

**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
)	
)	

**COMMENTS ON NOTICE OF PROPOSED RULEMAKING
OF
AMERICAN ASSOCIATION OF COMMUNITY COLLEGES;
AMERICAN ASSOCIATION OF STATE COLLEGES AND UNIVERSITIES;
AMERICAN COUNCIL ON EDUCATION;
AMERICAN LIBRARY ASSOCIATION;
ASSOCIATION OF AMERICAN UNIVERSITIES;
ASSOCIATION OF COLLEGE AND RESEARCH LIBRARIES;
ASSOCIATION FOR COMMUNICATIONS TECHNOLOGY PROFESSIONALS
IN HIGHER EDUCATION;
ASSOCIATION OF RESEARCH LIBRARIES;
CONSORTIUM FOR SCHOOL NETWORKING;
EDUCAUSE;
INTERNATIONAL SOCIETY FOR TECHNOLOGY IN EDUCATION;
INTERNET2;
NATIONAL ASSOCIATION OF COLLEGE AND UNIVERSITY BUSINESS
OFFICERS;
NATIONAL ASSOCIATION OF INDEPENDENT COLLEGES AND
UNIVERSITIES;
NATIONAL ASSOCIATION OF STATE UNIVERSITIES AND LAND GRANT
COLLEGES;
UNIVERSITY OF CALIFORNIA OFFICE OF THE PRESIDENT

(THE "EDUCAUSE COALITION")**

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SUMMARY

The EDUCAUSE Coalition is concerned that the Commission's Notice of Proposed Rulemaking ("NPRM") extending the Communications Assistance for Law Enforcement Act ("CALEA") to "all broadband Internet access providers" may be read to include universities, libraries, research laboratories, K-12 institutions and more. In response to our concerns, the Commission has suggested in the NPRM that these entities are not covered by CALEA. The Commission apparently assumed that universities, colleges, libraries, K-12 schools and others simply acquired their broadband access from other facilities-based providers. However, many of these entities are facilities-based, broadband Internet access providers for their students, faculty and other patrons. Therefore, the Commission's proposal would seem to cover all of these entities and this is why the EDUCAUSE Coalition submits these comments.

The EDUCAUSE Coalition does not believe in the first instance that CALEA applies to broadband Internet access or to information services. We do not believe the law to permit the Commission to place any CALEA obligations on EDUCAUSE Coalition members because they are not telecommunications carriers and the broadband access they provide is not a replacement for a substantial portion of local exchange service. Even if the Commission could properly deem any facilities-based, broadband Internet access provider to be a telecommunications carrier under CALEA, it would not be in the public interest for the Commission to do so in regard to the EDUCAUSE Coalition members. The Commission would have to develop a much more thorough and complete record regarding the impact of CALEA on EDUCAUSE Coalition members and their constituencies if, despite our interpretation of CALEA, the Commission proceeded with a rulemaking. In addition, we ask the Commission to find that private research and educational networks are not replacements for a substantial portion of local exchange service and are thus not subject to CALEA.

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**COMMENTS OF THE EDUCAUSE COALITION ON NOTICE OF
PROPOSED RULEMAKING**

The EDUCAUSE Coalition¹ ("EDUCAUSE") submits these comments in response to the Commission's Notice of Proposed Rulemaking,² which proposes to extend the Communications Assistance for Law Enforcement Act³ ("CALEA") to "all broadband Internet access providers," which we are concerned may be read to include universities, libraries, research laboratories, and more.

In comments in response to law enforcement's initial petition, EDUCAUSE urged the Commission to carefully examine the law and stay within its bounds, or look to Congress to change it.⁴ We did not understand CALEA to extend to information services such as broadband Internet access, and we certainly did not understand CALEA to place

¹ The EDUCAUSE Coalition members and their specific interests are listed on Exhibit A.

² *In the Matter of Communications Assistance for Law Enforcement Act, Notice of Proposed Rulemaking*, ET Docket No. 04-295, RM-10865 (Rel. Aug. 9, 2004) ("NPRM"), published 69 Fed. Reg. 56,976 (Sept. 23, 2004).

³ Pub. L. No. 103-414, 108 Stat. 4279 (1994), codified as 47 U.S.C. §§ 1001-10 and 47 U.S.C. § 229.

⁴ Comments of EDUCAUSE Coalition at 5 (Apr. 4, 2004) ("EDUCAUSE Comments"), in response to Public Notice, *Comment Sought on CALEA Petition for Rulemaking*, RM-10865, DA No. 04-700 (Mar. 12, 2004).

any obligations on EDUCAUSE Coalition members because they are not telecommunications carriers. We asked the Commission to ensure that a full record was developed regarding the impact of CALEA on the EDUCAUSE Coalition members and their constituencies if, despite our interpretation of CALEA, the Commission proceeded with a rulemaking.⁵

The Commission acknowledged the comments of the EDUCAUSE Coalition in a footnote,⁶ but it does not appear that the Commission understood that many colleges and universities are facilities-based, broadband Internet access providers not only to students and faculty, but quite often to regional governments, research entities, libraries, hospitals and others. Similarly, more than 36 states have facilities-based educational networks, which also serve a broad variety of institutions, including K-12 schools, libraries, and local governments. Indeed, in many instances, libraries themselves operate facilities-based library networks that serve the community. We ask the Commission to clarify that its proposal does not cover all of these entities, consistent with its footnote that would appear to exempt them.

In general, we continue to think that as a matter of law, CALEA does not apply to broadband Internet access. CALEA unambiguously exempted information services from CALEA's requirements. But even applying the Commission's logic, broadband Internet access through colleges and universities and libraries in no way constitutes "a replacement for a substantial portion of local telephone exchange service."

⁵ See generally EDUCAUSE Comments.

⁶ NPRM ¶ 48, n. 133 ("We note that establishments acquiring broadband Internet access to permit their patrons to access the Internet do not appear to be covered by CALEA (assuming they were otherwise "telecommunications carriers" under CALEA). Examples of these entities include schools, libraries, hotels, coffee shops, etc.") (citing EDUCAUSE Coalition comments).

Finally, even if the Commission persists with its tentative conclusions, it is not in the public interest to extend CALEA to universities, colleges, libraries, K-12 institutions and such entities that provide broadband Internet access. There is no record to support it, and the EDUCAUSE Coalition believes the Commission would have to conduct a much more detailed inquiry than this NPRM affords in order to make such a public interest determination.

I. CALEA DOES NOT APPLY TO BROADBAND INTERNET ACCESS

The Commission has determined that *any* entity that provides broadband Internet access becomes a telecommunications carrier for purposes of CALEA because such access substantially replaces dial-up Internet access functionality. In essence, the Commission uses the "Substantial Replacement Provision" in the definition of a telecommunications carrier to provide a "back door" to extend CALEA to the Internet, even though Congress emphatically denied that CALEA did any such thing.

To reach its conclusion, the Commission infuses ambiguity into well-settled and understood terms such as telecommunications carrier and information services, finding unique CALEA definitions for each even though the same terms have distinctly different meanings when used elsewhere in the Communications Act. Indeed, Congress has spoken directly to the precise issue and its unambiguously expressed intent to exclude information services from CALEA must be given effect.⁷ But even if some ambiguity exists, the Commission ignores CALEA's legislative history and other guideposts in reaching its conclusion, particularly if the statute is to be applied to universities, colleges,

⁷ See *Chevron U.S.A. Inc. v. Natural Resources Defense Council*, 467 U.S. 837, 842 (1984).

libraries, K-12 institutions and other similarly-situated facilities-based broadband Internet access providers.

A. Information services plainly are exempt from CALEA.

CALEA imposes capability obligations on "telecommunications carriers."⁸ True enough, a "telecommunications carrier" may include a person or entity engaged in providing wire or electronic communication switching or transmission service to the extent that the Commission finds that such service is a replacement for a substantial portion of the local telephone exchange service and that it is in the public interest to deem such a person or entity to be a telecommunications carrier for purposes of this CALEA.⁹

But whether or not an entity is deemed to be a telecommunications carrier, it remains exempt from CALEA by definition insofar as it is "engaged in providing information services."¹⁰ So even if an entity becomes a *telecommunications carrier*, to the extent it offers any *information services*, those services are exempt from CALEA even though the carrier may yet have obligations in regard to the telecommunications it provides.¹¹ This result obtains not only by definition, but also substantively, because Section 103 of CALEA specifically limits the assistance capability requirements imposed on a telecommunications carrier by expressly excluding information services.¹²

⁸ 47 U.S.C. § 1002(a) ("a telecommunications carrier shall ensure...").

⁹ *Id.* § 1001(8). (emphasis added).

¹⁰ *Id.*

¹¹ Congress also permitted the Commission to exempt "any class or category of telecommunications carriers" after consultation with the Attorney General. *Id.*

¹² 47 U.S.C. § 1002(b)(2)("The requirements of subsection (a) do not apply to – (1) information services."

Thus, the plain reading of CALEA imposes obligations on telecommunications carriers while it removes any obligation for a particular class of services (*i.e.*, information services). To avoid this result, the Commission posits that an information service itself may be a replacement for a substantial portion of the local telephone exchange service. Such circumstances, the Commission says, would set up an irreconcilable tension in the statute that, if interpreted as Congress wrote the law, would frustrate the law's purpose.¹³ However, we disagree with this interpretation, and suggest that giving effect to the "purpose" of a law is part of statutory construction only when Congress has not otherwise dealt with the precise issue.¹⁴ And here, Congress plainly excluded information services.

The Commission apparently agrees that broadband Internet access is an information service.¹⁵ But, by operation of the Substantial Replacement Provision, the Commission says, an information service loses its character for purposes of CALEA.¹⁶ Yet the definition of information service says no such thing. CALEA defines an information service as:

- (A) the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications; and
- (B) Includes—
 - (i) A service that permits a customer to retrieve stored information from, or file information for storage in, information storage facilities;
 - (ii) Electronic publishing; and
 - (iii) Electronic messaging services.¹⁷

¹³ NPRM ¶ 50.

¹⁴ See *Chevron supra* note 7.

¹⁵ NPRM ¶ 50.

¹⁶ *Id.*

¹⁷ 47 U.S.C. § 1001(6).

Had Congress intended to convert an information service into a telecommunications service, it could easily have done so, just as it carved out information services from the definition of telecommunications carrier. Notably, Congress did not qualify the definition of information service by adding "except to the extent that an information service becomes a replacement for a substantial portion of the local telephone exchange service." The Commission cannot rewrite the law to do so now. Accordingly, the Commission should acknowledge the plain meaning of CALEA and reverse course before it is too late to avoid the scrutiny of a court.

B. Congress did not create a Substantial Replacement "back door" in CALEA to reach broadband Internet access.

If the plain meaning of the statute is to be ignored, then the Commission must still use the tools of statutory construction to interpret the law. Times change. So does technology. But that does not mean that the Commission can rewrite the law to reach technology that Congress plainly exempted. By following the law, the Commission is not "permitting technological developments to remove services from CALEA's coverage."¹⁸ Congress did that for itself; and as explained below, Congress fully embraced the notion that changing information services would continue to be exempt.

Second, the purpose of CALEA was not solely to "preserve the government's ability . . . to intercept communications involving advanced technologies," as the Commission implies.¹⁹ It was equally intended "to protect privacy in the face of increasingly powerful and personally revealing technologies; and . . . to avoid impeding

¹⁸ NPRM ¶ 52.

¹⁹ *Id.*

the development of new communications services and technologies."²⁰ These purposes receive *no* recognition or acknowledgement from the Commission in its explanation of its rationale for extending CALEA to broadband Internet access. As former FBI Director Freeh stated to Congress:

I believe the legislation before you carefully balances the legitimate concerns of law enforcement, the telecommunications industry, and privacy advocates. It is the product of intense discussion, give and take, and compromise by all parties involved.²¹

The Commission's failure to honor that compromise threatens to undo CALEA entirely, particularly when the other "purposes" are values so important to the education and library communities.

Third, the Commission ignores a decade of understanding of telecommunications terms and practices in place when Congress passed CALEA. It ignores how Congress, and the Commission itself, understood telecommunications and information services when it passed CALEA and as it contemplated the substantial reform of the Nation's telecommunications laws, which ultimately became the Telecommunications Act of 1996. The Commission's efforts to forge a unique CALEA definition of these terms of art might have some force if someone, anyone, had said a word about it in 1994 or even later in 1996. But the record is silent in support of the Commission's novel interpretations. In the context of those times, and even today, the evidence is clear that Congress knew an information service when it saw it, and it had no intention of forcing

²⁰ H.R. Rep. No. 103-827(I), at 13, reprinted in 1994 U.S.C.A.N. 3489, 3493 ("*House Report*").

²¹ Joint Hearings before the Subcommittee on Technology and the Law of the Senate Judiciary Committee and the Subcommittee on Civil and Constitutional Rights of the House Judiciary Committee on H.R. 4922 and S. 2375, "Digital Telephony and Law Enforcement Access to Advanced Telecommunications Technologies and Services," Testimony of Federal Bureau of Investigations Director Freeh, at 115 (August 11, 1994) ("*Freeh CALEA Testimony*").

the innovators who created the Internet into a telecommunications carrier straightjacket for CALEA or otherwise.

1. There is no record for the Commission's Substantial Replacement back door theory; CALEA was aimed at the PSTN.

The Commission cannot cite a single reference or allusion to the Substantial Replacement Provision "back door" that directly supports its position. No one ever suggested at the time CALEA was passed that a broadband Internet access provider could become a common carrier for purposes of CALEA let alone that a college or university or library could have CALEA obligations. No one ever hinted that exempt information services like Internet access provided by a telecommunications carrier over dialup connections would immediately become subject to CALEA once the same service – Internet access – was provided over broadband facilities offered by that carrier. To the contrary, the entire record – not to mention the statute – says exactly the opposite.

CALEA was intended "to preserve a narrowly focused capability" – wiretapping the Public Switched Telephone Network ("PSTN"), not the Internet.²² As Congress explained: "[t]he only entities required to comply with the [assistance capability] requirements are telecommunications common carriers, the components of the public switched network where law enforcement agencies have served most of their surveillance orders."²³ Thus, only a telecommunications "carrier providing a customer with a service

²² *House Report at 3493.*

²³ *Id.* at 3498.

or facility that allows the customer to obtain access to a publicly switched network is responsible for complying with the capability requirements."²⁴

Former FBI Director Freeh, during the Joint Hearings before the House and Senate prior to the passage of CALEA, acknowledged that the narrow focus of the law was on the PSTN, not the Internet. We repeat the full passage because it illustrates that Congress knew and understood that Internet access was being excluded from CALEA and that there was no "back door" to bring it in:

Director Freeh: We have exempted, as we have discussed, a segment, a fairly significant segment, of the evolving telecommunications industry. We are really talking about phone-to-phone conversations which travel over a telecommunications network in whole or part. That is the arena of criminal opportunity that we are discussing.

Senator Pressler: What other portions of the information superhighway could people communicate with the new technology that there is not now a means of listening in or following?

Director Freeh: From what I understand . . . communications between private computers, PC-PC communications, not utilizing a telecommunications common net, would be one vast arena, the Internet system, many of the private communications systems which are evolving. Those we are not going to be on by the design of this legislation.

Senator Pressler: Are you seeking to be able to access those communications also in some other legislation?

Director Freeh: No, we are not. We are satisfied with this bill. I think it delimits the most important area and also makes for the consensus, which I think it pretty much has at this point.

Senator Pressler: Yes, but in the future, will you be seeking the ability to tap into those other forms of communications?

Director Freeh: It is certainly a possibility. I am sure if, God forbid, somebody blows up the World Trade Center 10 years from now using a PC-PC private communications network, a question would validly be raised in the Congress and by the President as to whether that form of communication now needs to be

²⁴ *Id.* at 3503.

accessed. But we are not taking that position now. We are not contemplating coming back and asking for additional coverage.

Senator Pressler: So what we are looking for is strictly telephone, what is said over a telephone?

Director Freeh: That is the way I understand it, yes, sir.²⁵

The testimony is remarkably prescient and poignant in light of subsequent events.

It is worth noting several things. The FBI did not return to Congress through the front door after September 11th to seek an extension of CALEA to cover Internet access. Perhaps this is not surprising inasmuch as there were no indications that failed wiretaps on the Internet played a role in that tragedy. The PATRIOT Act was passed in 2001 immediately in the wake of September 11th without amending CALEA. To the contrary, section 222 provided just the opposite, stating expressly that: "Nothing in this Act shall impose any additional technical obligation or requirement on a provider of a wire or electronic communication service or other person to furnish facilities or technical assistance."²⁶ Further, subsequent adjustments to the wiretap laws were made in 2003 in the Homeland Security Act, again without amending CALEA.

All of these changes in the surveillance laws occurred against the backdrop of the Commission's broadband inquiries, which raised substantially the question the Commission now decides. Congress is presumed to know what the Federal agencies are doing and if the Commission's interpretation in those inquiries – that Internet broadband access was an information service – was in error, Congress could have acted to correct

²⁵ *Freeh CALEA Testimony* at 203.

²⁶ P. L. No. 107-56, 107th Cong., 1st Sess. (2001).

it.²⁷ It also underscores how completely at odds the Commission's current proposal is with CALEA's history. What "additional coverage" would Director Freeh be seeking from Congress if there existed a Substantial Replacement back door for the Internet?

2. Technological change was anticipated and embraced by Congress.

Ironically, the Commission has found that Congress intended a very broad definition of telecommunications carrier – so broad in fact that it would eviscerate the information services exception in the law.²⁸ Yet, as noted above, Congress actually declared a narrowly focused capability for telecommunications carriers – one that excluded information services – while giving expansive definition to information services:

The definition of telecommunications carrier does not include persons or entities to the extent that they are engaged in providing information services, such as electronic mail providers, on-line service providers, such as CompuServe, Prodigy, America-On-line or Mead Data, or Internet service providers.²⁹

. . . . It is the Committee's intention not to limit the definition of "information services" to such current services, but rather to anticipate the rapid development of advanced software and to include such services in the definition of "information services." By including such software-based electronic messaging services within the definition of information services, they are excluded from compliance with the requirements of the bill.³⁰

²⁷ See *Goodyear Atomic Corp. v. Miller*, 486 U.S. 174, 184-185 (1988) (Supreme Court "generally presume[s] that Congress is knowledgeable about existing law pertinent to legislation it enacts."); *United States v. Wilson*, 290 F.3d 347, 357 (D.C. Cir. 2002) (In enacting legislation, "Congress is presumed to be aware of established practices and authoritative interpretations of the coordinate branches.").

²⁸ NPRM ¶ 50.

²⁹ *House Report* at 3500 (emphasis added).

³⁰ *Id.* at 3501.

Further, Congress said expressly that CALEA did "not require reengineering of the Internet, nor does it impose prospectively functional requirements on the Internet."³¹ There is no qualification or equivocation. The legislative history proves that the Internet and access to it by any means, then or in the future, was and still is exempt from CALEA.

It does no good for the Commission to justify its actions by saying that most Internet access was accomplished by dialup service in 1994 and Congress must not have anticipated broadband.³² Even if that were true, it only means that CALEA does not address broadband access and that Congress should amend the law, not that the Commission should rewrite it.

But the Commission's premise is false as well. Congress was well-aware of the development and importance of advanced network and broadband access technology when it passed CALEA – the debate over regulatory classification had been fomenting for a decade.³³ So important was the issue that Congress instructed the Commission in 1996 to report on it and fashion policies that promoted deployment of broadband to all Americans.³⁴ Thus, it rings hollow for the Commission to now say that Congress would be "shocked" to discover broadband access available at Rick's Internet Café.

³¹ *Id.* at 3503.

³² NPRM ¶ 52.

³³ See Robert Pepper, *Through the Looking Glass: Integrated Broadband Networks, Regulatory Policy, and Institutional Change* (Office of Plans and Policy Working Paper No. 24, 1988).

³⁴ See *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, Report ("*First 706 Report*"), 14 FCC Rcd 2398 (1999).

3. Congress well understood the regulatory landscape and Commission treatment of telecommunications when it passed CALEA.

By the time CALEA became law in 1994, the distinction between telecommunications and information services was well established.

The term "information service" follows from a distinction the Commission drew in the First, Second, and Third Computer Inquiries. That distinction was between basic data transmission service on the one hand and, on the other, a combination of that transmission and computer-mediated offerings. That combination produces "enhanced" or information services. This distinction was incorporated into the Modification of Final Judgment, which governed the BOCs after the bell system break-up, and into the 1996 Act.³⁵

The Commission itself has acknowledged the historical meaning of the terms under CALEA and that they are mutually exclusive concepts:

The categories of 'telecommunications service' and 'information service' in the 1996 Act are mutually exclusive. Under this interpretation, an entity offering a simple, transparent transmission path, without the capability of providing enhanced functionality, offers 'telecommunications.' By contrast, when an entity offers transmission incorporating the 'capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information,' it does not offer telecommunications. Rather, it offers an 'information service' even though it uses telecommunications to do so.³⁶

Despite this rich and well understood history, the Commission believes Congress really intended some other meaning for "telecommunications carrier" and "information services" because of some minor "facial differences in the statutory language" used in CALEA and the Communications Act of 1996.³⁷ But CALEA came first. Congress had

³⁵ *In the Matter of Appropriate Framework for Broadband Access to the Internet over Wireline Facilities; Universal Service Obligations of Broadband Providers; Computer III Further Remand Proceedings; Bell Operating Company Provision of Enhanced Services: 1998 Biennial Regulatory Review – Review of Computer III and ONA Safeguards and Requirements*, Notice of Proposed Rulemaking, 17 FCC Rcd 3019, ¶ 18 n38 (2002) ("*Broadband Access NPRM*") (citations omitted).

³⁶ *See In the Matter of Communications Assistance for Law Enforcement Act*, Second Report and Order, 15 FCC Rcd 7105, ¶¶ 27 n.70 (1999), quoting Federal-State Joint Board on Universal Service, Report to Congress, CC Docket No. 96-45, 13 FCC Rcd 11501, 11520 (1998).

³⁷ NPRM ¶ 41.

not yet settled on the precise statutory definitions of the terms that would appear in the telecommunications reform legislation that would become the Telecommunications Act of 1996. There were numerous competing bills in the 1993 and 1994 Congressional sessions, each of which defined the terms slightly differently.³⁸ Rather than compare CALEA to the later 1996 Act, the Commission should have determined how Congress would have understood the terms in 1994 – and remarkably, as the Commission itself has recognized in its *Broadband Inquiries*,³⁹ the terms have been used and applied in a remarkably consistent manner before, during and after passage of CALEA.

Thus, all that can be said about the 1996 Act in regard to CALEA the Commission said in its *Second CALEA Report and Order* – the 1996 Act did not alter the meaning of or distinction between telecommunications carriers and information services:

We also conclude that CALEA's definitions of "telecommunications carrier" and "information services" were not modified by the 1996 Act, and that the CALEA definitions therefore remain in force for purposes of CALEA.⁴⁰

The record shows that Congress may not have settled on a precise statutory definition for key terms in 1994, but it certainly understood Internet access to be an information service and that such services were separate and distinct, indeed, mutually

³⁸ Compare, e.g., the "Communications Act of 1994", S. 1822, 103rd Cong § 2 (1994), and the "National Communications Competition and Information Infrastructure Act of 1994," H.R. 3636, 103rd Cong. § 101 (1994), both of which included the term "switching" in the definition of "telecommunications" with the "Antitrust and Communications Reform Act of 1994," H.R. 3636, 103rd Cong. § 106 (1993), and the "Telecommunications Infrastructure Act of 1993," S. 1086, 103rd Cong. § 4, which did not use the term "switching."

³⁹ See *Broadband Access NPRM; In the Matter of Inquiry Concerning High-Speed Access to the Internet over Cable and Other Facilities*, Declaratory Ruling and Notice of Proposed Rulemaking, 17 FCC Rcd 4798 (2002) ("Cable Modem Inquiry"); *aff'd in part and vacated in part sub nom., Brand X Internet Services v. FCC*, 345 F.3d 1120 (9th Cir. 2003); *In the Matter of IP-Enabled Services*, FCC 04-28, WC Docket No. 04-36, Notice of Proposed Rulemaking (rel. March 10, 2004) ("VOIP NPRM") (collectively, "Broadband Inquiries").

⁴⁰ *In the Matter of Communications Assistance for Law Enforcement Act*, CC Docket No. 97-213, FCC 99-229, Second Report and Order, ¶ 13 (rel. Aug. 31, 1999) (citation omitted).

exclusive, from telecommunications. That is a lesson that the Commission should have taken from its own analysis of the terms used in CALEA.

As noted above, that lesson, of course, is reinforced by the Commission's approach to these definitions in its *Broadband Inquiries* over the last five years.⁴¹ Thus, the Commission finds that Internet access is and always has been an information service.⁴² For example, from the *Cable Modem Inquiry*:

We find that cable modem service is an offering of Internet access service, which combines the transmission of data with computer processing, information provision, and computer interactivity, enabling end users to run a variety of applications. . . . Accordingly, we find that cable modem service, an Internet access service, is an information service.⁴³

The Commission came to a similar conclusion with regard to wireline broadband Internet access services:

[W]e tentatively conclude that, as a matter of statutory interpretation, the provision of wireline broadband Internet access service is an information service. Specifically, we tentatively conclude that when an entity provides wireline broadband Internet access service over its own transmission facilities, this service, too, is an information service under the Act. In addition, we tentatively conclude that the transmission component of retail wireline broadband Internet access service provided over an entity's own facilities is "telecommunications" and not a "telecommunications service."⁴⁴

There is no evidence whatsoever that Congress understood or intended anything other than the historical treatment of information services and telecommunications.

Again, Congress is presumed to know what the Federal agencies are doing when it uses

⁴¹ See *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, Notice of Inquiry, 13 FCC Rcd 15280, 15308-11 ¶¶ 77-82 (1998). See also *First 706 Report* at 2449 ¶¶.

⁴² See *Broadband Access NPRM* ¶ 18; *Cable Modem Inquiry* ¶ 38.

⁴³ *Cable Modem Inquiry* ¶ 38.

⁴⁴ *Broadband Access NPRM* ¶ 17.

the very words in a statute that the agency has used time and again in its rules and in the application of its policies.⁴⁵

Lastly, Congress certainly understood that some important federal policy goals would not be met by the exclusion of information services from telecommunications and therefore CALEA. For example, information service providers do not contribute to universal service.⁴⁶ That information services were left out of CALEA is not surprising in the least. Congress made the choice expressly, supported by former FBI Director Freeh, who told Congress in supporting the exclusion of information services that

"almost all of our electronic surveillance problems have occurred, and will continue to occur in the foreseeable future, in the networks and systems of common carriers. . . . we have agreed to language which reasonably limits carrier responsibility in certain key areas. . . . information services are exempt."⁴⁷

We point out as well that Congress excluded private networks from CALEA's coverage.⁴⁸ Private branch exchanges like those often used by businesses were excluded too.⁴⁹ But even more telling, Congress permitted the deployment of technology that had no wiretap capability or solution whatsoever, stating expressly:

This means that if a service or technology cannot reasonably be brought into compliance with the interception requirements, then the service or technology can be deployed. This is the exact opposite of the original versions of the legislation, which would have barred introduction of services or features that could not be tapped.⁵⁰

⁴⁵ See *supra* note 27.

⁴⁶ 47 U.S.C. § 253(c).

⁴⁷ *Freeh CALEA Testimony* at 115.

⁴⁸ 47 U.S.C. § 1002(b).

⁴⁹ *Id.*; see also *House Report* at 3498 ("The bill is clear that telecommunications services that support the transport or switching of communications for private networks or for the sole purpose of interconnecting telecommunications carriers (these would include long distance carriage) need not meet any [sic] wiretap standards. PBXs are excluded. So are automated teller machine (ATM) networks and other closed networks.").

⁵⁰ See *House Report* at 3498.

Thus, telecommunications law, including CALEA, reflects Congressional compromise and clear choice in regard to the imposition of regulatory burdens on certain providers and the exemption of certain services. Congress, and law enforcement we might add, was willing to live with some services not being covered by CALEA in return for getting coverage of traditional interconnected telecommunications on the PSTN.

4. Congress intended the Substantial Replacement Provision to apply to interconnected telephone services.

The Commission can only achieve its desired outcome of extending CALEA to broadband Internet access by twisting the meaning of the so-called Substantial Replacement Provision in the definition of a telecommunications carrier. First, the Commission finds that a "wire or electronic communication switching or transmission service" is the equivalent of an "information service." Why wouldn't Congress simply have said as much if the terms were synonymous?

Second, the Commission only gets to this definitional equivalency by finding that "switching" and "routing" are the same thing and that "transmission" means any transmission regardless of whether, like an information service, the content of the transmission is transformed by computer mediation. The Commission repeats the error of comparing CALEA terms with the precise terminology in the 1996 Act. Surely the Commission understands that at the time CALEA was passed, Congress was engaged in the process of revamping the Nation's telecommunications laws and these terms were not settled. The final word choices in the 1996 Act shed light on CALEA only to the extent that general concepts in telecommunications law persist before, during and after CALEA was enacted.

Thus, information services and telecommunications were separate concepts before CALEA and remain as much after the 1996 Act. Switching and transmission relate to telephone exchange services, not to information services. Indeed, CALEA is narrowly focused on surveillance at the PSTN and the Substantial Replacement Provision likewise is aimed at ensuring that any newly authorized services that compete with interconnected local exchange service⁵¹ likewise would be covered under CALEA.

The Commission also knows that the purpose of telecommunications reform was to promote competition. All of the pending telecommunications reform legislation in 1993 and 1994 when CALEA was enacted embraced competition as a national goal and sought to set the standards and criteria for defining when and how competition would be achieved.⁵²

By the time the 1996 Act was passed, the methodology became clear. In regard to mobile services, for example, the competitive framework preempted States from regulating wireless communications, except:

Nothing in this subparagraph shall exempt providers of commercial mobile services (where such services are a substitute for land line telephone exchange service for a substantial portion of the communications within such State) from requirements imposed by a State commission on all providers of telecommunications services necessary to ensure the universal availability of telecommunications service at affordable rates.⁵³

Congress' understanding of the concept of "replacement of local exchange service" likewise appears in the 1996 Act in regard to incumbent carriers. The

⁵¹ 47 U.S.C. § 153(r) ("Telephone exchange service' means service within a telephone exchange, or within a connected system of telephone exchanges within the same exchange area operated to furnish to subscribers intercommunicating service of the character ordinarily furnished by a single exchange, and which is covered by the exchange service charge.").

⁵² See *supra* note 38.

⁵³ 47 U.S.C. § 332(c)(3)(A) (emphasis added).

Commission was authorized to treat a carrier as an incumbent local exchange carrier if, among other things, the Commission finds that "such carrier has *substantially replaced* an incumbent local exchange carrier" and it is in the public interest to do so.⁵⁴ The Commission similarly could permit Bell operating companies to provide intra-lata incidental services such as "commercial mobile service except where such service is a replacement for land line telephone exchange service for a substantial portion of the land line telephone exchange service in a State."⁵⁵

Commissioner Copps said it well: "It strains credibility to suggest that Congress intended [the Substantial Replacement Provision] to mean the replacement of *any* portion of any individual subscriber's functionality."⁵⁶ There is no record, no reference, no recitation, to support a "functional replacement" theory – the test of statutory construction is not whether an agency can make up any semi-plausible meaning for statutory terms, but rather whether the legislative history, common usage in the industry, and other statutory construction guideposts illuminate Congressional intent. The Commission fails the test.

If there were any doubt about the backdrop against which the Substantial Replacement Provision should be measured, CALEA's legislative history dispels it. When Congress wrote the Substantial Replacement Provision, one of the factors the Commission was instructed to consider before deeming an entity to be a carrier was the

⁵⁴ *Id.* § 251(h)(2) (emphasis added).

⁵⁵ *Id.* § 255(e).

⁵⁶ NPRM, *Statement of Commissioner Michael J. Copps* (emphasis in original).

extent to which it would promote competition.⁵⁷ The Commission can neither ignore nor run away from the context in which this provision was crafted.

5. The Substantial Replacement Provision could be the exception that swallows the rule.

There are no foreseen limits to the Commission's exception theory; it appears to swallow the rule whole. The Commission has correctly held that private networks are exempt from CALEA,⁵⁸ and has also indicated that private branch exchanges (PBX's) are exempted. However, those exemptions may be jeopardized if such networks meet the Commission's three-pronged test.⁵⁹ Further Commission clarification is warranted to establish operationally how those exemptions are not obviated by that test.

The same potential problem also applies to any entity – public or private, commercial or non-profit – that provides facilities-based, broadband Internet access. The Commission defines "facilities-based" to mean "entities that provide transmission or switching over their own facilities between the end user and the Internet Service Provider."⁶⁰ Thus, a business or entity that provides broadband access through facilities and equipment it owns and operates must meet CALEA. It matters not under the Commission's theory whether or not these services are even offered to the public for a fee. There appears to be no limitation whatsoever to the reach of this exception.

⁵⁷ *House Report* at 3501.

⁵⁸ 47 U.S.C. § 1002(b)(2) (exempting "equipment, facilities, or services that support the transport or switching of communications for private networks").

⁵⁹ NPRM ¶ 151 (private or closed network services not covered unless implemented in a way "that raises issues pertaining to the Substantial Replacement Provision." i.e., the entity is involved in switching or routing communications, the service replaces any function previously afforded by POTS, and it is in the public interest).

⁶⁰ *Id.* ¶ 37 n.79.

The Commission tried to narrow the impact of this decision in regard to universities and libraries by addressing the issue in a footnote reference, but the Commission apparently assumed that universities, colleges, libraries, K-12 schools and other such entities simply acquired their broadband access from other facilities-based providers.⁶¹ However, some of these entities are facilities-based, broadband Internet access providers not only to students and faculty, but also to regional governments, research entities, libraries, hospitals and others. Similarly, more than 36 states have facilities-based educational networks, which also serve a broad variety of institutions, including K-12 schools, libraries, and local governments. Indeed, in many instances, libraries themselves operate facilities-based library networks that serve the community. Thus, notwithstanding the Commission's footnote, its proposal still seems to cover all of these facilities-based entities.

In addition, the Commission's footnote seems to be directly contradicted by an earlier conclusion in the NPRM, where the Commission states that entities that procure transmission capacity and use it to provide broadband Internet access services would be considered a facilities-based broadband Internet access service provider and subject to CALEA.⁶² Only those entities that sell or lease mere transmission facilities on a non-common carrier basis like dark-fiber to other entities that use it to provide access service are exempt under the Substantial Replacement theory.⁶³

⁶¹ *Id.* ¶ 48 n.133.

⁶² *Id.* ¶ 37 n.80.

⁶³ *Id.*

Accordingly, we believe that there remains substantial ambiguity as to the scope of the Commission's proposal. The exception would seem to become the rule under the Commission's proposal; and CALEA would reach all communications capability regardless of who provides it and to whom it is provided. The EDUCAUSE Coalition does not believe that CALEA was intended to accomplish this result.

a. Broadband private networks are exempt.

We do not believe that the Commission intended to mandate CALEA compliance for broadband communications access through private networks, non-profit public entities, regional governments, schools and libraries. We ask the Commission to find that private research and educational networks such as Internet2's Abilene Network are not a replacement for a substantial portion of the local exchange service.

Abilene is a proving ground for high-bandwidth technologies.⁶⁴ The cross-country backbone is 10 gigabits per second, with the goal of offering 100 megabits per second of connectivity between every Abilene connected desktop. In some cases, Abilene has delivered more than five Gigabits per second between dedicated, high-performance computers deployed by university research groups. The Abilene Network supports the development of applications such as virtual laboratories, digital libraries, distance education and tele-immersion, as well as the advanced networking capabilities that are the focus of Internet2. Abilene is operated by a non-profit, tax-exempt entity with strict rules against purely commercial use that is not directly related to either collaborative research or advanced application experimentation.

⁶⁴ See generally, <http://abilene.internet2.edu/>.

Abilene complements and peers with other high-performance research networks in the U.S. and internationally. Abilene connects regional network aggregation points—called gigaPoPs—to provide advanced network services to over 220 Internet2 university, corporate, and affiliate member institutions in all 50 states, the District of Columbia, and Puerto Rico. Abilene participants include individual educational institutions (including not-for-profit and for-profit K-20, technical, and trade schools), museums, art galleries, libraries, hospitals, as well as other non-educational, not-for-profit or for-profit organizations that require routine collaboration on instructional, clinical, and/or research projects, services, and content with other Abilene participants.

Communications occur between Abilene participants over the Abilene Network and not over the commercial Internet. In short, Abilene is a private network that provides broadband communications capability to participants and users such as researchers, faculty, students and their overseas counterparts.

As noted, research and education networks interconnect regionally. A "gigaPoP" is a regional data transfer center that efficiently moves large volumes of data between regional, national and other networks. GigaPoPs are non-profit, independently run entities.⁶⁵ A gigaPoP also provides a connection point for cost effective participant access to the major national commodity ISPs, as well as to "aggregation pools" and mechanisms that ensure alternate data paths, data paths with especially high quality end-to-end performance for specific applications. In other words, it is at this juncture, usually in a carrier neutral "hotel," that traffic is passed between private and commodity

⁶⁵ See e.g., www.nox.org, www.pnw-gigapop.net, www.imgigapop.net/, www.northtexasgigapop.org/, www.gigapop.gen.tx.us/, www.maxgigapop.net/, www.frgp.net/, www.pnw-gigapop.net/.

networks. By way of example, the Pacific Northwest gigaPoP serves the major Northwest colleges and universities from Alaska to Montana through Washington and Idaho to Oregon. It also serves the Fred Hutchinson Cancer Research Center, Children's Hospital, Washington State Libraries, Boeing Research, Microsoft, and important regional government agencies such as the National Oceanic and Atmospheric Administration.⁶⁶

Other regional networks have been developed as well that interconnect with Abilene and other private networks. NYSERNet, for example, advances New York State network technologies and applications that enable collaboration and promote technology transfer for research and education, expanding these to government, industry, and the broader community.⁶⁷ We include as Exhibit B a depiction of the NYSERNet network. Since its inception, NYSERNet developed and managed four progressively more advanced networks; pioneered the provision of Internet services to the state's libraries, K-12 schools, and Boards of Cooperative Educational Services (BOCES); enabled innovation on campuses and in research facilities across the state; and founded two commercial companies. Through NYSERNet, New York organizations can reach across the United States and around the world, providing unlimited collaborative opportunities.

Because the Commission's three-pronged Substantial Replacement test is so broad, it is impossible to tell how far the Commission intended to reach. The Commission has declared that wireless push-to-talk dispatch services on a private

⁶⁶ See <http://www.pnw-gigapop.net/partners/diagram.html> for a diagram of participants.

⁶⁷ <http://www.nysernet.net/>.

network could pass the Substantial Replacement test.⁶⁸ These walkie-talkie, half-duplex, radio communications that do not interconnect with the PSTN and that are more like instant messaging in newer wireless packet-based networks replace no known local exchange service whatsoever other than the basic capability of communicating. If this service passes the Commission's test, it is difficult to see what services on a private network do not. That is why the Commission must be explicit regarding networks such as Abilene, gigaPoPs, NYSERNet and similar non-profit research and educational networks.

b. Campus and Other Entity Facilities-Based Internet Access

Attached as Exhibit C is a depiction of various network configurations employed by campuses around the Nation. A major research university with its own communications infrastructure is likely to connect to a private network such as Abilene as well as to a regional Internet point-of-presence. The two connections are necessary because Abilene and other private research and education networks generally do not carry "commercial" traffic. This simply means that a communication delivered over the Abilene Network could not resolve to an AOL address for example, which would be available on the commodity Internet. Accordingly, universities often provide a broad array of broadband Internet access and other information services such as email, none of which we believe Congress intended to reach with CALEA.

⁶⁸ NPRM ¶¶ 144 *et seq.*

6. It is not in the public interest to include universities and other public entities in the Substantial Replacement category.

The Commission must find that it is in the public interest to deem a person or entity to be a replacement for a substantial portion of local telephone exchange service.⁶⁹ The Commission states that it will base its public interest analysis on the three criteria identified in CALEA's legislative history: whether it would promote competition, encourage the development of new technologies, and protect public safety and national security.⁷⁰ While we strongly believe that as a legal and policy matter the educational entities represented by the EDUCAUSE Coalition are exempt from CALEA because the provision of broadband Internet access simply is not covered by CALEA, we also believe that we would fall within any reasonable interpretation of a public interest exclusion.

The EDUCAUSE Coalition specifically incorporates here by reference its prior comments in response to the Department of Justice Petition as testimony showing why such an extension of CALEA is not in the public interest. But this does not constitute a full record upon which the Commission can make a "reasoned analysis" to support what would be a radical change in direction.⁷¹

The Commission would require a further rulemaking with adequate notice to all affected institutions to understand the full impact of its proposal.⁷² Moreover, there is no

⁶⁹ 47 U.S.C. § 1001(8)(B)(ii).

⁷⁰ NPRM ¶¶ 45, 49 (citing *House Report* at 3501).

⁷¹ See *Greater Boston Television Corp. v. FCC*, 444 F.2d 841, 852 (D.C. Cir. 1970)(a "reasoned analysis" on the record is required whenever an agency "swerves from prior precedents").

⁷² The Commission has been engaged for almost a decade in analyzing how to bring advanced technologies to elementary and secondary schools, rural America and to healthcare providers and never once has it thought to include CALEA in its inquiries. See *First 706 Report; Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely*

empirical evidence that law enforcement is prevented access to EDUCAUSE Coalition members' networks and facilities today. As such, there is neither a pressing need nor an addressable problem that justifies expansion of such costly access obligations to educational institutions based on the record before the Commission.

When would compliance be required? The Commission has indicated that it believes it has no authority to grant extensions under CALEA, and that petitions for finding that compliance is not reasonably achievable will be disfavored.⁷³ Compliance would be required within 90 days of the final rule. Where does that leave universities, colleges and other public entities for compliance? The need for such rapid action would be very difficult for EDUCAUSE Coalition members.

Unlike traditional telecommunications carriers, EDUCAUSE Coalition members have no experience in designing, acquiring or implementing surveillance capabilities. Once deemed a telecommunications carrier, CALEA's Section 105 system security and integrity obligations would be applicable.⁷⁴ That means that even libraries and small colleges would need to establish 7x24 coverage for law enforcement requests and systems to ensure that only lawfully authorized surveillance occurs. It is unclear from the NPRM whether such costs are recoverable or must be passed on to students, patrons and other users of broadband Internet access as a separate charge.⁷⁵

These are important questions that directly affect vital public services and should not be relegated to an afterthought or decided in the absence of a well-developed record.

Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, CC Docket No. 98-146, Notice of Inquiry (1998).

⁷³ NPRM ¶¶ 87 *et seq.*

⁷⁴ 47 U.S.C. § 1004; 47 C.F.R. §§ 2100 *et seq.*

⁷⁵ NPRM ¶¶ 117-139.

The Commission should state forthrightly whether it views CALEA directly applicable to universities, K-12 institutions and other public entities when they provide broadband Internet access to their faculty, students, researchers and other patrons, and whether it is in the public interest to so find. If so, the Commission then should commence a separate proceeding to evaluate the many impacts.

II. CONCLUSION

The EDUCAUSE Coalition asks the Commission to reverse course and to find in the first instance that CALEA does not apply to broadband Internet access or to information services. It is up to Congress to decide otherwise.

Further, the Commission should expressly find that EDUCAUSE Coalition members do not have any CALEA obligations because they are not telecommunications carriers and the broadband access they provide is not a replacement for a substantial portion of local exchange service. Even if the Commission deems a facilities-based, broadband Internet access provider to be a telecommunications carrier under CALEA, the Commission should conclude that it is not in the public interest to do so in regard to the EDUCAUSE Coalition members. If there is any doubt, the Commission should have to develop a thorough and complete record through a further rulemaking to determine the impact of CALEA on EDUCAUSE Coalition members and their constituencies.

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DATED: November 8, 2004

**ON BEHALF OF THE
EDUCAUSE COALITION**

EXHIBIT A

ASSOCIATION DESCRIPTIONS

AACC: American Association of Community Colleges

Founded in 1920, the American Association of Community Colleges (AACC) has, over four decades, become the leading proponent and the national "voice for community colleges." The association was conceived when a group of presidents representing public and independent junior colleges met in St. Louis, Missouri, for a meeting called by the U.S. commissioner of education. Originally named the American Association of Junior Colleges (AAJC), the association was to function as a forum for the nation's two-year colleges.

Today, AACC's membership represents close to 95 percent of all accredited U.S. two-year community, junior and technical colleges and their 10.5 million students, as well as a growing number of international members in Puerto Rico, Japan, Great Britain, Korea, and the United Arab Emirates. The colleges are the largest and fastest-growing sector of U.S. higher education, enrolling close to half (45 percent) of all U.S. undergraduates.

AASCU: American Association of State Colleges and Universities

The American Association of State Colleges and Universities represents more than 430 public colleges, universities and systems of higher education throughout the United States and its territories. AASCU schools enroll more than 3 million students or 56 percent of the enrollment at all public four-year institutions. The American Association of State Colleges and Universities was established in 1961 in response to: "The growing impact of the federal government on higher education, particularly as it related to research grants and other grants-in-aid, had made it absolutely necessary that a strong national association be formed to represent the interests of students in state colleges and universities."

ALA: American Library Association

The American Library Association is the oldest and largest library association in the world, with more than 64,000 members. Its mission is to promote the highest quality library and information services and public access to information.

ACE: American Council on Education

ACE, the major coordinating body for all the nation's higher education institutions, seeks to provide leadership and a unifying voice on key higher education issues and to influence public policy through advocacy, research, and program initiatives.

Its members include approximately 1,800 accredited, degree-granting colleges and universities and higher education-related associations, organizations, and

corporations. Founded in 1918, ACE fosters greater collaboration and new partnerships within and outside the higher education community to help colleges and universities anticipate and address the challenges of the 21st century and contribute to a stronger nation and a better world.

AAU: Association of American Universities

The Association of American Universities (AAU) was founded in 1900 by a group of fourteen universities offering the Ph.D. degree. The AAU currently consists of sixty American universities and two Canadian universities.

The association serves its members in two major ways. It assists members in developing national policy positions on issues that relate to academic research and graduate and professional education. It also provides them with a forum for discussing a broad range of other institutional issues, such as undergraduate education.

ACRL: Association of College and Research Libraries

Founded in 1938, the Association of College and Research Libraries (ACRL), a division of the American Library Association, represents the interests of college and research librarians at educational institutions of every size in every state in the nation. ACRL enhances the effectiveness of academic and research librarians to advance learning, teaching, and research in higher education.

ACUTA: Association for Communications Technology Professionals in Higher Education

ACUTA is a non-profit association whose members include approximately 800 colleges and universities. ACUTA's mission is to support higher education institutions in achieving optimal use of communications technologies. ACUTA members include large and small institutions of higher education, ranging from several hundred students to major research and teaching institutions with greater than 25,000 students. ACUTA member representatives are responsible for managing telecommunications services on college and university campuses.

ARL: Association of Research Libraries

ARL is a not-for-profit membership organization comprising the leading research libraries in North America. Its mission is to shape and influence forces affecting the future of research libraries in the process of scholarly communication. ARL programs and services promote equitable access to and effective use of recorded knowledge in support of teaching, research, scholarship, and community service.

CoSN: The Consortium for School Networking

CoSN is a national non-profit organization and the premier voice in education technology leadership. CoSN's mission is to advance the K-12 education community's capacity to effectively use technology to improve learning through advocacy, policy and

leadership development. CoSN's members represent school districts, state and local education agencies, nonprofits, companies and individuals who share our vision.

EDUCAUSE:

EDUCAUSE is a nonprofit association whose mission is to advance higher education by promoting the intelligent use of information technology. Membership is open to institutions of higher education, corporations serving the higher education information technology market, and other related associations and organizations. EDUCAUSE programs include professional development activities, print and electronic publications, strategic policy initiatives, research, awards for leadership and exemplary practices, and a wealth of online information services. The current membership comprises nearly 1,900 colleges, universities, and education organizations, including more than 180 corporations, and more than 13,000 active member representatives. EDUCAUSE has offices in Boulder, Colorado, and Washington, D.C.

ISTE: The International Society for Technology in Education

ISTE is the largest teacher-based nonprofit organization in the field of educational technology, representing more than 75,000 computer-using educators. ISTE is dedicated to providing leadership and service to improve teaching and learning by advancing the effective use of technology in K-12 education and teacher education. ISTE provides its members with information, networking opportunities, and guidance as they face the challenge of incorporating computers, the Internet, and other new technologies into their schools.

INTERNET2:

INTERNET2 is a consortium being led by 206 universities working in partnership with industry and government to develop and deploy advanced network applications and technologies, accelerating the creation of tomorrow's Internet. Internet2 is recreating the partnership among academia, industry and government that fostered today's Internet in its infancy.

NACUBO: National Association of College and University Business Officers

Located in Washington, D.C., NACUBO serves a membership of more than 2,500 colleges, universities, and higher education service providers across the country. NACUBO represents chief administrative and financial officers through a collaboration of knowledge and professional development, advocacy and community. Our vision is to define excellence in higher education business and financial management.

NAICU: National Association of Independent Colleges and Universities

The National Association of Independent Colleges and Universities (NAICU) serves as the unified national voice of independent higher education. Since 1976, the association has represented private colleges and universities on policy issues with the

federal government, such as those affecting student aid, taxation, and government regulation.

With nearly 1,000 members nationwide, NAICU reflects the diversity of private, nonprofit higher education in the United States. Members include traditional liberal arts colleges, major research universities, church- and faith-related institutions, historically black colleges and universities, women's colleges, performing and visual arts institutions, two-year colleges, and schools of law, medicine, engineering, business, and other professions.

NASULGC: National Association of State Universities and Land Grant Colleges

Founded in 1887, the National Association of State Universities and Land-Grant Colleges (NASULGC) is the nation's oldest higher education association. A voluntary association of public universities, land-grant institutions and many of the nation's public university systems, NASULGC campuses are located in all 50 states, the U.S. territories and the District of Columbia. Dedicated to supporting excellence in teaching, research and public service, NASULGC has been in the forefront of educational leadership nationally for over a century. In 1963, the American Association of Land-Grant Colleges and State Universities merged with the National Association of State Universities to create the association in its present configuration as the National Association of State Universities and Land-Grant Colleges. Its acronym is NASULGC (pronounced "na-SUL-jick").

As of February 2004, the association's membership stood at 212 institutions. This includes 76 land-grant universities (36% of NASULGC's membership), of which 17 are the historically black public institutions created by the Second Morrill Act of 1890, and 27 public higher education systems (12% of NASULGC's membership). In addition, tribal colleges became land-grant institutions in 1994 and 31 are represented in NASULGC through the membership of the American Indian Higher Education Consortium (AIHEC).

UCOP: University of California Office of the President

UC Office of the President (UCOP) is the system wide headquarters of the University of California. UCOP oversees the academic mission, budget, community affairs, and business and financial activities as well as management of three national labs and its statewide agricultural and natural resources services. UC comprises a system of 10 campuses with approximately 200,000 students that include five medical schools and three law schools.

EXHIBIT B

DEPICTION OF NYSERNET (New York State Network)

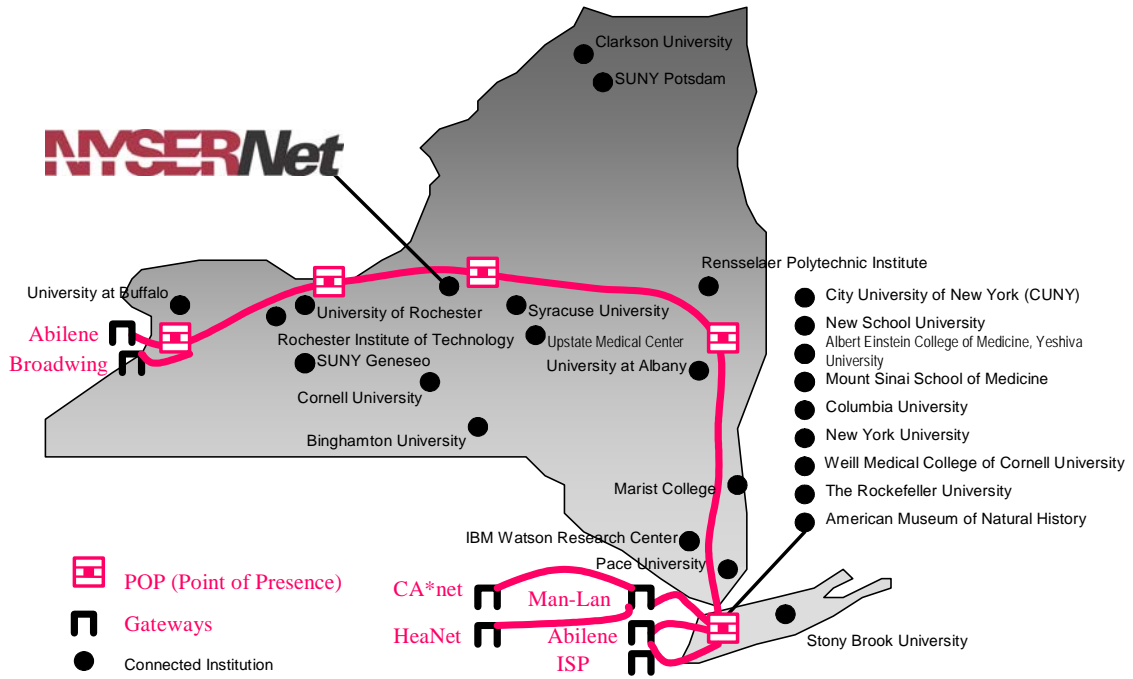


EXHIBIT C

Scenarios Research and Educational Organizations use for Exchanging Network Traffic

