



Before the  
Federal Communications Commission  
Washington, DC 20554

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of )  
)  
Inquiry Concerning High-Speed ) GN Docket No. 00-185  
Access to the Internet Over )  
Cable and Other Facilities )

**NOTICE OF INQUIRY**

**Comments of AeA (formerly the American Electronics Association)**

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### Summary

To the extent that the Commission adopts an “open access” policy for cable modem services, AeA believes that such a policy should rely on privately negotiated agreements as the vehicle for multiple unaffiliated ISPs to obtain access to the cable modem platform.

AeA believes that such a model will result in broad deployment of high-speed and advanced services to all Americans by promoting continued investment by the cable industry in advanced networks, as well as vast investment by competitive providers in their own advanced service offerings. The competition between providers that has been fostered by the FCC’s current deregulatory treatment of cable modem services has accelerated the deployment of high-speed networks and Internet services and provided greater choices to consumers. Adoption of a “forced access” policy toward cable modem services would stifle current investment levels, reduce competition among providers, and therefore slow deployment of advanced services to all Americans.

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**I. Introduction**

The Federal Communications Commission (“FCC” or “the Commission”) has issued the above referenced Notice of Inquiry (“NOI”) to solicit comments on a variety of issues related to the regulatory classification and treatment of cable modem platforms and cable modem services. Furthermore, the Commission has asked whether the current deregulatory policy, or alternatively regulation, is best suited to enhance the deployment of high-speed Internet services delivered over cable networks. AeA supports the widespread and affordable deployment of advanced communications facilities to all Americans and believes that the Commission’s current policy is moving us in that direction. Indeed, we are seeing encouraging developments in the deployment of high-speed services. As such, the FCC should maintain its current deregulatory approach to cable modem services, which is encouraging investment by the cable industry in advanced networks, as well as vast investment by competitive providers in their own advanced service offerings. This competition has accelerated the deployment of high-

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speed networks and Internet services and provided greater choices to consumers.

Adoption of a “forced access” policy toward cable modem services would stifle current investment levels, reduce competition among providers, and therefore slow deployment of advanced services to all Americans.

AeA is the largest high-tech trade association in America, with over 3,000 members. Our membership includes both large and small companies who manufacture fiber-optics, routers, switches, semi-conductors and other electronic components that make up the infrastructure that delivers high-speed advanced services. Therefore, AeA strongly supports policies that promote the deployment of broadband networks and related infrastructure. A federal policy that relies primarily on market forces, and encourages regulatory action only when there is a clear indication of market failure, is the best way to encourage investment in building new networks. As current industry statistics indicate, the FCC’s current policy has resulted in increased investment by service providers in upgrading their networks to provide high-speed services. This has led to increased competition between advanced service providers and lower prices for such services to consumers. By continuing its hands-off approach regarding cable modem services, the Commission will ensure that consumers are provided with the greatest range of choices among service providers, whether cable modem service, ADSL, fixed wireless or satellite. Alternatively, adopting forced access requirements will discourage investment in advanced services, resulting in fewer choices for consumers.

**I. Discussion**

**A. The Commission should continue its market-based access approach, which has encouraged deployment of cable modem services and resulted in wide deployment and increased investment in other high-speed Internet networks and services.**

Based upon several recent reports issued by the Commission, it is clear that the growth in subscribership and investment in high-speed networks from 1998 to June 2000 has been nothing short of phenomenal. Statistics provided by the FCC through its Broadband Survey Data<sup>1</sup> (“*Broadband Survey*”) show that this reliance on market forces has led to wide deployment of high-speed services in the past year alone.

In its *First Report on the Deployment of Advanced Telecommunications Capability*<sup>2</sup> (“*First Report*”), the Commission noted that as of year end 1998:

- 375,000 residential customers subscribed to advanced services;<sup>3</sup>
- 350,000 residential customers subscribed to cable modem service, 25,000 subscribed to ADSL service;<sup>4</sup> and
- These numbers are most likely understated given that the Commission attributed no customers to wireless cable and competitive LEC offerings.<sup>5</sup>

Furthermore, the Commission’s *First Report* noted that virtually all segments of the communications industry have made tens of billion of dollars of investment in broadband facilities:

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<sup>1</sup> “*High-Speed Services for Internet Access: Subscribership as of June 30, 2000*”, Industry Analysis Division, Common Carrier Bureau, Federal Communications Commission (rel. October 2000).

<sup>2</sup> *Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*. CC Docket No. 98-146, Report, 14 FCC Rcd 2398 (1999) (*First Report*)

<sup>3</sup> *Id.*, 14 FCC Rcd at 2446.

<sup>4</sup> *Id.*

<sup>5</sup> *Id.*, at para 91.

- The National Cable Television Association (NCTA) estimated that the cable industry had invested nearly \$6 billion in cable modem service deployment in 1997;<sup>6</sup>
- Long distance companies have invested approximately \$13 billion in broadband network upgrades;<sup>7</sup>
- Since 1993, over \$20 billion has been invested in the space industry of which much has gone into the broadband satellite telecommunications sector.”<sup>8</sup>

Based upon information obtained from its first Broadband data collection report, the Commission noted in its *Second Report* that there has been appreciable growth in the deployment of high-speed services to residential customers by year end 1999.<sup>9</sup> Indeed, these trends continue, as evidenced in the Commissions’ most recent Broadband data collection report, which tracks the growth in deployment from December 1999 to June 2000:

- The number of high-speed lines connecting homes and businesses to the Internet increased by 57 percent, from 2.8 million to 4.3 million, in less than one year;<sup>10</sup>
- The number of lines providing advanced services increased 41 percent, from approximately 2 million to 2.8 million lines;<sup>11</sup>
- High-speed ADSL lines in service increased by 157 percent, from 370,000 to almost one million lines;<sup>12</sup>
- High-speed lines in service over cable coaxial systems increased by 59 percent, from 1.4 million to 2.2 million lines;<sup>13</sup>

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<sup>6</sup> *Id.* at para 37.

<sup>7</sup> *Id.* at para 38.

<sup>8</sup> *Id.* at para 39.

<sup>9</sup> *Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, CC Docket No. 98-146, Second Report, FCC 00-290, (2000) (*Second Report*) para 63.

<sup>10</sup> *Supra* note 1 at p.2.

<sup>11</sup> *Id.*, at p.3.

<sup>12</sup> *Id.*, at p.2.

<sup>13</sup> *Id.*

- Residential and small business subscribers to ADSL service increased 164 percent from 291,757 to 771,311 subscribers;<sup>14</sup>
- Residential and small business subscribers to cable coaxial systems increased 55 percent from 1.4 million to 2.1 million subscribers;<sup>15</sup>
- Between 1998 and 1999, the number of residential subscribers to advanced services nearly tripled, from 375,000 to 1 million subscribers (875,000 cable modem and 115,000 to ADSL).<sup>16</sup>
- By June 2000, approximately 65,000 residential customers subscribed to high-speed services over satellite & fixed wireless facilities.<sup>17</sup>

When viewed from the 1998 baseline numbers, it is clear that the deployment of advanced services through cable modem and DSL networks are increasing exponentially. In 1998, the Commission estimated that 350,000 customers received advanced services through cable modem service, while the latest *Broadband Survey* shows that 1.4 million customers receive advanced services through this technology—a four-fold increase in less than two years. More impressively, the number of residential customers of advanced services provided by DSL have increased by nearly ten fold, from the 115,000 estimate in *First Report* to over 1 million in the recent *Broadband Survey* (ADSL combined with other wireline services that provide equivalent functionality).

The Commission also noted in its *Second Report* that infrastructure investment by cable companies, ILECs, CLECs and wireless providers to support high-speed services has also increased dramatically, and that analysts forecast that upward trends in investment and subscribership will continue. According to the report:

- Residential high-speed subscribership will increase from 1.9 million at the beginning of 2000 to 35 million at the end of 2004<sup>18</sup>;

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<sup>14</sup> *Id.*, at p. 3.

<sup>15</sup> *Id.*

<sup>16</sup> *Supra* note 9 at para 72.

<sup>17</sup> *Supra* note 1.

<sup>18</sup> *Id.*, at para 186.

- Investment by cable operators in system upgrades will average approximately \$2.5 billion annually between 2001 and 2005, while cable modem subscriptions will reach approximately 15.2 million subscribers by year-end 2004;<sup>19</sup>
- In 1999, ILECs and CLECs spent \$25 billion and \$15.1 billion respectively on infrastructure and analysts project continued increases in annual capital expenditures by both ILECs and CLECs before infrastructure investment levels off;<sup>20</sup>
- Analysts estimate that there were approximately 500,000 residential DSL subscribers at the beginning of 2000, that there will be 2 million DSL subscribers by the end of 2000 and that over the next five years, DSL subscription will grow to 13 million;<sup>21</sup>
- Capital expenditures by fixed wireless providers are expected to increase significantly in the next few years, as acquisitions and consolidations within the MDS industry have accounted for more than \$2 billion in transactions in the past year;<sup>22</sup>
- Projections for fixed wireless growth in the residential market range from 2 million subscribers in 2003 and from 3 to 4.4 million in 2004;<sup>23</sup>
- Estimate total investment in U.S. based satellite high-speed projects over the next ten years are approximately \$28.55 billion, and projected subscription rates by 2004 vary from 1.2 to 4.6 million.<sup>24</sup>

Based upon these numbers, the Commission should ask itself, “What is the market failure in broadband deployment that warrants government regulation at the present time?” AeA believes that these numbers demonstrate that the Commissions’ current deregulatory policy toward cable modem service is encouraging investment and deployment of high-speed networks and services. Furthermore, these statistics seem to indicate an absence of market failure in the Internet access market. As the Commission

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<sup>19</sup> *Supra* note 9 at para 188.

<sup>20</sup> *Id.* at para 192.

<sup>21</sup> *Id.* at para. 191.

<sup>22</sup> *Id.* at para. 198.

<sup>23</sup> *Id.* at para. 200.

<sup>24</sup> *Id.* at para. 202.

knows, the relevant Internet access market is dominated by dial-up services. Cable companies do not at this point have substantial market power in this market. However, the competitive market forces that the Commission has supported are continuing to drive providers to reach residential and business customers, thereby fostering increased consumer demand for broadband services. DSL and other broadband alternatives are being aggressively deployed and will likely provide stiff competition to cable Internet service. Indeed, recent estimates show that DSL will meet the subscribership levels of cable modem service by 2007.<sup>25</sup> Therefore, if most customers have access to alternatives to cable modem service, cable companies will have little incentive to act anti-competitively.

**B. A federal policy of mandatory access threatens investment in high-speed networks thereby reducing the roll-out of competitive offerings, limiting competition between providers and denying consumers the choice of multiple service offerings.**

A federal policy of mandated access endangers the goal of facilities based competition by potentially eliminating the incentive to invest in and deploy broadband networks. This is due in large part to the “follow-on” effect that the FCC has noted in several of its recent reports on advanced service deployment.

In its *First Report*, the Commission noted that “it is widely believed that the ILECs recent moves to offer broadband to residential customers are primarily a reaction to other companies entry into broadband.”<sup>26</sup> The FCC also found that investment in high-speed networks, “especially that by cable television companies and competitive LECs

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<sup>25</sup> *Broadband Today*, at 27; see also, *The Outlook*, WALL ST. J., Jan. 17, 2000 at A1 (citing industry estimates that DSL will be highly competitive with cable modem service by the year 2004).

<sup>26</sup> *Id.*, at para 42, n. 84.

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appears to have spurred incumbent LECs to construct competing facilities.”<sup>27</sup> Of course, these facilities could also create competition in the core markets of narrowband telephone and MVPD that are currently dominated by the incumbent provider.

In its *Second Report*, the FCC continued to abide by the position that “competition, not regulation, holds the key to stimulating further deployment of advanced telecommunications capability.”<sup>28</sup> Furthermore, in the case study section of the *Second Report*, the FCC is presented with real-world examples of how investment in one facility spurs investment and deployment of competing services. As a general matter, the Commission notes that after an initial offering of advanced services, incumbents and new competitors often respond with competitive offerings. In the Waltham, Massachusetts study, the Commission found a clear pattern of competitive response among providers that has spurred the deployment of facilities. In Muscatine, Iowa, the local utility’s deployment of a telecommunications network led to deployment of DSL service by a local ISP, in conjunction with USWest. AT&T followed with its **AT&T@Home** cable modem service.

Of course, this is precisely the phenomenon that is reflected in the above referenced industry statistics. Competition is forcing companies to speed up broadband deployment. DSL and other broadband alternatives such as satellite and fixed wireless services are being aggressively deployed and will likely provide stiff competition to high-speed cable modem service. As previously indicated, DSL subscribers have increased ten fold since the fourth quarter of 1998 and investment in satellite and fixed wireless services continues to increase. AeA believes that providers may be less willing to build

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<sup>27</sup> *Id.*

<sup>28</sup> *Second Report* at para. 246.

out networks if competitors are able to obtain nondiscriminatory access to their networks, pursuant to a government enshrined policy of free-ridership. This of course, would delay deployment of advanced service to those groups of Americans that the Commission has noted are most at-risk of not receiving high-speed service. As Joe H. Floyd, President and COO of Midcontinent Media, Inc, noted regarding cable modem deployment in Miller South Dakota, "Midcontinent is continuing to deploy high-speed service areas in rural America, even though the upgrades are very expensive and capital intensive. We are willing to undertake the substantial risk of deploying in low-density, high-cost areas because of the stable regulatory environment in which we have been operating, and because we believe that the service we are offering appeals to our customers."<sup>29</sup>

Advocates of mandatory access operate from a different assumption. They assume a problem and ask the FCC to regulate based upon that assumption. Such an argument should be resisted at every turn for the very lesson that can be gleaned from the "follow-on" deployment phenomenon. Just as investment by one provider spurs deployment by others, the threat of cable modem regulation would create a similar disincentive to telephone company DSL, wireless and satellite service. As investment in cable systems slows, stock prices could fall and build-out capital would evaporate. This in turn could slow the rollout of other competitive services as the urgency to beat cable to the marketplace would diminish.

**C. "Open access" should be conceptualized under a model that encourages negotiated agreements between ISPs and cable operators.**

In its NOI, the FCC has asked for comments on three possible models for regulation of cable modem services. To the extent that the commission believes it is

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<sup>29</sup> *Supra* note 9 at para 158, n. 214.

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necessary to adopt an “open access” policy, AeA supports consumer access to the ISP of their choice through negotiated commercial agreements between cable operators and unaffiliated ISPs. As the Commission has noted, multiple unaffiliated ISPs would obtain access to the cable modem platform according to agreements between those ISPs and cable operators.

In its “*Broadband Today*” staff report, the Cable Services Bureau convened a series of monitoring sessions to specifically address the question “Should the government require cable companies to provide access to their cable plant by unaffiliated on-line service providers and Internet Service Providers?”<sup>30</sup> The sessions’ findings have been borne out by the current industry statistics, namely that cable modem deployment spurs alternative broadband technologies and conversely, regulation or the threat of regulation could ultimately slow deployment of broadband.

The panelists in the monitoring session also agreed that market forces will compel cable companies to negotiate access agreements with unaffiliated ISPs, preventing cable companies from keeping systems closed and proprietary. AeA believes that recent industry trends support this prediction and urges the Commission to continue to rely on market forces in this regard.

Indeed, in order to meet consumer demand, a number of cable operators such as AT&T and Time Warner have agreed to negotiate non-exclusive contracts with unaffiliated ISPs. In December 1999, AT&T reached an agreement with Mindspring Enterprises, that would require AT&T to operate an open network and not restrict access to content when its current exclusive agreement with Excite@home expires. Similarly, Time Warner has also announced recent agreements in which it promises to offer the

services of two unaffiliated ISPs--Juno Online Services and EarthLink—over its cable network. Furthermore, both AT&T and Time Warner have announced technical trials over selected cable systems, to test the operation of multiple ISPs and to study such issues as billing and bandwidth allotment.

AT&T has also announced an agreement with the “Massachusetts Coalition for Consumer Choice and Competition on the Internet” that will provide AT&T’s Massachusetts broadband customers with the ISP of their choice. The open network is to be implemented no later than July 1, 2002.

The importance and lesson of this trend should not be overlooked. Network providers are fully capable of self-regulating themselves, without government mandate, in regards to ISP access. Furthermore, the AT&T/Massachusetts case demonstrates that if there is a consumer demand for unaffiliated ISP access, cable operators have every incentive to meet this demand in order to give them a competitive advantage in the marketplace.

Furthermore, these agreements, which reflect commercial reality, are preferable to the imposition of a one-size fits all common carrier approach to advanced services. Given the limitations of cable’s shared network architecture, mandatory access to a limitless number of ISPs could cause significant technical problems to the cable modem platform, given the fact that the quality and speed of transmissions may degrade as more users in a given residential area utilize the network at once. For example, if ISP traffic reaches its peak during evening hours, additional usage of the system may slow transmission speeds for all users during those times. Rather, private contract permits the

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<sup>30</sup> *Broadband Today*, Cable Services Bureau, October 1999.

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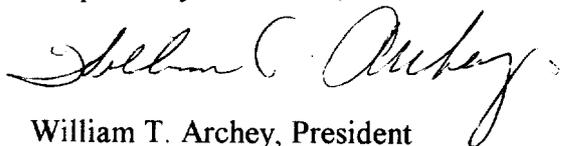
cable operator to balance the limitations of its network with consumer demand, at a level that will maximize the benefits to all subscribers within the network.

Finally, market forces will move cable companies toward these negotiated agreements, but only if they feel pressure from competitive providers. The Commissions' approach has fostered synergy in these markets, which has spurred the deployment of other advanced networks. In conjunction with public demand, this will continue to place competitive pressure on cable companies to negotiate agreements with unaffiliated ISPs.

### **III. Conclusion**

Given the rapid deployment of such services and the underlying policy goal of encouraging the deployment of advanced through deregulation of the Internet, it would seem axiomatic that the Commission should continue to abide by its current approach. Indeed, as the Commission notes in the Notice of Inquiry, a similar deregulatory approach as adopted in the *Computer Inquiries*, resulted in the rapid deployment of Internet related data services. Without commenting on the regulatory and definitional issues associated with the FCC's basic/enhanced regime, we believe the general lesson is that a deregulatory approach is the best mechanism for encouraging growth in a nascent market. Therefore, until there is evidence that broadband technologies are not being deployed in a timely fashion, there is no reason for the Commission to upset the dynamism that currently exists in the advanced services market.

Respectfully Submitted,



William T. Archey, President  
AeA