ADTRAN, Inc. (“ADTRAN”) takes this opportunity to comment briefly on a few of the issues raised in the Section 706 Notice of Inquiry concerning steps the Commission should take to accelerate the deployment of advanced telecommunications capability.¹ While ADTRAN disagrees with the Section 706 Report's conclusion that "advanced telecommunications capability is not being deployed to all Americans in a reasonable and timely fashion," ADTRAN nonetheless shares the Commission's goal of taking action to foster broadband deployment. ADTRAN thus offers some suggestions that will help achieve this important objective.

ADTRAN, founded in 1986 and headquartered in Huntsville, Alabama, is a leading global manufacturer of networking and communications equipment, with an innovative portfolio of solutions for use in today’s telecommunications networks. ADTRAN’s equipment is deployed by some of the world’s largest service providers, as well as distributed enterprises and

¹ 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, as Amended by the Broadband Data Improvement Act, GN Docket No. 14-126, FCC 15-10, released February 4, 2015 (hereafter cited as "Report and NOI").
small and medium businesses. ADTRAN thus brings an expansive perspective to this proceeding, as well as an understanding of the importance to individuals, communities and our country of robust and ubiquitous broadband. ADTRAN has been a strong advocate in Commission proceedings to help spur broadband deployment, and has itself launched a gigabit initiative with the goal of having 200 gigabit communities up and running by the end of 2015.

ADTRAN believes the Commission is taking important steps to expand broadband to schools and libraries through the Universal Service Fund programs. However, ADTRAN is concerned that the Commission may not be doing so in the most efficient manner possible, to the extent that it appears it may not be acting in a technologically neutral fashion. In the Report and NOI, the Commission seems to be suggesting that the goal of bringing broadband to schools consistent with the long-term standard of 1 Gbps per 1,000 students can only be accomplished with fiber deployed all the way to the schools. In seeking comments on steps it can take to accelerate broadband to schools, the Commission indicated that the Section 706 Report “found that more than one-third of schools lack access to service at 100 Mbps per 1,000 users, and that even more lack access to service of at least 1 Gbps per 1,000 users.” However, what the Section 706 Report actually determined was that the “data indicate that roughly 35 percent of public schools do not have fiber facilities to the building.”

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2 E.g., Comments of ADTRAN in WC Docket No. 10-90 et. al., filed August 8, 2014; Comments of ADTRAN in WC Docket No. 10-90, filed March 28, 2013; Comments of ADTRAN in WC Docket No. 10-90 et. al., filed January 18, 2012; Comments of ADTRAN in WC Docket No. 10-90 et. al., filed April 18, 2011.


4 Report and NOI at ¶ 163.

5 Report and NOI at ¶ 129.
The Commission’s apparent equating of adequate broadband for schools solely with fiber technology is incorrect. Fiber deployed all the way to the school is not the only technology capable of achieving the long-term goal of 1 Gbps per 1000 students. For example, ADTRAN has previously explained that advances in copper technologies have greatly increased the capabilities of the embedded copper loops.\(^6\) G.fast is deployed from distribution points located deep in the outside plant, and can deliver combined upstream and downstream speeds of up to 1 Gbps over short copper loops.\(^7\) And interoperability tests of DOCSIS 3.1 products for a new generation of high-speed hardware have demonstrated that this technology can deliver up to 10 Gbps on Hybrid Fiber-Coax (HFC) networks.\(^8\) In addition, fixed wireless broadband solutions are also available presently that provide 1 Gbps and higher services.\(^9\)

The Commission should thus ensure that its Schools and Libraries subsidy program will offer support to any technologies capable of meeting the long-term goal of 1 Gbps per 1,000 students, not just fiber to the school as the *Section 706 Report and NOI* seems to be suggesting. Such technological neutrality will help ensure that the most efficient use will be made of the Commission’s limited broadband subsidy dollars, thereby allowing deployment of robust

\(^6\) E.g., Comments of ADTRAN in PS Docket No. 14-174 *et. al* filed February 5, 2015.


broadband to be fostered to the most schools and libraries possible.

In addition, in order to ensure that the Universal Service Fund subsidy programs are employed most efficiently, ADTRAN also urges the Commission to coordinate the two different manners in which the subsidies for broadband to schools and libraries may be flowing. The Commission is directly subsidizing support for broadband deployment to schools and libraries through its recently expanded Schools and Libraries support mechanism. Within the last year the Commission adopted two orders in support of robust broadband to schools and libraries. In the first decision, the Commission streamlined the E-rate subsidy program, reduced funding for legacy services, increased the focus on broadband services and expanded funding for Wi-Fi networks in schools and libraries. In the second decision, the Commission increased the cap for the Schools and Libraries support fund by $1.5 billion annually (as well as indexing that increased cap).

In that latter decision, the Commission separately imposed an obligation on recipients of high-cost support to offer broadband service in response to a posted FCC Form 470 for eligible schools and libraries within their territories “at rates reasonably comparable to rates charged to schools and libraries in urban areas for similar services.” Such an obligation to use high-cost support to keep rates “reasonably comparable” seemingly creates a second subsidy funding source for broadband services to schools and libraries, in addition to E-rate funding. However, the Commission needs to ensure that any such alternative Commission-directed subsidies are counted towards the $3.9 billion E-rate funding cap, otherwise there will be less money available

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12 Id., at ¶ 60.
for the other Universal Service Fund support mechanisms that also foster broadband deployment to unserved areas. Commission-directed support is finite, and it would upset the balance the Commission struck in allocating those subsidies to different programs if the Commission were to create such a “loophole” to the E-rate funding cap.

More generally, ADTRAN also believes that the Commission’s goal of accelerating broadband deployment to all Americans can best be achieved if the Commission prevents further slippage in implementation of programs already adopted by the Commission. Thus, the Commission should ensure that the Connect America Fund Phase II and the Remote Area Fund begin disbursing subsidies in a timely manner. Similarly, enhancements to the E-rate program, such as Preferred Master Contracts,13 need to be finalized before the next round of the schools’ broadband and Wi-Fi funding applications come in. While Commission adoption of enhancements for these various support programs is commendable, concrete deployment of broadband will not be fostered until the programs are actually implemented.

ADTRAN fully supports the goal of Congress and the Commission to “take immediate action to accelerate deployment of such [broadband] capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market.”14

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ADTRAN believes the steps suggested herein will help achieve that objective. Following such a path will thus well serve the public interest.

Respectfully submitted,
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By: /s/ ____________________
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