

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

In the Matter of)	
)	
Communications Assistance for Law)	ET Docket No. 04-295
Enforcement Act and Broadband Access and)	
Services)	RM-10865

**REPLY COMMENTS OF THE
MASSACHUSETTS INSTITUTE OF TECHNOLOGY**

Introduction and Summary

The Massachusetts Institute of Technology (“MIT”) submits these reply comments in response to the Further Notice of Proposed Rulemaking adopted in the above-captioned docket.¹

Like other higher education and research institutions, MIT shares the Commission’s interest in protecting both national security and law enforcement agencies’ ability to conduct lawful surveillance.² MIT and other higher education institutions have a strong track record of satisfying legitimate law enforcement surveillance requests using existing procedures, and we can continue to do so without undertaking costly equipment modifications and replacements pursuant to CALEA. Extending CALEA obligations to MIT and other higher education and research institutions is not necessary to serve national security and would divert the limited resources of these charitable institutions from their core research and teaching missions.

As several commenters have demonstrated, private educational networks are not subject to CALEA under the plain terms of the statute or under the most reasonable interpretation of the

¹ *Communications Assistance for Law Enforcement Act and Broadband Access and Services*, First Report and Order and Further Notice of Proposed Rulemaking, ET Docket No. 04-295, FCC 05-153 (rel. Sept. 23, 2005) (“*Order*”).

² See Higher Education Coalition Comments at 2.

Order. Nevertheless, because the *Order* is ambiguous and could be read to extend obligations to higher education networks, *see Order* at ¶ 36, n.100, MIT files these reply comments in support of a clarification of universities' exempt status under Section 103(b)(2)(B) of CALEA or an exemption under Section 102(8)(c)(ii) of the statute. As described below, subjecting MIT and similarly situated institutions of higher education and research to extensive CALEA obligations is not necessary to serve national security and would impose substantial unwarranted costs that would diminish MIT's and such other institutions' ability to pursue their core academic and research functions and in turn harm the nation as a whole.

MIT was founded in 1861 by natural scientist William Barton Rogers to be a new kind of private educational institution relevant to an increasingly industrialized America. In keeping with Rogers' vision, MIT remains committed to bringing "knowledge to bear on the world's great challenges."³ The mission of MIT is to advance knowledge and educate students in science, technology and other areas of scholarship that will best serve the nation and the world in the 21st century.⁴

Today, MIT is one of the world's leading educational and research universities. Teaching, and research — with relevance to the practical world as a guiding principle — continue to be its primary purpose. In 2003-2004, approximately 3,000 researchers worked with faculty and students on projects funded by government, foundations, and industry. Routinely, MIT is a leading U.S. university in patents granted, and in each of the past five years its Technology Licensing Office has signed approximately 125 option and license agreements. One of the goals of our nation's academic research enterprise is to disseminate the results of research

³ See MIT's Mission Statement, *available at* <http://web.mit.edu/facts/mission.shtml>.

⁴ Sixty-one present and former members of the MIT community have won the Nobel Prize; eleven current faculty members including Richard R. Schrock, who is a co-recipient of the 2005 Nobel Prize in Chemistry.

and enable industry to build on those results to satisfy societal needs. The technology licensing endeavors of MIT and other research universities further this goal. Basic research done at MIT and other academic research institutions is further developed by industry to create the products that drive the economy and help protect national security.

Discussion

I. CALEA Exempts Private Networks Such as MIT's Broadband Network.

As several commenters persuasively demonstrate, CALEA unequivocally exempts private network operators such as MIT.⁵ MIT, like other universities, does not provide any services as a “common carrier for hire,” 47 U.S.C. § 1001(8)(A), but rather operates a private broadband network to pursue charitable educational and research goals for the public benefit and that of its students, faculty, and the entire academic community. Even apart from the statutory exemption for information services (which, properly construed, should apply here), CALEA exempts all “equipment, facilities, or services that support the transport or switching of communications for private networks.” *Id.* § 1002(b)(2)(B). The Commission acknowledged that networks such as “Internet2’s Abilene Network, NysNet, and the Pacific Northwest gigaPoP” — and by implication networks such as MIT’s — are exempt pursuant to this provision. *Order* at ¶ 36, n.100. But the Commission went on to cast doubt on that pronouncement by extending CALEA to “providers of the facilities that support the connection of the private network to a public network.” *Id.* The Commission should clarify that this final sentence of footnote 100 of the *Order* applies only to *commercial* Internet service providers, thereby alleviating the concern that CALEA will be extended to operators of private educational

⁵ See Comments of American Library Association and Association of Research Libraries at 5; Comments of AREN Providers at 14-17; Higher Education Coalition Comments at 4-6; Telecommunications Industry Association Comments at 3-4.

networks. Alternatively, the Commission should accomplish the same goal by establishing an exemption under Section 102(8)(c)(ii).

II. Because Universities Such as MIT Have Been Able to Respond to the Limited Requests by Law Enforcement, a Broad Application of CALEA to Private Educational Networks Is Unnecessary to Serve National Security and Would Impose Massive, Unwarranted Costs.

Even apart from universities' statutorily exempt status, the Commission should refrain from imposing CALEA obligations on them because they are unnecessary given universities' ability to respond to the limited surveillance requests law enforcement has made on them. As an initial matter, the Department of Justice ("DOJ") has not raised any concerns with universities' track record in responding to legitimate law enforcement requests. To the contrary, MIT and other higher education and research institutions have supported national security, cooperated with authorized law enforcement requests, and satisfactorily complied with such past requests for assistance.⁶ For its own part, MIT has received very few surveillance requests from law enforcement agencies, and MIT has responded to the few requests received to the satisfaction of law enforcement without any costly equipment enhancements. Accordingly, imposing additional compliance burdens on higher education networks such as MIT's network is manifestly unnecessary.

Moreover, subjecting universities such as MIT to CALEA would impose substantial burdens. We understand that the Commission and DOJ have yet to define particular assistance-capability requirements or otherwise offer detailed guidance on the meaning of CALEA compliance. However, if full implementation of CALEA is defined to mean enabling law enforcement agencies to intercept communications at every switching point in a university's

⁶ See Higher Education Coalition Comments at 7-8; University of California Comments at 4.

network — as opposed to at one point at the edge of the network — then compliance burdens will be massive.

In fact, if CALEA requires MIT to be able to monitor intra-campus communications in real-time and with short notice, MIT will have to replace a significant portion of its campus infrastructure. MITnet currently has approximately 2,400 switches/hubs that would need to be replaced as well as approximately 3,000 wireless access points.⁷ Equipment that can perform remote port monitoring is available at approximately \$17,000 for each switch. Accordingly, replacing the switches/hubs would cost MIT in excess of \$40 million. In addition, MIT would need to purchase wireless access points for each hub. At a conservative estimate, it would cost \$500 for each wireless access point, which would subject MIT to an additional \$1.4 million in expenses to satisfy CALEA.⁸ In addition to the cost of purchasing this new equipment, there would be considerable expense in installation. In order to meet the 18-month deadline to comply with CALEA, MIT would be forced to hire independent contractors to install the equipment and to upgrade many of the areas to accommodate the new equipment. Imposition of such staggering costs necessarily would divert resources from critical academic and research priorities, unnecessarily overburdening limited resources.

If MIT and similarly situated institutions are required to divert limited resources from academic and research programs, society as a whole will ultimately suffer. As a preeminent research university, MIT plays a pivotal role in achieving scientific and technical breakthroughs, which support our national security by furthering the strength of our nation's leadership role in higher education and the world's economy and by contributing directly to our national defense.

⁷ Based on the age and design of existing facilities, software patches alone would not enable MIT to isolate and authenticate particular users' communications.

⁸ Of course, this assumes that suppliers would be able to provide the equipment within the FCC required 18-month time frame.

In fact, countless incremental advances in electronics, robotics, and other science and engineering fields — such as the MIT Institute for Soldier Nanotechnology — have led to improvements in many facets of the military and national security.⁹ Ironically, forcing budget cuts in the interest of CALEA compliance for national security interests — notwithstanding the absence of any deficiency in current processes — could actually *undermine* national security in the long term.¹⁰

Contrary to the suggestion by DOJ that an exemption at this stage would be premature, DOJ Comments at 11-14, clarifying or establishing universities' exempt status is urgently necessary *now*. MIT establishes its budgets and programs well in advance, and thus cannot defer key decisions about the allocation of resources or pursuit of programs. Setting aside funds for possible equipment purchases, software upgrades, network redesign, and new personnel necessarily will divert funds from existing and planned academic and research initiatives. Moreover, implementation of changes would require time. The Commission therefore should resolve outstanding questions about the applicability of CALEA to MIT and all higher education institutions before we are forced to incur expenses unnecessarily.

Conclusion

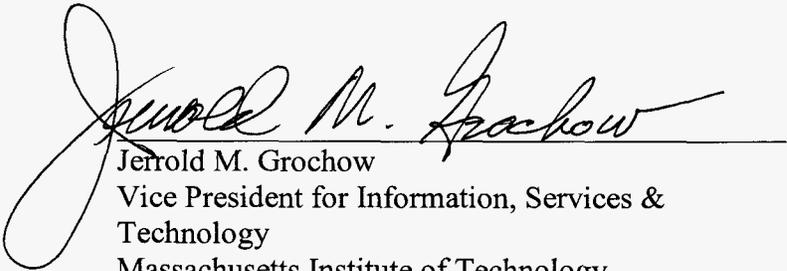
In light of clear congressional intent, compelling public interest considerations, and the track record of institutions like MIT satisfactorily responding to authorized law enforcement surveillance requests, the Commission should clarify that higher education institutions such as MIT are exempt from CALEA. MIT and others in higher education are committed to supporting national security, and we would be pleased to meet with Commission and/or DOJ technical

⁹ For example, MIT research in robotics and aeronautics has created a robotic helicopter and a remotely voice-activated plane, both of which could lead to unmanned flights.

¹⁰ Approximately 80% of the \$529.5 million in research sponsorship MIT received in fiscal year 2004 was from federal government agencies, with approximately 16% from the U.S. Department of Defense.

personnel to explore ways to facilitate legitimate law enforcement access without requiring costly network redesign or equipment replacement.

Respectfully submitted,

A handwritten signature in black ink, reading "Jerrold M. Grochow". The signature is written in a cursive style with a large, looping initial "J". A horizontal line is drawn across the signature.

Jerrold M. Grochow
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