

G. The impact of regulations imposed on ILECs have on new entrant deployment of ATC.

These examples will show how regulations that were designed to resolve issues of conventional telecommunications capabilities now distort the timing, mix, amounts, and even who benefits from ATC investment so that ATC investment is neither “reasonable” nor “timely.” In particular, this section addresses the issues of incentives, opportunities, and constraints as described by many of the paragraphs of the NOI, but especially 28, 29, 34, 68, 70, and 72.

A. *Unbundling requirements would reduce the incentives of ILECs to deploy ATC*

In the conventional telephony world, network elements are “unbundled” and offered to telecommunications carriers at rates determined by state commissions. Mandatory unbundling itself, if applied to the ATC world, would damage the incentive of ILECs to optimally offer ATC. The use of mandated rates, as determined by state commissions, would compound the problem.

Mandatory unbundling itself would damage the optimal deployment of ATC. Mandatory unbundling means that administrators (rather than the market) determine what the elements should be offered and how they should be provided. This creates social waste in instances where the point of unbundling (which de-integrates the firm) also is a point at which there are scale/scope economies (which is to say, where the cost function is not separable and where integration helps unlock the scale/scope economies). Thus, even if the prices that the unbundling company is permitted to charge are fully compensatory, there is a potential social loss caused by the mandatory unbundling itself. The losses caused by unbundling requirements are compounded when the prices that are permitted are not compensatory or market-based.

If mandatory unbundling were carried forward into the ATC world (especially at administered rates), ILECs would be disincented from innovating or deploying ATC for obvious reasons. But, new entrants are disincented as well because they are handed an alternative that reduces the need to risk making sunk investment (see Section 3.G, below). Because innovation is an important feature of ATC/ATS, regulations that damage the incentive structure without providing a clear offsetting benefit should be avoided. Thus, the issue is whether such offsetting social benefits exist in an ATC world. It turns out that they do not.

Consider that essential facilities doctrine is the only reasonable economic rationale that might underlie the Section 251 unbundling provisions of the Act. The essential facilities argument is that new entrants cannot compete in the provisioning of (conventional) services without the use of certain facilities controlled by the ILEC. In such a case, the benefits of competition are thought to weigh in favor of mandatory unbundling of essential facilities. But, the essential facilities argument does not have any currency in the ATC/ATS world.

The essential facilities doctrine requires that three conditions occur: control of an essential facility; a competitor’s inability to reasonably duplicate the facility; and the denial of use by the owner. Consider how ATC matches up with these conditions. First, as

noted by the Commission in its NOI at paragraph 2, competitive ATC alternatives exist. ILECs do not have a corner on ATC infrastructure. Even the loop cannot be considered "essential" in the ATC world. As the Commission noted at paragraph 39, incumbent cable systems pass virtually every home in the country, thereby providing an alternative infrastructure to the ILEC loop at the residential level. In addition, the high-bandwidth terrestrial systems, satellites, over-the-air broadcasting spectrum, etc. are being developed and deployed to supply more ATC for businesses and residences alike. Thus, technological neutrality would require that any unbundling requirement for ATC access would apply to other technologies now existing and to be developed: a road that is inadvisable because there is no economic support for it (there is no essentiality of the ATC access facility by one technology or another).<sup>2</sup> Thus, there is no need to carry forward into the ATC world any of the unbundling requirements of the conventional telecommunications capabilities world.

***B. Mandatory resale at avoided-cost rates would reduce the incentive to deploy ATC***

The purported economic rationale for requiring that services be provided at discounts for purposes of resale is that such resale enables competitors to quickly match service areas with the relevant market so that (for example) the geographical scope of advertising matches the geographical scope of service, to round out product lines, or because the reseller excels at the retail function only. But, because ILECs do not have geographically ubiquitous ATS, the benefits offered by a mandated resale option are correspondingly reduced. Moreover, mandated resale is not without social costs: resale obligations make it difficult for a firm to offer unique services and therefore reduce the incentive to develop ATS.

On a forward-looking basis, ATS resale at avoided-cost discounts should not be mandated. The ability to offer differentiated services is a spur to innovation. Accordingly, a regulatory model such as the resale model should be rejected because it represses innovation, the underlying motivation for ATS.

***C. The FCC's "New Service" pricing rule reduces the incentive to deploy ATC***

Current FCC pricing rules<sup>3</sup> apply to new conventional services and conceivably could be applied to ATS as well. Under the FCC new service pricing rules the ILEC must (1) submit a cost study for the service; (2) illustrate how the revenues generated by the price are expected to cover direct costs and an allocation of overhead costs; and (3) generate a federally-limited rate of return.

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<sup>2</sup> Even if unbundling were required for all ATC access technologies, there still could be distortions in the development of the optimal mix of technologies due to uneven application, etc.

<sup>3</sup> In the Matter of Amendments of Part 69 of the Commission's Rules Relating to the Creation of Access Charge Sub-elements for Open Network Architecture Policy and Rules Concerning Rates for Dominant Carriers, CC Docket No. 89-79, CC Docket No. 87-313, REPORT AND ORDER & ORDER ON FURTHER RECONSIDERATION & SUPPLEMENTAL NOTICE OF PROPOSED RULEMAKING, 6 FCC Rcd 4524 (released July 11, 1991).

The rules, of course, are an application of “cost-plus” regulation to new services. Cost-plus regulation is the wrong regulatory model to use for new services. The cost-plus model is a “low-power” regulatory model<sup>4</sup> that is appropriate when innovation is unimportant and when there is concern that the firm in question can develop monopoly power.

However, neither of these conditions exist for ILECs in the ATC world. Innovation is very important in the ATC world. And, as described earlier, as compared to the new entrants into the ATC marketplace, ILECs do not have an asymmetric advantage to develop market power over any other ATC-providing entrant.

Cost-plus regulation therefore is ill-equipped to deal with ATC/ATS. Because there are a lot of bad innovative ideas for every good one, the good ideas need the opportunity to earn returns in excess of the cost of capital in order that the firm as a whole has the opportunity to earn its cost of capital over all of its attempts at innovation. But low-power regulatory models damage the innovative process even when the firm appears to be earning a “reasonable” return on its portfolio of successful innovations: the regulations bias the selection of potential investment projects toward lower-risk alternatives and away from the possible home-runs that can change the industry paradigm. Because innovation is at the heart of ATS, cost-plus regulation is incompatible with the goals of §706. Indeed, contrast the incentive effects of cost-plus regulation with US policy in the form of patent laws. Patent laws affirmatively promote innovation and entrepreneurship by protecting the fruits of success from competition for a limited time. The incentive structures between patent law and cost-plus regulation could not be more different. While an affirmative push like patent law may not be necessary for ATS, neither is a regulatory paradigm that is openly hostile to innovation.

*D. The InterLATA restriction on ILECs reduces the incentive to deploy ATC*

From an economic perspective, the rationale for prohibiting ILECs from offering in-region interLATA ATS would hinge on the ability of ILECs to leverage market power into the nascent ATS market.

However, in the existing ATS marketplace, ILECs do not fulfill the necessary condition for leveraging: market power in the upstream market. ILECs are not dominant in intraLATA ATS services, so there is no dominance to leverage into the interLATA ATS marketplace.

As to whether market power might exist in local voice telephony that can be levered into interLATA ATC/ATS (but which has not been so levered into intraLATA ATS), the answer again is no. For all of the reasons described earlier, ILECs do not control an essential ATC facility. There is therefore no policy reason to exclude ILECs from in-region interLATA ATC/ATS. By so doing, the prohibition reduces the value of

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<sup>4</sup> High-powered regulatory models put a premium on the incentive to innovate, while low-power models do not. See Laffont, J. and J. Tirole, A Theory of Incentives in Procurement and Regulation, (1993), The MIT Press, Cambridge Mass., p. 10.

ATC to customers and therefore reduces the economic case for ATC to ILECs, thereby harming the reasonable and timely deployment of ATC.

There is a subsidiary, but flawed, argument that is used to support the interLATA ATC/ATS restriction. The argument is that the recent explosion in ATS demand increases the incentive for ILECs to complete the checklist and obtain long-distance approval. The argument thus urges that § 271 of the Act be used to preclude ILECs from in-region interLATA ATS services as well as from long-distance voice service, in order to increase the size of the carrot that the LECs pursue. The flaw in the argument is that the prohibition, designed to incent ILECs, also punishes consumers by eliminating from the marketplace one of the major potential ATC/ATS suppliers. The elimination of a competitor in the nascent marketplace creates market power for the remaining entrants (i.e. the remaining entrants have a degree of pricing power that would otherwise not exist). Regardless of the merits of the interLATA prohibition in the conventional telecommunications capability world, extending this prohibition to the ATC world delays the reasonable and timely deployment of ATC.

***E. A “separate subsidiary” requirement harms ATC deployment by reducing economies of scope***

As is evident from the discussion on the definition of ATC and ATS that is contained in paragraphs 13 through 17 of the NOI, there will always be difficulties in determining exactly what should be considered “advanced” and what should be considered “conventional.” Moreover, there will be a gray area (such as, for example, the unbundled local loop) where an infrastructure can enable either conventional or advanced services. Finally, from a dynamic perspective, there is no clear break between conventional and advanced because innovation is an ongoing process that often incorporates components of the old into the new. Thus, the requirement that advanced services be offered from one subsidiary and conventional services be offered from another has implications that are uneconomic and damaging to the optimal deployment of ATC and ATS.

The main damage is that a structural safeguard severely reduces the potential of the firm to achieve economies of scope. A structural safeguard therefore raises the social costs of providing the services, reduces the potential return on the marginal investment, and thereby reduces the reasonableness (i.e. amount and mix) of ATC deployment. A structural safeguard is not a “method that removes barriers to infrastructure investment” as described in §706 of the Act: in fact it adds a barrier. While mandatory structural separations between ATC and conventional telecommunications capabilities might be comforting to regulators in their efforts to guard against some issues in the conventional world, such a requirement would not be costless and would in fact harm the ability of the industry to deploy ATC in a reasonable manner.

***F. The imbalance in retail rates reduces the incentives for consumers to try ATS***

The retail rates that ILECs are permitted by state regulators to charge for residential lines indirectly impact the reasonable and timely deployment of ATC in two ways. Second, because conventional services and capabilities are underpriced, a distortive gap exists between (regulated) conventional prices and (less regulated) advanced service

prices. Customers can substitute lower-performance but lower-priced services such as a dial-up analog modem that receive social pricing subsidies for higher-performance, but unsubsidized, ADSL.

Slower-than-optimal development of residential competition in the conventional telecommunications world has been used as justification for continued rate regulation, when it is really the regulation itself that has created the scarcity of alternatives (see, for example, 3.G below). Now it turns out that regulation of conventional telecommunications capabilities regulation is infecting the ATC world and is harming the reasonable and timely deployment of ATC to all Americans.

While the FCC does not regulate intrastate retail service rates, §706 of the Act applies to the states as well. Therefore, the Commission should work to encourage state commissions to consider the issue of retail rate regulation and its effect on the reasonable and timely deployment of ATC and ADSL.

***G. Regulations on the ILECs reduce and distort the incentives of new entrants to deploy ATC, too***

The foregoing analysis provides some examples of how legacy regulation damages the incentives of ILECs to deploy ATC on a reasonable and timely basis. Although distortions in the technology mix and deployment timing imposed on one industry participant create welfare losses, the losses would be tempered if other firms would fill the gap. However, this is not entirely the case. While there is no doubt that new entrants are planning for, and deploying, ATC, the legacy regulations on ILECs damages the incentives of new entrants to deploy ATC in a reasonable and timely way, as well.

***i. The effect that mandatory ILEC unbundling would have on new entrant ATC deployment***

In designing their business cases, new entrants consider the usual economics of build, buy, or wait. In an area such as ATC/ADSL where technologies are changing rapidly, investment is sunk, and superseding generations may be incompatible with prior generations there is a rational incentive to wait – to keep the powder dry – and to try to better determine which of the new technologies ultimately will prove to be the winner.<sup>5</sup> To a certain extent, this private incentive also is in the public interest. After all, social welfare is not helped by indiscriminately plunging into one new technology after the other. The issue therefore is to determine the optimal time to make the move to acquire a new technology and to determine whether the private decisions of new entrants are consistent with social welfare.

If, as a result of flawed policy, unbundled elements are mandated in the ATC world, facilities-based new entrants can hedge their bets on emerging technologies by more than is optimal. In other words, making unbundled elements available in the ATC world would create an enormous “option” value for the new entrant. The new entrant

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<sup>5</sup> See: Aron, D., K. Dunmore, and F. Pampush, “The Impact of Unbundled Network Elements and the Internet on Telecommunications Access Infrastructure,” paper presented at the Harvard Information Infrastructure Project, Impact of the Internet on Communications Policy, December 3, 1997. [Ksgwww.harvard.edu/iip/iicompol/first.html](http://Ksgwww.harvard.edu/iip/iicompol/first.html)

would be incented to deploy its own infrastructure in areas where the option was well into the money (i.e. in urban areas or for business customers) and where exercising the option (i.e. building) created shareholder value, but would be disincented from deploying the technology in those areas where the unexercised option value outweighed the normal net-present-value expectations from deployment. That is, even when normal business calculations would indicate potential profits to be made, the availability of unbundled elements, coupled with technological uncertainty, would make the new entrant hesitate to sink money into ATC in some areas.

The mere existence of a mandatory unbundling requirements in ATC is sufficient to damage the incentives for new entrants to deploy ATC in a reasonable and timely way. The harm is visited predominantly on areas where options are not in the money but where their values are high relative to the usual net-present-value calculations: namely in residential areas. Therefore, mandatory unbundling of ATC would violate the test for “reasonability” of deployment. Because unbundling also permits the new entrants to put off ATC investment longer than is optimal, the test for “timely” deployment would be violated as well.

*ii. Mandated unbundling at administered rates*

Mandatory unbundling violates the “reasonable and timely” rules for deployment of ATC by itself. The damage would be worse if the rates were administered. Because there is no reason to deviate from market based rates (e.g. there is no market failure to be corrected), so doing would simply increase the incentive of new entrants to use the unbundling option and would increase the harm done to ATC deployment.

*iii. Mandatory resale requirements*

Not only do mandatory resale requirements damage the incentive of the regulated company, but they distort the incentives faced by the other companies as well. The benefiting companies can hold back on the deployment of ATS, secure in the knowledge that any risk of first-mover advantage is negated by the mandatory resale requirements. Thus, the timely deployment of ATS is reduced both on the part of the company that must offer resale and on the part of the company that benefits from the resale requirement.

#### **4. MARKET STRUCTURE AND MARKET POWER ISSUES**

*A. The elimination of ILEC “essentiality” in an ATC world*

Paragraph 81 of the NOI asks whether (and what type) of regulation might be needed if the ATC industry evolves along the lines of the Internet industry and if customers (especially residential customers) have a “true choice” of last-mile ATC access.

As described earlier, to the extent that ATC exists and is being deployed, true choice already is available for most every business customer. True choice is available for those residential and rural customers served by cable MSOs in that upgrades can be made for cable, the loop (possibly), or other technologies. True choice will be enhanced by satellite, terrestrial wireless, and other wireline (e.g. utility line) capabilities. However, the optimality of deployment of ATC by ILECs and new entrants alike is being hindered by unbalanced wholesale and retail pricing on ILEC conventional services and by the other restrictions described earlier. If retail line rates were transitioned to market levels, cellular

and PCS, for example, would be expected to expand their market share and thereby discipline market prices – even for CTS. Permitting the residential line to become a profit center for all carriers instead of a loss leader as it often is for the ILEC is a necessary predicate to the reasonable and timely development of ATC alternatives to all Americans.

***B. The impact of mergers on the deployment of ATC***

The NOI at paragraphs 24 and 27 requests comment on the impact of mergers and consolidations on the deployment of ATC.

In a network industry, a geographic merger can unlock economies of scale and scope, help reduce development risk, and free up resources to expand into new markets. Each of these benefits helps the development and deployment of ATC. Economies of scale and scope exist when the traffic from new services (ATS) are driven across an essentially fixed network. This reduces unit costs and also permits a guaranteed quality of service for those applications that need them.

The reduction in development risk occurs as the costs of development are spread over more potential customers. This means that the merged company has an ability to engage in more research, development, and testing of ATS than do either of the two companies as separate entities.

Merger can also free up resources through elimination of duplication and thereby permit the merged entity to move from a conventional telecommunications capability world to an ATC world without harming existing shareholders.

A cross-boundary merger will be important in the development of ATC/ATS because it will change the political economy of today's regulatory environment. As the traditional telecommunications boundaries (e.g. RBOC, ILEC, new entrant, IXC) disappear as a result of cross-boundary mergers, the traditional coalitions will change as well. Examples include AT&T/TCG/TCI and Worldcom/MFS/MCI. The practical result is that regulations under consideration for ATC/ATS should contemplate a post-271 world where the traditionally (regulatory-created) categories have disappeared.

***C. Issues related to service bundling in an ATS world***

In paragraphs 38 and 82 the NOI asks a list of questions that have the same theme: how much is the market to be trusted? For example, the NOI frets about whether companies that “have possessed and exercised market power for decades” will behave in a more competitive fashion. The answer to the former should be obvious: companies respond to incentives on a forward-looking basis.

In paragraphs 38 and 82 the Commission poses a number of hypotheticals that envision a firm with either monopoly or oligopoly power in a high-speed access where the firm also offers a downstream ISP service in a competitive market. The NOI then seeks comment on whether the unregulated firm will discriminate in favor of its own ISP. Standard theory suggests that the firm will price ATC access at avoided costs and does not therefore discriminate in favor of its ISP. Thus, there is no harm caused by bundling. However, because other theories can be envisioned wherein bundling is used as an anti-competitive vehicle, the real policy issue is whether the hypotheticals described in the NOI are realistic. As described earlier, for example, ILECs do not have an access monopoly in

the ATC world: there are numerous access alternatives today for businesses in urban areas; cable access exists in nearly every residential area; and other technologies are on the horizon (terrestrial wireless, satellite, etc.). ILECs have no leg up on high-speed access needed for ATC/ATS. Certainly the monopoly questions are pointless at this time in an ATC world (or, in any event, are symmetrical in their application to new entrants).

As for the issue of oligopoly in the provisioning of ATC: first, such a market structures has not yet evolved, so creating regulations now to deal with these issues is premature. Also, other institutions (e.g. anti-trust law) are capable of evaluating the merits of bundling in concentrated industries. Finally, in a technologically complex industry the possibility of successful collusion (while remaining undetected by ant-trust authorities) is unlikely, so even if an oligopoly evolves there is no automatic case for special regulation.

Finally, it is worth noting that bundling itself is not always a social problem even in a concentrated industry. Indeed, mandated unbundling can be troublesome from a consumer viewpoint. Contemplate the complexity of the consumer's bill if the consumer were required to make contracts with all of the different parties involved for Internet service: access, an ISP, backbone services. A company like AOL bundles several of these services and simplifies shopping.

Bundles themselves often represent innovation. For example, while 35 mm film can be bought in standard rolls for many SLR cameras, the Kodak Advantex camera creates a unique interface (the film cassette has a different shape than the standard film barrel) between the film and camera thereby creating a bundled product. Though this non-standard interface reduces the interoperability of the camera (Fuji film will not fit into the Kodak camera), it creates ease-of-use benefits for the casual photographer. Thus, bundling should not be considered a universal bad.

In the ATC world, bundling can stimulate demand for services that would justify bundling ATC infrastructure. Radios (which once were considered advanced) were once offered by integrated manufacturer/broadcasting firms that offered programs in order to sell radios. So, too, might ATC providers bundle services that would help increase the value of ATC capabilities. To prohibit bundling in a nascent industry would eliminate this avenue of innovation. Bundling is also important when the upstream market (e.g. content) is very thin. When there is not enough content to generate the demand needed to justify the creation of the infrastructure or the terminal equipment, the provider might also create and bundle content. A hands-off approach is the correct approach to bundling in the nascent ATC/ATS marketplace.

#### ***D. The ultimate structure of the ATC industry***

The NOI requests comment on several issues related to the structure of a more mature ATC industry. In paragraph 57, the NOI asks whether ATC (especially the last mile) be competitive or a tight oligopoly. In paragraph 80 the NOI asks whether the Internet might serve as a model of what the mature ATC market might look like.

It is premature to consider the Internet as a model of the mature ATC industry (paragraph. 80) because the Internet itself cannot be characterized as an industry – let alone a mature one. Indeed, it is not clear yet what the business case for many ISPs or

content providers really is. Today parts of the Internet are funded in part through pricing anomalies in the conventional telecommunications capability world. These pricing anomalies are unsustainable and therefore cannot be permanent features of the industry's landscape over the long term. Nevertheless, the technology and structure of today's Internet might provide some broad outlines of what ATC and ATS will look like:

- The Internet is a network of networks, as will be ATC;
- Some networks are public (i.e. common carriers) and some are private (or special carriers);
- Some of the networks provide content, whereas others are pure carriers or even carriers' carriers;
- Depending on traffic and backbone availability, the Internet can support broadband (e.g. video conferencing) and narrowband (e.g. e-mail) applications;
- Communications is one-way and two-way, but generally asynchronous. In contrast, ATC/ATS will include synchronous uses (i.e. telephony) as well;
- The Internet uses packet-switched protocols, and ATC probably will as well.

In sum, to the extent that the Internet is a model for ATC, the main result is that there is no existing regulatory slot to put ATC (or Internet) into. But it is not self-evident that cost functions that are hypothesized in the NOI as being separable for the mature Internet industry will also be separable for ATC. The key is that mandating the separation of network, content, marketing, and terminal equipment precludes the use of innovative (and exclusive) bundles.

The ultimate structure of the industry (and whether the race to deploy ATC is one that only one or a few runners can win) (paragraph 57) depends on the nature of the industry's cost functions. Cost functions exhibiting economies of scale and scope will favor fewer firms. As mentioned earlier, in ATC, the possibility of successful collusion (while remaining undetected by anti-trust authorities) is unlikely, so even if an oligopoly evolves special regulation is unnecessary.

## **5. SOLUTIONS**

This analysis proposes that an economic optimality approach be used to specify definitions of "reasonable" and "timely" for purposes of evaluating ATC deployment to all Americans. Following from this definition, some major themes emerge: (1) the regulatory paradigm should be based on the rebuttable presumption that legacy regulation should not be pulled forward unless a market failure is identified that cannot be resolved but for regulatory intervention; (2) policy should permit ATC/ATS prices to be determined by the market; (3) the essential facility rationale that would explain the Act's requirement that the ILEC unbundle conventional elements has no currency in the emerging ATC/ATS world. Any remaining "essentiality" (e.g. interconnection) would be symmetrical to new entrants as well. And (4) conventional telecommunications services prices should also be corrected (i.e. conventional retail services should transition to market and conventional wholesale

elements should be determined by arms-length negotiations, except as an essential-facility issue exists).

These themes were illustrated through an examination of a number of examples of legacy regulation. The examples show how legacy regulation distorts the tradeoffs between conventional capabilities and ATC and between different types of ATC and thereby hinders the reasonable and timely deployment of ATC to all Americans. Based on the conclusions drawn from these examples, some recommendations for action are:

- Eliminate rules (e.g. unbundling or resale) associated with the essential facilities argument in light of the ATC vision. Do not require either the unbundling of ATC or the resale-at-discount of ATS;
- Eliminate pricing restrictions on any ATC or on retail advanced services;
- Permit economies of scale and scope to be utilized;
- Permit the bundling of various services or services and equipment;
- Work with state regulators to address the issue of the effect of retail conventional telecommunications services rate imbalances on ATC deployment.

In sum, the nascent ATC/ATS marketplace does not manifest the market failures that are purported to exist in the conventional telecommunications world, so the ATC marketplace should develop unencumbered by legacy regulation. Moreover, as the examples showed in this analysis, existing conventional telecommunications regulations are harming the reasonable and timely deployment of ATC. Whereas at one time regulation need only balance the damaging impact on incentives for conventional capabilities and services versus the expected welfare improvements from intervention, the new calculus now must include the dynamic impact that legacy regulation is having on innovation and the reasonable and timely deployment of ATC.

# **Attachment B**

27 February, 1998



To Whom it may concern:

**Re: Comments Regarding Regulatory Relief for Ameritech**

I am Chairman of the state of Indiana's Intelenet Commission. This Commission was established with the mission of providing cost-effective telecommunication networking and information technology (IT) services to Indiana's public sector. The Commission provides such services by aggregating and brokering the broad public sector's common networking and IT needs. The Intelenet Commission competitively procures its aggregated service demands and lets its constituent users derive the economic benefit of leveraged demand through those service contracts. The Intelenet Commission's customers are the state's elementary, secondary and higher education community, public libraries, state and local governments, as well as other public sector institutions.

Most recently, the Intelenet Commission has undertaken on the behalf of its user community, the deployment of a high speed ATM-based communications backbone to support the integration of multiple applications that exist across the various consortium members and provide a common shared resource since the economics of this technology and its services can not be borne by any single community. It is a common service demand. In this regard, the backbone network's single most expensive element is the cost of the connecting bandwidth. Indiana is a state that has ten (10) LATAs and that market is obviously driven by the few Inter-Exchange Carriers (IXCs) that provide such connecting bandwidth. Today that high-speed service market is unavailable, or severely constrained in capacity, availability, capability and most definitely in price. More competition in servicing the needs of not only the public sector, but the private sector as well, would be beneficial to the state and the region.

Additionally I note that two of the state's premier universities -- Indiana University and Purdue University -- are actively engaged with the new national "Internet2" initiative and the requirements of high-speed networking services to those resources which are out-of-state but in the Ameritech region, are compelling to this program. Currently the lack of such regional capability and capacity significantly constrains and impedes progress on this important research program.

Regulatory relief for Ameritech to provide such high-speed data networking services might clearly spur the marketplace to be more responsive and competitive in providing the necessary telecommunications infrastructure that Indiana and the Midwest region needs to be competitive. The Intelenet Commission supports Ameritech's request for regulatory relief to provide high-speed data networking if it will derive competitive bandwidth services and prices the public sector demands and the advanced networking services the research community requires.

Sincerely,

A handwritten signature in black ink that reads "Stan Jones".  
Stan Jones

Chairman

STATE OF WISCONSIN  
DEPARTMENT OF ADMINISTRATION  
101 East Wilson Street, Madison, Wisconsin

TOMMY G. THOMPSON  
GOVERNOR  
MARK D. BUCHER  
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Mailing Address:  
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March 3, 1998

Mr. Gordon E. Reichard  
President, Ameritech Advanced Data Systems  
95 West Algonquin  
124 Arlington Heights IL 60005

*Gordon*  
Dear Mr. Reichard:

I am writing to express support for regulatory relief for Ameritech and all Regional Bell Operating Companies to provide high bandwidth interLATA data services within their respective regions.

When our organization went to the marketplace to buy interLATA data transport, we were surprised how few competitors there were. In other areas of our business, in particular long distance voice services, we have found that service, price and range of options are better when effective competition exists among multiple players.

Our network needs require us to seek ways to connect to the Chicago and Minneapolis-St. Paul areas as well as across LATA boundaries within the state. We have found our choices to be limited, with pricing levels reflecting the limited amount of competition.

Based on our experience we believe that regulatory relief to allow more competition in this market will bring prices down, improve service and expand the range of service offerings.

Sincerely,

*Jody*

Jody McCann, Director  
Bureau of Telecommunications Management

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March 2, 1998

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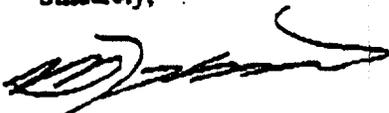
Dear Mike:

Thank you for sharing with me the Ameritech's planned FCC petition to allow Ameritech InterLATA advanced data network services and fewer pricing regulations. I am delighted that you are taking this action. Your ability to geographically expand advanced data services and make it available at reasonable cost will well serve higher education, k-12 education and retraining of the twenty-first century labor force. It should support the congressional mandate of making available "advanced telecommunication capability to all Americans."

Jointly with other Chicago-based higher education institutions and national laboratories, we have used the Ameritech facilities to have available within the Chicago LATA one of the world's most advanced digital networks. Hundreds of schools, museums, libraries, colleges and civic organizations are beneficiaries of these facilities. So are many businesses that are in Internet service provision. To stop advanced services at the LATA boundary, because of historic decisions that were made at a time none of these services were available, is frustrating. Reaching beyond the Chicago LATA from these facilities requires unnecessary expenditure. There is no good reason to not extend the educational and scientific service that we provide in Chicago to the rural area of the state or to the neighboring states. The unnecessary restrictions on Ameritech and other Bell operating companies for nation-wide data services is denying access to our emerging high speed data networks to institutions and individuals that are not in major metropolitan areas. It is also denying higher education a less expensive means of collaborating across the country. It seems to me that the present policy, which was designed to protect users, is in fact protecting those that are not willing to invest in bringing advanced services to all areas of the country.

I wish you success with your petition. I look forward to seeing additional competitors in the advance data business. You have shown willingness to invest in developing advanced networking capabilities and infrastructure, as demonstrated within Chicago and other LATAs. Your participation in the InterLATA business should encourage others in the InterLATA business to invest to compete with you. That will be good for higher education and for supporting our national networking priorities.

Sincerely,



M. A. Rahimi  
Vice President

## INDIANA UNIVERSITY



February 26, 1998

Gordon E. Reichard, President  
Ameritech Advanced Data Services

OFFICE OF THE  
VICE PRESIDENT  
FOR INFORMATION  
TECHNOLOGY

On behalf of Indiana University, I am writing in support of Ameritech's pursuit of regulatory relief permitting their participation in the development of advanced high bandwidth networking services.

Indiana University (IU), founded in 1820, is one of the United States' top ten public research universities. With more than 90,000 students and an annual budget of nearly \$2 billion, IU is one of the largest institutions of higher education in the United States. IU includes eight campuses, the main residential campus at Bloomington and the large urban campus located in Indianapolis.

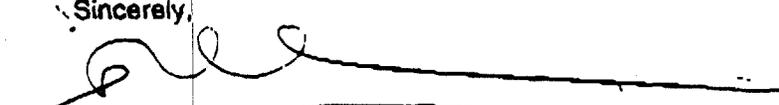
Supporting Indiana University's mission of excellence in research, instruction and lifelong learning are a variety of communications and networking services. Each of IU's eight campuses maintains a local campus network, connecting upwards of 30,000 information technology devices across the whole University. IU's research efforts are increasingly more dependent on high-speed, highly redundant network services. Many emerging research initiatives and projects revolve around data-intensive network based applications that are critically dependent on IU's high performance networking backbone and capabilities. Likewise, efforts in distance learning and instruction continually require significant network speed and bandwidth.

Outside the boundaries of our campus networks, Indiana University has a leading role in the design and deployment of the TransPAC network, a high-speed backbone that will interconnect prestigious research institutions in the US, Japan, Korea and other Far Eastern countries. IU is also one of the founding members of the Internet2 consortium. As a member of the NSF sponsored vBNS connection project, the ATM network at Indiana University is in a constant need of upgrade and improvements.

The constraints imposed by regulatory restrictions limit competition for higher bandwidth and resilient access paths between our campuses, peer institutions and national and international partners. IU has, therefore, been forced to contract with technically inferior providers who are at times incapable of delivering required level of services. I strongly encourage the pursuit of all possible avenues to enable Ameritech to compete with other service providers in our area to address our ever increasing need for high bandwidth connectivity.

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Bloomington, Indiana  
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Sincerely,



Michael A. McRobbie  
Vice President for Information Technology

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Since 1860  
For Christ and  
His Kingdom

**Wheaton  
College**

WHEATON, ILLINOIS 60187-5593

February 26, 1998

Federal Communications Commission  
1919 M Street NW  
Washington, DC 20554

Dear Commissioners of the FCC,

I have been given to understand that Ameritech is filing a petition with the FCC in order to be enabled to carry long distance data traffic. Due to current regulations, Ameritech has not been allowed access to this interlata traffic market. As a customer of Ameritech and a member of their ADSL trial, I would greatly favor this expansion as it would mean that I could choose the reliability and service to which I have become accustomed through Ameritech. In addition, allowing Ameritech to enter as a player in this market would increase competition which, at the end of the day, will result in lower prices and better service for consumers. Such a move would also help me as a consumer by keeping billing simple. Through Ameritech's ADSL trial I have been able to experience firsthand the professionalism and the quality of service which Ameritech is able to deliver in the field of data traffic. I cannot think of one justifiable reason to exclude them as a player from the long distance market.

Yours sincerely,



Dr. Gene L. Green  
Associate Professor of New Testament



**Steve Snow**  
Regional Vice President

February 27, 1998

**Mr. Mike Gorman**  
Ameritech  
2000 West Ameritech Center Drive  
Location: 4C38  
Hoffman Estates, IL 60196-1025

Fax: 847/248-6128

Dear Mr. Gorman:

On behalf of Alcatel Telecom, I am writing to endorse Ameritech's position to offer a mixture of broadband and long distance services in providing Advanced Telecommunications Services.

As a member of the vendor and supplier industry, Alcatel provides equipment, software, and support to the telecommunications industry. Customers include Ameritech, traditional long haul carriers, and the emerging CLECs. In this capacity, we have experienced the direct benefit in an open market based economy in the United States

Overall, Alcatel's United States employment and revenues will directly benefit by the further opening of markets in this Information based economy. We strongly agree that strengthening of the United States worldwide position as the leader in electronic commerce will benefit consumers in terms of choice and economics. We believe that this dual objective is well in line with Ameritech's request.

Overall, Alcatel endorses free and open competition in all markets.

Sincerely,

A handwritten signature in cursive script that reads "Steve Snow".

Steve Snow