further enhanced by our authority to examine relationships between carriers and any other persons, Section 211(b), and our general plenary powers under Section 4(i).106 Specifically, Section 219(a) authorizes us to require reports from all carriers subject to the Act, and from persons controlled by them, with regard to the manner in which such “persons” are capitalized, including shareholder interests, and the general financial operations of such “persons.” Further, 218 authorizes the Commission to obtain from such persons “full and complete information necessary to enable the Commission to perform the duties and carry out the objects for which it was created.”

260. Our decision here to require carriers subject to the resale structure to obtain prior approval of plans for capitalization of separate subsidiaries is necessary in furtherance of our statutory obligation to insure that rates for communications services be “reasonable.” 47 U.S.C. §151. Subsidies flowing from the parent to separate subsidiary, in the form of transfer of assets on capitalization, or by

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106 Section 215(a), in addition to the other sections cited, covers reports by the Commission to Congress regarding, inter alia, transactions between carriers and their subsidiaries. It has been previously ruled that this section is not a limitation on the “expansive grant of power” given by Congress to this agency. GTE Service Corp. v. FCC, supra n. 9.
means of the parent underwriting, for an indeterminate period, the risks of the subsidiary's competitive ventures, would inevitably be passed through to the communications ratepayer. Our broad powers "to employ a full range of remedies, including restrictions, conditions, nonrenewal of licenses, or divestitures . . ." have been previously established. See United States v. FCC, F.2d (D.C. Cir. No. 77–1249, March 7, 1980), slip op. at 72. See also 47 U.S.C. §154(i).

Conclusion

261. We have essentially retained the degree of separation required in the current rules but have also specified other areas where interaction between the separate subsidiary and other affiliated entities would undermine the "separateness" of the resale subsidiary requirement. We have attempted to avoid as much as possible the problems associated with allocating joint and common costs, related to facilities, personnel, services, and software development. We have singled out software and joint research and development as deserving special attention over and above what is addressed by the existing rules. We have concluded that the separate subsidiary must maintain its own books of account, have separate officers, utilize separate operating, marketing, installation and maintenance personnel, and utilize separate computer facilities in the provision of enhanced services. We have proscribed the joint sharing of computer capacity and software development. At the same time we have delineated the condition under which certain transfers of information must be disclosed to prevent anticompetitive behavior. We have also weighed the costs and benefits associated with sharing various administrative expenses and have concluded that the separate subsidiary may obtain administrative services from the parent on a compensatory basis and share in whatever savings may be derived from bulk purchases. However, we reserve judgment as to whether outside financing should be required.

262. In restricting the resale structure and our maximum separation requirements to AT&T and GTE, the structural remedy is limited to those carriers having significant market power and the ability to exercise it to the detriment of the communications ratepayer and the competitive evolution of enhanced services on a national scale. We believe the approach we have taken here is, on balance, a moderate one. Our broad discretion to choose between structural remedies or solely conduct regulation is already established. GTE Service Corp. 474 F.2d at 731. Moreover, our ability to impose and administer different regulatory schemes among a wide variety of carriers under our jurisdiction is similarly without question.107

263. Numerous regulatory agencies have imposed differing regula-

107 Our Computer Inquiry I separation requirements did not apply to all carriers. Carriers whose operating revenues did not exceed $1,000,000 were exempted from those rules. See GTE Service Corp., 474 F.2d at 730, n. 7.
tions on their regulatees, and have been sustained on these grounds. See Permian Basin Area Rate Cases, 390 U.S. 747 (1968); American Airlines v. CAB, 359 F.2d 624 (D.C. Cir. 1966). Also, see FPC v. Texaco, 417 U.S. 380 (1974) (affirming as to agency authority to order different treatment of "small" and "large" producers, reversing on other grounds). There is no question, then, that our "broad discretion in choosing how to regulate..." AT&T v. FCC, 572 F.2d 17, 26 (2d Cir. 1978), includes discretion to select different schemes for different regulatees. See U.S. v. FCC, F.2d , slip op. at 73 (D.C. Cir. No. 77–1249, Mar. 7, 1980).

264. In selecting only certain carriers to whom the structural requirements apply we are not unaware of the risks associated with exempting other carriers. However, potential abuses not safeguarded by structural requirements can currently be safeguarded by our broad authority to regulate the conduct of these carriers. All of the entities offering basic services, of course, remain subject to the dictates of the full range of Title II regulation. Moreover, we remain free to re-examine our current approach should such potentials for abuse actualize, or as circumstances change generally. See e.g., FCC v. WOKO, Inc., 329 U.S. 223 (1946); Pocket Phone Broadcast Service v. FCC, 538 F.2d 447 (D.C. Cir. 1976). See generally, K. Davis, Administrative Law Text ch. 17 (3d ed. 1972). Indeed, the D.C. Circuit Court of Appeals has indicated that we are obligated to re-examine our rules if circumstances change substantially. Geller v. FCC, 610 F.2d 973 (1979).

Transition Period

265. Various comments urge that there be a transition period to the extent structural changes are adopted. GTE is currently subject to the maximum separation rules, and although Section 64.702(c) specifically excepts companies of the Bell System, the exception was predicated on the belief that the Bell System would not be offering unregulated services over the telecommunications network. See Tentative Decision, First Computer Inquiry, 28 FCC 2d at 305. However, our adoption of a regulatory scheme which distinguishes between basic and enhanced services dictates that current enhanced services offered by either GTE or the Bell System through facilities used in interstate communications be provided pursuant to the resale structure. Moreover, because we are requiring the separation of CPE from the provision of basic services, the Bell System and GTE will be required to restructure their current method of marketing terminal equipment. Accordingly, we believe that a transition period should be established

108 The range of available responses to abuse of the letter or spirit of the requirements specified in this Order is, of course, quite broad. Should experience show it is necessary, we are prepared, for example, to prohibit all information flows, to require some measure of third party equity financing for the separate subsidiary, or, in the extreme case, to ban dominant common carriers from the provision of some enhanced services or CPE altogether.
to accommodate the potential restructuring of certain existing services, future services, and the offering of CPE.

266. Insofar as a transition period for enhanced services is concerned, we distinguish between services that are currently being offered and new services that are offered subsequent to the adoption of this order. Any new enhanced service which is offered after the effective date of this order must be provided pursuant to the resale structure. With respect to existing services, however, carriers subject to the resale structure will have until March 1, 1982 to restructure the manner in which they are provided. As of March 1, 1982 carriers under direct or indirect common control of AT&T and GTE shall not offer enhanced services or CPE except as set forth in this decision.\(^{109}\) We appreciate that a great deal of effort, particularly on the part of carriers, will be required to effect the transition. We are confident that the attainment of the new approach to the provision of CPE and enhanced services we have specified today will more than justify the effort from the viewpoint of the consuming public. At the same time, it is important that the transition be accomplished in a manner which will not disadvantage the affected carriers, their shareholders, or their employees. As we have indicated, see, \textit{e.g.} paras. 165–166 \textit{supra}, we are prepared to assist in smoothing the transition. But it is abundantly clear to us that the burdens of working out the transition must be borne in the largest measure by the affected carriers. They much more than any other entities involved have the ability to implement the transition in a timely and efficient manner or to retard its achievement and raise the costs of attaining it for all concerned. We hope that they share our view that society's interest in efficient communications will be well served by proceeding as rapidly as possible to the arrangements described here. But, even if they do not, we hope that they do not fail to see that a cooperative approach to achieving the new arrangements is essential if significant institutional and personal dislocations are to be avoided.

\textit{International}

267. In the Tentative Decision we sought comment on whether we should extend the resale structure to the IRCs. We were concerned that our failure to extend the resale structure into the international area would, over the long term, create problems with respect to the possible expansion of enhanced services internationally, particularly on a competitive basis. \textit{Tentative Decision} at para. 15. Since the resale principle is implicit in the separation requirement that we adopt today, the basic issue still remains whether resale should be extended into the

\(^{109}\) We note that GTE Telenet is currently subject to various separations requirements which are undergoing re-examination by the staff. Where those requirements are less restrictive than what we are setting forth here, GTE Telenet may act in accordance with the already established separation requirements until the staff review is completed and any modifications are made.

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international area. We conclude that it is inappropriate for us to address this issue in the current proceeding.

268. First, any decision we make in this proceeding with regard to international resale would be premature. In our recently released CCI Order, we stated that “the Commission has not adopted a general policy one way or the other as to the resale of international facilities and . . . has made no findings as to the lawfulness of international tariff provisions which restrict the third party use of international facilities.”\(^{110}\) We indicated that an appropriate notice initiating a proceeding to assess the applicability of resale principles to international communications would be forthcoming. Consequently, any determination that we make in this Inquiry would have the effect of prejudging some of the basic issues to be considered in that proceeding. We believe that issues generic to the international arena should be addressed prior to imposing a resale requirement for enhanced services. We will defer consideration of this issue until completion of the international resale inquiry.

269. Second, the need for an immediate determination as to whether the IRCs should be subject to the resale structure is, to a certain extent, mitigated by our recent actions directed at the market power of the IRCs. On December 12, 1979 we decided several important matters both reflecting and affecting the market structure of the IRC industry.\(^{111}\) We stated our belief “that the combined effect of these decisions will be an improved international communications system with more choices for consumers, more diverse service offerings, and lower rates”.\(^{112}\) During the pendency of our broad inquiry on international resale, we will have an opportunity to observe whether these actions have, in fact, resulted in an improved market environment for the provision of communications and enhanced services. Depending on the outcome of the international resale inquiry and the characteristics of the market at that time, we are free to examine whether the IRCs should be subject to the resale structure.

270. We are also aware that Comsat is a major facilities provider for international services. Many of the concerns that we address in this proceeding, however, are not relevant to Comsat since it does not


\(^{112}\) International Telex, at para. 6.
provide communications services or enhanced services directly to consumers. To the extent this premise should change, we are not foreclosed from subjecting Comsat to the resale structure if the facts so warrant. Moreover, any action in this proceeding with regard to Comsat's corporate structure could be duplicative as Comsat is already subject to a separation requirement in that we have required Comsat to form a separate corporate entity to engage in any domestic satellite ventures and in any other non-INTELSAT related activities.\footnote{Communications Satellite Corporation, 45 FCC 2d 444 (1974).} Additionally, we are currently studying, pursuant to congressional mandate, whether Comsat is optimally structured to engage in a variety of activities involving different markets as well as whether the validity of the separation requirement imposed on Comsat remains valid.\footnote{See Interim Report and Notice of Inquiry, Implementation of Section 506 of the International Maritime Satellite Telecommunications Act, CC Docket No. 79-266 (released October 19, 1979).} We expect that this report, which must be transmitted to Congress no later than May 1, 1980, will provide additional insight as to whether Comsat should be subjected to further separation requirements. If, after the Comsat report is compiled and various international proceedings are concluded it appears that Comsat should be subjected to further separation requirements, we will take appropriate action at that time.

E. 1956 AT&T Consent Decree

271. In the Tentative Decision we addressed the possible effects the 1956 AT&T Consent Decree might have on AT&T's ability to offer certain types of services and equipment, absent regulation under the Act. We explained the regulatory dilemma created by the Decree as presently informally construed by DOJ. Tentative Decision at para. 140–141. At the same time we set forth our perception of permissible activity under the Decree as evidenced in the actual practices of the Bell System. Id. at paras. 142–144. In so doing we focused on Sections IV and V of the Decree and stated our belief that the terms of the Decree contain sufficient flexibility to allow significant deregulation of terminal equipment and enhanced services without foreclosing AT&T participation in various markets. With respect to enhanced services we read the exception contained in Section V(g) of the Decree, which exempts from the Decree's constraints "businesses or services incidental to the furnishing by AT&T or such subsidiaries of common carrier communications services," as allowing AT&T to engage in the provision of various enhanced services. In order to resolve the dilemma caused by the Decree—the possible choice between unnecessary regulation and foreclosing equipment and service options to the consumer—we stated that it was our intent to resolve our public interest determinations based on the assumption that a given activity
falls within the Section V(g) exception where a particular nonregulated processing activity associated with the provision of an enhanced service is in the public interest. *Id.* at para. 147.

272. In its comments, DOJ disagreed with our treatment of the consent decree. DOJ stated:

As consistently interpreted by the Department of Justice, AT&T, as well as the courts, the Bell System companies generally have been considered to be limited by this final judgment to offering 'common carrier communications services,' defined in the decree to mean 'communications services and facilities . . . the charges for which are subject to public regulation.' (citations omitted)

Comments at 13. It also criticized the Commission for construing the decree (rather than deferring to DOJ or the judgment court) and stated that the FCC has no legal authority to render a definitive interpretation of the decree, arguing that under Section XVII of the decree, the judgment court retained jurisdiction to render such interpretations. DOJ concluded that it would regard any FCC determination that AT&T's diversification into the unregulated data processing field is permissible under the decree as it now stands as without determinative effect on the Department's exercise of prosecutorial discretion.

273. AT&T, on the other hand, has taken the position that:

To the extent that an unregulated activity were to be provided by Bell under Section V(g) of the Decree, the "incidental" interpretation by the Commission is consistent with the language and spirit of the Decree, particularly in view of changing circumstances, such as the confluence of computer and communications technologies. (citation omitted) The Consent Decree has to be interpreted flexibly in order to reflect changes in technology and business circumstances.

Comments at 90. AT&T indicated that, because of the convergence of communications and data processing, in order to be responsive to the demands of communications users, the Bell System at some time may need to offer a service or equipment that is incidental to Bell System communications services but not itself regulated. The service or equipment may be of a communications sort in the broader sense but not well suited to regulation. Comments at 105. AT&T also stated that the Commission "wisely observes" that regulation should not compel an artificial structuring of services where the public interest requires otherwise, and that the Commission's observation reflects recognition of the practical realities associated with advancements in computer processing technology.

274. Various parties argue it is most important that the Commission not adopt a regulatory scheme premised on the desire to avoid foreclosing AT&T from services and markets; the focus should be what is best for the public benefit. There are other parties to this proceeding that take a stronger position and advocate that AT&T should not be allowed into the unregulated data processing business and that it is not the responsibility of the Commission to construe the decree so as to enable it to do so.
275. In the *Tentative Decision* we stated that our basic premise is that the consent decree should not constrain this Commission in the adoption of regulatory policies necessary for carrying out our mandate under the Communications Act. "Our fundamental concern is the availability of services and equipment to the communications consumer and, to that end, creation of an environment wherein regulation does not artificially restrict the diversity of services or equipment available to the public." *Id.* at para. 135. Contrary to the suggestions of various commenters, no attempt is being made to render a definitive construction of the decree, or to render it meaningless. As we stated in the *Tentative Decision* at para. 148:

We recognize that the court with jurisdiction over the decree is the proper body to render any definitive construction of the decree. Absent a definitive construction, the approach detailed here seems reasonable and consistent with current Bell System practices.

In essence, we stated that, absent a definitive determination to the contrary by the judgment court, we were going to view the 1956 consent decree in the stated manner for purposes of implementing our regulatory responsibilities under the Act. Such a course of action is not without precedent where the Department of Justice has refused to render a construction or, as here, where its constructions are less than illuminating in terms of what activity is proscribed by the decree. Cf. *The Connecticut Water Co.*, 25 FCC 1367 (1958).

276. We have concluded that enhanced services and CPE should not be subjected to Title II regulation. This determination was made based on our statutory responsibilities and the broad public interest mandate given us by Congress. We firmly believe that the regulatory structure we have set forth herein will best serve the public. The structure is conducive to the provision of new and innovative enhanced services and CPE and participation by all vendors on a competitive basis. Moreover, we believe that this decision does not, when read in conjunction with the terms of the 1956 Consent Decree, foreclose AT&T from providing either CPE or enhanced services.

277. While it has been argued by various parties that AT&T is foreclosed from engaging in activities which are not regulated, it is by no means clear that this is in fact so. We note that Section IV of the decree describes permissible activities of Western Electric and Section V describes the permissible business activities of AT&T and all of its subsidiaries, except Western Electric and Western Electric's subsidiaries. Based on our reading of these sections we stated in the *Tentative*

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115 Section IV(A) enjoins Western Electric and AT&T from manufacturing any kind of equipment for sale or lease "which is not of a type sold or leased or intended to be sold or leased to companies of the Bell System, for use in furnishing common carrier communications services, . . ."; Section IV(B) permits Western Electric to engage in any business "of a character or type engaged in by Western or its subsidiaries for companies of the Bell System . . ." Section V(g) exempts from the constraints of the decree "business or services incidental to the furnishing by AT&T or such
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Decision, at para. 142, our belief that excluding CPE from tariff-type regulation would not foreclose Bell System participation in the CPE market. We read Section IV of the decree as permitting Western Electric to sell or lease any type of equipment to the general public which it sells or leases to Bell System companies either for service to others or for their own use. In addition, we perceived enhanced services as being incidental to the provision of common carrier communications services under Section V(g) of the decree. Nothing has been presented to us in the course of this proceeding which would lead us to conclude otherwise. Nothing in Section V(g) requires that the incidental service be provided by the same entity which owns the underlying transmission facilities. Indeed, we have found that the record supports our belief that both enhanced services and CPE are within our subject matter jurisdiction although that jurisdiction is of the "reasonably ancillary" type rather than Title II jurisdiction. As such, these services and equipment reasonably fall within the "incidental to common carrier communications" language of the consent decree. We therefore affirm our earlier conclusions. See Tentative Decision at paras. 135-148. But we do not believe it necessary to rely upon this "incidental" proviso to Section V of the decree. That Section plainly permits AT&T to furnish "common carrier communications services" which are defined in Section II(i) as "communications services and facilities . . . the charges for which are subject to public regulation under the Communications Act of 1934 . . ." (Emphasis added.) Section II(i) does not require that the "regulation" to which it refers take any particular form other than that it be "public" and that it be "under the Communications Act of 1934." Both criteria are satisfied by the regulatory regime which we impose in this decision. The obvious purpose of the "regulation" requirement is to ensure, through the scrutiny of an independent body, that AT&T neither destroys competition nor charges consumers excessive prices. These purposes are fully achieved here, in our view, without the necessity for strict, tariff-type regulation. Moreover, we believe that these purposes can be more fully realized under the separation structure and through the medium of competition than if AT&T were allowed to offer enhanced services as part of its regulated common carrier offerings.

278. We do not believe that the reference to "communications" in the defined phrase "common carrier communications services" was intended to have any separate prohibitory function so long as the services and facilities remain "subject to" regulation under the Communications Act. If the services and facilities are a proper regulatory subject of that Act in the eyes of the expert agency charged with enforcing that Act, it should make no difference to an antitrust subsidiaries of common carrier communications services”; and Section II(i) defines "common carrier communications services” as: “...communications services and facilities, . . . the charges for which are subject to public regulation . . ."
court, inclined to avoid duplicating or interfering with that agency's judgment, that some of the services "subject to" regulation may include a larger element of data processing than basic transmission. So long as the service is not wholly data processing and devoid of any communications elements, the Commission's jurisdiction reaches it. *GTE Service Corp. v. FCC*, 474 F.2d 724 (2d Cir. 1973).

279. In coming to these conclusions we are guided by the principles of consent decree construction. We understand that the 1956 AT&T consent decree is to be construed as one would a written contract, such that any command of the decree must be found within its four corners. See *United States v. Armour & Co.*, 402 U.S. 673 (1971); *United States v. ITT Continental Baking Co.*, 420 U.S. 223 (1975). We have previously indicated that DOJ's reliance on the "regulation" criterion as a benchmark for permissible activity does not comport with actual practices of the Bell System.\(^{116}\) The courts have previously refused to accept any "strained construction" by the Government that is inconsistent with the "normal meaning" of the language used. *United States v. Atlantic Refining Co.*, 360 U.S. 19, 22-23 (1959). In effect, DOJ would read "tariff regulation" into Section II(i) of the decree in place of "public regulation," the term actually employed. We believe our interpretation is the more consistent with the learning of *Armour* and *ITT Continental*. We believe our reading of the decree is similarly compatible with fundamental antitrust principles—the laws under which the judgment court took jurisdiction— which favor open entry. See *Northern Pacific Railway v. U.S.*, 356 U.S. 1, 4 (1958). Moreover, such principles have increasingly gained critical significance in the communications regulatory environment. See *United States v. FCC*, F.2d, slip op. at 73. (D.C. Cir. No. 77–1249, Mar. 7, 1980). Further, we believe that the prohibition in the consent decree should be narrowly construed, because an expansive reading would be restrictive of a free economy. Cf. *United States v. McKesson & Robbins*, 351 U.S. 305, 316 (1956).\(^{117}\)

\(^{116}\) The most recent example of this is evidenced in a letter to Mr. Jerome L. Dreyer, Executive Vice President of ADAPSO from John L. Wilson, Attorney, Antitrust Division, dated November 21, 1979, wherein DOJ sanctions AT&T's ability to market computer software programs which generated almost $1.6 million in 1978. There is no direct regulation of AT&T's activities in this area.

\(^{117}\) As Chairman Emanuel Cellar of the House Antitrust Subcommittee stated in the 1958 congressional investigation of the consent decree:

An additional effect of the decree is to remove Western from markets where it is an actual or potential competitor, and thus to secure the markets of General Electric, RCA and Westinghouse from the threat of penetration by Western. A private agreement . . . to achieve this result clearly would be contrary to public policy and unlawful under the antitrust laws.

Consent Decree Program of the Dept. of Justice, Hearings before the Antitrust Subcommittee of the House Judiciary Committee, 85th Cong., 2d Sess. at 2022. While we do not read the decree as having such a severe effect in the "enhanced" and CPE markets, it is plain that if it had such a restrictive effect on Bell’s participation in

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280. We recognize that companies of the Bell System are faced with making corporate decisions in the presence of uncertainty. We obviously cannot guarantee that the consent decree does not impose some constraint on their activities in these areas. At the same time, however, removal of the uncertainty rests primarily with AT&T, should AT&T deem it necessary. As we perceive the situation, the choice rests with AT&T either to seek clarification from the judgment court as to the limits of permissible activity in these areas, or, weighing the risks, to proceed with its marketing plans for various types of CPE and enhanced services.

281. We believe that the purposes of both our regulatory statute and the antitrust laws are furthered by our adoption of a regulatory scheme requiring separation of basic telecommunication services and enhanced ancillary services and equipment so that customers in both markets are given the benefit of the best service and the lowest cost. It is a regulatory scheme that is conducive to the fullest exploitation of this country's telecommunications networks, and will best serve all segments of society. Even though uncertainty may exist for the Bell System under this structure due to the consent decree, we believe that the costs to society in general would be too great were there to be regulation in these areas. It would be far worse to subject CPE and enhanced services to regulation. However, should a decision of the judgment court disagree with our reading of the decree and foreclose AT&T from the provision of enhanced services or CPE, we would feel compelled to reassess the situation to ascertain whether any revision to decisions made here would be warranted in light of our statutory mandate. See Geller v. FCC, 610 F.2d 973 (D.C. Cir. 1979).

F. Conclusion

282. In reaching a final decision in this proceeding, we have considered our broad statutory mandate as set forth in Section 1 of the Act and our regulatory responsibilities under Title II. We find that adoption of the regulatory scheme which we have delineated is well within our statutory authority and would best serve the public interest by providing greater regulatory certainty to the marketplace, creating an environment conducive to the provision of CPE and enhanced services on a competitive basis, and by removing artificial restrictions on services that may be offered consumers through the use of emerging competitive markets (despite the availability of less restrictive safeguard such as separate subsidiaries), the purposes of the antitrust laws would be disserved.

When an unstrained interpretation of the decree, holding out some reasonable promise both of avoiding such an anticompetitive result and of preventing possible controversies regarding AT&T's competitive activities from spreading beyond the range of markets "incidental" to common carrier communications is available, we believe it would be unreasonable to adopt rules premised upon the assumption that either the Justice Department or the District Court in New Jersey would subscribe to a less attractive interpretation.
computer technology where such restrictions are not necessary for meeting our statutory purpose.

283. In the Tentative Decision we offered numerous options for consideration in reaching a final decision. See paras. 32 and 35, supra. With respect to network services, Option 1 entailed adoption of the proposal set forth in the Tentative Decision. This approach would have necessitated making distinctions as to the communications or data processing nature of enhanced services. It also would have required the application of the resale structure to all carriers owning transmission facilities. We have rejected this option because it would unnecessarily expand the scope of regulation, fail to provide regulatory certainty to the marketplace by attempting to delineate communications and data processing services at the enhanced level, subject services to Title II regulation that are not necessarily subject to, nor even susceptible to a common carrier scheme of regulation, and maintain the maximum separation policy for all underlying carriers.

284. Option 2 is deficient for the same reasons as Option 1, except that it would distinguish between carriers that should be subject to maximum separation. While Option 3 is better than Options 1 and 2 in that enhanced services would not be subject to regulation under Title II, it is also lacking because no distinction is made between carriers in terms of applying the maximum separation requirement. Finally, we reject Option 5, the "optional tariffing" proposal, because it does not provide sufficient certainty in the marketplace and would result in disparate regulatory treatment with respect to services that would be regulated under Title II. This option would also result in subjecting to Title II regulation enhanced services, as to which common carrier regulation might well prove to be counterproductive.

285. In view of the foregoing, and upon consideration of the entire record in this proceeding, we have concluded that adoption of option 4 is warranted in the public interest. Moreover, with respect to CPE we have concluded that all CPE should be removed from Title II regulation and separated from the provision of basic services.

G. Ordering Clauses

286. Accordingly, IT IS ORDERED, pursuant to Sections 4(i), 4(j), 201-205, 403, 404, and 410 of the Communications Act of 1934, as amended, that the policies and rules set forth herein ARE ADOPTED as a final decision in Docket No. 20828.

287. IT IS FURTHER ORDERED THAT Section 64.702 of the Commission’s Rules IS HEREBY AMENDED, EFFECTIVE June 13, 1980, as reflected in the Appendix.

288. IT IS FURTHER ORDERED THAT carrier-provided CPE shall be unbundled in accordance with this decision, and all carrier-provided customer-premises equipment shall be detariffed and removed from the jurisdictional separations process and the rate base of all carriers no later than March 1, 1982.
289. IT IS FURTHER ORDERED THAT, in accordance with paragraph 163, the Chief, Common Carrier Bureau is hereby directed to prepare an order convening a Joint Board to explore what revisions, if any, to the separation process are warranted as a result of our action with respect to carrier-provided CPE.

290. IT IS FURTHER ORDERED THAT the time period set forth herein for the structural separation and provision of enhanced services and CPE shall be adhered to by AT&T and GTE.

291. IT IS FURTHER ORDERED THAT Docket No. 20828 is HEREBY TERMINATED.

292. IT IS FURTHER ORDERED THAT THE Secretary shall cause a copy of the decision to be published in the Federal Register.

Federal Communications Commission,
William J. Tricarico, Secretary.
Appendix

1. In Part 64 the headnote of Subpart G and the text and headnote of Section 64.702 are amended to read as follows:

Subpart G: Furnishing of Enhanced Services and Customer-Premises Equipment by Communications Common Carriers

64.702 Furnishing of enhanced services and customer-premises equipment:

(a) For the purpose of this Subpart, the term "enhanced service" shall refer to services, offered over common carrier transmission facilities used in interstate communications, which employ computer processing applications that act on the format, content, code, protocol or similar aspects of the subscriber's transmitted information; provide the subscriber additional, different, or restructured information; or involve subscriber interaction with stored information. Enhanced services are not regulated under Title II of the Act.

(b) Communications common carriers subject, in whole or in part, to the Communications Act may directly provide enhanced services and customer-premises equipment; provided, however, that the Commission may prohibit any such common carrier from engaging directly or indirectly in furnishing enhanced services or customer-premises equipment to others except as provided for in paragraph (c) of this section, or as otherwise authorized by the Commission.

(c) A communications common carrier prohibited by the Commission pursuant to paragraph (b) of this section from engaging in the furnishing of enhanced services or customer-premises equipment may, subject to other provisions of law, have a controlling or lesser interest in, or be under common control with, a separate corporate entity that furnishes enhanced services or customer-premises equipment to others provided the following conditions are met:

(1) Each such separate corporation shall obtain all transmission facilities necessary for the provision of enhanced services pursuant to tariff, and may not own any network or local distribution transmission facilities or equipment.

(2) Each such separate corporation shall operate independently in the furnishing of enhanced services and customer-premises equipment. It shall maintain its own books of account, have separate officers, utilize separate operating, marketing, installation, and maintenance personnel, and utilize separate computer facilities in the provision of enhanced services.

(3) Each such separate corporation which provides customer-premises equipment or enhanced services shall deal with any affiliated manufacturing entity only on an arm's length basis.

(4) Any research or development performed on a joint or separate basis for the subsidiary must be done on a compensatory basis. Software used by the subsidiary in the provision of enhanced services or equipment may only be developed by the separate subsidiary or non-affiliated contractor, except for utility software (such as operating systems, compliers, and debugging aids) and "firmware" that is an integral part of the hardware design.

(5) All transactions between the separate corporation and the carrier or its affiliates which involve the transfer, either direct or by accounting or other record entries, of money, personnel, resources, other assets or any thing of value, shall be reduced to writing. A copy of any contract, agreement, or other arrangement entered into between such entities shall be filed with the Commission within 30 days after the contract, agreement, or other arrangement is made. This provision shall not apply to any transaction governed by the provision of an effective state or federal tariff.

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(d) A carrier subject to the proscription set forth in paragraph (c) above:

(1) shall not engage in the sale or promotion of enhanced services or customer-premises equipment, on behalf of the separate corporation, or sell, lease or otherwise make available to the separate corporation any capacity or computer system component on its computer system or systems which are used in any way for the provision of its common carrier communications services. (This does not apply to communications services offered the separate subsidiary pursuant to tariff);

(2) shall disclose to the public all information relating to network design and technical standards and information affecting changes to the telecommunications network which would affect either intercarrier interconnection or the manner in which customer-premises equipment is attached to the interstate network prior to implementation and with reasonable advance notification. When such information is disclosed to the separate corporation it shall be disclosed and be available to any member of the public on the same terms and conditions;

(3) may not provide to any such separate corporation any customer proprietary information unless such information is available to any member of the public on the same terms and conditions; and

(4) must obtain Commission approval as to the manner in which the separate corporation is to be capitalized, prior to obtaining any interest in the separate corporation or transferring any assets, and must obtain Commission approval of any modification to a Commission approved capitalization plan.

(e) Except as otherwise ordered by the Commission, after March 1, 1982 the carrier provision of customer-premises equipment used in conjunction with the interstate telecommunications network shall be separate and distinct from provision of common carrier communications services and not offered on a tariffed basis.
Today we have removed the barricades from the door to the information age. The supply of communications products and services will be limited only by the ingenuity of businessmen and scientists. Government will no longer be a barrier that prevents or delays the introduction of innovations in technology.

We have all read a great deal about the marvelous inventions that the convergence of computer and communications technology will make possible. Consumers and businessmen will have highly intelligent communications products and services in their homes and offices that will increase productivity, save energy and improve the quality of life.

As long as the development of new telecommunications products was subject to the whim of the regulatory process, however, the evolution of this industry was subject to uncertainty. Now communications business entrepreneurs can be sure that the marketplace and not the government will decide their fate. They will be willing to invest more money, and the communications market will develop more rapidly.

In a very real sense this proceeding began in 1966 with the initiation of the First Computer Inquiry. The rules developed there were intended for the world of the large capacity central processing unit, accessed by telephone lines from remote unintelligent terminals. In that world, a line between communications and data processing was defensible.

The advent of distributed data processing, however, made the Computer I rules obsolete. With the minicomputer it became possible to process data accessed from a central computer memory. The new "smart" terminals were both data processors and communications devices. Smart networks, such as Telenet’s packet switched service, were next.

It became clear that the Commission would be called upon more and more to make arbitrary decisions. These decisions were made more difficult by the desire to allow AT&T to participate in the evolving communications/data processing markets in spite of the 1956 Consent Decree. It became clear that there was a very real danger that in extending the grasp of regulation to allow AT&T to compete, its competitors would be ensnared in needless regulation.

Moreover, AT&T was subjected to inevitable delays in introducing new products and services along the boundary line. Clearing the regulatory hurdle was only the first step. Appeals from competitors inevitably followed.

Thus, to deal with these problems, we have today’s Final Order in the Second Computer Inquiry.

In brief, we have decided to free all of the new, enhanced services
Second Computer Inquiry

from Title II regulation. We accomplish this result by recognizing that the new products made possible by the convergence of computers and communications are outside the scope of Title II of the Communications Act. Indeed, the “rapid, efficient, nation-wide” communication service “at reasonable prices” called for in Section I of the Act is most likely to be fostered by limiting our traditional regulatory activities to the basic transmission and switching activities that are the building blocks upon which the new products and services will be erected.

Just as I am convinced that this result is in the public interest, I am convinced that the Commission’s charter is flexible enough to allow it. I believe the line we draw today between basic and enhanced services is a sound one that will stand the test of time. It comports with marketplace and technological realities. Moreover, it does not affect the provision of basic service by any existing basic carrier, because AT&T does not offer enhanced services and GTE-Telenet already complies as a result of the GTE-Telenet decision. If future developments dictate a change, however, we will make it.

We began this proceeding in 1976 by recognizing that the boundary between data processing and communications that had been drawn five years earlier in our First Computer Inquiry was already obsolete. In our Tentative Decision last year we supported a distinction of a similar kind between simple customer premises telephone equipment that could continue to be regulated as a part of “basic service” and the more sophisticated equipment that embodies advanced technology and allows customers to do more than just engage in conversation.

The comments on the Tentative Decision convinced us that this distinction was no more useful than the computer/data processing dichotomy of the First Computer Inquiry. The realities of the marketplace and the likely evolution of technology simply do not support such a distinction.

Therefore, we have decided to deregulate all customer equipment, including the simple rotary dial telephone found in most homes.

State jurisdiction is preempted. Charges for equipment must be unbundled by all carriers. AT&T and GTE will be required to market customer equipment through a separate subsidiary. The scheduled date for deregulation is March 1, 1982. In the meantime a Federal-State Joint Board is to be convened to determine whether adjustments in other exchange plan allocations may be warranted in light of the deregulation of customer equipment.

The deregulation of terminal equipment can only benefit consumers. Consumers have benefitted by our 1968 Carterphone decision, which for the first time allowed home and business users to choose the supplier of their equipment. Deregulation will encourage even greater competition and innovation in telephone equipment.

We are taking steps to ensure that on the date customer equipment deregulation becomes effective, no consumer will be required to change his or her relationship with the local telephone company.

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Consumers can, if they wish, continue to be billed by their telephone company for existing equipment. It is our expectation and intent that a customer's total bill for communications equipment and service will not increase.

We will take up the issue of access charges in just two days time. That item is designed, in part, to solve many of the transitional issues related to terminal equipment deregulation. Over time, because of competition, we anticipate that consumers, in general, will pay less than they otherwise would and at the same time will have available a much broader array of products from which to choose.

We are also taking steps to ensure that competition in provision of this technology will be fair to all parties—to AT&T and GTE as well as their competitors. The ability of the two industry giants to cross-subsidize will be largely eliminated, because we are imposing some structural safeguards on them. But these safeguards are designed to be consistent with technological and marketplace realities so that the costs of these monopoly carriers will not rise.

We have carefully considered the costs and benefits of the structural separations we are imposing on AT&T and GTE. Many parties commented on this issue. On most issues the evidence in support of vertical integration advanced by AT&T was simply not persuasive. In those instances where it was persuasive, we do not require separation.

AT&T's subsidiary may, for example, rely on AT&T for administrative support and R&D not related to software. In other areas only AT&T has access to the detailed quantitative information needed to demonstrate economies from vertical integration. The fact that it was not offered by AT&T in this docket can only be used by us as evidence that those economies do not exist. It should be remembered that for all existing services, AT&T may deal with the general departments, Bell Labs, and Western Electric just as they do today.

It might be argued that our initial structural conditions should be loosened and then made more strict at a later date if conditions warrant. The problem with this approach is that the evidence of the need for stricter conditions might well be the corpses of competitors on the field of competition and higher ratepayer charges. We have proposed the minimum conditions necessary to prevent this result.

AT&T and GTE will, I am certain, have the incentive and ability to improve their basic networks. We do not prevent them from using any technology. Indeed, if AT&T wishes to be a supplier of the building blocks for enhanced services, it will be required to update its basic network. If it fails to do so, the competition we authorized in our Domestic Satellite\(^1\) and Specialized Common Carrier\(^2\) decisions will

\(^1\) Domestic Communications Satellite Facilities, Second Report and Order, 35 FCC 2d 844 (1972).

\(^2\) Specialized Common Carrier Decision, 29 FCC 2d 890 (1971).
Finally, I believe AT&T will be able to participate aggressively in markets where our traditional regulation is being withdrawn. I do not believe the 1956 Consent Decree prevents this. Participation by AT&T in these markets appears to be consistent with the language of the Decree and, given the structural safeguards we have imposed, it is certainly consistent with the spirit of the Decree. We will, of course, continue to subject the structural means we have adopted to allow AT&T to compete in these markets to regulatory scrutiny within the Communications Act. The public costs of a contrary interpretation of the Decree, requiring us to regulate these markets, and extending the government's reach into the data processing field, is far too high.

The Final Order in the Second Computer Inquiry is a giant step forward for consumers and for the industry. Faced with the choice of solving a problem by either extending or reducing government regulation, we have chosen to reduce regulation. As a result, I believe the information age will arrive sooner, and I welcome the changes it will bring.

Concurring Statement of FCC Commissioner James H. Quello

In Re: Docket No. 20828 - “Second Computer Inquiry”

I believe that the Commission's approval of this Final Order was an important watershed in the process of moving the national telecommunications system into a new and exciting era. I must point out, however, that the Final Order is anything but final. It is a first step along the road to full participation of AT&T and GTE in the provision of "enhanced" telecommunications services. I share with the Chairman and my colleagues a commitment that the Commission will remain sensitive to the needs of the carriers who wish to participate fully in the competitive arena.

I am in full accord with the acknowledgement of the Staff that this is not a perfect document. I am confident that we can and will move closer to perfection as we all gain experience on this uncharted terrain. I regard as a keystone of the Final Order the premise that the Commission remains willing and able to change course should our perception of the future prove to be in error. I encourage the affected carriers to demonstrate where and how they perceive we have erred and to propose alternative courses where appropriate.

I share many of Commissioner Fogarty's concerns with regard to the degree of separation required and the extent to which information flow should be restricted. I believe that we, as regulators, bear a heavy responsibility to encourage the strongest possible competition in the provision of enhanced services. I suspect that—out of an abundance of
caution—we have erected too many structural barriers. While I recognize the need to protect the monopoly service ratepayers and the competitive environment, I continue to be concerned that we might be to some extent inhibiting the potential for innovative and efficient service.

To strike a proper balance between barriers to anti-competitive behavior and encouragement of full and fair competition requires an infinitely delicate touch. It requires a confidence that I believe we can and will develop as we move forward. I expect that we will choose to abandon some of our heavier weapons as we proceed through the jungle trails and become more familiar with the environment. Once we begin to distinguish shadow from substance, our perceptions are likely to change.

I am gratified that the Commission has agreed to broaden the language of the Order to permit affiliates of the competitive entities to provide the necessary firmware in both network and customer premises equipment. That concession relieved some of my concerns about restricted information flow. Some concerns remain, however, and I would hope and expect that they, too, will be eased in the months just ahead.

I look forward to the inquiry regarding code and protocol conversion. I assume that we can resolve questions about the appropriateness of including such services within the basic network quickly and in the best interests of the public.

The public should expect to reap great benefit in the near future from a range of services including many as yet undreamed of. I believe that the dominant carriers—through their subsidiaries—must play an important role in reaching those expectations. Since the Commission chose to forbear overt Title II regulation and to rely instead upon the forces of vigorous competition in the provision of enhanced services, I feel confident that we will be able and willing to remove any remaining barriers to full and fair competition as the need is demonstrated.

Therefore, I concur.

STATEMENT OF COMMISSIONER ABBOTT WASHBURN APPROVING FINAL DECISION AND CONCURRING ON DEGREE OF SEPARATION WITH RESPECT TO SOFTWARE DEVELOPMENT AND INFORMATION FLOW

April 7, 1980

RE: COMPUTER INQUIRY II

I heartily approve today's action which will enable AT&T and GTE to actively participate in the dynamic new technologies of the future. The addition of their expertise, skill and strong tradition of service to these markets holds promise for significant public benefits. I fully realize that their entry also entails risks and I fully share the concerns set forth in today's Final Decision. In the area of information flows
and joint software development I recognize that vertically integrated rate regulated carriers have opportunities to gain anticompetitive advantages by virtue of their monopoly status. However, I do not agree that the mere opportunity for abuse is sufficient to spark governmental intervention in business judgments of private competing parties. Any future evidence of anticompetitive activity or other abuse would be quickly brought to our attention by the parties who were harmed. These abuses would be reachable by either an antitrust court or this Commission.

While I would have preferred deferring the imposition of regulatory constraints on information flow and software development, I find assurance in the fact that despite its title today's decision is not "final" but rather is a step in an ongoing Commission process. I will welcome additional data submitted on reconsideration, or later, whenever there are changes to the determinations upon which today's decision is premised. Change is the keynote of progress and adaptation to that change is the hallmark of enlightened regulation.

STATEMENT OF COMMISSIONER JOSEPH R. FOGARTY DISSenting IN PART

IN RE: COMPUTER INQUIRY-II—FINAL DECISION

This decision is a "landmark" in the history of telecommunications. Perhaps no other decision since the passage of the Communications Act of 1934 and the creation of this Commission is so momentous in terms of impact on industry, regulation, and the public interest. It represents in principal part significant progress and achievement in resolving the critical issues of telecommunications development in the computer age which have now confronted us for a decade and a half. The essence of the basic/enhanced service dichotomy and resale structure, together with dominant carrier structural regulation and forbearance from regulation for the rest of the competitive participants, is, I believe, well-conceived and supported by sound policy determinations. The unbundling and detariffing of CPE is also premised on strong legal and policy considerations.

While I join the Commission's decision to this extent, I am constrained to question the adequacy of the Commission's consideration and determination in several critical areas. Central to my dissenting views is the concern that while the majority's decision purports to implement an almost pristine devotion to economic theories of "marketplace competition," its actual effect will be anticompetitive in terms of denying certain entities and, most importantly, the public they serve, the benefits of "full and fair" competition. I am also concerned that in certain key areas the real-world consequences of the decision have not been perceived or anticipated in sufficient detail to give assurance that the public interest will be served in fact, as well as in theory, by these actions. I cannot emphasize too strongly that under
our existing statutory mandate, it is the public interest—the interest of consumers and ratepayers—which must be our paramount concern and responsibility.

This proceeding was initiated because technological developments which have taken place since our decision in Computer Inquiry-I have rendered the rule, which was adopted in that earlier proceeding, largely obsolete. The convergence of the technologies used to provide communications services, which we regulate, and data processing services, which have not been regulated, has continued at accelerated pace since 1971. The major issue now, as it was then, is the extent to which carriers subject to our jurisdiction can use computer and communications technologies to provide communications service or some combination of communications and data processing service.

The Former Rule

The former rule used a definitional structure to identify these network services:

1) Remote Access data processing
2) Hybrid Data processing
3) Hybrid Communications
4) Message and Circuit Switching

Items (1) and (2) were exempted from regulation under Title II, whereas we found that even if computers are used for the provision of (3) and (4), such services nevertheless are subject to our jurisdiction. The rule also stated that any common carrier who wishes to provide services (1) and (2) can do so only under a fully separated subsidiary. The rule permitted a separate unregulated subsidiary to acquire communications facilities from the parent, but did not place any limitations upon the ownership of transmission facilities. The rule did not permit carriers which own computer facilities used in communications to "sell, lease, or otherwise make available" such facilities to any other entity. The rule did not address the situation of implicit computer leasing or sharing when a communications service using a computer switching facility is resold.

The old rule thus established a regulatory boundary based upon the dichotomy between data processing services (Items 1 and 2) and communications services (3 and 4) which was delineated by the definitional structure.

The New Rule

The former rule, having been overtaken by technological advance, created a climate of ambiguity which has limited the participation of providers of these services. The rule adopted in this Final Decision

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purports to "address these matters in a manner which gives clear direction to the marketplace, but without restricting the types of services that may be offered to consumers" (Para. 83). In addition, it seeks to extend this Commission's policy of encouraging meaningful competition in new technology areas by decreasing the regulatory burden where deemed appropriate.

This Final Decision presents a marked and substantial departure from the Tentative Decision and the Commission consensus which supported it. While I agree with a large part of this decision as a significant and well-conceived step in the right direction, I do not believe that the new rule has wholly succeeded in giving a clear direction to the marketplace. Moreover, from a public policy and consumer-oriented point of view, I believe that the new rule raises serious questions which unfortunately the Final Decision does not answer.

The Structural Solution

The new rule forbears from regulation of enhanced services and deregulates the provision of CPE. In order to compete in these markets, only AT&T and GTE are required to establish separate subsidiaries operating on an arm's length basis. Any other carrier now subject to our jurisdiction can offer these services without such restrictions. In addition, any AT&T and GTE subsidiary must acquire its facilities on a tariffed basis from an underlying carrier and thus operate as a resale entity. The resale subsidiaries are prohibited, furthermore, from owning their own transmission plant.

If we look further into the significance of these structural requirements, we can see that they impact AT&T more significantly than they do GTE. AT&T is a vertically integrated entity which is now the major supplier of interstate digital and analog transmission facilities. GTE is a less vertically integrated entity whose primary communications investment is in its local operating companies. GTE's separate Telenet subsidiary already obtains most of its digital transmission facilities from AT&T. It is of necessity a resale carrier.

In addition to the resale requirement, the following degree of separation is required of AT&T and GTE resale and CPE subsidiaries:

- Separate maintenance of records, accounting
- Separate operating personnel and officers
- Separate marketing
- Separate installation and maintenance
- No sharing of computer capacity
- Limited joint software development

Further,

- A subsidiary providing enhanced services and/or CPE may not provide communications hardware used in a network. Such subsidiaries must also deal at arm's length with any other affiliated equipment manufacturers.
• Marketing information made available to the subsidiary by the parent must also be disclosed to non-affiliated competitors.

• Information relating to changes in network design and technical standards must be disclosed to the public.

The necessity of separate subsidiaries for the provision of enhanced services and CPE was designated a key issue in the Tentative Decision and Further Notice of Inquiry. In a separate statement, I indicated the concern that "[w]e have never assessed the critical cost benefit trade-offs inherent in these various degrees of separation, nor have we examined the question of whether the economies which may flow to the ratepayer from vertical integration outweigh potential abuses . . . Certainly, we owe it to the ratepayer to conduct this analysis before we reach a final decision in this inquiry."3

I regret that such an analysis has not been performed in reaching this decision. The Commission's Final Decision purports to find the "middle ground" of "compromise." However, the proposed specific degree of separation reflects an approach in which all assumptions pertaining to the benefits of separation are treated as givens whereas any countervailing arguments pertaining to the benefits of vertical integration are treated as unproven hypotheses subject to considerable doubt. In particular, Paragraph 206 states:

We have tried to assess the benefits and disadvantages of permitting or prohibiting each [of the important production and distribution functions] to be performed on an integrated basis. With those functions that weighed heavily in the process [i.e., those whose manipulation would produce the greatest gains to a dominant common carrier inclined toward anticompetitive activity]—the sharing of operating personnel or of facilities for example—we inclined toward disallowing integrated activities altogether; with those functions that seemed less decisive, the sharing of research and development, for example, we inclined toward assuming the risk vertical integration poses.

In other words, wherever substantial risk of anticompetitive abuse is perceived in vertical integration, the decision opts for complete separation. However, this calculus totally fails to give any comparative weight to the substantial benefits of vertical integration as against the competitive risks perceived. This calculus presents no rational cost/benefit balancing at all; instead, it indulges in wholly presumptive preference. In doing so, it egregiously ignores the Commission's paramount responsibility under its existing statutory mandate—that is, to protect and promote the public interest of the ultimate consumer.


3 Id., Separate Statement of Commissioner Joseph R. Pogarty, 72 FCC 2d 450, 452; See also GTE-Telenet Merger Authorization, 72 FCC 2d 111 (1979), Concurring Statement of Commissioner Joseph R. Pogarty, Id. at 194, modified 72 FCC 2d 516 (1979), Concurring Statement of Commissioner Joseph R. Pogarty in which Commissioners James H. Quello and Anne P. Jones Join, Id. at 531, recon. denied—FCC 2d— (1979), Concurring Statement of Commissioner Joseph R. Pogarty in which Commissioners James H. Quello and Anne P. Jones Join, Id. at—.
of telecommunications, not merely the private interests of individual competitors.

In this connection, the main thrust of the degree of separation prescribed by the item appears to be directed at severing all joint and common costs. Yet it is precisely in joint and common costs that significant economies are realized. The Final Decision concedes that the benefits of separation are “not susceptible to precise quantification,” but are expected to be substantial. The same courtesy of speculation is not extended to the benefits of vertical integration despite the volumes of industrial organization literature to the contrary.

For example, the case for innovation through vertical integration is no less “problematical” or “ambiguous” than the case against, and yet it is the latter that is given a presumptive preference by the Commission’s decision. In this regard, the decision generally cites Dr. Alfred Kahn’s treatise on The Economics of Regulation in support of the propositions that “. . . while AT&T has mounted a significant defense of vertical integration, it does not take into account the likely contributions which competition can bring, and has brought, to innovation,” and that “the generalized case for vertical integration by a monopolist is not without serious dangers, particularly where the company is rate-regulated and seeking to engage in unregulated activity.” However, fuller reference to Dr. Kahn’s work is more instructive:

But, in the last analysis, the plunge into competition is inescapably a plunge into the unknown. The essence of the case for competition is that the potential performance of an industry is unknowable; it is the rivalry of independent suppliers that offers the greatest possible assurance that all economically feasible avenues for cost reduction and service innovation will in fact be explored and their results subjected to the impartial test of the marketplace.

This is not, however, a sufficient guide to public policy in all times and places, as the institution of regulated public utility monopoly itself indicates.

It remains possible that the manufacture of equipment for the central core of the natural monopoly, the communications network, is a “natural” part of that monopoly. This writer would find it extremely difficult himself, in the face of the objective record of good performance and the qualitative arguments that provide at least a highly plausible basis for attributing those results in important measure to vertical integration, to recommend the plunge into the unknown.*

It is also worthwhile to examine recent antitrust law doctrine as a guide to a proper resolution of the degree of separation issues presented. In Berkey Photo, Inc. v. Eastman Kodak Co.,5 the Court of Appeals for the Second Circuit addressed the question of what restraints should be placed upon a monopoly firm’s activities in non-monopoly markets. While the court concluded that a firm may not use

its monopoly market position as a lever to create or attempt to create a monopoly in another market, it also held that—

[A] large firm does not violate Section 2 [of the Sherman Act] simply by reaping the competitive rewards attributable to its efficient size, nor does an integrated business offend the Sherman Act whenever one of its departments benefits from association with a division possessing a monopoly in its own market. So long as we allow a firm to compete in several fields, we must expect it to seek the competitive advantages of its broad-based activity—more efficient production, greater ability to develop complementary products, reduced transaction costs, and so forth. These are gains that accrue to any integrated firm, regardless of market shares and they cannot by themselves be considered uses of monopoly power.\(^6\)

While we are here engaged in forging communications policy, not antitrust law, the Commission’s public interest standard and, indeed, this proceeding carry a heavy antitrust policy component. The Commission would be well-advised to pay closer attention to this fundamental teaching.

The separation requirements adopted by the Commission have been imposed ostensibly to prevent any possible subsidization of the competitive entities by the so-called “monopoly services,” this theme appearing throughout the Commission’s decision. It should be noted, however, that as a result of the Execunet decisions,\(^7\) interstate MTS and WATS are no longer monopoly services. If the Commission’s ultimate decision in the MTS/WATS Market Structure Inquiry\(^8\) affirms the desirability of what is now the status quo, we can expect vigorous competition to develop in this “monopoly service” marketplace. Under these circumstances, it will make much less sense to invoke the cross-subsidy argument as the case in chief for the degree of separation required by this decision.

I am well aware of the serious continuing potential for cross-subsidization and predatory pricing implicit in the dominant carriers’ position in the MTS/WATS market. However, I believe that it would be far wiser policy for the Commission to balance the potential for cross-subsidization and the potential benefits of vertical integration in favor of cost-accounting systems and continuing Commission surveillance, rather than in favor of the rigid and total separation approach adopted by the decision. Our primary purpose here should be to reconcile the competing policy values in such a way as to maximize the ultimate benefits accruing to the consumer public from both competition and vertical integration. While I recognize a dispute exists as to the efficacy of accounting mechanisms in checking cross-subsidization and anticompetitive abuses, I believe we have an obligation to try less

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\(^6\) 603 F.2d at 276.


drastic safeguards first where significant economies may be present. I concede that the task of developing adequate accounting systems is a heavy one; however, I believe the effort should be required before we sacrifice benefits of vertical integration to which the public is entitled.

Our dedication to “full and fair” competition should mean that all competitors—not just the small and the weak—are entitled to compete as vigorously as possible. It is a curious kind of “pro-competition” policy that frees one class of competitor and hobbles another. To refer again to the Berkey Photo decision of the Second Circuit Court of Appeals:

. . . it would be inherently unfair to condemn success when the Sherman Act itself mandates competition. Such a wooden rule . . . might also deprive the leading firm in an industry of the incentive to exert its best efforts. Further success would yield not rewards but legal castigation. The antitrust laws would thus compel the very sloth they were intended to prevent. We must always be mindful lest the Sherman Act be invoked perversely in favor of those who seek protection against the rigors of competition.9

The formulation and implementation of our pro-competitive communications policies should be no less consistent.

Network Services

The new rule abandons a definitional scheme based upon the communications service/data processing service dichotomy and, instead, establishes a dichotomy between basic communications services and enhanced services. The two problem areas which concern me here are the interactions between: (1) the definition of the basic/enhanced regulatory boundary,10 and (2) the effect upon AT&T and GTE (and ultimately upon the consumer) of the structural and separation requirements—in particular those relating to: (i) the requirement that transmission facilities be acquired on a resale basis coupled with a prohibition against the ownership of these facilities; (ii) the various corporate separation requirements.

The enhanced service/basic service boundary definition would preclude AT&T and GTE from offering protocol and code conversion in conjunction with basic service, except under the resale and corporate separation principles. It is not clear, however, whether certain other computer-provided enhancements, such as multiple addressing, which are related solely to the communications process, would be permitted to be offered in conjunction with a basic service. In this respect, Section 64.702(a) of the new rule is inadequate. The relevant paragraphs of the Final Decision (86–118) not only do not shed much light but also contain contradictions. For example, Paragraph 95 classifies

9 603 F.2d at 273.
10 A vertically integrated entity could offer basic service within that corporate structure subject to Title II regulation. Thus the application of the definition determines the circumstances under which the separation requirements will be invoked.

77 F.C.C. 2d
message switching as a basic service; Paragraph 97 classifies one of its intrinsic features, "mail box," as an enhanced service. The classification of "mailbox" as an enhanced service seems, however, to be in conflict with the definition of enhanced service as set forth in the proposed Section 64.702(a). Mailbox can be provided without acting upon either the "format, code, content, protocol, or similar aspects of the subscriber's transmitted information." Nor does mailbox provide a subscriber with "additional, different, or restructured information."

With further regard to proposed Section 64.702(a), I think that this provision somewhat arbitrarily removes protocol and code conversion from the ambit of basic service. It is difficult for me to see why protocol or code conversion is an enhancement to a communications service. It is, rather, as much a necessity to the provision of any communications service at all, for customers who happen to have disparate terminals, as is the presence of a local loop. In this connection, I endorse the proposal, as set forth in Paragraph 99 of the Commission's Order, to consider issuance of a Notice of Inquiry to examine the matter of permissible levels of protocol conversion. This proposal should be a commitment.

A possible serious consequence of the new regulatory boundary could be its effect upon the provision of inexpensive, nationwide digital core network service by underlying carriers. For example, the proposed AT&T ACS service, even in rudimentary form, would have to be offered as an enhanced service. This could lead to two problems: first, significant cumulative diseconomies could result if such a system were not provided on a nationwide core network, but had, instead, to be replicated on a separate resale network. In fact, these restrictions might even discourage the construction of a nationwide, digital core network. Second, an unfavorable interpretation of the Consent Decree would totally preclude AT&T from offering these services even as an enhanced carrier.

In light of these observations, I think that it is critical that the Commission: (1) rethink the matter of the definitional boundary; and (2) clarify the definition of enhanced service—in order to resolve ambiguities. Terms such as "format," "content," "similar aspects of subscriber's transmitted information," and "restructured information" are not defined—either in the Appendix or in the text; nor are sufficient examples given to illuminate their meaning.

I also believe that we should re-examine the prohibition relating to the procurement of software and software development. I concur with the statement in Paragraph 244 that the resale subsidiary may purchase, from the underlying carrier and its affiliates, the software and software development which is intrinsic to CPE and other hardware used in the provision of enhanced network services. The rationale for maintaining a prohibition against the provision of applications program software to the resale entity, and the provision of any software service by the resale subsidiary to its affiliates, evades
me. Given that any kind of hardware, as well as operating system software, can be purchased by the resale entity, the arguments set forth in Paragraph 243 are not convincing.

Provision of Customer Premises Equipment (CPE)

The Final Decision in Computer Inquiry-I did not address the provision of CPE, even implicitly, because of the rudimentary state of the art of CPE technology in 1971. Subsequently, the attempt by AT&T to provide the DataSpeed 40/4 terminal under tariff, coupled with the untariffed marketing of a similar device by IBM (IBM 3270), introduced the issue of whether or not the provision of so-called "smart" terminals by a carrier, constitutes an unregulated data processing service within the context of Section 64.702 of the Rules. Since little regulatory guidance in this matter could be provided by that rule, the Commission was forced to make an ad hoc decision in the DataSpeed 40/4 matter (ruling that DataSpeed 40/4 is a communications device). At that time, we quite properly incorporated the terminal issue into the then on-going Computer Inquiry II.

The Commission's decision here will now require the provision of all CPE—from black telephones to super terminals—on a deregulated basis. Carriers may provide these only on an un-bundled, de-tariffed basis. In addition, AT&T and GTE may only offer CPE through separate subsidiaries.

I agree in principle with the position reached on CPE. However, I am not sure that the Commission has addressed properly a serious problem which might ensue—the upward rate pressures on local exchange rates due to the removal of terminal equipment revenue requirements from the separations process.

The Order would require all interstate revenue requirements now attributable to CPE to be removed from the separations process by March 1, 1982. By that time, if local exchange rates are to remain unaffected, it will be necessary to have arrived at some remedial action to compensate for the loss of toll service revenue contributions. This action of the Commission will have a domino effect in the state jurisdictions. The CPE investments of the local operating companies will also have to be removed from the intrastate rate base. Local operating companies will thus lose toll service revenue contributions from both jurisdictions. The amount involved is formidable. In 1978, the Bell System total revenues attributable to the provision of CPE were approximately $4.4 billion. Of this amount, $1.2 billion came from the assignment of CPE costs to the interstate jurisdiction. The remainder came from the assignment of costs to the intrastate toll jurisdiction and from local service revenues. Under terminal deregulation, a local operating company would, in the short run, probably retain the local service revenue component. On the other hand, the carrier

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would no longer be able to obtain the interstate and intrastate toll contributions. The loss of these toll service contributions will, in most circumstances, lead to an upward pressure on local exchange rates.

It should be noted that this effect will be most pronounced in those states (e.g., New York, California, and others) where the state commissions require that CPE be priced to the local exchange user at 100 percent of its revenue requirement. Under these circumstances, the toll pool revenues attributable to these terminals can be used as a direct subsidy to reduce local exchange rates by the amount of these attributable toll revenues.

The disallowance of CPE toll revenue requirements will also result in a reduction in toll rates equivalent to the upward pressure on local exchange rates. This occurrence does not, however, have a break-even impact on all consumers. Those consumers who make infrequent toll calls will indeed see higher total monthly telephone bills. Those consumers who now are heavy users of toll service will see lower total telephone bills.

In recognition of this possible effect, the Final Decision would have the Commission convene a Joint Board to investigate the possibility of remedial action involving changes in the separations procedures. However, I see a substantial question as to whether such a Board could lawfully re-insert these lost revenue requirements into the interstate pool by arbitrarily changing the allocation of the remaining non-traffic-sensitive plant. The record built in the Joint Board proceedings in Docket Nos. 20981, 21263, and 21264, as well as actions already taken by those Joint Boards, indicates that efforts to rely upon a separations-oriented approach to counteract potential or actual economic harms may be fruitless.

I therefore believe that the scope of the proposed Joint Board should be broadened to include the consideration of remedies based on access charges and exchange maintenance fund concepts—or, alternatively, that this issue be specifically incorporated into our access charge proceeding in CC Docket No. 80–198.

The Consent Decree

I believe the Commission has set forth a construction of the 1956 AT&T/Department of Justice (DOJ) Consent Decree which is persuasive and compelling from the standpoint of both antitrust law and telecommunications policy. The fact remains, however, that if this interpretation does not prevail, it is possible that AT&T would be precluded from providing either enhanced services, or CPE, or both,

12 A change in the allocation of traffic sensitive plant might be inconsistent with the principles of Smith v. Illinois, 282 U.S. 133 (1930), since such plant is now allocated under unambiguous relative use principles.

13 See Impact of Customer Provision of Terminal Equipment on Jurisdictional Separations, 63 FCC 2d 202 (1976); Puerto Rico/Virgin Islands Rate Integration, 64 FCC 2d 1033 (1977); and Hawaii/Alaska Rate Integration, 64 FCC 2d 1036 (1977).
given the new industry structure which is now prescribed. Here, it must be observed that the comments of DOJ and, to a certain extent, AT&T, who are the parties to the Decree, dispute our interpretation. The Commission's decision acknowledges the "uncertainty" of the proffered interpretation, but states that removal of the uncertainty rests primarily with AT&T, should AT&T deem it necessary.

This assignment of responsibility for the impact of the Consent Decree is technically correct, as far as it goes. However, I believe in a more fundamental sense the larger public interest in a fully competitive telecommunications marketplace would be grossly disserved if AT&T were estopped from being an active and full participant in that competitive marketplace. In a real sense, these implications are our responsibility. The Commission's decision takes some pains to observe that an adverse Consent Decree ruling will trigger a re-evaluation of the structure, terms, and conditions for telecommunications competition which are now prescribed. And, the prospect for the clearest possible resolution of the critical Consent Decree issues—that is, for legislation—may be brightening. Nonetheless, we must address the situation as it now exists and be guided by our own interpretation of our existing public interest mandate. Therefore, I believe the Commission must foresee and minimize the risk of uncertainty to the fullest extent possible, and to this end, I would: (1) give AT&T the option of tariffing in the provision of enhanced network services, or modify the definition of enhanced service to broaden the scope of basic service, and (2) give AT&T the option to tariff terminal equipment which would be supplied to basic services or tariffed enhanced services.

In summary, the following points have not been adequately addressed and treated by the majority's decision:

1. Without a more adequate cost/benefit analysis, there is no assurance that the proposed separate subsidiary structure, with the recommended degree of separation and information flow requirements, will not force the public to obtain enhanced services and CPE at substantially higher cost than if such services and equipment were provided by a more vertically-integrated entity;

2. The deregulation of CPE may lead to significant upward pressure on local exchange rates, pressure which may not be effectively alleviated by a Joint Board established to investigate separations changes only;

3. The proposed industry structure and deregulation could totally preclude AT&T from offering either CPE or enhanced services if the proposed interpretation of the Consent Decree is not accepted; and

4. The basic/enhanced dichotomy may be a serious disincentive or impediment with respect to the construction of a nationwide digital core network; and we may be faced with the prospect of a myriad of interconnected sub-networks,
owned by many entities, with no one entity in a position to assert overall technical planning authority.

I am certain that the Commission will have the opportunity—if not also the duty—to reconsider the Final Decision and to attend to these deficiencies. Specifically, I believe the Commission should consider the following alternatives:

(1) The degree of separation proposed by the item for the enhanced service/CPE subsidiaries should be relaxed in favor of cost-based, fully-compensatory, auditable contract/accounting systems with respect to installation and maintenance and software development. Subject to resale and accounting requirements, sharing of transmission computer capacity should be permitted. The separate marketing requirement should make an exception for institutional advertising and subject to the resale requirement, the subsidiary should be allowed to market the facilities of the parent when they are combined with the services of the subsidiary. These modifications would permit the more efficient and competitive provision of CPE and enhanced services by carrier subsidiaries to the benefit of the consumer public, while at the same time guarding against potential cross-subsidization or other anti-competitive conduct;

(2) The jurisdictional impacts of the proposed CPE deregulation (unbundling and detariffing) should be examined in detail. In particular, we should indicate a better understanding of the possible limitations of the traditional separations and settlements procedures in dealing with these impacts and whether broader mechanisms, such as exchange maintenance fund concepts, are feasible and available to the Commission;

(3) Carriers and their subsidiaries should be afforded the option of continued tariffing of enhanced network services and provision of CPE, on an unbundled basis, in conjunction with basic service or enhanced services. This modification would assure that an adverse ruling on our Consent Decree interpretation will not preclude AT&T from offering ordinary, as well as sophisticated, CPE; and

(4) The definition of enhanced services should be clarified to resolve the ambiguity in the basic/enhanced dichotomy. The ambit of "basic" services should be expanded to include code conversion, protocol conversion, and other functions that are exclusively related to communications service. This alternative would allow the option of encouraging the formation and development of a nationwide, centrally planned, and economical digital core network; it would also ensure against an adverse ruling on the proposed Consent Decree
interpretation precluding AT&T from offering sophisticated digital network services.

As a final matter of not insignificant moment, I believe that the adopted effective date of March 1, 1982 for CPE deregulation and for the establishment of AT&T and GTE separate subsidiaries is unrealistic in the extreme. The necessary corporate, financial, and logistical transitions will be highly complicated and difficult enterprises. For example, the potential impact of the decision on over one million AT&T and GTE employees in terms of wage structure, benefits, pension rights, seniority and collective bargaining rights is substantial and has not been addressed thus far by the Commission. Similarly, I expect that the impact of the proposed CPE de-tariffing on the interests of bondholders will raise significant legal issues.

Obviously, the Commission must give the parties an opportunity to address the several substantial problems which remain unresolved before the Second Computer Inquiry can be terminated.

To the extent of these separate views, I dissent.

Separate Statement of Commissioner Tyrone Brown

Re: “Second Computer Inquiry” (Docket No. 20828)

The decision and order we adopt today is probably the most important the Commission will issue during my time here. There have been days during the past 2 1/2 years when I feared that this agency lacked the machinery to reach a final decision in this very complex proceeding. I compliment the staff of our Common Carrier Bureau and the other offices that participated for presenting The Commission with an approach and order that will, in my judgment, serve the long-term interests of the two “dominant” carriers, AT&T and GTE, the interests of their competitors in the enhanced services and equipment markets, and the interests of the consuming public.

1. What does today’s decision accomplish? First, it establishes a clear line of demarcation between “basic” communications (or pure transmission) services and enhanced “communications” services, permitting traditional common carriers and their competitors in new enhanced offerings to know beforehand whether their service will be regulated by the FCC. Second, our decision, after a transition period, provides for uniform deregulation of customer premises equipment—ranging from the “plain old telephone” to the smartest of the “smart terminals”—so that the marketplace rather than this agency will decide what equipment and which providers will attract the consumer’s dollars. Third, the decision frees AT&T to compete, on a non tariff basis, with other regulated and unregulated firms in the rapidly growing enhanced services and equipment markets, so long as AT&T’s offerings fall within the broad subject-matter jurisdiction of this agency. Fourth, the decision requires AT&T and GT&E each to establish a separate subsidiary for their enhanced services and
equipment offerings, to assure customers of their monopoly services, and their competitors, that monopoly ratepayers will not fund their entry into the enhanced markets.

2. Do we possess authority to act as proposed? I recognize that today's decision involves novel interpretations at the outer boundaries of the Communications Act; we pour new wine into an old bottle. It is a measure of the wisdom of Congress that in 1934 we were given a mandate that has been sufficiently broad to permit a flexible approach to regulating a field that has been marked by an ever-quicker pace of technological innovation. Recent proposals that have come before Congress point in the same direction as our decision. Without the benefit of the debate that has occurred in the House and Senate Communications Subcommittees over the past two years, I doubt that the FCC would be ready to act. I would welcome congressional confirmation—or modification—of any aspect of our decision, particularly our construction of the 1956 Consent Decree. Without such confirmation, full implementation of our decision may be delayed by years of litigation. In any event, I wish to emphasize that my vote in favor of the decision rests in substantial part on the view that, as a legal matter, regulated carriers including AT&T can compete in unregulated fashion in the enhanced services and equipment markets.

Our action today raises several legal questions. Perhaps the most fundamental step we take is the assertion that, with respect to "comunications", our subject matter jurisdiction is broader than the sum of our jurisdiction under Title II and III of the Communications Act. This approach is not new. It was taken—and affirmed by the courts—when we asserted jurisdiction over cable television systems. Similarly, today we are saying that "comunications", when offered by an underlying carrier, though clearly within our subject-matter jurisdiction, need not be regulated as though such services were Title II offerings. I believe we possess sufficient discretion, based on an exhaustive record, to make this judgment.

A related issue involves our construction of the 1956 Consent Decree as it concerns the provision of Customer Premise Equipment. To date, we have asserted jurisdiction over, and required tariffing of, CPE on the theory that such equipment was regulable as an "instrumentality" incidental to transmission services within the meaning of Sections 3(a) and 3(b) of the Act. Our decision to require the unbundling and detariffing of such equipment should not be read as a retreat from our belief that CPE when offered by a carrier is regulable by this Commission. Nor do I view our decision not to require tariffing to mean that such equipment is not "subject to" our regulation. Definitive interpretation of the Consent Decree must be left to the Court that issued that decree. However, as a matter of communications law, we affirm that CPE is within our subject-matter jurisdiction. We have chosen not to regulate CPE through tariffing, but it remains subject to our regulation.
3. Why the distinction between basic and enhanced services? For 14 years, this agency has been struggling with "regulatory and policy questions that appeared to be emerging from the growing interdependence of computers and communications services and facilities." First Computer Inquiry, Tentative Decision, 27 FCC 2d 291 (1970). For most of that time, we have attempted to draw a line between two classes of services which possess elements of both communications and data processing. Theoretically, on one side of the line, to be regulated under our tariff authority, we have placed "communications" services in which the communications component was the most significant; on the other side we have placed services in which the communications component was only "incidental."

This attempt at line-drawing, while theoretically the soundest approach, simply has not worked in practice. Under the regime we adopted in the First Computer Inquiry, we will be forced to adjudicate each major new offering of enhanced services on an ad hoc basis. The results would be that firms that heretofore have been free of FCC regulation would fall under our purview, that much of the battle among competitors will take place before us rather than in the marketplace, and that this agency's processes would to a large extent determine the timing of introduction of innovative offerings. Faced with this prospect, I believe the dominant carriers, their competitors and the general public will be much better served by the relatively bright line we draw today between basic transmission services on one side and all enhanced (or hybrid services) on the other.

4. Why deregulation of terminal equipment? For all practical purposes, natural monopolies exist today in local telephone transmission services. However, we have posited, at least since our Hush-A-Phone decision, 22 FCC 112 (1957), that meaningful competition is possible in the provision of terminal equipment. Ensuing years have proven the hypothesis. Rate-based regulation is at best a costly and cumbersome substitute for competition and consumer sovereignty. Given the actuality of competition as it exists today and the potential for much greater competition in the future, there is no longer a reason for the Commission to permit the joint tariffing of services and equipment, especially considering the risks of cross-subsidization that such joint tariffing entails. Under our interpretation of the 1956 Consent Decree, AT&T gains authority to compete for any enhanced equipment customer. But, importantly, consumers will be in a better position than they are today to determine what equipment offerings will best serve their needs. Finally, I am confident that during the transition period the Joint Board of FCC and State regulators will be able to arrive at a separations approach that will not mean a significant increase in telephone bills for any customer as a result of deregulation of terminal equipment.

5. Why permit regulated carriers to provide unregulated enhanced services? AT&T, GT&E and 1500 smaller telephone companies have
cooperated to assemble an integrated communications network that I consider to be a wonder of the modern world. For its universality, its versatility and its economy, our telecommunications network is unmatched by any in the world. I believe it would ill-serve the public interest if AT&T, GT&E or any other participant in the network were denied the opportunity and the challenge of bringing their financial resources, their tradition of universal service and importantly their in-place research capabilities to the rich new communications field.

6. Why separate subsidiaries for AT&T and GT&E? While permitting AT&T and GT&E (and carriers under their direct or indirect common control) to provide enhanced services, we are requiring them to do so only through a separate subsidiary on a resale basis. In addition, we are prohibiting AT&T and GT&E from marketing, installing, servicing or maintaining CPE except through a separate corporate subsidiary, which itself may not provide transmission equipment. These steps are taken to protect the monopoly ratepayer from the potential evils of cross-subsidization and anti-competitive conduct. They are taken only with respect to AT&T and GT&E because they are the only two communications firms now in a position to exercise monopoly power in the national enhanced services markets. Given the ineffectiveness of accounting measures standing alone to monitor anti-competitive practices, the need for a separate subsidiary, in addition to accounting requirements, is obvious.

On the other hand, I recognize that we have little experience on which to structure such separate subsidiaries. For this reason, I would be surprised if, either by way of reconsideration or at a later date, the Commission does not make some adjustments in the separation conditions in the light of actual experience.

Further, in this connection it should be kept in mind that our action today is taken in the context of today's technology and the record now before us. The Commission has the ability and the obligation to respond to changing circumstances with a fresh examination of our policies and the means we have chosen to implement them. Congress intended this agency to be flexible in its responses under the broad mandate of the Communications Act. I am committed to this flexible and pragmatic approach to this rapidly evolving area of the law.

STATEMENT OF COMMISSIONER ANNE P. JONES DISSenting IN PART
April 7, 1908

IN RE: SECOND COMPUTER INQUIRY DOCKET No. 20828

Because I firmly believe that it is in the public interest that AT&T and GTE be allowed to participate actively in the enhanced services marketplace, I agree with much of today's action by the Commission, including the basic decision to forbear from directly regulating the provision by Title II carriers of enhanced services and customer premises equipment.
To my mind the arguments advanced in this proceeding as to the stultifying effect of direct regulation of these highly competitive markets and the lack of any need for such regulation in the public interest are convincing. I am also persuaded that, in the absence of adequate accounting mechanisms to ensure that competition in these markets by AT&T and GTE does not involve unlawful cross-subsidies from their monopoly activities, the separate subsidiaries requirement is justified. I am not, however, satisfied that the degree of separation imposed on these companies is justified, and I dissent for that reason.

In its discussion of arguments made by AT&T, GTE, and others as to the virtues of vertical integration, the Commission seems to vacillate. For example, argument that the Bell System's integrated structure contributes to its role in innovative research and development is dismissed in paragraph 204 as "very problematical." On the other hand, it seems to be conceded in paragraph 223 that the provision of certain complementary goods or services by the same company may generate "efficiencies in the form of reduced operating expenses or other legitimate cost savings" and that consumers of telecommunications products and services "should not be required to forego such economies unless they are clearly outweighed by other costs which joint operation would impose." I suspect that this vacillation results from the fact that we do not really know to what extent, if any, the generally excellent performance of AT&T and GTE results from their high degree of vertical integration. For my part, I am inclined to give some credence to their arguments on this point.

On the assumption that operation by AT&T and GTE on a vertically integrated basis may benefit both them and their customers, I believe we should not now impose on their enhanced services and CPE subsidiaries the degree of separateness contained in today's decision. Two of the limitations which seem especially problematical are those on sharing of computer facilities and joint design and development of software. As to software, I agree with Commissioner Fogarty that there is no demonstrated rationale for denying a subsidiary the option of purchasing software development from a parent in addition to the options of performing it in-house. As to computer facilities, I find persuasive NTIA's argument that "separate computer facilities will be pure duplication" and that "inability to use computer facilities to provide enhanced services during off-peak hours could result in a great deal of wasted processing capacity."

I understand the argument that the limitations established by today's decision are required by the difficulty of correctly identifying and allocating costs involved in the proscribed activities. Since, however, it is precisely the difficulty of identifying and allocating such joint and common costs which underlies the separate subsidiary requirement, I fail to see why both that requirement and the prohibitions are necessary. In my view, the better and less costly approach would be to impose the barest minimum of prohibitions while
testing the adequacy of the separate subsidiary requirement. If experience demonstrates that additional safeguards are needed, prohibitions or limitations on joint and shared activities could then be added based on experience rather than conjecture.

In addition to my objections to the separations requirement, I have reservations about a number of other aspects of today's decision. Of these I will note here only my strong reservation concerning the March 1, 1982, deadline established for compliance with the requirement. It seems to me that 23 months is an unreasonably short period of time to allow for all that must be done to implement today's decision, including corporate reorganization by the carriers and the necessary Joint Board actions. It may be that the deadline can be met, but I doubt it, and I hope we will not be unduly insistent on it.

Despite my objections to portions of today's decision I am, as I have indicated, in agreement with much of it, and certainly with its basic purposes. I am also gratified by the express recognition in paragraph 200 of the decision that "some of these decisions may be mistaken" and that they will be reconsidered if experience teaches that we have "incorrectly struck the balance between the asserted danger of carrier participation and the supposed efficiency losses brought about by the conditions." If I am correct that some of today's decisions are indeed mistaken, I assume that we will not be slow to reexamine and correct them.