

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of

Inquiry Concerning the Deployment of  
Advanced Telecommunications Capability to  
All Americans in a Reasonable and Timely  
Fashion, and Possible Steps to Accelerate Such  
Deployment Pursuant to Section 706 of the  
Telecommunications Act of 1996

CC Docket 98-146

**COMMENTS OF NEW NETWORKS INSTITUTE**

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**COMMENTS OF NEW NETWORKS INSTITUTE**

**I. Introduction and Summary**

New Networks Institute ("NNI") was founded in 1992. Its mission is to explore — on an totally independent basis — the impact of the break-up of AT&T and the creation of the Regional Bells Operating Companies ("RBOCs") on telephone subscribers in general and on the deployment of new and advanced telecommunications networks. Since that time, the NNI has conducted extensive research on these topics. Titled "The Future of the Information Age," this seven-year analysis consists of over 1,900 pages in 14 volumes, with over 910 exhibits, two computer databases, and data from more than 2,000 consumer interviews, (conducted independently through Fairfield Research). The report series publishers include Phillips Business Information and Probe Research.<sup>1</sup> We have recently updated this research in the form of a new report, "The Unauthorized Biography of the Baby Bells & Info-Scandal," to be published September 1998.

NNI's research was privately funded and intended for distribution through the sales of the reports and databases. Nonetheless, it has direct bearing on some of the issues raised in the present inquiry.<sup>2</sup> NNI is pleased to make the results of its research available in the context of this critical discussion.

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<sup>1</sup> Attachment 1 to these Comments includes individual report titles and related information. below.

<sup>2</sup> In the Matter of Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, CC Docket No. 98-146 (released August 7, 1998) ("*Section 706 NOI*").

The Commission's current inquiry is being undertaken to fulfill the requirements of Section 706(b) of the Telecommunications Act of 1996 (the "1996 Act").<sup>3</sup> Section 706(b) directs the Commission to "initiate a notice of inquiry concerning the availability of advanced telecommunications capability to all Americans." If "advanced telecommunications capability" is not being deployed "in a reasonable and timely fashion," the Commission is directed to "take immediate action to accelerate deployment of such capability." Its actions in this regard are to take two forms: the "remov[al] of barriers to infrastructure investment," and the "promot[ion] [of] competition in the telecommunications market."

NNI is not in a position to assess whether the evidence will show that "advanced telecommunications capability" is being deployed "in a reasonable and timely fashion." Given the definition of "advanced telecommunications capability," however, it seems clear that in some absolute sense, not very much of it has been deployed yet.<sup>4</sup> NNI, therefore, fully expects that the RBOCs will present an argument along the following lines:

- \* Advanced telecommunications capability is being deployed too slowly.
- \* We (the RBOCs) are uniquely positioned to fulfill the goals of Section 706 by broadly deploying such capability.
- \* A variety of existing regulatory burdens, however, removes our incentive to do so as rapidly as we could.
- \* Therefore, the Commission should take steps that will provide us with financial and market incentives to deploy such capabilities more rapidly.

The purpose of these comments is to demonstrate to the Commission that any such argument is completely bogus and should be totally and unequivocally rejected.

The RBOCs have been promising the American public a new, wondrous future of broadband interactive voice and data services for more than a decade now. First the RBOCs claimed that they would bring Integrated Services Digital Network ("ISDN") to the masses. Later, the RBOCs claimed that they would link a substantial fraction, if not a majority, of American telephone consumers to the network by means of high-speed fiber optic connections. To "encourage" and "promote" such actions, however, the RBOCs had a simple, reasonable-sounding

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<sup>3</sup> Pub. L. 104-104, 110 Stat. 56 (1996), *codified in part in scattered sections of 47 U.S.C.*

<sup>4</sup> Section 706(c)(1) defines "advanced telecommunications capability" as follows:

The term "advanced telecommunications capability" is defined, without regard to any transmission media or technology, as high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics and video telecommunications using any technology.

*quid pro quo*: remove the traditional, monopoly-oriented, cost-based regulatory obligations that blunt our incentives to deploy new (and possibly risky) technology.

Simply stated, the regulators delivered and the RBOCs did not. Indeed, from the perspective of the current inquiry, it is the fact that the RBOCs reneged on their earlier deals that made it necessary for Congress to include Section 706 in the first place. The RBOCs have been subject to price cap regulation on the federal level and various forms of non-cost-based "incentive" regulation on the state level, for nearly a decade. This relaxed regulatory environment was supposed to provide strong incentives to the RBOCs to deploy ISDN, fiber-to-the-curb, and other technical marvels. Basically, if the RBOCs had fulfilled their side of these earlier deals, there would have been no need for Section 706 at all, since by the time of the passage of the 1996 Act — and certainly by today — the country would be well on the way towards having "advanced telecommunications capabilities" available "to all Americans."

In these circumstances, it would require historical blindness bordering on folly for the Commission to offer the RBOCs *still more* regulatory (*i.e.*, financial) inducements to "promote," "encourage," or "motivate" them to build out the "information superhighway." To the contrary, in light of the RBOCs' history of promising the moon, then failing to deliver, the Commission can only reasonably conclude that the RBOCs and their monopolistic mind-set are inevitably part of the problem, not part of the solution.

In statutory terms, NNI submits that the most significant "barrier to infrastructure investment" facing the telecommunications market today is the combination of the RBOCs' monopoly control over local exchange facilities and the lack of any firm and unequivocal regulatory *obligation* on the RBOCs to actually upgrade their networks on a clearly set schedule. The Commission has a clear opportunity in this proceeding to set such a schedule. At the same time, the Commission is also directed to address any delays in deployment of "advanced telecommunications capability" by "promoting competition in the telecommunications market." The Commission should fulfill this statutory mandate by reaffirming that the pro-competitive obligations of Section 251 of the Communications Act of 1934, as amended (the "Communications Act") fully apply to any and all "advanced telecommunications capabilities" that the RBOCs deploy, either on their own or pursuant to a Commission-set timetable.

The remainder of these comments is organized as follows. Section II reviews the history of the RBOCs' unfulfilled promises to deliver advanced telecommunications capability throughout their service territories in exchange for relaxed regulatory scrutiny of their earnings and

operations. Section III explains that, while non-cost-based regulation and other relaxation of regulatory obligations may indeed encourage greater RBOC "efficiency" in some limited sense, in a monopolistic environment it does not, and cannot, lead the RBOCs to lower their prices to customers or to deploy advanced technologies that do not serve short-term profit goals.

Finally, Section IV shows that in the present, still-monopolized local exchange market, the RBOCs' powerful urge to protect their monopoly position means that, left to their own devices, they will be strongly motivated to impede and delay the deployment of advanced telecommunications capabilities. Consequently, the only action the Commission can take that is consistent with the directive of Section 706(b) is to establish specific, objective deployment requirements for the RBOCs while simultaneously strengthening enforcement of the pro-competitive obligations imposed on the RBOCs by Section 251 of the Communications Act.

## **II. The RBOCs Have Repeatedly Failed To Deliver On Promises Of Network Upgrades Made In Exchange For Regulatory Benefits.**

Beginning shortly after divestiture, the RBOCs began a series of state-level campaigns to obtain relief from traditional, cost-based rate of return regulation. Their basic pitch was simple: existing, traditional regulation dampens my incentives to deploy new, advanced — but economically risky — technology. Change the way I am regulated, however, and I will deliver the broadband future.

Regulators delivered and the RBOCs did not. The promised technical nirvanas never materialized. The RBOCs, however, happily accepted the higher earnings that were possible in light of the relaxed regulation they had received.

### **A. ISDN.**

The first example of unfilled RBOC promises is ISDN. The RBOCs promised to widely promote and deploy ISDN as far back as the mid-1980's. The basic claim was that this digital technology was, in effect, a revolution in the making. For example, Southwestern Bell claimed in 1986 that:

At the forefront of new technology is ISDN. Scheduled for commercial availability in 1988, ISDN will revolutionize day-to-day communications by allowing simultaneous transmission of voice, data and images over a single telephone line. With ISDN customers will have the potential to access videotex, (online services)

telemetry, alarm services, sophisticated calling features, teleconferencing much more economically than they can today.

Southwestern Bell 1986 Annual Report at page 11.

And the promise of ISDN continued into the 1990's. For example, Ameritech's 1991 Annual Report claimed:

ISDN Speeds Information. 'The ISDN link multiplies, by more than 40, the speed with which information can be transmitted', says Illinois Bell's Bill Kallmyer, senior marketing operations manager. 'This results in higher productivity and lower on-line charges for consumers'. Kallmyer says ISDN is available to single-line customers as well as larger firms.

Ameritech, 1991 Annual Report at page 7<sup>5</sup>

In NNI's opinion, the RBOCs were never particularly enthusiastic about actually deploying and promoting ISDN. Because ISDN is a switched service, the more people used it, the more the RBOCs would have to invest in switching and, possibly, inter-office transmission facilities. For this reason, over time the RBOC focus moved away from what ISDN could do for consumers, to the percentage of consumers to whom ISDN was, in some sense "available" (based on the placement of some minimal equipment in a central office or the installation of appropriate software). But the RBOCs made virtually no practical efforts to promote the use of ISDN, and, indeed, by imposing high installation costs and time- and distance-sensitive pricing, actively discouraged its use.

## **B. Broad-Based Incentive Regulation Plans.**

As the RBOC regulatory strategy began to hit its stride in the years following divestiture, they set their sights on bigger game — near total deregulation of earnings well in advance of any significant development of competition as a check on monopoly abuses. To obtain

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<sup>5</sup> Moreover, Pac Bell's "Education First" program was to spend \$100 million in connecting all schools to the superhighway by 1996.

Pacific Bell Helps Bring Schools On-line. As part of a continuing commitment to education in California, Pacific Bell has launched "Education First", a \$100 million program to connect the state's schools to the communications superhighway. By the end of 1996, all of the nearly 7,400 public K-12 schools, libraries, and community colleges in Pacific Bell territory will have access to the company's Integrated Services Digital Network (ISDN), which enables simultaneous transmission of voice, data and video signals over a signals telephone line.

According to CNN, (8/17/97), however, in 1997, only 60% of California schools had computers and less than half that were online. Where did the money go?

this grander prize required grander efforts; accordingly, the RBOCs began promising massive network improvements in return for near-total freedom from traditional regulation of their earnings.

Based on its statements, for example, Bell Atlantic should have almost 9 million households wired with optical fiber loops by the end of the year 2000.<sup>6</sup> This does not account for the 2 million households that NYNEX (according to announcements prior to its acquisition by Bell Atlantic) was supposed to have upgraded by 1996.<sup>7</sup>

Indeed, nationwide, according to RBOC annual reports and press announcements from 1993-94, by 1998 there should have been almost 27 million households wired to the all digital, fiber-optic, 500 channel, full-motion video, interactive, broadband services.<sup>8</sup> For example, U S West stated:

In 1993 the company announced its intentions to build a 'broadband', interactive telecommunications network ... . US West anticipates converting 100,000 access lines to this technology by the end of 1994, and 500,000 access lines annually beginning in 1995.

US West, 1993 Annual Report at page 19. And Ameritech stated:

We're building a digital video network capable of delivering multicast and interactive services to six million customers within six years.

Ameritech Investor Fact Book at page 2 ( March 1994). And NYNEX stated:

We're prepared to install between 1.5 and 2 million fiber-optic lines through 1996 to begin building our portion of the Information Superhighway.

NYNEX, 1993 Annual Report at page 5. And Bell Atlantic stated:

First, we announced our intention to lead the country in the deployment of the information highway ... . We will spend \$11 billion over the next five years to rapidly build full-service networks capable of providing these (interactive, multi-media communications, entertainment and information) .services within the Bell Atlantic Region.

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<sup>6</sup> Bell Atlantic 1993 Annual Report page 4

<sup>7</sup> NYNEX Annual Report page 4

<sup>8</sup> "The Unauthorized Biography of the Baby Bells & Info-Scandal, page 54

We expect Bell Atlantic's enhanced network will be ready to serve 8.75 million homes by the end of the year 2000. By the end of 1998, we plan to wire the top 20 markets ... . These investments will help establish Bell Atlantic as a world leader in what is clearly the high growth opportunity for the 1990's and beyond.

Bell Atlantic 1993 Annual Report at page 4, page 4. And, Pacific Telesis stated:

In November 1993, Pacific Bell announced a capital investment plan totaling \$16 billion over the next seven years to upgrade core network infrastructure and to begin building California's "Communications superhighway". This will be an integrated telecommunications, information and entertainment network providing advanced voice, data and video services. Using a combination of fiber optics and coaxial cable, Pacific Bell expects to provide broadband services to more than 1.5 million homes by the end of 1996, 5 million homes by the end of the decade.

Pacific Telesis 1994 Annual Report at page F-5.

And we are not talking about the Internet or World Wide Web. The Superhighway, based on fiber-optics, is "broadband", able to supply hundreds of times more information for enhanced interactive services, while the Net is 'narrowband', based on available phone wiring. It's the difference between a Ferrari and a skateboard

Based on promises like these, by the year 2000, *half* of America was supposed to have been on the Information Superhighway. Unfortunately, almost none of this has been built, and the RBOCs' promises were simply never kept.<sup>9</sup>

### **C. Specific State-Level "Incentive Regulation" Deals.**

The RBOCs did not merely engage in puffery in their annual reports in support of their deregulatory efforts. To the contrary, they engaged in long-range, elaborate regulatory proceedings with the specific goal of obtaining the regulatory free passes they desired. Two examples are provided below. Others are detailed in NNI's research reports.

#### **1. Case 1: Opportunity New Jersey**

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<sup>9</sup> Oddly, the hype continues, regardless of the reality. For example, even though Pacific Telesis stopped all of its major highway plans and never spent the money, a press release from SBC Communications, April 1st, 1997, touting their purchase of Pacific Telesis, stated that Philip Quigley led Pac Tel's \$16 billion broadband Info Bahn project: "During Quigley's tenure, Quigley led PacTel's comprehensive \$16 billion network redesign program, which involved construction of a broadband information superhighway."

"Opportunity New Jersey" was a state plan that was supposed to bring the information superhighway to Bell Atlantic's Garden State customers. Using prominent consultants Deloitte & Touche, and heavy state lobbying, Bell Atlantic convinced New Jersey regulators that specific new incentives were needed to ensure Bell Atlantic's deployment of advanced networks.<sup>10</sup> In fact, the new regulatory structure resulted primarily in excess profits.

Basically, Bell Atlantic promised that the network that it would deploy would fix nearly everything — Tele-Medicine, Tele-Learning, even new jobs. For example, Deloitte & Touche's "New Jersey Telecommunications Infrastructure Study, 1991", dubbed "Opportunity New Jersey," proclaimed that the new network:

- \* was "essential for New Jersey to achieve the level of employment and job creation in that state,"
- \* would "advance the public agenda for excellence in education," and
- \* would "improve quality of care and cost reduction in the healthcare industry."

Seven years later — echoing these same themes — the NOI in this proceeding states:

Advanced capability and services can create investment, wealth, and jobs. They can meaningfully improve the nation's productivity and educational, social, and health care services. They can create a more productive, knowledgeable, and cohesive nation.

NNI agrees that *if* there were truly widespread deployment of various "advanced telecommunications capabilities," a number of public benefits could well result. The question, however, is not, "What public benefits would result from the deployment of an advanced network?" The real question is, "Why don't we have those benefits already in light of the deployment promises made by the RBOCs over the last decade?"

Consider the following quote from a complaint filed with the New Jersey Board of Public Utilities by the New Jersey Public Advocate in April, 1997:

"Bell Atlantic-New Jersey (BA-NJ) has over-earned, underspent and inequitably deployed advanced telecommunications technology to business customers, while

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<sup>10</sup> Opportunity New Jersey was just one of the plans Deloitte & Touche created. There was also Opportunity Pennsylvania, Opportunity Indiana, Advantage Ohio, and Advantage Illinois.

largely neglecting schools and libraries, low-income and residential ratepayers and consumers in Urban Enterprise Zones as well as urban and rural areas."

Their conclusion: approximately \$1.5 billion additional dollars was supposed to have been spent, but the Advocate found that they had spent only \$79 million dollars. At the same time, New Jersey/Bell Atlantic dividends to the parent company was an additional \$1 billion dollars. As the advocate stated: "...low-income and residential customers have paid for the fiber-optic wire lines every month but had not yet benefited."

## **2. Case 2: Advantage Ohio.**

In the case of Advantage Ohio, Ameritech/Ohio actually did roll out some of the promised fiber optics, but not as part of an advanced telecommunications network. Instead, Ameritech/Ohio deployed its fiber simply to offer "plain old cable service." In other words, Ameritech took the money that was supposed to reward consumers of regulated telephone service with a superior, advanced network and used it to subsidize Ameritech's efforts to offer "I Love Lucy" reruns.

This shift in strategy is clearly shown in the differences between two Ameritech Annual reports, 1993 and 1997. In Ameritech's 1993 annual report, the cover is of two boys doing homework together using enhanced video-conferencing and tele-learning. "Strategy Two", as stated in its 1993 Annual Report, was all interactive services:

We will deliver interactive services to homes and business through our new video network. We've stated out position in interactive services for health care administration, education, government, libraries, travel and commerce, as well as entertainment, games and home shopping.

By the time of its 1997 annual report, Ameritech isn't focusing on anything like fiber optics. The company now has three basic strategies: 1) roll-out voice mail and other calling features, 2) roll out cable services and 3) focus on international business.

Actually, Strategy Two is already teeming with success. Take cable TV, for instance. Our Americast cable service is now up and running in more than 20 communities in or around Detroit, Cleveland, Columbus -- and right here in suburban Chicago, where young Jordan Kramer has obviously mastered his Red Jr. remote control!

Ironically, Ameritech has been applauded for creating a situation where "cable competition is driving down prices". Senator Mike Devine, Chairman of the Senate Judiciary Subcommittee on Anti-trust stated:

Ameritech has been one of the few telephone companies providing cable competition. We want to encourage that. We want it to expand.<sup>11</sup>

While this type of competition is, in the abstract, better than none, it is hardly what the telephone customers paid for. NNI suspects that few Ohio consumers expected that they would be forced to finance a new cable network through higher phone bills.

### **III. The Key Flaw In Incentive Regulation Plans.**

There is a key flaw in the incentive regulation plans adopted by the various states. In a nutshell, that flaw is that when a monopolist is deregulated too soon, the result is not a monopolist with incentives to efficiently meet customers' needs, but is, instead, a deregulated monopolist.

The basic problem that incentive regulation is supposed to fix is that traditional cost-based regulation provides no rewards for efficiency. Under traditional regulation, a more efficient firm has lower costs, which leads to lower rates, while a less efficient firm has higher costs and higher rates. A firm that uses innovation to become a more efficient provider of existing services or to offer new services will receive no more or less financial benefit than a firm that is not innovative at all. The key benefit of traditional regulation, however, is that the monopolist has no incentive to skimp on providing good service to customers, since the costs of doing so will be recovered in rates.

At a high policy level there is nothing obviously wrong with a change in regulatory strategy designed to encourage efficiency and innovation. And there is nothing wrong with a regulatory strategy intended to produce a substantial upgrade in the quality and capability of the telephone network.

There is, however, an obvious error in a regulatory policy that simply trusts a monopolistic incumbent to provide better and more efficient service, and to spend billions of dollars upgrading the network. Yet that, in essence, is what the RBOCs were able to sell to their

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<sup>11</sup> "Impact of Telephone Mergers", 5/19/98.

various state regulators. Profits and, to a large extent, prices became much less regulated than previously. The additional money that the RBOCs were logically able to obtain in this relaxed regulatory environment was supposed to go to deploy the "network of the future." Incredibly, however, the RBOCs were permitted to earn and keep the money *with no accountability for whether they actually built the new, improved network they promised.*

If there were actual and substantial competition facing the RBOCs in the local exchange, it might have been reasonable to allow issues such as service quality and the pace of deployment of advanced telecommunications capabilities to be determined by the market. But there obviously was not, and is not, any substantial local exchange competition — certainly not for residence customers. The only logical regulatory response should have been mandatory service quality reviews, and a mandatory time-table for the roll-out of advanced services, with financial penalties (including a return to rate-of-return regulation) if the requirements were not met.

In the context of the current NOI, as discussed below, to the extent that the Commission is inclined to look to the RBOCs, instead of competitors, to provide advanced telecommunications capabilities, it is absolutely essential that these state-level errors not be replicated on the federal level. To the contrary, the Commission should strongly consider taking this opportunity to use its authority under federal law, informed by Section 706, to correct some of the state-level errors that have now become a matter of federal concern under the Telecommunications Act of 1996.

#### **IV. The Commission Should Mandate ILEC-Funded Network Upgrades.**

Section 706 directs the Commission to assess whether advanced telecommunications capabilities are being deployed in a "reasonable and timely fashion" and, if not, to use various "regulating methods" to speed such deployment. NNI suggests that the best "regulating method" to achieve this result is also the simplest: tell the ILECs to do it and subject them to penalties if they fail to comply.

Today, the ILECs control 99+% of the local exchange market. It will take a long time to erode that monopoly under any realistic scenario, no matter how hard the CLECs try to do so. It follows that if the Commission has a policy goal for the local exchange market, such as the deployment of advanced telecommunications capability, the only realistic way to accomplish that goal is to direct the ILECs to do it.

Take, for example, xDSL-based high-bandwidth service over copper loops. NNI does not begrudge the Commission's efforts to meet CLEC demands for improved access to unbundled loops for purposes of offering high-bandwidth services. Over time the CLEC-versus-ILEC battles may eventually work to make xDSL-based services widely available. But it seems that the Commission is trying to accomplish indirectly what would be much simpler to accomplish directly.

Putting the matter bluntly, the Commission should remember that it is a *regulatory* agency and that the ILECs are *regulated* firms. The Commission has the authority to simply issue an order directing the ILECs to make xDSL-equipped loops available to end users. If (as appears to be the case) xDSL is the type of "advanced telecommunications capability" that the Commission believes should be encouraged under Section 706, then it should issue such an order. Presumably the mandatory availability of xDSL service at retail would also eliminate ILEC dithering over the issue of whether they should be required to "condition" copper loops for the benefit of CLECs obtaining unbundled network elements from the ILECs in order to compete.

Moreover, the Commission should carefully evaluate the proper pricing of xDSL-equipped loops. As NNI's research has documented, the RBOCs have retained for their shareholders billions of dollars more than would have been permitted under traditional regulation. They have only been able to retain this money (as opposed to returning it in the form of rate reductions) due to their promises to regulators to deploy an advanced network.

While NNI expects that the Commission would hold specific proceedings regarding ILEC xDSL pricing, NNI suggests now that it would be appropriate for ILEC xDSL loops — whether offered as an end user service or as a "network element" to CLECs — to be priced at a level that reflects the fact that the ILECs *have already been paid for deploying them*. In other words, in the course of setting prices for mandated ILEC xDSL services, the Commission should consider the massive earnings that were only possible due to previous promises to deploy advanced network capabilities. This would allow the Commission to redress and to prospectively correct, to some degree, the errors in regulatory policy that allowed the RBOCs to get the benefits of their regulatory bargain, without incurring the burdens of doing so.

## **V. Conclusion.**

NNI believes that the history of state-level incentive regulation plans shows that it would be unwise for the Commission to adopt any form of regulatory policy that gives the RBOCs

regulatory benefits, such as relaxed regulation or lessened oversight, in exchange for the hope or promise that increased RBOC deployment of advanced network capabilities will be the result. Instead, if the Commission wants to facilitate the deployment of such capabilities, the best course is simply to order the RBOCs to provide them. When setting the prices to be charged for such services, moreover, the Commission should take account of the fact that, in large measure, the RBOCs have already been paid for whatever it will reasonably cost to upgrade their networks for high-bandwidth services.

Respectfully submitted,

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