The Federal Communications Commission and major policy matters affecting computer communication

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ABSTRACT

This is a time of great change in FCC regulatory policies affecting computer communication. Over the next several months, the FCC will be called upon to consider and decide many issues which may well shape the nation's data communications for years to come.

This paper briefly reviews the important FCC cases which set the stage for today's policy issues. These include the Specialized Common Carrier Decision, the Domestic Satellite Decision, the Interconnect Docket, and the Computer Inquiry.

Then, the paper analyzes the recent FCC decisions and pending cases which are of special significance to the computer community. The AT&T DDS and HI-LO cases are discussed, as are the Satellite Business Systems proposal, the Telenet v. Tymshare complaint, and the AT&T DATASPEED 40 decision. The paper closes with a prediction that a new Computer Inquiry seems likely.

INTRODUCTION

This is an era of great upheaval in communications policy. In the Specialized Common Carrier Decision,1 the Federal Communications Commission (FCC) made a deliberate decision to expand the domestic private line common carrier market beyond the two traditional carriers by authorizing new regulated carriers to enter the market and provide a range of specialized land-based data and other services in limited geographical areas. This was followed by the Domestic Satellite Decision2 in which the FCC adopted a similar policy of multiple entry in the vitally important domestic satellite field. This new emphasis on competition in regulated long haul signal carriage has almost certainly increased the pace of innovation and the flexibility available to data communication users and to private line users generally. However, since AT&T dominates the entire communications field, and operates the enormously profitable monopoly interstate switched telephone services, in order to keep competition working the FCC has been forced to tackle the formidable, perhaps impossible, task of trying to assure that AT&T will not cross-subsidize its competitive services by use of monopoly profits, or otherwise use its monopoly control over necessary facilities to drive out competitors. Moreover, recent FCC actions having the effect of permitting IBM, the giant of the data processing industry, to enter the domestic satellite field as part owner of Satellite Business System,3 means that the FCC has also taken on the task of assuring that IBM will not use its dominance in the closely related data processing field to gain competitive advantages in the communications field.

In the late sixties the FCC began to question and to strike down tariff restrictions designed to perpetuate carrier dominance in the incidental communications service and equipment fields. Thus, in the so-called Interconnect Docket (Docket 19528);1 the FCC has recently striken most of the former tariff restrictions against use of customer-provided data and ancillary terminals. The FCC also eliminated the rest of these restrictions still in effect as to certain voice terminals.5 •

Although in its Computer Inquiry6 and in subsequent authorizations of suppliers of so-called value-added networks as regulated common carriers,7 the FCC seemed committed to full support of the traditional carrier restrictions against non-common carrier customer resale of communications circuits obtained from carriers, there are now some indications that in its decision in the Resale and Shared Use Proceeding,8 expected sometime in early 1976, the FCC may relax or eliminate these restrictions altogether so as to permit resale and sharing on an unregulated basis. This could involve free entry of new communications middlemen, and actual detariffing of now regulated value added carriers and others, with resulting freer operation of competitive forces on pricing and the available range of customer choices.

There are also certain pending matters which focus on possible inadequacies of the FCC's Computer Rules and which will in all likelihood require some changes in those rules. In its Computer Inquiry, the FCC re-
lied heavily on a distinction between message switching and data processing to distinguish communications services, which regulated carriers will be permitted to provide, from data processing services, which carriers are prohibited from providing except through separately incorporated subsidiaries. In other words, in the Computer Inquiry, the focus was on services and not on equipment and terminals. But now the carriers are offering PBX’s (Private Branch Exchanges) which incorporate some of the systems architecture and perform some functions of computers. In addition, AT&T in particular is seeking to offer intelligent terminals pursuant to its tariffs. Are such items communications or data processing devices? Is the offering of such devices by carriers the equivalent of offering data processing services? (The FCC ruling on AT&T’s DATA-SPEED 40 terminal will be discussed below.) Because of the inherent danger of cross-subsidy and interconnection restrictions by carriers, these are important questions which may affect competition in the terminal and equipment markets. In addition, the FCC is now focusing more precisely on some definitional questions raised in the Computer Inquiry as to what constitutes integral and incidental data processing or communications functions in a hybrid offering.

THE NEW SPECIALIZED AND DOMESTIC SATELLITE COMMON CARRIERS

Background: specialized carriers

In 1969 the FCC authorized Microwave Communications, Inc. (“MCI”), to provide point-to-point voice and data communications as a common carrier over microwave facilities between Chicago and St. Louis. AT&T at first refused to provide local loops or local distribution facilities to MCI, claiming that such interconnection would harm AT&T’s own communications network. However, the Commission held that AT&T did not prove that harm would result and AT&T was ordered to provide local distribution facilities for its new competitor.

The MCI grant prompted an influx of applications by others seeking to provide specialized communications services in competition with the established common carriers. Instead of deciding each case individually the FCC initiated a rulemaking proceeding in Docket 18920. Comments on all issues were received, including the need for more diverse and specialized data communications services, the impact of competition on the services and rates of established carriers, and the problem of local distribution, etc. Finally, in May of 1971 in its First Report and Order in Docket 18920, the FCC adopted a general policy favoring multiple entry of new specialized carriers. It stood by this decision on reconsideration, and its policy was sustained on appeal by the Ninth Circuit Court of Appeals.

In the Specialized Common Carrier Decision, and related new authorizations, the FCC thus established a policy that suppliers of domestic private line services should be expanded beyond the (then) existing nationwide carriers to include new carriers operating in limited geographical areas and offering a range of new specialized services including facilities for higher speed and more reliable data transmission at lower costs. In so doing the FCC stipulated that it would not provide a protective umbrella for the new carriers but that competition would rule the day. Existing carriers were to be allowed to depart from nationwide rate averaging where justified by costs or competitive necessity, and to take full advantage of any real economies of scale resulting from their overall operations, however, existing carriers were not to be permitted, through exercise of monopoly power, to withhold local distribution or other essential facilities from their new competitors, nor were they to be permitted to subsidize their competitive offerings by use of profits from monopoly services to drive their new competitors from the market.

Quality and reliability inquiry

The Specialized Common Carrier case, Docket 18920, is still in progress for determination of the measure of protection subscribers and users should be given respecting the quality and reliability of data communications services. The FCC tentatively decided against prescribing minimum standards of technical performance, but has proposed and sought comments on requiring carriers to specify, in standard terminology, the known quality and reliability supposedly available in particular offerings, and to make refunds where these standards are not met. Also, the FCC has suggested that carriers might be urged to publish periodic reports as to quality and reliability achieved, complaints received and refunds made.

In May of 1975, at the instance of one of the new specialized carriers, Data Transmissions, Inc. (“Datran”), the FCC clarified the scope of Docket 18920 to include a definition of the scope of specialized services contemplated by the specialized common carrier authorizations. The enormous importance of this is obvious, since it involves the scope of direct carrier competition to be allowed.

Satellite carriers

In the Domestic Satellite Decision, the FCC similarly determined that the benefits of satellite technology could best be realized domestically by allowing multiple entry and competition, and by imposing on AT&T, the dominant domestic carrier, and Communications Satellite Corporation (“Comsat”), the international satellite carrier, certain requirements designed
to assure that their other important services would not be burdened, and that their dominance in other communications fields would not be used for unfair competitive leverage. Last year, the FCC in essence approved entry in the domestic satellite field by IBM and Comsat General (a subsidiary of Comsat), who have recently announced that they, together with Aetna Life & Casualty Co., will seek FCC authority to establish a $250 million single satellite network for voice, data and image communications, to begin operations in 1979. Customers will access the new satellite network, which will be known as Satellite Business Systems, through 16 to 23 foot dish antennas mounted on their rooftops or elsewhere near their terminal sites, thus eliminating the need for interconnection with other carriers for local distribution or local loops.

Thus, the FCC has now taken on the task of supervising fair competition in data communications by the giant of the data processing industry, in addition to the formidable task of policing fair competition by the giant of the communications industry, AT&T.

The major issues.

The task of policing newly authorized competition has to date involved the two major problem areas anticipated by the FCC in the Specialized Common Carrier Decision, namely, (1) the problem of local distribution for the new competitors who as a practical matter cannot economically duplicate existing local distribution facilities controlled by AT&T and other telephone companies, and (2) the enormously complex problem of distinguishing between improper cross-subsidy by AT&T of its competitive services with monopoly profits, which was to be prohibited, and merely allowing AT&T to take full and fair advantage of real cost economies of scale, which the FCC promised it would allow.

Local facilities.

The matter of possible anticompetitive withholding of local distribution facilities arose in the Summer of 1973, when MCI advised the FCC that AT&T had refused to interconnect with MCI to provide local distribution through local telephone exchanges, even though AT&T did provide such exchange service in connection with its own competing private line services. The Chief, FCC Common Carrier Bureau advised by letter that under MCI and the Specialized Common Carrier decisions AT&T was obligated to provide local distribution through its affiliated company telephone exchanges. AT&T answered that it had no intention of participating in a "through service" with MCI or any other private line carrier, and that it would connect to the local exchanges only if state regulatory commissions authorized such interconnection. In a letter order, dated October 4, 1973, the Commission Chairman confirmed the earlier advice of the Common Carrier Bureau Chief, and stated that AT&T should submit its tariffs to the FCC only, and not to state regulatory commissions, since the latter had no jurisdiction of the matter. MCI then requested further clarification because despite the above, some AT&T affiliated companies declined to provide local interconnection for foreign exchange service (FX) or common control switching arrangements (CCSA) offered by the specialized carriers. The Common Carrier Bureau Chief again wrote to AT&T stating that FX, CCSA, and related services were covered by the Commission's October 4 letter order. Court contests were begun, and in December of 1973 the FCC initiated Docket 19896, ordering AT&T to show cause why it was not providing local distribution to the new specialized carriers. In April 1974, the Commission issued its decision in Docket 19896, confirming that interconnection for local distribution had to be provided on a nondiscriminatory basis by AT&T, and this decision was sustained on review by the Third Circuit.

In consequence of this, and further tariff proceedings in Docket 20099 which followed, the parties eventually reached agreement on interconnection tariff provisions which the FCC accepted in May, 1975.

The scope of state authority.

The question of the FCC's exclusive authority, as against state regulatory authorities, which was raised by AT&T in its course of its fight to withhold local distribution service from its new competitors, may not be entirely settled, however. The question is now pending review by the U. S. Court of Appeals for the District of Columbia in an appeal from an FCC order. In that case, a petition for declaratory judgment was filed with the FCC by Southern Pacific Communications Company ("SPCC"), one of the new specialized carriers. SPCC claimed that the FCC's decision in Docket 19896, discussed above, entitled it to an order directing Pacific Telephone and Telegraph Co. and Southwestern Bell Telephone Co. to provide local distribution for certain of SPCC's FX and CCSA services, even though SPCC's facilities in question were located wholly within one state. In October 1975, the FCC ruled that it had exclusive jurisdiction to order interconnection since SPCC's facilities, though located entirely within one state, are nevertheless used though in a majority of instances as links in interstate communications. The FCC rejected the telephone companies' contention that interconnection to the local telephone exchanges was within the control of state utility commissions.

Cross-subsidization.

The vexatious problem of cross-subsidy has been under study by the FCC for at least 15 years. Recent
developments have only resulted in greater urgency for a solution to an old problem. In Nader v. FCC, the United States Court of Appeals for the D.C. Circuit severely criticized the FCC's obvious inability to decide cross-subsidy and other important regulatory questions within a reasonable time.22 In response to the court's order, the FCC was compelled to submit a schedule for decision of the cross subsidy issue in the Private Line Case (Docket 18128), and Phase II of Docket 19129 (AT&T Rate Case).

In compliance with that schedule, the Chief of the Common Carrier Bureau on January 19, 1976, issued a recommended decision which, if adopted by the Commission, will perhaps be the greatest setback ever experienced by AT&T before the FCC. In effect, the Bureau Chief held that AT&T has in fact been improperly subsidizing its competitive services with profits from its monopoly MTS and WTS services. For example, in August 1974 AT&T's rate of return on MTS and WATS were found to be 8.9%, and 12.3% respectively, whereas its rate of return in private line telephone and telegraph services were found to be 5.5% and -0.3%, respectively. AT&T's overall interstate rate of return was found to be 8.7%. Thus, in summary, AT&T's competitive service earnings were found to be significantly below its system-wide rate of return of 8.7%, while its monopoly service earnings were found to be significantly in excess of that system-wide rate of return.

The Bureau Chief rejected Bell's contention that fully distributed costs (FDC), the traditional cost allocation method used in rate making, should not be used. He refused to adopt AT&T's proposed "long run incremental cost" method (LRIC), as a substitute for fully distributed costs. Under LRIC, as advocated by AT&T, rates for competitive services would be based on management forecasts of future demand, technological developments, incremental investments and expenses, and competitive developments, while rates for monopoly services would be set at a high enough level to cover all costs, including historical costs, that were not easily identifiable or attributable to specific service offerings. The Bureau Chief did not reject altogether the concept of marginal cost pricing, i.e., pricing based on marginal, as opposed to full historical costs of providing a service, and suggested that Bell should look into further use of this concept in such things as peak/off-peak pricing of monopoly services.

The Bureau Chief recommended that AT&T be ordered to conduct a new comprehensive fully-distributed cost study for a recent one year test period, and to file tariffs which assure the minimum allowable overall rate of return in all categories of services. In early February of this year, in Docket 20376, AT&T's allowed rate of return was again increased from the 8.5% level established in 1972 in Phase I of Docket 19129, to 9.5%.23 Exceptions to the recommendations of the Chief of the Common Carrier Bureau were due March 19. Replies are due April 19. Following that the Commission has promised the Court of Appeals to issue its final decision in the Private Line Case by August 2, 1976.

In Phase II of Docket 19129, the Commission staff early this year filed proposed findings recommending that AT&T be required to divest Western Electric, and that many reductions be required in its claimed rate base. An initial decision by the Administrative Law Judge is, in response to the Court of Appeals requirement, scheduled for September 15, 1976, and final FCC action is scheduled for April, 1977.

Rate design issues.

But AT&T's reaction to the new competitors has not been limited to the struggle over interconnection to its own facilities, or defending itself against charges of cross-subsidy in preexisting competitive services. In November 1973, AT&T filed its so-called Hi-Lo tariff for its voice grade private line services (Series 2000/3000). By this filing AT&T sought to depart from its tradition of nationwide rate averaging and, in order to compete more effectively with the new specialized carriers, reduced rates on high-density routes, and established separate higher rates for short haul services of 25 miles or less. After an exchange of pleadings challenging and defending the Hi-Lo concept, the FCC designated the case for hearing24 as to whether the Hi-Lo rates were based on cost savings or on competitive necessity or some other lawful consideration. The rates went into effect, subject to an accounting order and possible refund, on June 13, 1974.

In an Interim Decision issued September 18, 1975,25 the FCC found that the Hi-Lo concept was reasonable but that AT&T had not carried its burden of proof as to the reasonableness of the new rates, by showing that the criteria used for designating high-density, low-density and short-haul routes actually reflected network operations and actual costs. It accordingly remanded the case for further hearings on these matters.

But in January, 1976, in a surprising volteface, the FCC ruled that the Hi-Lo rates were illegal.26 It noted that several parties, including MCI, had complained that AT&T's failure to carry the burden of proving claimed cost justification was grounds for outright rejection of the Hi-Lo tariff, and that in view of AT&T's persistent refusal to produce cost data, etc. in response to interrogatories, it would be a denial of due process to give AT&T a second chance at a further hearing. The FCC said on reconsideration that it did appear that AT&T did not have, and could not develop from records it had maintained, the cost and other data that would be necessary for possible justification of the Hi-Lo tariff. It accordingly decided to strike the tariffs as unlawful rather than allow them to remain in effect while AT&T developed extensive new studies and data.
in a further effort to justify them. AT&T was given 90
days from publication of the FCC's January decision
in the Federal Register to file new tariffs, and 60 addi-
tional days to complete the cost justification data
specified in the September Interim Decision. The FCC
did not order any refund under the accounting order
because it concluded that it did not have enough data
to prescribe appropriate rates, and because the Hi-Lo
tariff had lowered some rates while raising others with
the result that most customers did not suffer significant
net increase.

AT&T has also responded to the challenge of the new
data oriented services of the specialized carriers by its ambitious Dataphone Digital Service (DDS)
offering. In early 1973, it sought authority to supple-
tment its existing microwave facilities between New
York, Philadelphia, Chicago, Boston and Washington,
D. C. to permit transmission of a digital bit stream,
ultimately at 1.544 megabits per second, in an unused
portion of the baseband on 4 to 6 GHz microwave radio
channels. It was recognized that further approval
would have to be obtained to before commercial service
began under DDS, but even this first foot-in-the-door
was vigorously opposed by Datran, MCI, SPCC, and
other specialized carriers. The White House, through
its Office of Telecommunications Policy (OTP), urged
that any approval of DDS should be conditioned on
strict requirements prohibiting cross-subsidy or other
anticompetitive practices.

The FCC did not want to slow down provision of a
needed service, and decided that the issues relating to
competitive impact could be better addressed when
commercial operating authority was sought. The FCC
believed that by that time it would have concluded
other important rate-making policy cases such as the
Private Line Case (Docket 18128) involving cross-
subsidy. In March 1974, AT&T filed its tariff to begin
DDS commercial service, and offered such service initially between the five cities mentioned above, with
expansion expected to 19 additional cities by late 1974.
The service offered was two-way simultaneous digital
transmission at 2.4, 4.8, 9.6 and 5.6 kilobits per second.
The tariff rates were considerably below Datran's
rates, and Datran and others argued that AT&T was
obviously using its monopoly telephone service profits
to subsidize its competitive digital data services. In December 1974, the FCC allowed the tariff to become
effective on an experimental basis, but ruled that the
Hi-Lo case, this does indeed seem quite possible.

CUSTOMER-PROVIDED TERMINAL
EQUIPMENT

In June of 1972 the FCC began the so-called Inter-
connect Proceeding, Docket 19528. To assist it in
making its determinations, the FCC established a federal/state Joint Advisory Board pursuant to § 410
of the Communications Act. After comments and reports on specific questions were received, the Joint Board recommended, as an alternative to carrier-supplied connecting arrangements at customer expense, a type acceptance certification program to be administered by the FCC. The Joint Board recommended that the certification program apply to data and "ancillary" devices, including extension telephones, but not to other voice terminal equipment such as private branch exchanges (PBX's), key telephone systems, and main station and coin-
operated telephones. FCC certification would, under the Joint Board's recommendation, be based on the applicant's submission of required test data. Also, each device would have affixed to it installation, maintenance and operating instructions. Standard plugs and jacks and other simple connecting devices were to be pro-
vided for in carrier tariffs.

In the fall of 1973, the FCC adopted a certification program similar to that recommended by the Joint Board. In so doing, it noted that it had been seven
years since Carterphone and that the carriers had never come forward with any justification either for the original tariff restrictions, or for the carrier supplied connecting arrangements subsequently provided for in the temporary tariffs.

The FCC ruled that its new certification program would adequately protect the telephone network from harm, i.e., from electrical hazards to personnel and equipment, and from degradation of service to persons other than the user of a particular device. Instead of requiring type approval of entire terminal devices, however, applicants will be permitted to register only connecting circuitry within any particular device. This will avoid problems of proprietary information disclosure raised by IBM and others. The new certification program, which applies to carrier-provided, as well as to customer-provided, data and “ancillary” equipment, including extension telephones, but not PBX’s, key telephone systems and main station and coin operated telephones, was to go into effect April 1 of this year. However, the FCC has recently postponed this to May 1, 1976. In its recent ruling on reconsideration of the November decision, the FCC also declined to exempt carrier-supplied terminal equipment from the new program and in general confirmed its original ruling.

The FCC followed the Joint Board’s lead in leaving voice telephone equipment (other than extension telephones) subject to current tariff requirements for carrier-supplied connecting arrangements because, it said, the parties may not have addressed themselves specifically to this aspect. It did indicate strongly, however, that it saw no technical harm problems and proposed in the near future to issue further rule changes to include PBX’s, key telephone systems, main station telephones, and coin telephones in the new certification program. Such action was, in fact, taken on March 18, 1976. AT&T and other carriers as well as the National Association of Regulatory Utilities Commissioners (NARUC), in petitions for reconsideration and stay of the new program, objected strongly that AT&T’s “protective module” plan should have been adopted and argued that the FCC’s plan is so deficient technically and otherwise that it cannot possibly work. They also argued that it was inappropriate and prejudicial for the FCC to allow unlimited interconnection of customer-supplied equipment prior to a determination, in the Economic Impact Inquiry, Docket No. 20003, of the effect such interconnection will have on monopoly telephone services and rates. The Joint Board itself has recently voted to recommend this same course.

In Docket 20003, the Commission is also considering the economic impact on the switched telephone network, and local telephone companies as well, of its recent authorizations of the new specialized and domestic satellite carriers, and the extent to which cross-subsidy of competitive offerings by monopoly carriers might be prevented by requiring them to make such offerings through subsidiary companies keeping separate books, etc.

There is perhaps an outside chance that the interconnect battle could be decided in a case now pending in the United States Court of Appeals for the Fourth Circuit. The Telerent Leasing case, which was argued before the Fourth Circuit in September of last year, and at this writing has not been decided, involves an appeal from an FCC ruling in early 1974 that it alone has jurisdiction over the interconnection of customer-provided terminal equipment, even though such connection is to local telephone exchanges regulated by state utilities commissions. The effect of the Commission’s ruling was to cancel a North Carolina Utilities Commission regulation prohibiting interconnection of “foreign attachments” of any kind. Opponents of the registration program contend that the FCC’s rulings intrude unlawfully on local exchange jurisdiction given to state utility commissions by Section 221 (b) by the Communications Act. However, the FCC ruled in Telerent Leasing, and contends before the Fourth Circuit Court of Appeals, that the interstate telephone service, over which it clearly has jurisdiction, is not and cannot possibly be provided except over local exchange facilities, and that it is evident that its exclusive jurisdiction over interstate communications must therefore extend to interconnection of terminal equipment to such facilities.

PROBLEMS RELATING TO THE DISTINCTION BETWEEN DATA PROCESSING AND COMMUNICATIONS

Background

In its Computer Inquiry the FCC first explored the increasingly blurred relationship between communications and computers. It decided that whether or not computers were engaged in communications depended upon the use to which the computers were put. It recognized that computers perform communications functions—namely, message and circuit switching—and concluded that when doing so they are subject to regulation as a communications service. But the FCC seemed to say that everything else computers do including, inter alia, storing, retrieving, sorting, merging, and calculating according to programmed instructions is essentially data processing, which should not be regulated by the FCC. Because of the intermingling of communications with data processing in many remote access data processing offerings, and because such intermingling could lead to unfair competition in the data processing field by carriers who might resort to cross-subsidy of their data processing offerings, or restrictive interconnection practices as to data processing offerings of others, it was decided that the FCC would not permit regulated carriers to offer essentially data
processing services, except through separate subsidiary corporations keeping separate books. Where data processing and communications (including computer controlled message or circuit switching) are both involved in a service (i.e., where there is a "hybrid" service), then whether the service is deemed hybrid communications, such as may be provided by a common carrier, or require regulation if provided by others, is a question of the primary purpose of the offering. If the primary purpose is found to be to serve signal carriage and/or message-switching requirements of a customer, and data processing is an integral but incidental part of a package offering, the offering is deemed a hybrid communications offering and may be offered by carriers and is subject to regulation if offered by others. On the other hand, if the primary purpose is to provide data processing services, and computerized message or circuit switching (i.e., communications) is an integral but incidental part of a package offering, the offering is deemed to be hybrid data processing service and may not be offered by carriers and is not subject to regulation.

To enforce its computer rules, the FCC decided to rely basically on the regulated carriers from whom the communications component of any hybrid offering to be made by a non-carrier would necessarily have to be acquired. Since the carrier tariffs prohibit customer resale of communications services, and hybrid communications offerings would involve such resale, the carriers themselves were expected simply to refuse to supply or to continue to supply communications to anyone planning to resell the same as a component of a hybrid communications offering, unless the customer in question had been authorized by the FCC to offer such service as a communications common carrier.

In recent years pursuant to the principles outlined in the Computer Inquiry, the Commission has authorized three so-called value added carriers to offer "packet switched" data service employing lines leased from other carriers combined with their own computers and software to transmit small groups (packets) of digitized data using store and forward methods to take advantage of the best available path through the network.48

**Telenet v. Tymshare.**

In early August of 1975, the tariffs of one of these newly authorized value added carriers, Telenet Communications Corporation, became effective. Five weeks later Telenet filed a complaint against Tymshare, Inc., a time-sharing concern, alleging that Tymshare's Tymnet data communications network, which also utilizes store and forward switching computers and leased communication channels, is physically and functionally separate from Tymshare's data processing computers which are connected to Tymnet. It charged that Tymshare, Inc. is in reality engaged in two separate profit making businesses: first, a hybrid data processing service using the Tymnet network as a means of communications between customer terminals and Tymshare's host computers; and, second, a hybrid communications service whereby it offers use of Tymnet as a means of communications between customers' terminals and the customers' own host computers. Tymshare, Inc. has answered this complaint alleging that it is not purely coincidental that Telenet filed only a few weeks after its tariffs went into effect.

It suggests that Telenet really hopes to use FCC procedures to advance what it conceives to be its own competitive interests, and points out that the question whether, and to what extent, value-added carriers and others may be permitted to lease and resell or enter into joint user arrangements so as to provide value added services to others is presently under consideration and the Commission's inquiry in the Resale and Shared Use Proceeding, Docket No. 20097.41 Tymshare argues that its Tymnet system is operated pursuant to the so-called joint user provisions of relevant tariffs, i.e., Tymshare leases lines from AT&T and other carriers for internal telecommunications and makes unused capacity available to others under joint user tariff provisions. In general, these require that the customer (Tymshare) have its own communications needs over and above those arising from management of the joint use arrangement, and that the customer and the joint users share the cost of the common carrier service by each paying part of the rates to the common carrier. Tymshare further states that the FCC in its order in initiating Docket No. 20097, expressly recognized that sharing arrangements could involve a complex computer switched network. Tymshare also asserts that neither it nor even Telenet is in reality, or ought to be, considered a communications common carrier. This contention by Tymshare is squarely directed at the wisdom of the FCC's readiness to characterize value added services as communications because they involve circuit and message switching. At this writing, the FCC's staff has queried the carriers who are supplying communications circuits to Tymshare for their views as to whether Tymshare is indeed in full compliance with their tariff provisions prohibiting resale except under bona fide sharing arrangements. In short, for the time being the staff is following the FCC's suggestion in the Computer Inquiry that the carriers should first make the difficult decision whether a hybrid communications service is involved. But it seems inevitable that the FCC will ultimately have to decide this tough question as well, and the Tymshare case bears close watching.42

**Other FCC cases**

A similar situation where a carrier is asserting that a purported data processing service is in reality a communication service, involves ITT-Worldcom's pending
challenge of the Telepost computerized message service being provided by TII Corporation. A customer signals Telepost that certain prewritten messages are to be sent to persons listed on various pre-established customer lists and the Telepost computer automatically interprets these signals and sends out the desired messages to the desired recipients via MAILGRAM. ITT-Worldcom claims in a petition in the proceeding that this service is a hybrid communications service which should be subject to regulation.

New developments in the service business are also putting to the test the Computer Inquiry definition of hybrid data processing and hybrid communications. Western Union has recently petitioned to offer a collateral processing service in conjunction with its SICOM message service for the securities industry. Under the proposed collateral service, Western Union's computers would perform order matching based on information gleaned from the handling of buy and sell messages. Western Union contends that this is a hybrid data communications service, since the data processing functions of order matching are both incidental to an integral with the SICOM message service. But this interpretation is being challenged by CBEMA and ADAPSO. The latter say that the proposed service is a data processing service that is neither incidental nor integral to Western Union's SICOM communications service. The Commission is being called upon to interpret its Computer Inquiry rules to determine whether Western Union will be permitted to offer this service.

The pattern of competitive response by AT&T, followed by charges and inquiries whether the competitive response is in fact predatory and subsidized by monopoly profits, has held true in the terminal equipment area as well as in the specialized common carrier services area and others. Such matters are now at issue in the AT&T Data Modem Rate Investigation, Docket 19419, which is now in hearing before an FCC Administrative Law Judge.

**AT&T DATASPEED 40 Ruling**

Another instance of such a competitive response by AT&T, which also illustrates the importance of the Computer Inquiry to the terminal equipment field, as well as in the service field, is involved in AT&T's recent tariff filings relating to Dataspeed 40. In these filings, AT&T sought to provide, subject to FCC regulation, intelligent remote access terminals with cathode ray video display. These terminals were designed to be for use by customers in connection with AT&T's Dataphone Digital Service, and to be competitive with new terminals manufactured by unregulated computer and data processing manufacturers including IBM. In petitions to reject or suspend these filings, IBM, CBEMA and others contended that AT&T's Dataspeed 40 terminals were plainly data processing equipment since they are in direct competition with IBM terminals which are not and should not be subject to tariffs at all. They argued further that AT&T is prohibited from competing in the data processing field in this manner by a 1956 antitrust consent decree which limits AT&T to common carrier communication services and services "incidental" thereto. They argued that AT&T's filings were unlawful since they did not demonstrate conclusively that the new terminal was not being cross-subsidized by AT&T. They suggested further that if AT&T is, nevertheless to be permitted to offer data processing equipment, a revision of the 1956 antitrust decree would be required, and AT&T would have to offer the equipment on an untariffed basis through an separate subsidiary in accordance with the FCC's ruling in its Computer Inquiry respecting data processing services offered by regulated carriers.

The FCC's staff recently rejected the Dataspeed 40 offering, concluding in essence that it amounted to a data processing, not a communications service. AT&T had argued the new terminals were merely evolutionary improvements of teletypewriter terminals which it has provided for many years as communications devices. It argued that if a computer—which consists of input, output, arithmetic and logic, memory and control units—is used to execute a program that involves data processing, the data processing takes place only in the arithmetic and logic units of the computer. The input and output devices perform no data processing since they do not operate on information to increase its worth to the user through changing its inherent informational content; instead the input and output devices merely permit outside entities to converse with the central processing unit and are required because of inherent limitations of the central processing unit. AT&T argued, therefore, that the Dataspeed 40 terminal performs the same communications function as that performed by telephones when two human beings converse remotely.

The staff rejected AT&T's arguments, however stating that it was clear that the primary function, design, and marketing of the Dataspeed 40 terminal was as an integral part of a data processing service involving the programmed interconnection of the terminal device and a central computer processing and/or storage unit. The FCC staff pointed out, and laid emphasis on the fact, that the terminals cannot communicate with themselves without the use of external data processing equipment.

If the staff's rejection of Dataspeed 40 is upheld, this bodes ill for AT&T's recently announced plans to offer, in the latter part of this decade, a new end-to-end, value added "communications processing" service designed to provide an alternative to the systems network architecture to be offered by IBM. Under this plan AT&T's computer controlled No. 4 ESS switch, located at the telephone company's central office, would function for users, on a shared basis, as a substitute
for central processor front ends, multiplexers, concentrators, remote controllers and intelligent terminals. Users could bypass the profusion of separate systems for different on-line applications, and disparate outputs could be loaded into a single system capable of re-arranging each set of bits without changing informational content, to meet requirements of receiving terminals. AT&T recently introduced "Dimension PBX" as the prototype for an on site controller which will be used for some applications of the new centralized communications processor.

AT&T will have to fight back contentions that its alleged "communications processing" service is in reality data processing, and a recent AT&T announcement gave a preview of what its position will be on this issue. It stated that data processing involves altering informational content of bits, something the centralized communications processing system will not do. Instead, AT&T said, the new system will perform network control, speed conversion, area control, terminal polling, message routing and rerouting (to effect priorities and avoid busy or down links), formatting, editing, and checking of input and output data. The announcement further explained that "communications processing" is but one of three elements of "data communications." The other two are transmission/switching/modulation/demodulation, and media conversion (e.g., transformation of bit stream to hard copy, cathode ray tube display (CRT display) or punched cards).

CONCLUSION

In a speech made by Walter R. Hinchman, Chief of the Common Carrier Bureau at the FCC, before the Computer Industry Association (CIA) in Washington, D.C. on February 25, 1976, Mr. Hinchman stated that problems posed by some of the cases discussed above are causing the FCC to have to focus closely on some of the ambiguities in its Computer Inquiry rules and, he said, might lead to a reexamination of these rules to make them more relevant in the context of changing conditions in 1976.41

It appears likely that a new Computer Inquiry will be launched. And this time it will be considered in a totally new environment—one with EFTS, privacy, and technology issues quite different from those dealt with previously.

REFERENCES

11. See Note 1, supra.
13. See Note 2, supra.
15. See, e.g., MCI Communications Corp. v. American Telephone & Telegraph Co., 496 F.2d 214 (3d Cir. 1974).
23. In the Matter of AT&T Charges for Interstate Telephone
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30. In the Matter of Proposals for New or Revised Classes of Interstate and Foreign Message Toll Telephone Service (MTS) and Wide Area Telephone Service (WATS) (Docket 195528), 35 F.C.C. 2d 539, 1972.


32. Id., First Report and Order, — F.C.C. 2d — (F.C.C. 75-1248, released November 7, 1975). This case is now pending on appeal to the Fourth Circuit, Case No. 76-1002.


34. See Note 5, supra.


36. Joint Board Recommendation of February, 1976 against inclusion of PBX's etc. in Certification Program.

37. Telent Leasing Corp. v. F.C.C., Case No. 74-1220 pending in the U.S. Court of Appeals for the Fourth Circuit.

38. Telent Leasing Corp., 45 F.C.C. 2d 204 (February 5, 1974).

39. See Note 6, supra.

40. See Note 7, supra.

41. See Note 8, supra.

42. NARUC v. F.C.C., 525 F.2d 630, 644 (D.C. Cir. 1976) suggests that the F.C.C. has very limited discretion in deciding whether to confer "common carrier status" on a given entity.


44. In re AT&T, Transmittal No. 12449, Mimeo No. 61760, released March 5, 1976.