

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of:)
)
Communications Assistance for) CC Docket No. 97-213
Law Enforcement Act)

FURTHER NOTICE OF PROPOSED RULEMAKING

Adopted: October 22, 1998 ; Released: November 5, 1998

Comment Date: December 14, 1998

Reply Comment Date: January 13, 1999

By the Commission: Commissioner Furchtgott-Roth issuing a statement.

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I. INTRODUCTION

1. In this *Further Notice of Proposed Rulemaking* (Further NPRM), we address alleged deficiencies in industry-developed technical requirements for wireline, cellular, and broadband Personal Communications Services (PCS) carriers to comply with the assistance capability requirements prescribed by the Communications Assistance for Law Enforcement Act of 1994 (CALEA, or the Act).¹ Industry developed these technical requirements in an attempt to satisfy the "safe harbor" provision of the Act, which permits telecommunications carriers to be found in compliance with CALEA if carriers comply with publicly available technical requirements adopted by an industry association or standard-setting organization, or by the Commission.² The Act authorizes the Commission to establish, by rule, technical requirements or standards that meet the assistance capability requirements, if industry or standards-setting organizations have failed to set such standards, or if any party believes that an industry standard is deficient.³ To date, the Commission has received four petitions for rulemaking asking us to establish such requirements or standards pursuant to our statutory authority under the Act.⁴ In addition, in response to a Public

¹ Communications Assistance for Law Enforcement Act, Pub. L. No. 103-414, 108 Stat. 4279 (1994)(codified as amended in sections of 18 U.S.C. and 47 U.S.C.).

² Section 107(a)(2) of CALEA, 47 U.S.C. § 1006(a)(2).

³ Section 107(b) of CALEA, 47 U.S.C. §1006(b).

⁴ See Center for Democracy and Technology (CDT), Petition for Rulemaking Under Sections 107 and 109 of the Communications Assistance for Law Enforcement Act, filed March 26, 1998 (CDT Petition); Department of

Notice the Commission's Wireless Telecommunications Bureau and Office of Engineering and Technology released on April 20, 1998, we have received numerous comments disputing whether certain specific technical requirements are necessary to comply with CALEA.⁵

2. In light of petitioners' claims that the interim standard adopted by industry⁶ is deficient with regard to particular technical requirements it currently includes, this Further NPRM analyzes those specific requirements and reaches tentative conclusions regarding which of them are required by CALEA. The Further NPRM also seeks comment on a range of issues associated with the Commission's obligations under the Act. In addition, we seek comment on what role, if any, we can or should play in assisting telecommunications carriers other than wireline, cellular, and broadband PCS carriers to set standards for, or to achieve compliance with, CALEA's requirements.⁷

II. BACKGROUND

3. Since 1970, telecommunications carriers have been required to cooperate with law enforcement agencies in conducting electronic surveillance.⁸ Recent advances in technology, however, most notably the introduction of digital transmission and processing techniques and the proliferation of wireless services, have hampered the law enforcement community's ability to conduct lawfully authorized surveillance. CALEA was enacted in 1994 to address such problems, and to ensure that law enforcement surveillance efforts would not be unintentionally thwarted by the development and deployment of new telecommunications technologies and services.⁹ At the same

Justice (DoJ) and Federal Bureau of Investigations (FBI), Joint Petition for Expedited Rulemaking, filed March 27, 1998 (DoJ/FBI Petition); Telecommunications Industry Association (TIA), Petition for Rulemaking, filed April 2, 1998 (TIA Petition); Cellular Telecommunications Industry Association (CTIA), Petition for Rulemaking, filed July 16, 1997 (CTIA Petition). We note that DOJ/FBI filed a petition to dismiss the CTIA petition, *see infra* ¶ 17; and in its reply comments of June 5, 1998, CTIA stated that it "does not oppose dismissal of its petition."

⁵ "In the Matter of Communications Assistance for Law Enforcement Act," CC Docket No. 97-213, *Public Notice*, DA 98-762 (rel. Apr. 20, 1998) (*April 20 Public Notice*).

⁶ Telecommunications Industry Association (in association with Standards Committee T1 Telecommunications), *INTERIM STANDARD (Trial Use Standard): Lawfully Authorized Electronic Surveillance*, J-STD-025 (December 1997) (hereinafter "J-STD-025").

⁷ These carriers include paging, specialized mobile radio, and satellite services. *See* ¶¶ 134-141, *infra*.

⁸ In 1970, Congress enacted a statute requiring carriers to "furnish the applicant [requesting electronic surveillance] forthwith all information, facilities, and technical assistance necessary to accomplish the interception." *See* 18 U.S.C. § 2518(4).

⁹ 140 Cong. Rec. H-10779 (daily ed. October 7, 1994) (statement of Rep. Hyde).

time, however, Congress recognized the need to protect privacy interests within the context of court-authorized electronic surveillance. In defining the terms and requirements of the Act, therefore, Congress sought to balance three important policies: "(1) to preserve a narrowly focused capability for law enforcement agencies to carry out properly authorized intercepts; (2) to protect privacy in the face of increasingly powerful and personally revealing technologies; and (3) to avoid impeding the development of new communications services and technologies."¹⁰ Based on these considerations, Congress envisioned that the requirements of CALEA would serve as "both a floor and a ceiling," defining the minimum capabilities that should be provided to law enforcement, while also establishing limits as to what can be provided.¹¹

4. CALEA directs carriers to ensure that their equipment, facilities, and services are capable of meeting certain requirements to assist law enforcement in carrying out lawfully authorized electronic surveillance. To accomplish this, the Act sets out general assistance capability requirements that telecommunications carriers must meet, and defines the obligations of the industry, the law enforcement community, and the Commission in developing the technical requirements or standards necessary to meet these requirements. To date, industry and the law enforcement community, although they have reached agreement on many issues, disagree on whether certain specific features and/or technical requirements must be provided by carriers to comply with the Act's assistance capability requirements. Consequently, as authorized by the Act, representatives of industry, law enforcement, and the privacy community have petitioned the Commission to establish such technical requirements or standards. In this Further NPRM, therefore, we consider whether certain specific technical requirements are necessary for wireline, cellular and broadband PCS carriers¹² to meet CALEA's assistance capability requirements.¹³ Below we discuss the relevant provisions of the Act.

A. CALEA Assistance Capability Requirements

¹⁰ H.R. Rep. No. 103-827, 103d Cong., 2d Sess., pt. 1, at 13 (1994).

¹¹ *Id.* at 22.

¹² As explained below, law enforcement and industry efforts have been focused on wireline, cellular, and PCS carriers as the areas of greatest concern under CALEA. *See infra* ¶ 11 & note 26.

¹³ We note that we have already initiated a separate line of inquiry in the *Notice of Proposed Rulemaking* (NPRM) in this proceeding, 13 FCC Rcd 3149 (1997) that will fulfill our obligations under section 105, and that we have acted under our authority pursuant to section 107(c) to extend the compliance date for Section 103, *see Petition for the Extension of the Compliance Date under Section 107 of the Communications Assistance for Law Enforcement Act by AT&T Wireless Services, Inc., Lucent Technologies Inc., and Ericsson Inc., Memorandum Opinion and Order*, FCC 98-223, released September 11, 1998 ("*Extension Order*"). We will not revisit any of those issues in the instant Further NPRM.

5. The basic requirements for meeting CALEA's mandates are contained in Section 103, which establishes four general "assistance capability requirements" that carriers must meet to achieve compliance. Specifically, Section 103 requires a telecommunications carrier¹⁴ to:

(a) [E]nsure that its equipment, facilities, or services that provide a customer or subscriber with the ability to originate, terminate, or direct communications are capable of--

(1) expeditiously isolating and enabling the government, pursuant to a court order or other lawful authorization, to intercept, to the exclusion of any other communications, all wire and electronic communications carried by the carrier within a service area to or from equipment, facilities, or services of a subscriber of such carrier concurrently with their transmission to or from the subscriber's equipment, facility, or service, or at such later time as may be acceptable to the government;

(2) expeditiously isolating and enabling the government, pursuant to a court order or other lawful authorization, to access call-identifying information that is reasonably available to the carrier--

(A) before, during, or immediately after the transmission of a wire or electronic communication (or at such later time as may be acceptable to the government); and

(B) in a manner that allows it to be associated with the communication to which it pertains,

except that, with regard to information acquired solely pursuant to the authority for pen registers and trap and trace devices (as defined in section 3127 of title 18, United States Code),¹⁵ such call-identifying information shall not include any

¹⁴ The term "telecommunications carrier" is defined in section 102(8) of CALEA, 47 U.S.C. § 1001(8). In the NPRM, we tentatively concluded that all providers of wireless or wireline telecommunications services for hire to the public are subject to CALEA. This tentative conclusion will be addressed in a future Report and Order. Examples of such providers (to the extent that they offer telecommunications services for hire to the public) are local exchange carriers, interexchange carriers, competitive access providers, satellite-based service providers, providers of commercial mobile radio service as set forth in Section 20.9 of our Rules, cable operators, and electric and other utilities. NPRM, 13 FCC Rcd at 3161-62 ¶¶ 16-17.

¹⁵ Pen registers capture call-identifying information for numbers dialed from the facility that is the subject of lawful interception (*i.e.*, outgoing calls), while trap and trace devices capture call-identifying information for numbers received by the facility that is the subject of lawful interception (*i.e.*, incoming calls). H.R. Rep. No. 103-827, 103d Cong., 2d Sess., pt. 1, at 26 (1994).

information that may disclose the physical location of the subscriber (except to the extent that the location may be determined from the telephone number);

(3) delivering intercepted communications and call-identifying information to the government, pursuant to a court order or other lawful authorization, in a format such that they may be transmitted by means of equipment, facilities, or services procured by the government to a location other than the premises of the carrier; and

(4) facilitating authorized communications interceptions and access to call-identifying information unobtrusively and with a minimum of interference with any subscriber's telecommunications service and in a manner that protects--

(A) the privacy and security of communications and call-identifying information not authorized to be intercepted; and

(B) information regarding the government's interception of communications and access to call-identifying information.¹⁶

6. CALEA does not specify how these four assistance capability requirements are to be met. Rather, it states only that telecommunications carriers, in consultation with manufacturers and telecommunications support service providers, must ensure that the carriers' equipment, facilities, and services comply with the requirements.¹⁷ Manufacturers and telecommunications support service providers are subject to a "cooperation" requirement, *i.e.*, they are required to make available to carriers the features and modifications necessary for carriers to comply with the requirements "on a reasonably timely basis and at a reasonable charge."¹⁸ Additionally, the Attorney General of the United States must consult with appropriate industry associations and standards-setting organizations; with representatives of users of telecommunications equipment, facilities, and services; and with state utility commissions "to ensure the efficient and industry-wide implementation of the assistance capability requirements."¹⁹

¹⁶ Section 103(a)(1)-(4) of CALEA, 47 U.S.C. § 1002(a)(1)-(4).

¹⁷ Section 106(a) of CALEA, 47 U.S.C. § 1005(a).

¹⁸ Section 106(b) of CALEA, 47 U.S.C. § 1005(b).

¹⁹ Section 107(a)(1) of CALEA, 47 U.S.C. § 1006(a)(1). This authority was delegated by the Attorney General to the FBI, which has been playing a leading role in representing the interests of the law enforcement community on CALEA matters.

7. Section 107(a)(2) of CALEA contains a "safe harbor" provision, stating that "[a] telecommunications carrier shall be found to be in compliance with the assistance capability requirements under Section 103, and a manufacturer of telecommunications transmission or switching equipment or a provider of telecommunications support services shall be found to be in compliance with section 106, if the carrier, manufacturer, or support service provider is in compliance with publicly available technical requirements or standards adopted by an industry association or standard-setting organization, or by the Commission under subsection (b), to meet the requirements of Section 103."²⁰ Thus, the Act envisions that an industry association or a standards-setting organization would set applicable standards. Individual carriers, however, are free to choose any technical solution that meets the assistance capability requirements of CALEA, whether based on an industry standard or not. Carriers, therefore, have some degree of flexibility in deciding how they will comply with CALEA's Section 103 requirements. CALEA specifically states, however, that the absence of industry standards does not relieve a carrier of its obligation to comply with the assistance capability requirements.²¹

8. In addition to the safe harbor provision, section 107 also defines certain Commission responsibilities under the Act. Specifically, upon petition, section 107(b) authorizes the Commission to establish, by rule, technical requirements or standards necessary for implementing Section 103.²² Section 107(b) provides that a petition may be filed with the Commission (1) if industry associations or standard-setting organizations fail to issue technical requirements or standards, or (2) if a government agency or any other person believes that requirements or standards that were issued are deficient.

9. Section 107(b) specifies five factors that the Commission must consider as part of its efforts to establish technical requirements or standards to meet the assistance capability requirements of Section 103. Such technical requirements or standards must:

- ! meet the assistance capability requirements of Section 103 by cost-effective methods;
- ! protect the privacy and security of communications not authorized to be intercepted;
- ! minimize the cost of such compliance on residential ratepayers;
- ! serve the policy of the United States to encourage the provision of new technologies and services to the public; and

²⁰ Section 107(a)(2) of CALEA, 47 U.S.C. § 1006(a)(2).

²¹ Section 107(a)(3)(B) of CALEA, 47 U.S.C. § 1006(a)(3)(B).

²² Section 107(b) of CALEA, 47 U.S.C. § 1006(b).

- ! provide a reasonable time and conditions for compliance with and the transition to any new standard, including defining the obligations of telecommunications carriers under Section 103 during any transition period.²³

10. Section 107(c) authorizes the Commission to extend the compliance date for telecommunications carriers' equipment, facilities, and services. On September 11, 1998, the Commission exercised its authority under section 107(c) by extending the deadline for compliance with Section 103 requirements from October 25, 1998 to June 30, 2000.²⁴ This extension applies to all telecommunications carriers proposing to install or deploy, or having installed or deployed, any equipment, facility or service prior to the effective date of Section 103, for that part of the carrier's business on which the new equipment, facility or service is used.²⁵

B. Development Of Industry Interim Standard J-STD-025

11. Since early 1995, Subcommittee TR45.2 of the Telecommunications Industry Association (TIA) has been working to develop an industry standard that would satisfy the assistance capability requirements of Section 103 for wireline, cellular, and broadband PCS carriers.²⁶ The standards-setting effort has included participation by industry and law enforcement. In 1996, the Subcommittee received from the Federal Bureau of Investigation (FBI) a document known as the Electronic Surveillance Interface (ESI). The ESI was law enforcement's recommendation for the logical and physical interfaces between a wireline, cellular, or broadband PCS carrier's network and a law enforcement agency's electronic surveillance collection facility. The ESI was developed at the request of industry to describe law enforcement's vision and recommendations for the interface. The ESI defined the requirements for the delivery of both call content and call-identifying information to a law enforcement agency (LEA).

²³ *Id.*

²⁴ *See Extension Order, supra* note 13. *See also infra* ¶ 22.

²⁵ *See* Section 107(c)(1)-(4) of CALEA, 47 U.S.C. § 1006(c)(1)-(4). We note that a carrier is deemed to be in compliance with Section 103 as to its "old" equipment, facilities and services -- *i.e.*, those installed or deployed before January 1, 1995 -- until such time as it is reimbursed by the Attorney General for all reasonable costs directly associated with modifications necessary to bring that equipment into compliance. Section 109(a), (d) of CALEA, 47 U.S.C. § 1008(a), (d).

²⁶ *See* TIA Comments at 15 n.43. We note that the DoJ/FBI Final Notice of Capacity states that wireline, cellular, and PCS services "are of most immediate concern to law enforcement." *See* 63 Fed. Reg. 12218, at para. I.E.

12. By the spring of 1997, TIA developed a final draft of a proposed CALEA industry standard. The draft standard defined services and features to support lawfully authorized electronic surveillance and the interfaces to deliver authorized intercepted communications and call-identifying information to a LEA. Specifically, the draft standard defined the intercept function in terms of five broad categories: access, delivery, service provider administration, collection, and law enforcement administration.²⁷ This standard was submitted for balloting to all participants in the standards-setting process under procedures of the American National Standards Institute (ANSI).²⁸ The law enforcement community unanimously opposed adoption of this standard, and it was voted down. The FBI, on behalf of this community, attached a lengthy critique of the draft standard to its ballot, including specific recommendations for changes.²⁹

13. The FBI's objections to the draft standard centered around a list of technical capabilities that it contended are necessary to meet CALEA's requirements, but that were not included in the industry interim standard. The FBI's list, which has come to be known as the "punch list," originally contained 11 items, and now contains nine items.³⁰ Specifically, the FBI's punch list identifies the following capabilities it believes must be provided under CALEA:³¹

²⁷ These five categories are described in ¶ 36, *infra*.

²⁸ Balloting was open to industry, law enforcement, and any other interested party, with a deadline of May 12, 1997.

²⁹ FBI Comments to TIA Subcommittee TR45.2 Ballot SP-3580 (May 12, 1997).

³⁰ The two additional capabilities originally requested by the FBI were "standardized delivery interface" and "separated delivery." *See* DoJ/FBI Comments of May 8, 1998, last attachment. The former capability would limit the number of potential delivery interfaces law enforcement would need to accommodate from telecommunications carriers, while the latter would require the separate delivery to law enforcement of wiretap information for each party to a conference call. However, in a letter of February 3, 1998 from Stephen R. Colgate, Assistant Attorney General for Administration, to Mr. Tom Barba, Attorney at Law, Steptoe & Johnson LLP, counsel for TIA, DoJ states that while it believes that a single delivery interface would be cost effective and of great benefit to both law enforcement and telecommunications carriers, it finds that such an interface is not mandated by CALEA; and further states that while separated delivery would be useful for effective electronic surveillance, it finds that such delivery is also not mandated by CALEA. *See* letter, at 3.

³¹ *See* DoJ/FBI *ex parte* filing of July 1, 1998. Each of the nine punch list items is described in greater detail below. *See infra* ¶¶ 67-128.

- 1) Content of subject-initiated conference calls -- Would enable law enforcement to access the content of conference calls supported by the subject's service (including the call content of parties on hold).³²
- 2) Party hold, join, drop --
Messages would be sent to law enforcement that identify the active parties of a call. Specifically, on a conference call, these messages would indicate whether a party is on hold, has joined or has been dropped from the conference call.
- 3) Subject-initiated dialing and signaling information --
Access to all dialing and signaling information available from the subject would inform law enforcement of a subject's use of features (such as the use of flash-hook and other feature keys).
- 4) In-band and out-of-band signaling (notification message) -- A message would be sent to law enforcement whenever a subject's *service* sends a tone or other network message to the subject or associate (*e.g.*, notification that a line is ringing or busy).
- 5) Timing information --
Information necessary to correlate call-identifying information with the call content of a

³² We note that confusion may arise over the terms "subscriber" and "subject." At pp. 27-28 of their March 27, 1998 Joint Petition for Expedited Rulemaking, DoJ/FBI define these terms as follows:

When we refer to "subscriber," we are referring to the person or entity whose "equipment, facilities, or services" (47 U.S.C. § 1002(a)(1)) are the subject of an authorized law enforcement surveillance activity. The subscriber often will be a person or entity suspected of criminal activity, but in some instances, the subscriber will simply be someone whose relationship to a suspected criminal (*e.g.*, spouse or employer) makes it likely that criminal activity will be transacted or discussed over the subscriber's facilities. When we refer to "intercept subject" or "subject," we are referring to any person who is using the subscriber's equipment, facilities, or services, and whose conversations (or dialing activity) therefore would be capable of being acquired during an interception. In a particular investigation, the "intercept subjects" could include the subscriber, who may or may not be involved in criminal activity; a non-subscriber who is not involved in criminal activity; or a non-subscriber who *is* involved in criminal activity.

communications
interception.³³

6) Surveillance status -- Message
that would verify that an
interception is still functioning on the appropriate subject.

7) Continuity check tone (c-tone) --
Electronic signal that would alert law enforcement if the
facility used for delivery of call content interception has
failed or lost continuity.

8) Feature status -- Would affirmatively notify law enforcement of any changes in features to
which a subject subscribes.

9) Dialed digit extraction³⁴ --
Information would include those digits dialed by a subject after the initial call setup is
completed.

14. After the close of balloting, Subcommittee TR45.2 held a number of meetings and made changes to the draft industry standard, including a number of changes recommended by the FBI. However, based on the concerns discussed below, none of the FBI punch list items were added to the industry standard. The Subcommittee recommended that the revised standard be considered as a joint TIA/Committee T1 Interim Standard and reballoted under TIA procedures rather than ANSI's.³⁵ An interim standard, however, is valid for a period of only three years and is considered by ANSI as a "trial use." TIA adopted the recommendations, and the revised draft standard was submitted for voting in the fall of 1997. Because no law enforcement agencies are members of the TIA or Committee T1, however, only industry entities were eligible to cast ballots.

15. The industry unanimously approved the draft standard as fulfilling the requirements mandated by CALEA. In December 1997, the TIA and Committee T1, sponsored by the Alliance

³³ Delivery within three seconds of the event producing the call-identifying information is requested, together with a time stamp indicating the timing of the event within an accuracy of 100 milliseconds. See DoJ/FBI Joint Petition for Expedited Rulemaking, filed March 27, 1998, at 51-52.

³⁴ This capability has also been referred to as "post-cut-through dialing and signaling."

³⁵ ANSI voting is generally open to all interested parties, whereas TIA / Committee T1 voting is limited to TIA members. Committee T1 is the wireline standards setting body -- see *infra* ¶ 15.

for Telecommunications Industry Solutions, announced the joint publication of interim standard J-STD-025, *Lawfully Authorized Electronic Surveillance* (J-STD-025, interim standard, or industry interim standard). This standard defines services and features required to support lawfully authorized electronic surveillance and specifies interfaces necessary to deliver intercepted communications and call-identifying information to a LEA. TIA stated that compliance with J-STD-025 satisfies the "safe harbor" provisions of CALEA.

C. Petitions for Rulemaking

16. In July 1997, before the industry interim standard was released, the Cellular Telecommunications Industry Association (CTIA) filed a petition for rulemaking on behalf of its members requesting that the Commission establish a standard to implement the requirements of Section 103, pursuant to the Commission's authority under section 107(b). CTIA contended that the standards setting process was deadlocked, and that it was unlikely that a standard would be developed in the near future. CTIA attached to its petition the draft industry standard that ultimately became J-STD-025, and argued that this draft standard met the functional requirements of CALEA in their entirety.³⁶

17. In August 1997, comments on the CTIA petition were filed jointly by the Center for Democracy and Technology (CDT) and the Electronic Frontier Foundation (EFF).³⁷ CDT/EFF generally supported CTIA's request to adopt the proposed industry standard; however, they recommended the deletion of provisions relating to subject location and packet-mode information. In March 1998, following adoption of the industry interim standard, DoJ/FBI jointly filed a motion to dismiss CTIA's Petition for Rulemaking on the grounds that the December 1997 adoption of the interim standard rendered CTIA's petition moot.³⁸ As discussed below, we agree, and dismiss CTIA's July 1997 Petition for Rulemaking.³⁹

18. On March 26, 1998, CDT filed a petition for rulemaking, requesting that the Commission intervene in the implementation of CALEA. CDT reiterated the position it and EFF had enunciated in August 1997, arguing that J-STD-025 goes too far in permitting location

³⁶ In the Matter of Implementation of the Communications for Law Enforcement Act, CTIA Petition, filed July 16, 1997.

³⁷ In the Matter of Implementation of the Communications Assistance for Law Enforcement Act, Comments on Petition for Rulemaking of the Center for Democracy and Technology and the Electronic Frontier Foundation (response to July 16, 1997 Petition of the Cellular Telecommunications Industry Association) (August 11, 1997).

³⁸ Joint Motion to Dismiss CTIA's July 16, 1997 Petition for Rulemaking, filed March 27, 1998.

³⁹ See discussion *infra*, section III.G.

information capabilities and fails to protect the privacy of packet-mode communications. CDT further argued that the additional surveillance enhancements sought by the FBI in the punch list are not required under CALEA. CDT stated that the telecommunications industry and the FBI had failed to agree on a plan for preserving a narrowly-focused surveillance capability that would protect privacy and, further, were now mired in an argument over designing additional surveillance features into the nation's telecommunications system. Finally, CDT stated that compliance with J-STD-025 was not reasonably achievable and requested that the Commission indefinitely delay implementation of CALEA while a more narrowly-focused standard consistent with the intent of CALEA is developed.⁴⁰

19. On March 27, 1998, DoJ and the FBI jointly filed a petition for expedited rulemaking, asking the Commission to correct deficiencies in the industry standard by establishing additional technical standards that meet the requirements of CALEA. DoJ/FBI claim that the interim standard adopted by industry is deficient because: 1) it does not ensure that law enforcement will be able to receive all of the communications content and call-identifying information that carriers are obligated to deliver under CALEA; and, 2) it fails to ensure that information will be delivered in a timely manner.⁴¹ DoJ/FBI set forth, as a proposed rule, the features (*i.e.*, the punch list items) they believe should be added to the interim standard to correct its deficiencies.⁴² DoJ/FBI request that the Commission leave the industry interim standard in effect pending the issuance of a final decision.⁴³

20. On April 2, 1998, TIA filed a petition for rulemaking, asking the Commission to resolve the dispute as to whether the interim standard is overinclusive or underinclusive. TIA requested that we: 1) immediately announce suspension of enforcement of CALEA until we make our determination of a permanent standard; 2) establish a reasonable compliance schedule of at least 24 months to implement the permanent standard; 3) undertake an expedited schedule for establishing a permanent standard; and 4) remand any further technical standardization work to TIA Subcommittee TR45.2.⁴⁴

21. On April 20, 1998, the Commission's Wireless Telecommunications Bureau and Office of Engineering and Technology released a *Public Notice* in this proceeding soliciting

⁴⁰ CDT Petition, *supra* note 4, at i-iii.

⁴¹ DoJ/FBI Petition, *supra* note 4, at 1-2.

⁴² *Id.* at Appendix 1.

⁴³ DoJ/FBI proposed that we issue that decision no later than September 1998. *Id.* at 67.

⁴⁴ TIA Petition for Rulemaking, filed April 2, 1998.

comment on the above petitions, as well as soliciting comment on whether the October 25, 1998 deadline for compliance with CALEA's capability requirements should be extended.⁴⁵ The *Public Notice* also requested specific comment on the scope of the assistance capability requirements necessary to satisfy the obligations imposed by CALEA. In particular, the *Public Notice* requested analyses of whether the technical requirements discussed in the petitions from CDT and from DoJ/FBI are necessary for carriers to meet CALEA's Section 103 requirements. Finally, the *Public Notice* requested comment on remanding any additional standards development to TIA Subcommittee TR45.2.⁴⁶

22. A number of parties petitioned the Commission to extend the October 25, 1998 deadline for complying with the core features of CALEA, and on September 11, 1998, the Commission released a *Memorandum Opinion and Order* granting such an extension until June 30, 2000.⁴⁷ Pursuant to our authority under section 107(c) of CALEA, we determined that compliance with the assistance capability requirements of Section 103 was not reasonably achievable by any telecommunications carrier through the application of available technology by CALEA's compliance deadline of October 25, 1998.⁴⁸ Therefore, we granted a blanket extension of CALEA's compliance deadline until June 30, 2000, for all telecommunications carriers similarly situated to the petitioners, *i.e.*, those carriers proposing to install or deploy, or having installed or deployed, any equipment, facility or service prior to the effective date of Section 103, for that part of the carrier's business on which the new equipment, facility or service is used.⁴⁹

III. DISCUSSION

A. Authority and Approach

23. Upon petition, section 107(b) of CALEA empowers the Commission to establish, by rule, technical requirements or standards to meet the assistance capability requirements of Section

⁴⁵ See *supra* note 5.

⁴⁶ See *Public Notice* at 4. Unless otherwise noted herein, "comments" and "reply comments" are those that were filed on May 20, 1998, and June 12, 1998, respectively, regarding standards issues.

⁴⁷ *Extension Order*, *supra* note 13.

⁴⁸ 47 U.S.C. § 1006(c)(2).

⁴⁹ *Extension Order*, *supra* note 13.

103.⁵⁰ Additionally, section 301(a) of CALEA states that "[t]he Commission shall prescribe such rules as are necessary to implement the requirements of [CALEA]."⁵¹

24. In fulfilling our obligations under CALEA, our evaluation in this proceeding will closely follow the plain language of the Act. Pursuant to our statutory authority, we will separately examine the two contested features of the J-STD-025 standard (*i.e.*, the location information and packet-mode features opposed by CDT) and the punch list items sought by the FBI, to determine whether each meets the mandates of Section 103.

25. As an initial matter, we will first determine whether the specific item we are evaluating meets the assistance capability requirements set forth in Section 103(a)(1)-(4).⁵² In doing so, we propose to interpret these provisions narrowly.⁵³ As noted above, we look to the plain language, its context, and, if necessary, any legislative history that assists in ascertaining Congressional intent. Specifically, we explore below the intent of Congress' use of the terms "equipment, facilities or services" in Section 103(a)(1) as it relates to the content of subject-initiated conference calls. We also seek to interpret Section 103(a)(2)'s provision that call-identifying information must be provided to a LEA only if that information is "reasonably available" to a telecommunications carrier. In this regard, we tentatively conclude that before we can make a determination whether a specific technical requirement meets the mandates of Section 103's assistance capability requirements, the Commission must determine whether the information to be provided to a LEA under Section 103(a)(2) is reasonably available to the carrier. The Act does not specify how the term "reasonably available" should be defined or interpreted, and the Act's legislative history offers little additional guidance. We therefore request comment on what factors the Commission should use in determining whether the information to be provided to a LEA under Section 103(a)(2) is reasonably available.

26. Specifically, we request comment on how cost should be considered in our determination of reasonable availability. Further, we note that carriers use a variety of system architectures and different types of equipment, leading us to believe that reasonable availability is also likely to vary from carrier to carrier. Commenters should discuss how the Commission can evaluate whether a particular technical requirement is reasonably available in these circumstances and discuss how the application or interpretation of these terms in Section 103(a)(2) is similar to or different from the application or interpretation of "reasonably achievable" in section 109(b), and the factors listed there.

⁵⁰ 47 U.S.C. § 1006(b).

⁵¹ 47 U.S.C. § 229(a).

⁵² 47 U.S.C. § 1002(a)(1)-(4).

⁵³ *See* Senate Report at 23, House Report at 23.

27. We also ask commenters to evaluate the type of information that has been traditionally available under pen register and trap-and-trace authorizations, and whether the provision of such information to LEAs, in light of the statutory definitions of "pen register" and "trap and trace device",⁵⁴ and judicial interpretations of them, provide guidance or represent possible factors for determining "reasonable availability."

28. Finally, we also invite comment on whether and, if so, under what circumstances and to what extent, information that does not qualify as call-identifying information under section 102(2) or otherwise is not "reasonably available" under Section 103(a)(2), may nevertheless qualify as call content information under Section 103(a)(1) and the definitions of "wire and electronic communications" in 18 U.S.C. § 2510(1), (12). Commenters should take into account that the provisions of Section 103(a)(1) do not include a criterion of "reasonable availability."

29. If we conclude that the item in question constitutes a technical requirement that meets the Section 103 assistance capability requirements, we will then proceed to analyze each of the factors identified by section 107(b) and seek comment on whether a particular technical requirement: (1) meets the assistance capability requirements of Section 103 by cost-effective methods; (2) protects the privacy and security of communications not authorized to be intercepted; (3) minimizes the cost of such compliance on residential ratepayers; and, (4) serves the policy of the United States to encourage the provision of new technologies and services to the public.⁵⁵ Additionally, section 107(b)(5) requires the Commission to provide a reasonable time and conditions for compliance with and the transition to any new standard, including defining the obligations of telecommunications carriers under Section 103 during any transition period.⁵⁶ Thus, we will also seek comment on issues bearing on our section 107(b)(5) determinations. If, on the other hand, we tentatively conclude that a specific technical requirement falls outside of the parameters of the assistance capability requirements established by Section 103, we will seek comment on our tentative conclusion, and request that commenters responding to this conclusion provide support for their agreement or disagreement by thoroughly analyzing the section 107(b) factors mentioned above.

30. We emphasize that, because CALEA specifically requires us to consider the section 107(b) factors, commenters are strongly encouraged to provide us with information as detailed and specific as possible. For sections 107(b)(1) and (3), for example, we seek detailed comment regarding the costs of adding a feature to a telecommunications carrier's network and on what, if any, impact of such costs will have on residential ratepayers. Commenters should consider the costs to manufacturers in developing the equipment or software needed to implement the technical

⁵⁴ 18 U.S.C. § 3127(3), (4).

⁵⁵ 47 U.S.C. § 1006(b)(1)-(4).

⁵⁶ 47 U.S.C. § 1006(b)(5).

requirement, as well as the cost to carriers to install and deploy such equipment. Commenters should be specific as to which entities would incur the cost of adding particular features; *e.g.*, manufacturers, local exchange carriers (LECs), interexchange carriers (IXCs), or commercial mobile radio service (CMRS) providers, *etc.* Commenters should also be specific as to what costs would be incurred for hardware, as opposed to software upgrades to carriers' networks, and whether some of these upgrades would have other uses in the networks. If costs are likely to be passed on to residential ratepayers, those costs should be identified, as well as specific mechanisms that could be used to minimize such costs.

31. Under section 107(b)(2), if a party believes that a proposed technical requirement would not protect the privacy and security of communications not authorized to be intercepted, we request comment on modifications or alternative technical requirements that would enable Section 103's capability requirements to be met. In addition, we seek detailed information on whether our determination that a particular feature must be provided under CALEA will encourage or discourage the provision of new technologies and services to the public. Will the implementation of a particular technical requirement constrain a carrier's ability to develop new services or technologies? Commenters should provide a projected timeline for each technical requirement, identifying the time needed to develop, test, and deploy it. Additionally, commenters should address the extent to which the capacity requirements of section 104 should affect our determinations under section 107(b). In this regard, we observe that several commenting parties have contended that the nearly two and one-half years of delay in publication of the final notice of capacity has, in turn, impaired the ability of standards-setting associations, telecommunications equipment manufacturers, and telecommunications carriers to establish capability standards pursuant to Section 103, because capability standards cannot be completed without first knowing the capacity that those capability standards must support.⁵⁷ Finally, we ask for comment on any conditions necessary for compliance and any specific obligations that should be imposed on telecommunications carriers during the transition to a new standard.

32. We note that the tentative conclusions we reach in this Further NPRM focus on the technical requirements that the petitioners have asked us to address in their petitions pending before us, *i.e.*, the two contested features of J-STD-025 and the nine punch list items. In making our tentative decision, we recognize that CALEA requires carriers to ensure that their networks can provide the capabilities defined in Section 103, but does not mandate use of, or adherence to, any particular standard. In other words, compliance with the industry standard is voluntary, not compulsory. As a result, carriers are free to develop CALEA solutions in any manner they choose.

⁵⁷ See, *e.g.*, Northern Telecom Inc. Comments, CC Docket No. 97-213, May 8, 1998, at 4. We note that, pursuant to Section 104 of CALEA, DoJ has published in the Federal Register a final notice of capacity. *Implementation of Section 104 of the Communications Assistance for Law Enforcement Act*, Final Notice of Capacity, 63 Fed. Reg. 12218 (DoJ/FBI, March 12, 1998). See also Initial Notice of Capacity, 60 Fed. Reg. 53643 (DoJ/FBI, October 16, 1995); Second Notice of Capacity, 62 Fed. Reg. 1902 (DoJ/FBI, January 14, 1997).

Thus, a carrier may choose to utilize an industry standard as a safe harbor, or they may choose to implement other solutions that meet the capability requirements of Section 103. However, in order for an adopted industry standard to satisfy the safe harbor provision of section 107(a),⁵⁸ it must incorporate all of the technical requirements that we ultimately determine meet the assistance capability requirements of Section 103.

33. We note further that this proceeding does not involve any attempt to interpret statutes other than CALEA or define the scope of authorizations needed by LEAs to intercept or obtain call content or call-identifying information. Rather, this proceeding is limited to determining, as a safe harbor, what capabilities each carrier must provide if and when presented with a proper authorization or court order to expeditiously provide LEAs access to call content and call-identifying information.

34. We believe that industry is in the best position to determine how to implement these technical requirements most effectively and efficiently. Standards-setting organizations, manufacturers, and/or individual telecommunications carriers should develop the technical requirements consistent with our ultimate determinations reached in this proceeding. We tentatively conclude that it would then be appropriate for industry, in consultation with the law enforcement community, to develop a final "safe harbor" standard for CALEA compliance.⁵⁹ We seek comment on this conclusion.

35. Finally, we also note that manufacturers and carriers are free to develop and deploy additional features and capabilities, beyond those required by CALEA, in efforts to assist law enforcement agencies in conducting lawfully-authorized electronic surveillance. Such capabilities, however, will not be subject to any of CALEA's obligations, including cost recovery, and will not affect any party's obligations under CALEA in any way. Thus, nothing in the instant Further NPRM should be construed as limiting or proposing to limit telecommunications manufacturers, carriers or support service providers' ability to negotiate with law enforcement agencies to add additional capabilities to the carrier's systems, nor to define a maximum level of capabilities available to law enforcement under the applicable provisions of law.⁶⁰ We now turn to a discussion of whether we should reexamine the uncontested portions of J-STD-025 as part of our section 107(b) inquiry.

B. Industry Interim Standard J-STD-025

36. The industry interim standard, J-STD-025, which applies only to wireline, cellular, and broadband PCS carriers, specifies that telecommunications carriers are to provide LEAs with two

⁵⁸ 47 U.S.C §1006(a)(2).

⁵⁹ See discussion *infra*, ¶¶ 132-133.

⁶⁰ See 18 U.S.C. §§ 2510-2522; see also *infra* note 63.

telecommunications channels to perform electronic surveillance -- call content channels (CCCs) and call data channels (CDCs).⁶¹ J-STD-025 defines the five functions of the intercept architecture to be used.⁶² Those functions are:

- ! Access -- Provides the LEA with the ability to isolate the subject's call content or call-identifying information accurately and unobtrusively. The access function helps to prevent the unauthorized access, manipulation, and disclosure of intercept controls, call content, and call-identifying information.
- ! Delivery -- Accepts call content and call-identifying information from the access function and delivers it to one or more LEA collection functions. Ensures that the call content and call-identifying information that are delivered are authorized for a particular LEA, and thus also prevents the unauthorized access, manipulation, and disclosure of intercept controls, call content, and call-identifying information.
- ! Collection -- Receives and processes call content and call-identifying information for the subject. (This function is the responsibility of the LEA.)
- ! Service Provider Administration -- Controls the carrier's electronic surveillance functions. (This function is beyond the scope of the interim standard.)
- ! Law Enforcement Administration -- Controls the LEA electronic surveillance functions. (This function is the responsibility of the LEA, and is also beyond the scope of the interim standard.)

37. Telecommunications carriers and manufacturers in their comments support adoption of J-STD-025 as the final CALEA standard. The Ameritech Operating Companies and Ameritech Mobile Communications, Inc. (Ameritech) state that J-STD-025 is industry's attempt to realistically and reasonably interpret the requirements of CALEA consistent with Title III of the Omnibus Crime Control and Safe Streets Act of 1968, modified by the Electronic Communications Privacy Act of 1986 (collectively, "Title III").⁶³ Ameritech contends that the FBI's challenge of only a limited

⁶¹ When a phone number is dialed, that number is delivered through the CDC from the device wiretapping the phone line to the LEA. Once a connection is established, the conversation is delivered to the LEA via the CCC.

⁶² J-STD-025 at 28-30.

⁶³ Omnibus Crime Control and Safe Streets Act of 1968, Pub. L. No. 90-351, 82 Stat. 212 (1968), and Electronic Communications Privacy Act of 1986, Pub. L. No. 99-508, 100 Stat. 1848 (1986) (together codified as amended in 18 U.S.C. §§ 2510-2522 and in other sections of 18 U.S.C.). These statutory provisions delineate the scope and limitations of federal wiretap surveillance authority. In addition, we note that the various states have

number of items not included in J-STD-025 is a testament to the industry's efforts in developing a workable solution.⁶⁴

38. BellSouth Corporation, Inc., BellSouth Telecommunications, Inc., BellSouth Cellular Corp., BellSouth Personal Communications, Inc., and BellSouth Wireless Data, L.P. (BellSouth) request that we adopt J-STD-025 in its present form pursuant to section 107.⁶⁵ BellSouth maintains that the FBI is attempting to use CALEA as a vehicle to require carriers to build technology into their systems to give law enforcement new expanded surveillance capabilities, and that such expanded capabilities are in contrast to Congress's intent that CALEA should merely ensure that lawful surveillance capabilities not be diminished. BellSouth concludes that the legislative history of CALEA makes clear that its purpose is to preserve (not enhance) government electronic surveillance capabilities; to protect the privacy of customers' communications; and to not impede the industry's development and deployment of new technology, features, or services.⁶⁶

39. AT&T Corporation (AT&T) states that the Commission should categorize standards issues into four distinct components for examination (call content, call-identifying information, privacy protection, and wiretap administration), and ask whether the industry standard meets CALEA's requirements, if any, for each category.⁶⁷ AT&T concludes that we should affirm J-STD-025 and reject the additional, enhanced surveillance features sought by DoJ/FBI in their Petition.⁶⁸

40. TIA states that the vast majority of comments support the conclusion that J-STD-025 is consistent with CALEA. TIA contends that CALEA imposes a standard of "reasonable availability" rather than "historical availability," and that section 107(b) of that statute permits the Commission to modify a telecommunications industry "safe harbor" compliance standard only where the standard is deficient for failure to satisfy the assistance capability requirements of Section 103(a).

their own statutory provisions governing surveillance authority. *See, e.g.*, C.R.S.A. § 16-15-102 (Colorado); Ann.Code.Md., Courts and Judicial Proceedings, § 10-402 (Maryland); and McKinney's CPLR § 4506 (New York).

⁶⁴ Ameritech Comments, at 2-3.

⁶⁵ BellSouth Comments, at 2.

⁶⁶ *Id.* at 4.

⁶⁷ AT&T Comments, at 3.

⁶⁸ *Id.* at 22.

TIA maintains, however, that J-STD-025 is not deficient and therefore no Commission action is required.⁶⁹

41. DoJ/FBI state that J-STD-025 includes a number of important capabilities that are required by law enforcement, but argue that the interim standard is deficient by virtue of its failure to include the requested punch list capabilities. DoJ/FBI claim that every one of the capabilities in their punch list was originally included by industry itself in the initial working draft document (PN3580) for the industry standard.⁷⁰ To remedy this alleged deficiency, DoJ/FBI recommend that we use the proposed rule set forth in their March 1998 Petition as the basis for our standards rulemaking. Alternatively, DoJ/FBI state that we could base our standards rulemaking on an alternative rule that we preliminarily conclude is warranted under section 107(b) of CALEA.⁷¹

42. CDT disagrees with all of the above parties, arguing that J-STD-025 is deficient by virtue of being overinclusive. CDT states that the initial wiretap law, Title III, had as its dual purpose protecting the privacy of wire and oral communications and delineating on a uniform basis circumstances and conditions under which the interception of wire and oral communications may be authorized. CDT further states that the Electronic Communications Privacy Act⁷² extended Title III to wireless and non-voice communications and established rules for law enforcement's use of pen registers and trap and trace devices.⁷³ CDT contends that Congress sought to preserve an appropriate balance in CALEA, but that the FBI's approach would require the opposite of what Congress intended. Specifically, CDT objects to J-STD-025 providing location information and packet-mode call content information to law enforcement, and maintains that the additional capabilities requested by DoJ/FBI would provide a flood of constitutionally-protected information to law enforcement that would go well beyond anything that has historically been available under a pen register or trap and trace authority. Additionally, CDT asserts, provision of capabilities that go beyond CALEA's requirements would drive up costs for telecommunications carriers. CDT concludes that the DoJ/FBI approach to CALEA, unless rejected by the Commission, would impermissibly expand the amount of information that law enforcement would receive under pen register and trap and trace authority.⁷⁴

⁶⁹ TIA Comments, at 24.

⁷⁰ DoJ/FBI Reply Comments, at 15-16.

⁷¹ DoJ/FBI Comments, at 28.

⁷² *See supra* note 63.

⁷³ CDT Comments, at 10-12.

⁷⁴ CDT Reply Comments, at 2-5.

43. The Electronic Privacy Information Center (EPIC)/EFF/American Civil Liberties Union (ACLU) argue that J-STD-025 exceeds the scope of CALEA and thus should be rejected.⁷⁵ EPIC/EFF/ACLU state that the Commission must adhere to the privacy protections afforded by the Fourth Amendment (against unreasonable searches and seizures) and Congressional mandates, provide privacy protections that withstand the evolution of new technologies, and construe law enforcement's surveillance authority narrowly with respect to new technologies. EPIC/EFF/ACLU contend that neither provision of location information nor packet data was mandated by CALEA. They further contend that CALEA expands the privacy protections of the 1986 Electronic Communications Privacy Act in the area of cordless telephones and certain radio-based telecommunications, and that the Act was narrowly drawn to remedy enumerated FBI complaints, not to extend law enforcement's general surveillance authority.⁷⁶ Additionally, EPIC/EFF/ACLU assert that the proceedings leading up to adoption of the interim standard were effectively closed to non-law enforcement and non-telecommunications industry participants. EPIC/EFF/ACLU conclude that the Commission should reject the industry standard and commence a proceeding to establish the standards that will be used to implement CALEA.⁷⁷

44. *Discussion.* In seeking to fulfill our obligations under the Act, the Commission acknowledges the immense time and effort both industry and government representatives have put into the development of CALEA standards. We also appreciate the input and involvement of privacy organizations in this proceeding. We further note that the Act expresses a preference for industry to set CALEA standards, in consultation with the Attorney General,⁷⁸ and that the Act's legislative history also reveals that Congress envisioned that industry would have primary responsibility in defining standards.⁷⁹ Consequently, we believe that the most efficient and effective method for ensuring that CALEA can be implemented as soon as possible is to build on the work that has been done to date.

45. We therefore do not intend to reexamine any of the uncontested technical requirements of the J-STD-025 standard. Instead, we will make determinations only regarding whether each of the location information and packet-mode provisions currently included within J-STD-025, and the

⁷⁵ EPIC/EFF/ACLU Comments, at 1.

⁷⁶ *Id.* at 5-12.

⁷⁷ *Id.* at 28-29.

⁷⁸ 47 U.S.C. § 1006(a)(2) (allowing "safe harbor" based on industry standard).

⁷⁹ See H.R. Rep. No. 103-827, *reprinted in* 1994 U.S.C.A.N. 3489, 3499 (1994) ("The legislation provides that the telecommunications industry itself shall decide how to implement law enforcement's requirements."); *id.* at 3506 ("section [107] establishes a mechanism for implementation of the capability requirements that defers, in the first instance, to industry standards organizations").

nine punch list items that are currently not included, meet the assistance capability requirements of Section 103. We base this approach on the fact that the issues raised in the petitions and comments filed in this proceeding focus solely on the location information and packet-mode provisions of J-STD-025 and the nine punch list items sought by the FBI. Accordingly, these features will be evaluated separately.⁸⁰ We further note that no party has raised any specific challenges to J-STD-025 other than with respect to these issues, and we have not been presented with any compelling reason to reexamine the entire standard.⁸¹ We tentatively conclude that by limiting our inquiry to only these specific technical issues, we will better enable manufacturers and carriers to build on the extensive work already completed or in process, and permit them to deploy CALEA solutions on a more expedited basis. Accordingly, the uncontested technical requirements are beyond the scope of this proceeding.

46. In establishing technical requirements or standards, section 107(b)(5) requires the Commission to provide a "reasonable time" for carriers to comply with and/or transition to any new standards and to define the obligations of telecommunications carriers under Section 103 during any transition period.⁸² We previously concluded in our decision under section 107(c) that telecommunications carriers must have installed CALEA-compliant equipment and facilities based on the "core" features of J-STD-025 by June 30, 2000.⁸³ A footnote in that decision indicated that the "core" of J-STD-025 excludes both the location information feature and the packet-mode feature.⁸⁴ We now clarify those findings as follows. J-STD-025 represents an attempt by industry to develop a standard that carriers may choose to adopt voluntarily as a means to comply with CALEA's "safe harbor" provision set forth in section 107(a).⁸⁵ We further recognize that the statute leaves carriers with the discretion to choose to comply with CALEA by other means. We emphasize that in requiring carriers to comply with the core features of J-STD-025 by June 30, 2000, we did not intend for the *Extension Order* to alter the substantive requirements of CALEA. Rather, we meant

⁸⁰ See *infra* ¶¶ 48-128.

⁸¹ While EPIC/EFF/ACLU recommend that we reject J-STD-025, they do not identify any particular deficiencies in it other than its inclusion of location and packet-mode information, which constitute only a small portion of the standard's capabilities. Also, while they assert that they were precluded from participating in the proceeding leading up to adoption of J-STD-025, *see supra* ¶ 43, they have not claimed that they were precluded from participating in the open ANSI balloting process. *See supra* ¶¶ 11-12 & note 28. Once the draft standard was voted down in the ANSI process, J-STD-025 was adopted by TIA as an *interim* standard that involved only industry (and not law enforcement or privacy) entities. *See supra* ¶¶ 14-15.

⁸² 47 U.S.C. § 1006(b)(5).

⁸³ See *Extension Order*, *supra* note 13, at ¶ 46.

⁸⁴ *Id.* at n.139.

⁸⁵ 47 U.S.C. § 1006(a).

only to extend the deadline for compliance. Thus, we now clarify our *Extension Order* by requiring that by June 30, 2000, carriers must either have installed the core features of J-STD-025 to take advantage of the "safe harbor" provision of section 107(a) of CALEA or have otherwise developed an individual solution and installed capabilities that meet the assistance capability requirements of Section 103. We believe that this approach is more consistent with the language of the statute⁸⁶ and the legislative history on this point.⁸⁷ In addition,⁸⁸ we now propose to modify footnote 139 of the *Extension Order* to include the location information feature as part of the core of J-STD-025 which, if chosen by carriers as a means to qualify for the "safe harbor," must be implemented by the June 30, 2000 deadline.

47. As detailed in the *Extension Order*, an extension until June 30, 2000 provides sufficient time for manufacturers to produce CALEA compliant equipment based on the core features of J-STD-025 or to develop individual network solutions and provides telecommunications carriers sufficient time to purchase, test and install such equipment throughout their networks.⁸⁹ We further recognize that the additional "non-core" technical requirements we propose to be adopted in this rulemaking may require additional time for manufacturers to design and develop these capabilities and for telecommunications carriers to incorporate them into their networks. Thus, we will consider establishing another deadline or an implementation schedule for telecommunications carriers to comply with any new technical requirements we ultimately adopt in the instant proceeding. We seek comment on this proposal. Specifically, we ask carriers and manufacturers to supply us with timelines that detail how they plan to develop and deploy the additional technical requirements noted herein.

C. Particular Capabilities of J-STD-025 Opposed by CDT

⁸⁶ See, e.g., Section 103(b)(1) of CALEA, 47 U.S.C. § 1002(b)(1) (CALEA does not authorize any law enforcement agency to require any specific design of equipment, facilities, services, features, or system configurations).

⁸⁷ See, e.g., H. Rep. No. 103-837, 103d Cong., at 23 (1994), reprinted in 1994 U.S.C.C.A.N. 3489, 3503 ("law enforcement agencies are not permitted to require the specific design of systems or features The legislation leaves it to each carrier to decide how to comply. A carrier need not insure that each individual component of its network or system complies with requirements so long as each communication can be intercepted at some point that meets the legislated requirements."); *id.* at 27, reprinted in 1994 U.S.C.C.A.N. at 3507 ("Compliance with the industry standards is voluntary not compulsory. Carriers can adopt other solutions for complying with the capability requirements.")

⁸⁸ See *infra* at ¶¶ 52-57.

⁸⁹ See *Extension Order*, *supra* note 13, at ¶ 48.

1. Location Information

48. *Background.* J-STD-025 includes a "location" parameter that would identify the location of a subject's "mobile terminal" whenever this information is reasonably available at the intercept access point and its delivery to law enforcement is legally authorized. Location information would be available to the LEA irrespective of whether a call content channel or a call data channel was employed.⁹⁰

49. CDT objects to the inclusion of a location parameter in J-STD-025, stating that its inclusion violates the balance established by the Act between law enforcement and privacy by mandating a location tracking capability that Congress did not intend to be included within CALEA.⁹¹ CDT asserts that location information does not fit within the definition of call-identifying information,⁹² and that it must be deleted from the final standard because it goes beyond the assistance capability requirements set forth in Section 103(a)(1)-(4).⁹³ EPIC/EFF/ACLU state that CALEA excludes wireless services from any requirement to provide location-tracking information to law enforcement.⁹⁴

50. Most other parties, however, either disagree with this position, or justify the inclusion of location information in the industry interim standard as a compromise reached between industry and law enforcement. For example, SBC Communications, Inc. (SBC) claims that CDT has overstated the capabilities of the J-STD-025 location feature. SBC asserts that this feature does not convert all wireless phones into location-tracking devices, but merely provides the ability to identify the landline central office through which a cellular call is routed.⁹⁵ TIA states that while it is unclear as to whether CALEA requires location information capabilities, such capabilities are reasonably available to telecommunications carriers, and industry and law enforcement have reached a reasonable compromise on incorporating this feature into J-STD-

⁹⁰ J-STD-025 at § 6.4.6, and at §§ 5.4.1-5.4.8, Tables 1, 5, 6, and 8.

⁹¹ CDT Comments, at i.

⁹² *Id.* at 29.

⁹³ *Id.* at 33-34.

⁹⁴ EPIC/EFF/ACLU Comments, at 19-21.

⁹⁵ SBC Comments, at 15.

025.⁹⁶ AT&T voices a similar view, stating that a feature to provide location information at the origination and at the termination of wireless calls was included in J-STD-025 as a compromise to law enforcement's original, much broader claim that CALEA required carriers to provide location information whenever a wireless phone registered autonomously or as it moved from cell site to cell site.⁹⁷

51. By contrast, DoJ/FBI contend that information identifying the location of the cell site or other network element handling a wireless communications falls squarely within the statutory definition of "call-identifying information" contained in section 102(2) of CALEA, because it identifies the origin or destination of the call. Further, DoJ/FBI state, Section 103(a)(2) does include location information under the category of "call-identifying information," but also requires law enforcement to have authority beyond that "solely" applicable to the use of pen registers and trap and trace devices. Finally, DoJ/FBI state that the J-STD-025 location feature would require wireless carriers to provide only cell site information, not the specific location of a subject's wireless phone, and then only at the beginning and termination of the call.⁹⁸

52. *Discussion.* We tentatively conclude that location information is call-identifying information under CALEA. The Act states that call-identifying information is "dialing or signaling information that identifies the origin, direction, destination, or termination of each communication generated or received by a subscriber by means of any equipment, facility, or service of a telecommunications carrier."⁹⁹ We believe, contrary to the position of CDT and EPIC/EFF/ACLU, that location information identifies the "origin" or "destination" of a communication and thus is covered by CALEA.

53. We also observe that in the wireline environment, irrespective of the precise nature of law enforcement's surveillance authorization, LEAs have been able to obtain location information routinely from the telephone number because the telephone number corresponds with location. With the telephone number, location information is available from a LEA's own 911/Enhanced 911 (E911) database or from the telephone company's electronic records, such as the Loop Maintenance Operating System (LMOS).¹⁰⁰

⁹⁶ TIA Comments, at 76-78.

⁹⁷ AT&T Comments, at 13.

⁹⁸ DoJ/FBI Comments, at 16-21.

⁹⁹ 47 U.S.C. §1001(2).

¹⁰⁰ See Transmission Systems for Communications, AT&T Bell Laboratories (5th ed. 1982). We also note that the equivalent location information in the wireless (cellular or broadband PCS) environment appears to be the location of the cell sites to which the mobile terminal or handset is connected at the beginning and at the

54. We note, however, that the location feature as it currently appears in J-STD-025 is unclear. In particular, we note that this feature refers to the identification of the location of a subject's "mobile terminal," but does not specifically state whether it is the precise location of the mobile terminal or handset that is intended, or simply the location of the cell site to which the terminal or handset is connected. Also unstated in J-STD-025 is whether continuous location tracking is intended to be provided, or only the location at the beginning and termination of the call. Nonetheless, we note that DoJ/FBI and industry appear now to agree that the standard covers only the location of the cell site, and only at the beginning and termination of the call.¹⁰¹

55. In view of the above analysis, we tentatively affirm that location information should be construed to mean cell site location at the beginning and termination of a call.¹⁰² We seek comment on these proposals and, as required by section 107(b), on the other factors that we must consider in establishing a technical requirement or standard. We note that location information is already included in J-STD-025, the interim standard adopted by industry, and was opposed solely by the privacy groups. Therefore, we request comment in particular on whether our proposal raises issues regarding the protection of privacy and security of communications which are not authorized to be intercepted. As discussed above, we propose that the June 30, 2000 CALEA compliance deadline also is sufficient for development and implementation of compliant equipment that includes this feature.¹⁰³

56. Finally, we tentatively conclude that location information is reasonably available to telecommunications carriers, because this technical requirement was developed by industry and is included in the interim standard. However, we request comment on how the Commission should decide or interpret the term "reasonably available" in the context of the proposed location information requirement. For example, it appears that location information is already available through the wireless carriers' billing, hand-off and system use features. Additionally, wireless carriers will be required to have a location information capability as part of their E911 obligations.¹⁰⁴ We seek comment as to whether the location information feature in these other contexts can be used to address the needs of law enforcement under CALEA. We request

termination of the call. Provision of this particular location information does not appear to expand or diminish law enforcement's surveillance authority under prior law applicable to the wireline environment.

¹⁰¹ DoJ/FBI Comments, at 16, 19-20, & n.5; TIA Comments, at 77.

¹⁰² 47 U.S.C. § 1006(b).

¹⁰³ See *supra* at ¶¶ 46-47.

¹⁰⁴ Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 18676 (1996), *recon.* Memorandum Opinion and Order, 12 FCC Rcd 22665 (1997).

comment on any other issues that may impact our determination as to whether the location information that would be required to be provided to a LEA is reasonably available to carriers.

57. Commenters should also note CALEA's express statement that "with regard to information acquired solely pursuant to the authority for pen registers and trap and trace devices (as defined in section 3127 of title 18, United States Code), . . . call-identifying information shall not include any information that may disclose the physical location of the subscriber (except to the extent that the location may be determined from the telephone number)."¹⁰⁵ We agree with DoJ/FBI that this provision does not exclude location information from the category of "call-identifying information," but simply imposes upon law enforcement an authorization requirement different from that minimally necessary for use of pen registers and trap and trace devices.¹⁰⁶ We seek comment on this issue.

2. Packet-Mode

58. *Background.* J-STD-025 provides for LEA access to call-identifying information and the interception of wire and electronic telecommunications, regardless of whether the telecommunications are carried in circuit-mode or in packet-mode.¹⁰⁷ It further states that the "call-identifying information associated with the circuit-mode content surveillance is provided on the [call data channel]," but does not specifically address whether call-identifying information, if any, associated with packet-mode surveillance must be provided over a call data channel.¹⁰⁸

¹⁰⁵ 47 U.S.C. § 1002(a)(2)(B).

¹⁰⁶ We believe that interpreting this provision to exclude location information from the technical requirements for CALEA would render the provision "mere surplusage" and would thus conflict with the usual rules of statutory construction. See *Dunn v. CFTC*, 519 U.S. 465 (1997), 117 S.Ct. 913, 917 (1997) ("legislative enactments should not be construed to render their provisions mere surplusage"); *Illinois Public Telecommunications Ass'n v. FCC*, 117 F.3d 555, 562 (D.C.Cir. 1997) (construing section 226(e)(2) of Communications Act in manner to avoid "mere surplusage"); *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, Memorandum Opinion and Order and Notice of Proposed Rulemaking, FCC 98-188, released August 7, 1998, at ¶ 71 ("when . . . 'charged with understanding the relationship between two different provisions within the same statute, we must analyze the language of each to make sense of the whole'").

¹⁰⁷ See J-STD-025, at §§ 3 and 4.5. Section 3 defines circuit-mode as "a communication using bi-directional paths switched or connected when the communication is established. The entire communication uses the same path." Section 3 defines packet-mode as "a communication where individual packets or virtual circuits of a communication within a physical circuit are switched or routed by the accessing telecommunication system. Each packet may take a different route through the intervening network(s)."

¹⁰⁸ *Id.*

59. CDT challenges J-STD-025's treatment of intercepted packets as violative of the legal balance between the rights of law enforcement and the rights of individuals to privacy, asserting that the interim standard fails to require adequate privacy protections in packet-mode networks.¹⁰⁹ Specifically, CDT asserts that J-STD-025 does not *require* telecommunications carriers to excise call content information from packets before providing the packets to law enforcement over call data channels -- the interim standard merely *permits* the carriers to separate the information prior to delivery, at their option. CDT concludes that the interim standard would allow a LEA, possessing only a pen register order, to receive all of the *contents* of a person's communications without any effort by the carrier to excise the call content from the call-identifying information authorized for delivery to the LEA. Accordingly, CDT maintains that the treatment of packet transmissions in J-STD-025 threatens to obliterate entirely the distinction between call content and dialed numbers or similar signaling information.¹¹⁰ CDT contends that Title III's "minimization" requirement is inadequate to protect the privacy of call content in packet communications subject to a pen register order because there is no such requirement under the pen register standard.¹¹¹

60. EPIC/EFF/ACLU concur with CDT, stating that the FBI seeks to obtain the full content of a subject's packet-mode communications even when the government is authorized only to intercept addressing or signaling information. EPIC/EFF/ACLU contend that the provision of call content to law enforcement in this situation would violate the minimization requirements of both the Fourth Amendment and Title III, and would also violate Section 103(a)(4) of CALEA, which requires the carriers to protect communications not authorized to be intercepted.¹¹²

61. TIA disagrees with CDT and EPIC/EFF/ACLU, contending that their argument that J-STD-025 is deficient because it permits delivery of an entire packet stream in response to a pen register order fails to recognize the differences between circuit-mode and packet-mode technology. TIA states that existing technology does not permit telecommunications carriers to provide separated packet headers as call-identifying information. TIA concedes, however, that it is unclear whether the LEA has authority to access packet-mode communications under a pen register order.¹¹³

¹⁰⁹ CDT Comments, at i-ii.

¹¹⁰ *Id.* at 34-35.

¹¹¹ CDT Reply Comments, at i-ii.

¹¹² EPIC/EFF/ACLU Comments, at 24.

¹¹³ TIA Comments, at 78-80.

62. DoJ/FBI argue that when a carrier delivers an entire packet stream to the LEA pursuant to a pen register authorization, the LEA is legally precluded from recording or decoding information other than dialing and signaling information. DoJ/FBI state that the packet-mode provisions of J-STD-025 rely on the existence of this legal safeguard to ensure that call content is not improperly accessed in pen register cases. DoJ/FBI also state that LEAs performing pen register surveillance in an analog environment traditionally have received access to all information transmitted over the subscriber's line on the local loop, including call content. Accordingly, DoJ/FBI contend, the packet-mode provisions do not represent a diminution of traditional privacy protection.¹¹⁴ SBC concurs, stating that law enforcement is not allowed to intercept call content unless authorized to do so, and that sending the LEA an entire packet stream would not represent a change from the status quo.¹¹⁵

63. *Discussion.* Packet data and packet-switching technology are potentially usable for both information services and telecommunications services. We first observe that Section 103(b)(2)(A) of CALEA expressly excludes "information services" from its assistance capability requirements.¹¹⁶ Thus, packet data and packet-switching technology is subject to these requirements only to the extent it is used to provide telecommunications services, and not for information services.¹¹⁷ Packet-mode telecommunications services are expected to grow rapidly in the near future.¹¹⁸ J-STD-025 appears to be appropriately limited to apply only to

¹¹⁴ DoJ/FBI Comments, at 21-22.

¹¹⁵ SBC Reply Comments, at 7-8.

¹¹⁶ 47 U.S.C. § 1002(b)(2)(A).

¹¹⁷ Section 102(6) of CALEA (47 U.S.C. § 1001(6)) states that the term "information services" --
(A) means 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; but
(C) does not include any capability for a telecommunications carrier's internal management, control, or operation of its telecommunications network.

¹¹⁸ See generally *Federal-State Joint Board on Universal Service*, Report to Congress, CC Docket No. 96-45, FCC 98-67 (1998) ("*Report to Congress on Universal Service*") at ¶¶ 21-106, for a discussion of distinctions between telecommunications and information service providers.

"telecommunications services" as defined by the Commission.¹¹⁹ Second, we observe that CALEA requires telecommunications carriers to provide information to the LEA "in a manner that protects . . . the privacy and security of communications . . . not authorized to be intercepted."¹²⁰ This mandate would seem to be violated if the carrier were to give the LEA both call-identifying and call content information when only the former were authorized. Under those circumstances, the LEA would be receiving call content information without having the requisite authorization.

64. The record before us, however, is not sufficiently developed to support a proposal of any particular CALEA technical requirements for packet-mode telecommunications. Additional analysis is needed. We are aware that packet-mode technology is rapidly changing, and that different technologies may require differing CALEA solutions.¹²¹ We do not believe that the record sufficiently addresses packet technologies and the problems that they may present for CALEA purposes. While it is premature to impose any particular technical requirements for packet-mode telecommunications at this time, it is appropriate to ask for a full range of comment on this issue.

65. In seeking to develop a full record, we first set forth an analytical framework we believe will prove useful for evaluating the issue of setting CALEA technical requirements for packet-mode telecommunications. First, we advise commenters to consider the difference between connection-oriented and connectionless packet-mode services, and also between permanent virtual circuits, which have no per-call information, and switched virtual circuits. With these distinctions in mind, we request that commenters provide detailed comments regarding whether and, if so, how the statutory requirements of Section 103(a) of CALEA apply to packet-mode telecommunications. We request comment on what constitutes the equivalent of "call-

¹¹⁹ See J-STD-025 at § 1.1 ("This Interim Standard defines the interfaces between a *telecommunication service provider* (TSP) and [a LEA]....") (emphasis added).

¹²⁰ 47 U.S.C. § 1002(a)(4)(A).

¹²¹ For example, J-STD-025 itself lists the following as eight distinct packet-mode services: Integrated Services Digital Network (ISDN) user-to-user signaling; ISDN D-channel X.25 packet services; Short Message Services (SMS) for cellular and broadband PCS (*e.g.*, NAMPS, *TIA/EIA-41*, PCS1900, or GSM-based technologies); wireless packet-mode data services (*e.g.*, Cellular Digital Packet Data (CDPD), Code Division Multiple Access (CDMA), Time Division Multiple Access (TDMA), PCS1900, or GSM-based packet-mode services); X.25 services; TCP/IP services; paging (one-way or two-way); and packet-mode services using traffic channels. J-STD-025 at § 4.5.2. In addition, we note that there may be other packet technologies warranting discussion. This appears especially so, given that some carriers provide frame relay services, and various carriers have announced an intention to provide Asynchronous Transfer Mode (ATM) service. For example, Sprint has announced development of its "ION" system which will deploy ATM, SONET rings, and IP telephony to route data packets representing voice telephony.

identifying information" for packet-mode telecommunications services within the context of CALEA. Will packet-mode call-identifying information (or its equivalent) be reasonably available to carriers and, thus, subject to the provisions of Section 103(a)(2) of CALEA?¹²² How could packet-mode call content and call-identifying information (or its equivalent) be separated for delivery to law enforcement in compliance with CALEA?

66. In addition, we seek comment on the other section 107(b) factors that we must consider in establishing technical requirements. Specifically, we seek comment on any cost-effective methods for incorporating CALEA packet-mode requirements into a telecommunications carrier's system, and whether or not this can be accomplished in a manner that minimizes costs to residential ratepayers.¹²³ Further, we request additional comment on whether the inclusion of packet-mode technical requirements to meet the assistance capability requirements envisioned by Section 103 raises issues regarding the protection of privacy and security of communications which are not authorized to be intercepted.¹²⁴ Additionally, we solicit comment on whether the inclusion of such technical requirements would have a positive or negative effect on the provision of new technologies and services to the public.¹²⁵ Commenters are also asked to provide detailed information regarding the amount of time and conditions that they believe will be necessary to successfully develop and deploy packet-mode technical requirements in telecommunications systems.¹²⁶ Finally, we recognize that packet-mode issues are complex, and that relative to the other issues under consideration herein, additional time may be required to resolve them.

D. DoJ/FBI Punch List

1. General Comments

¹²² Section 103(a)(2) of CALEA, 47 U.S.C. § 1002(a)(2).

¹²³ Section 107(b)(1), (3) of CALEA, 47 U.S.C. § 1006(b)(1), (3).

¹²⁴ Section 107(b)(2) of CALEA, 47 U.S.C. § 1006(b)(2).

¹²⁵ Section 107(b)(4) of CALEA, 47 U.S.C. § 1006(b)(4).

¹²⁶ Section 107(b)(5) of CALEA, 47 U.S.C. § 1006(b)(5).

67. DoJ/FBI maintain that the nine FBI punch list items must be implemented if essential law enforcement requirements are to be met. DoJ/FBI assert that the basic goal of CALEA's assistance capability requirements is to ensure that the technical ability of law enforcement to carry out electronic surveillance meets, rather than falls short of, law enforcement's legal authority. DoJ/FBI state that each of the nine capabilities missing from J-STD-025 and requested in the DoJ/FBI Petition is firmly rooted in the language, legislative history, and policies of CALEA, and that failure to provide these capabilities will result in serious injury to the government's ability to enforce state and federal laws through electronic surveillance.¹²⁷

68. Telecommunications carriers and their representatives generally oppose inclusion of any portion of the punch list in the final CALEA standard. The United States Telephone Association (USTA) states that J-STD-025 already represents a compromise on the part of industry.¹²⁸ AT&T argues that industry and other public commenters have made a compelling case that the FBI punch list of capabilities is not required by CALEA, whereas DoJ/FBI has made only a showing of how beneficial the capabilities would be to future law enforcement surveillance.¹²⁹ AT&T contends that the industry interim standard uses the precise definition of call-identifying information set forth in CALEA, but that DoJ/FBI ask the Commission to go well beyond this definition by including as "call-identifying" information: subject-initiated dialing and signaling; party hold, drop, and join messages; and notification messages of network-generated in-band and out-of-band signaling.¹³⁰ AT&T further argues that DoJ/FBI has not addressed section 107 of CALEA, which requires cost-effective implementation of the statute.¹³¹ AT&T contends that the DoJ/FBI punch list is really an attempt to force telecommunications carriers to provide additional capabilities without reimbursement from law enforcement.¹³²

69. BellSouth and CDT concur with AT&T's assessment regarding call-identifying information. BellSouth states that CALEA defines call-identifying information narrowly as the numbers identifying the calling and called parties, and not other carrier network messages, tones,

¹²⁷ DoJ/FBI Reply Comments, at 4.

¹²⁸ USTA Comments, at 3.

¹²⁹ AT&T Comments, at 2.

¹³⁰ *Id.* at 7.

¹³¹ AT&T Reply Comments, at 3.

¹³² AT&T Comments, at 5.

signals, or information.¹³³ CDT contends that DoJ/FBI is attempting to use CALEA to include more data in the category of call-identifying information to ensure that such data can be available under the less stringent legal standards applicable for the LEA to obtain pen register and trap and trace authority than is required under Title III for the LEA to obtain call content information.¹³⁴

70. Other parties concur with AT&T regarding cost-effective implementation of the punch list. AirTouch Communications, Inc. (AirTouch), for example, states that a vendor has advised AirTouch that developing the punch list would require an effort exceeding by 160% the substantial effort required to develop the industry standard. AirTouch therefore maintains that implementation of the punch list would be costly and would divert resources from developing new technologies and services.¹³⁵ Sprint Spectrum L.P. d/b/a Sprint PCS (Sprint PCS) contends that implementation of the punch list will almost certainly exceed the \$500 million authorized by Congress for implementation of CALEA.¹³⁶ US West, Inc. (US West) states that rate increases will likely be necessary if telecommunications carriers are required to implement any of the additional capabilities proposed by DoJ/FBI.¹³⁷

71. Bell Emergis - Intelligent Signalling Technologies (Bell Emergis), on the other hand, states that the entire punch list can be adopted as an Addendum to J-STD-025. Bell Emergis contends that while there may be cost and technical difficulties in incorporating the punch list within a switch-based approach, network-based solutions -- such as one it has developed -- meet the test of both cost effectiveness and technical achievability.¹³⁸

72. DoJ/FBI disagree with commenters who reject the punch list, stating that these commenters have a fundamental misunderstanding of the policies and goals of CALEA. DoJ/FBI contend that Section 103 imposes mandatory assistance capability obligations that must be met by all telecommunications carriers, and assert that commenters who suggest that law enforcement concerns are of no more than secondary importance in the CALEA legislation are incorrect. DoJ/FBI conclude that if the Commission does not implement the punch list in its entirety,

¹³³ BellSouth Comments, at 7.

¹³⁴ CDT Reply Comments, at 11-12.

¹³⁵ AirTouch Comments, at 9.

¹³⁶ Sprint PCS Comments, at 6.

¹³⁷ US West Comments, at 9.

¹³⁸ Bell Emergis Reply Comments, at 2-3.

industry-promulgated standards will effectively replace the underlying statutory requirements of Section 103.¹³⁹ Below we discuss each punch list item in detail.

2. Content of subject-initiated conference calls

73. *Background.* This capability would permit the LEA to monitor the content of conversations connected via a conference call set up by the facilities under surveillance. Surveillance of all portions of a conference call would continue, even if any party to the call utilized services such as hold, call waiting, or three-way calling. For example, if anyone involved in a conference call were placed on hold, all remaining conversations would continue to be available to the LEA for monitoring. The ability to monitor would continue even after the subject drops off the conference call.

74. AirTouch states that there is no basis to impose an enhanced conference call requirement on carriers.¹⁴⁰ AirTouch also states that it would appear to be easy for criminals to bypass this feature if carriers were to deploy it because it would enable law enforcement to intercept only those conference calls that use the facilities under surveillance and are supported by a conference service provided by the subject's local carrier. AirTouch maintains that law enforcement would not be able to intercept conference calls when the subject no longer participates if the call is set-up by another person using another telephone or if the subject initiates the call, but uses a conference bridge service offered by another carrier or service provider.¹⁴¹

75. TIA argues that CALEA does not require delivery of conference call conversations that cannot be heard over a subscriber's facilities, but only communications that are to or from a subscriber. TIA states that implementation of this punch list item would result in an effectively unlimited, and unwarranted, expansion of the "facilities" doctrine of Title III. TIA states that, despite the fact that the DoJ/FBI Petition acknowledges that "facilities" have historically been considered for Title III purposes as the subscriber's "terminal equipment," DoJ/FBI now interpret Title III as including not just the subscriber's facilities, but services as well. Furthermore, in TIA's view, implementation of this feature would violate the limits on wiretaps and other searches imposed by the Fourth Amendment. TIA argues that eliminating the required link to the subscriber's facilities would take an interception far afield from the particular persons and places

¹³⁹ DoJ/FBI Reply Comments, at 12.

¹⁴⁰ AirTouch Reply Comments, at 6.

¹⁴¹ AirTouch Comments, at 14.

with regard to which law enforcement has established "probable cause" warranting the electronic surveillance.¹⁴²

76. DoJ/FBI disagree with the above commenters, arguing that Title III does not require the target of the investigation to be on the line in order for law enforcement lawfully to intercept communications taking place over the facilities under surveillance or supported by the subscriber's service.¹⁴³ DoJ/FBI state that it is the subscriber who pays for call conferencing capability and any charges associated with the duration of the call itself, demonstrating that the subscriber's services are involved even if the subscriber drops off the call.¹⁴⁴ DoJ/FBI maintain that Title III does not confine the LEA to communications in which the individual under investigation -- who may or may not be the subscriber -- is taking part. DoJ/FBI acknowledge that the LEA is obligated to minimize the interception of communications not otherwise subject to interception under Title III, but contend that this minimization obligation does not foreclose the LEA from intercepting communications that involve other criminal activity merely because they do not involve the target of a particular investigation. DoJ/FBI conclude by stating that where a conference call continues to be carried by the subscriber's facilities and supported by the subscriber's services even when the subscriber is not on the line, the communications of all parties to such a call are covered by Section 103(a)(1) of CALEA.¹⁴⁵

77. Discussion. We tentatively conclude that the provision of the content of subject-initiated conference calls is a technical requirement that meets the assistance capability requirements of Section 103.¹⁴⁶ With appropriate lawful authorization, the LEA is entitled to "intercept, to the exclusion of any other communications, all wire and electronic communications carried by the carrier within a service area to or from equipment, facilities, or services of a subscriber."¹⁴⁷ TIA asserts that we must first determine whether a conference call capability would unduly expand Title III's concept of "facilities" before deciding whether such a capability is required under CALEA.¹⁴⁸ We note, however, that the plain language of CALEA's Section 103

¹⁴² TIA Comments, at 30-38.

¹⁴³ DoJ/FBI Comments, at 7.

¹⁴⁴ DoJ/FBI Reply Comments, at 18.

¹⁴⁵ DoJ/FBI Comments, at 7-8.

¹⁴⁶ 47 U.S.C. § 1006(b).

¹⁴⁷ 47 U.S.C. § 1002(a)(1).

¹⁴⁸ According to TIA, the term "facilities" under Title III is "limited by the requirement that the intercept involve the actual telephone or other physical facilities of the intercept subject - as opposed to the entire system or

includes the terms "equipment" and "services", in addition to "facilities." Also, according to the legislative history, "conference calling" is one of the "features and services" that is covered by CALEA.¹⁴⁹ We seek comment on our tentative conclusion. We also seek comment as to how the Commission should define or interpret Section 103's use of the phrase "equipment, facilities, or services" in the context of subscriber-initiated conference calls.

78. We recognize that different carriers provide conference calling features in various ways and that not all carriers' system architecture is the same. Some carriers, for example, may have systems that support continuation of conference calls after the subscriber drops off the call, while others may not. For those network configurations in which, when a subscriber drops off a conference call, the call nevertheless remains routed through the subscriber's "equipment, facilities, or services," we tentatively interpret CALEA as requiring the carrier to continue to provide to the LEA the call content of the remaining parties, pursuant to court order or other lawful authorization. For those configurations, however, in which, when the subscriber drops off the call, the call is either disconnected or rerouted, and the "equipment, facilities, or services of a subscriber" are no longer used to maintain the conference call, we tentatively conclude that CALEA does not require the carrier to provide the LEA access to the call content of the remaining parties. Moreover, in some cases where the call is re-routed, the content of the call may no longer be classifiable as "communications carried by the carrier within a service area" pursuant to Sections 103(a)(1) and (d).¹⁵⁰ Thus, under such circumstances, CALEA would not require the carrier to modify its system architecture in order to support this particular technical requirement. We seek comment on this tentative conclusion. Commenters should address how Sections 103(a)(1) and (d) should be interpreted in this context. Also, we tentatively conclude that CALEA does not extend to conversations between a participant of the conference call other than the subject and any person with whom the participant speaks on an alternative line (*e.g.*,

network to which the telephones are attached." TIA Comments, at 34-35; *but see* DoJ/FBI Joint Petition, at 27-33 ("Title III does not require the subscriber to be "on the line" in order for law enforcement lawfully to intercept communications taking place over the subscriber's facilities or supported by the subscriber's service.")

¹⁴⁹ See H.R. Rep. No. 103-827, *reprinted in* 1994 U.S.C.C.A.N. 3489 (1994)(one of the purposes of the Act "is to preserve the government's ability, pursuant to court order or other lawful authorization, to intercept communications involving ... services and features such as ... conference calling.").

¹⁵⁰ Section 103(a)(1) and (d) of CALEA, 47 U.S.C. § 1002(a)(1) and (d). Section 103(a)(1) requires a carrier to "ensure that its equipment, facilities, or services . . . are capable of . . . expeditiously isolating and enabling [lawful interception of] all wire and electronic *communications carried by the carrier within a service area* to or from [subscribers]. . ." (italics added). Section 103(d) requires that when a commercial mobile service carrier conducting a lawful interception of wire and electronic communications loses "*access to the content of such communications or call-identifying information within the service area . . .*, information is made available to the government . . . *identifying the provider of a wire or electronic communication service that has acquired access to the communications*" (italics added).

when A, the subject, is on a conference call with B and C, we tentatively conclude that C's conversation with D on call waiting is beyond CALEA's requirements. We also seek comment on this tentative conclusion.

79. Additionally, we seek comment on the section 107(b) factors that we must consider in establishing a technical requirement or standard. Are there cost-effective methods of incorporating access to conference call content into a telecommunications carrier's system? Can it be accomplished in a manner that minimizes costs to residential ratepayers? Further, we request comment on whether this proposal raises issues regarding the protection of privacy and security of communications which are not authorized to be intercepted. Additionally, we solicit comment on whether the inclusion of this technical requirement within the assistance capability requirements envisioned by Section 103 would positively or negatively affect the provision of new technologies and services to the public. Would, for example, networks have to be redesigned in such a way as to preclude certain new technologies or services? Finally, commenters are asked to provide detailed information regarding the amount of time and conditions that they believe will be necessary to successfully develop and deploy this technical requirement in telecommunications systems.

3. Party hold, join, drop on conference calls

80. *Background.* This item also involves features designed to aid a LEA in the interception of conference calls. This feature would permit the LEA to receive from the telecommunications carrier messages identifying the parties to a conversation at all times. The party hold message would be provided whenever one or more parties are placed on hold. The party join message would report the addition of a party to an active call or the reactivation of a held call. The party drop message would report when any party to a call is released or disconnects and the call continues with two or more other parties.

81. AT&T states that DoJ/FBI admit that they have not received party hold, drop, and join messages in the past, but DoJ/FBI claim this information is now needed so that law enforcement can demonstrate that a party hears material portions of a communications. AT&T contends, however, that these messages will not indicate to law enforcement whether a party hears or does not hear any communication because the party may or may not be listening at relevant times. AT&T further contends that its review of all wiretapping cases discloses no decision where such information was an issue in any decided case. AT&T maintains that J-STD-025 already provides law enforcement with all numbers dialed or received from any participant to multi-party calls; change messages whenever call-identities are merged, split, or changed; and a

message identifying when the resources for all legs of a call are released. AT&T concludes, therefore, that addition of the instant punch list item is unnecessary to identify the call.¹⁵¹

82. BellSouth states that the call-identifying information intended by CALEA to be provided to law enforcement is simply the telephone number indicating call origination or destination. BellSouth argues that the additional information sought by law enforcement, such as which parties are on a call, do not constitute origination or destination telephone numbers, and therefore cannot be categorized as "call-identifying information." Moreover, BellSouth argues, party hold, drop, and join message information would be extremely difficult to provide because, in all but the simplest cases, conference calls are established in a remote bridge, separate from the voice switch.¹⁵²

83. TIA states that the industry interim standard already requires provision of information that substantially satisfies the party join/drop capabilities requested by DoJ/FBI. Thus, TIA maintains, law enforcement's primary dispute regarding this issue is that J-STD-025 does not require a real-time message to be delivered to law enforcement whenever a participant is placed on hold or released from hold by the subject. However, TIA argues, party hold information is not call-identifying information nor is it reasonably available to the carrier. TIA also states that a party who is not on hold may stop listening or walk away from the phone -- thus, the DoJ/FBI rationale for adding this feature, that "without these messages, law enforcement would not know who joins or leaves a conference call, whether the subject alternated between calls, or which parties heard or said parts of the conversation," is unpersuasive. Rather, TIA states, the only persuasive evidence that a party heard an intercepted statement is a demonstration that the party responded to the statement.¹⁵³

84. DoJ/FBI disagree with the above parties, contending that party hold/join/drop messages constitute call-identifying information. DoJ/FBI contend that carriers are obligated under Section 103(a)(1) to provide this information, regardless of whether the LEA could have acquired it through traditional monitoring techniques in the past. DoJ/FBI state that party hold/join/drop messages enable the LEA to identify who is connected in a subject's conference call at any point in the conference. Without these messages, according to DoJ/FBI, the LEA would not know who joins or leaves a conference call, whether the subject alternated between calls, or which parties heard or said particular parts of a conversation. Therefore, according to DoJ/FBI,

¹⁵¹ AT&T Comments, at 10-11.

¹⁵² BellSouth Comments, at 9.

¹⁵³ TIA Comments, at 51-55.

this information must be added to the industry standard to ensure that the assistance capability requirements of Section 103(a) of CALEA are met as intended by Congress.¹⁵⁴

85. *Discussion.* We tentatively conclude that party hold/join/drop information falls within CALEA's definition of "call-identifying information" because it is "signaling information that identifies the origin, direction, destination, or termination of each communication generated or received" by the subject.¹⁵⁵ For example, party join information appears to identify the origin of a communication; party drop, the termination of a communication; and party hold, the temporary origin, temporary termination, or re-direction of a communication. This capability also appears to be necessary to enable the LEA to isolate call-identifying and content information because, without it, the LEA would be unable to determine who is talking to whom, and, more accurately, to focus on the subject's role in the conversation.¹⁵⁶ Further, by isolating the call-identifying information in this manner, the LEA can ascertain and isolate third parties who are not privy to the communications involving the subject, thereby furthering the minimization concept.

86. Accordingly, we propose that provision of party hold/join/drop information, if reasonably available to the carrier, is a technical requirement that meets the assistance capability requirements of Section 103. We base this conclusion on the statutory language found in Sections 103(a)(2) and 102(2). We note, however, that LEA access to this information would be required only in those cases where the carrier's facilities, equipment or services are involved in providing the service; in other words, when a network signal is generated. To the extent that customer premises equipment (CPE) is used to provide such features, we tentatively conclude that party hold/join/drop information could not be reasonably made available to the LEA since no network signal would be generated. For example, many telephone sets have a "hold" button that does not signal the network -- thus, from the carrier's point of view, the call's status is unchanged. We seek comment on this tentative conclusion. We also seek comment on TIA's assertion that party/hold/join drop information is already substantially available to the LEA and, if so, whether it is or needs to be provided in real time.

¹⁵⁴ DoJ/FBI Reply Comments, at 50-54.

¹⁵⁵ Section 102(2) of CALEA, 47 U.S.C. § 1001(2).

¹⁵⁶ We note that Section 103 specifically requires a telecommunications carrier to:

(a) ensure that its equipment, facilities, or services that provide a customer or subscriber with the ability to originate, terminate, or direct communications are capable of --

(2) expeditiously isolating and enabling the government, pursuant to a court order or other lawful authorization, to access call-identifying information that is reasonably available to the carrier --

(B) in a manner that allows it to be associated with the communication to which it pertains.

87. We seek comment on our proposal and, as required by section 107(b), on the other factors that we must consider in establishing a technical requirement or standard. Are there cost-effective methods of incorporating a party hold/join/drop capability into a telecommunications carrier's system? Can it be accomplished in a manner that minimizes costs to residential ratepayers? Further, we request comment on whether this proposal raises issues regarding the protection of privacy and security of communications which are not authorized to be intercepted. Additionally, we solicit comment on whether the inclusion of this technical requirement within the assistance capability requirements envisioned by Section 103 would positively or negatively affect the provision of new technologies and services to the public. Further, commenters are asked to provide detailed information regarding the amount of time and conditions that they believe will be necessary to successfully develop and deploy this technical requirement in telecommunications systems.

4. Subject-initiated dialing and signaling information

88. *Background.* This capability would permit the LEA to be informed when a subject using the facilities under surveillance uses services such as call forwarding, call waiting, call hold, and three-way calling. DoJ/FBI requests this information for each communication initiated by the subject. This capability would require the telecommunications carrier to deliver a message to the LEA, informing the LEA that the subject has invoked a feature which would place a party on hold, transfer a call, forward a call, or add/remove a party to a call.

89. USTA and US West state that such dialing and signaling activity goes beyond the definition of call-identifying information set forth in CALEA.¹⁵⁷ TIA concurs, contending that DoJ/FBI offer no evidence that failure to provide information on *all* such signaling activity will impair the ability of law enforcement to determine the destination of communications. TIA also contends that the DoJ/FBI petition does not identify any specific signaling activity that is both required by CALEA and is not already required to be provided under the industry interim standard, provided it is reasonably available. TIA states that the only additional information that would be available under the DoJ/FBI request is the identity of the actual keys pressed by the subject, but argues that this information is not required by CALEA, as it is not reasonably available and not built into the network.¹⁵⁸

90. DoJ/FBI disagree with the above parties, contending that such dialing and signaling activity is call-identifying information. Further, DoJ/FBI maintain that in the past the LEA was

¹⁵⁷ USTA Comments, at 5; US West Comments, at 15.

¹⁵⁸ TIA Comments, at 47-51.

able to detect flash hook signaling by changes to the electric signals on the analog local loop, but that digital switching now prevents the LEA from having this capability. DoJ/FBI state that without access to such dialing and signaling activity the LEA may be unable to determine what has happened to a call when the direction, or the destination, of the call dramatically changes. For example, according to DoJ/FBI, a subject may use his/her flash hook capability to move back and forth between two associates on concurrent calls, and without the receipt of a message showing this signaling activity, the LEA may be unable to follow the course of the conversation or determine to whom the subject is speaking at any given point.¹⁵⁹

91. *Discussion.* We tentatively conclude that subject-initiated dialing and signaling information fits within the definition of call-identifying information contained in section 102(2) of CALEA. For example, call-forwarding signaling information identifies the direction and destination of a call, and call-waiting signaling information identifies the origin and termination of each communication. We request comment on whether remote operation of these features should affect our tentative conclusion. For example, a subject may be able to change some aspects of his/her service from a pay telephone, as well as from the subject's telephone.

92. We also tentatively conclude that access to subject-initiated dialing and signaling information may be necessary in order for the LEA to isolate and correlate call-identifying and call content information. Knowing what features a subject is using will ensure that the LEA receives information "in a manner that allows it to be associated with the communication to which it pertains."¹⁶⁰ For example, without knowing that a subject has switched over to a call on call-waiting, the LEA may not be able to associate the call-identifying information with the call content to which it pertains and thus could be more likely to mistake one call for another. Once again, to the extent CPE is used to perform any of the functions described here, and no network signal is generated, that information will not be reasonably available to a carrier, and thus, should not be required to be provided.¹⁶¹

93. We observe that signaling data indicating that the subject is accessing his/her voice mail is properly classified as "call-identifying information." The contents of the voice mail, however, fall outside the scope of CALEA. This is because voice mail "permits a customer to retrieve stored information from . . . information storage facilities,"¹⁶² and CALEA does not apply

¹⁵⁹ DoJ/FBI Reply Comments, at 46-50.

¹⁶⁰ Section 103(a)(2)(B) of CALEA, 47 U.S.C. § 1002(a)(2)(B).

¹⁶¹ See *supra* ¶ 86; see also Sections 103(a)(2) and 103 (b)(1)(A) of CALEA, 47 U.S.C. §§ 1002(a)(2) and 1002(b)(1)(A).

¹⁶² Section 102(6)(B)(i) of CALEA, 47 U.S.C. § 1001(6)(B)(i).

to information services.¹⁶³ The requirement we propose below is consistent with this distinction because it provides only the call identifying information and is not capable of providing voice content.

94. Accordingly, we propose to include information on subject-initiated dialing and signaling that is reasonably available to the carrier as a technical requirement necessary to meet the assistance capability requirements of Section 103. We base our conclusion regarding subject-initiated dialing and signaling information that is reasonably available to the carrier on the statutory language found in Sections 103(a)(2) and 102(2). We seek comment on this proposal and, as required by section 107(b), on the other factors that we must consider in establishing a technical requirement or standard. Are there cost-effective methods of providing subject-initiated dialing and signaling information? Can this requirement be accomplished in a manner that minimizes costs to residential ratepayers? Further, we request comment on whether this proposal or tentative conclusion raises issues regarding the protection of privacy and security of communications which are not authorized to be intercepted. Additionally, we solicit comment on whether the inclusion of this technical requirement within the assistance capability requirements envisioned by Section 103 would positively or negatively affect the provision of new technologies and services to the public. Commenters are asked to provide detailed information regarding the amount of time and conditions that they believe will be necessary to successfully develop and

¹⁶³ See H.R. Rep. No. 103-827, reprinted in 1994 U.S.C.C.A.N. 3489, 3503 (1994) (noting that CALEA's capability requirements do not apply to information services and stating that "storage of a message in a voice mail or E-mail 'box' is not covered by the bill. The redirection of the voice mail message to the 'box' and the transmission of an E-mail message to an enhanced service provider that maintains the E-mail service are covered.") Section 103(b)(2)(A) of CALEA, 47 U.S.C. § 1002(b)(2)(A). We have recently, in the context of the Telecommunications Act of 1996, drawn such a distinction between voice mail and other call features. *See, e.g., In the Matter of Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information*, ¶¶ 73-74, 13 FCC Rcd 8061 (1998) (observing that services formerly referred to as "adjunct-to-basic" -- "speed dialing, call forwarding, computer-provided directory assistance, call monitoring, caller ID, call tracing, call blocking, call return, repeat dialing, call tracking, and certain centrex features" and "call waiting" -- were *not* information services, while "call answering, voice mail or messaging, voice storage and retrieval services, fax store and forward, and Internet access services" were information services); *see also* NPRM, *In the Matter of Implementation of §255 of the Telecommunications Act of 1996*, ¶ 39, 1998 W 185139 (released April 20, 1998) (drawing the same distinction). In our recent *Report to Congress on Universal Service*, we found that Congress intended the categories of "telecommunications service" and "information service" to be mutually exclusive. *See* FCC 98-67, *supra* note 118, at ¶ 13.

We find these precedents applicable here because CALEA and the Communications Act of 1934 (as amended by the Telecommunications Act of 1996) define the term "information services" virtually identically. *Compare* section 102(6)(A),(C) of CALEA, 47 U.S.C. § 1001(6)(A),(C) *with* section 3(20) of Communication Act, 47 U.S.C. § 153(20). Furthermore, CALEA explicitly includes as an example of information services "a service that permits a customer to retrieve stored information from, or file information for storage in, information storage facilities." Section 102(6)(B) of CALEA, 47 U.S.C. § 1001(6)(B) (also including "electronic publishing" and "electronic messaging services" as information services).

deploy this technical requirement in telecommunications systems. In addition, excluding those CPE-controlled features noted above, we request comment on whether information required to provide LEAs with subject-initiated dialing and signaling activity is reasonably available to carriers. Finally, we recognize that some commenters assert that at least portions of this technical requirement may be provided through other features of J-STD-025. We request comment on the accuracy of these contentions. Commenters should demonstrate clearly how the features required are provided, or not provided, elsewhere in J-STD-025.

5. In-band and out-of-band signaling

95. *Background.* This technical requirement would allow a telecommunications carrier to send a notification message to the LEA when any network message (ringing, busy, call waiting signal, message light, *etc.*) is sent to a subject using facilities under surveillance. For example, if someone leaves a voice mail message on the subject's phone, the notification to the LEA would indicate the type of message notification sent to the subject (such as the phone's message light, audio signal, text message, *etc.*). For calls the subject originates, a notification message would also indicate whether the subject ended a call when the line was ringing, busy (a busy line or busy trunk), or before the network could complete the call.

96. BellSouth states that, for telecommunications carriers to be able to signal a LEA whenever a subject's service sends a network message to the subject or an associate, significant technical upgrades to the carriers' facilities would be needed, and even then the LEA would receive mostly redundant information.¹⁶⁴ PrimeCo Personal Communications, L.P. (PrimeCo) concurs and argues that this information is already readily available through the audio portion of a call content intercept and, therefore, to procure this information, the LEA should be required to obtain a Title III authorization. PrimeCo contends that Congress did not intend to "require the specific design of systems or features" that would be required to implement this capability as a "call-identifying" technical requirement.¹⁶⁵

97. TIA states that DoJ/FBI define network-generated in-band and out-of-band signaling information to include any alerting of incoming calls or messages, audible indications of incoming calls or messages, visual indications of incoming calls or messages, and alphanumeric display information. TIA contends that, to the extent J-STD-025 does not already provide this

¹⁶⁴ BellSouth Comments, at 11-12.

¹⁶⁵ PrimeCo Comments, at 16-17.

information, the information is not "call-identifying" and is not required by CALEA to be provided on a call data channel.¹⁶⁶

98. DoJ/FBI contend that in-band and out-of-band signaling identifies the "direction, destination, and/or termination" of a communication, and therefore is call-identifying information that must be provided under CALEA. DoJ/FBI believe that the interim standard is deficient with respect to this capability because it does not allow the LEA to ascertain what a subject hears and sees when a call is not completed. DoJ/FBI assert that the capability they are requesting is appropriately limited in scope because it relates only to signaling from the subscriber's service.¹⁶⁷

99. *Discussion.* We believe that certain types of in-band and out-of-band signaling information, such as notification that a voice mail message has been received by a subject, constitute call-identifying information under CALEA. Nevertheless, there may also be other types of in-band and out-of-band signaling information that would constitute call content information and thus would raise questions as to under what authority they should be provided to the LEA. However, for purposes of this proceeding, we do not address such questions of whether or what type of authorization LEAs would need to access such information. This is up to the judicial branch. Unless necessary to establish technical standards under CALEA's safe harbor, it is not our intention to specifically decide whether certain types of in-band or out-of-band signaling is either call content or call-identifying information since CALEA requires that carriers have the ability to provide access to both. We request comment on what types of in-band and out-of-band signaling should constitute a technical requirement necessary to meet the assistance capability requirements envisioned by Section 103.¹⁶⁸

100. Also, in the event that we ultimately determine that in-band and out-of-band signaling is a technical requirement necessary to meet the assistance capability requirements under Section 103, we request comment on whether there are cost-effective methods of providing in-band and out-of-band signaling to a LEA. Can this requirement be accomplished in a manner that minimizes costs to residential ratepayers? Further, we request comment on whether this requirement raises issues regarding the protection of privacy and security of communications which are not authorized to be intercepted. Additionally, we solicit comment on whether the inclusion of this technical requirement within the assistance capability requirements envisioned by Section 103 would positively or negatively affect the provision of new technologies and services to the public. Commenters are asked to provide detailed information regarding the amount of

¹⁶⁶ TIA Comments, at 55-57.

¹⁶⁷ DoJ/FBI Reply Comments, at 55-59.

¹⁶⁸ 47 U.S.C. § 1006(b).

time and conditions that they believe will be necessary to successfully develop and deploy this technical requirement in telecommunications systems.

6. Timing information

101. *Background.* In those cases where the LEA has obtained authorization to intercept both content and call-identifying information, this capability would require that a telecommunications carrier send call timing information to the LEA so that the LEA could associate the call-identifying information with the actual content of the call. There would be two elements to this capability:

1) Each call-identifying message (answer message, party join message, party drop message, *etc.*) would be time stamped within a specific amount of time from when the event triggering the message occurred in the intercept access point.¹⁶⁹ This time-stamp would allow the LEA to associate the message to the call content information (*i.e.*, the conversation).

2) A carrier would be required to send the message to the LEA within a defined amount of time from the event to permit the LEA to associate the number dialed to the conversation.

102. TIA states that these timing requirements are inconsistent with the capabilities of existing telecommunications networks and lack any basis in CALEA.¹⁷⁰ US West concurs, and states that implementation of these capabilities would be quite expensive.¹⁷¹ PrimeCo states that carriers vary considerably in size and technical resources, and therefore adoption of a uniform timing standard is not appropriate.¹⁷² BellSouth contends that establishing an arbitrary timing requirement, without a thorough knowledge of how CALEA will be implemented, is inappropriate.¹⁷³ SBC states that the timing of delivery of call-identifying information is a function of network and equipment design, and that DoJ/FBI cannot point to an actual case in

¹⁶⁹ The intercept access point is the point in the system where the subscriber's phone line is tapped, usually at the switch.

¹⁷⁰ TIA Comments, at 63.

¹⁷¹ US West, at 22.

¹⁷² PrimeCo Comments, at 18.

¹⁷³ BellSouth Comments, at 13.

which the timing of a carrier's delivery of call-identifying information has ever led to a crime that otherwise would have been prevented.¹⁷⁴

103. DoJ/FBI disagree with the above parties, arguing that a timing capability is essential to law enforcement. DoJ/FBI cite a kidnapping as an example of a situation where timely delivery of call-identifying information is critical.¹⁷⁵ DoJ/FBI state that in such a situation if call-identifying information is not provided until the end of a call, it may be of little value to the LEA. DoJ/FBI state that it has requested transmission to the LEA from the carrier within three seconds from the time of the event because that timeframe is well within the state-of-the-art, and use of a precise time stamp is important to accurately record events.¹⁷⁶

104. Discussion. We tentatively conclude that time stamp information fits within the definition of call-identifying information contained within section 102(2) of CALEA¹⁷⁷ and will allow such information "to be associated with the communication to which it pertains."¹⁷⁸ We propose to include timing information that is reasonably available to the carrier as a technical requirement necessary to meet the assistance capability requirements of Section 103(a). We seek comment on this proposal. We base this conclusion on the statutory language found in Section 103(a)(2), and on our tentative conclusion that such information falls within the definition of call-identifying information in section 102(2). A time stamp permits identification of a given call from a series of calls made within a short timeframe, and is necessary to allow a LEA to associate call-identifying information with the communication to which it pertains. We note, however, that CALEA does not impose a specific timing requirement on carriers. Rather, it states that carriers must "expeditiously" isolate and enable the government to access call-identifying information "before, during, or immediately after the transmission of a wire or electronic communication (or at such later time as may be acceptable to the government); and in a manner that allows it to be associated with the communication to which it pertains."¹⁷⁹ Therefore, we seek comment on what is a reasonable amount of time to require the carriers to deliver the time stamped message to the LEA. We note that DoJ/FBI have requested delivery within 3 seconds of the beginning of the event and with an accuracy of 100 milliseconds. Commenters should address whether this is a reasonable time frame, and whether there are any technical barriers to implementing such a

¹⁷⁴ SBC Comments, at 12.

¹⁷⁵ DoJ/FBI Reply Comments, at 59-66.

¹⁷⁶ *Id.* at 62.

¹⁷⁷ Section 102(2) of CALEA, 47 U.S.C. § 1001(2).

¹⁷⁸ *See supra* note 160.

¹⁷⁹ Section 103(a)(2) of CALEA, 47 U.S.C. § 1002(a)(2).

requirement. Commenters proposing an alternative time frame should also address technical feasibility and how such a time frame will satisfy the requirements of the statute.

105. In addition, we seek comment, as required by section 107(b), on the factors that we must consider in establishing a technical requirement. Are there cost-effective methods of providing timing information to a LEA? Can this requirement be accomplished in a manner that minimizes costs to residential ratepayers? Further, we request comment on whether this proposal raises issues regarding the protection of privacy and security of communications which are not authorized to be intercepted. Additionally, we solicit comment on whether the inclusion of this technical requirement within the assistance capability requirements envisioned by Section 103 would positively or negatively affect the provision of new technologies and services to the public. Commenters are asked to provide detailed information regarding the amount of time and conditions that they believe will be necessary to successfully develop and deploy this technical requirement in telecommunications systems.

7. Surveillance status

106. *Background.* This capability would require the telecommunications carrier to send information to the LEA to verify that a wiretap has been established and is still functioning correctly. This information could include the date, time, and location of the wiretap; identification of the subscriber whose facilities are under surveillance; and identification of all voice channels that are connected to the subscriber. This information would be transmitted to the LEA when the wiretap is activated, updated or deactivated, as well as periodically (varying from once every hour to once every 24 hours).

107. AT&T argues that CALEA permits telecommunications carriers to meet their obligations in this regard by whatever means they choose, including human intervention.¹⁸⁰ TIA states that the only statutory basis asserted by DoJ/FBI for this capability is that Section 103(a) of CALEA states that telecommunications carriers "shall ensure" that their equipment is capable of providing access to communications and call-identifying information.¹⁸¹ SBC concurs that CALEA does not mandate that carriers provide the status of wiretaps to law enforcement in real time. SBC also argues that test procedures are available by which law enforcement can perform this function in concert with carrier personnel.¹⁸² PrimeCo states a more reasonable means of verifying whether a wiretap is operational is to perform a periodic trap and trace test of the

¹⁸⁰ AT&T Comments, at 13.

¹⁸¹ TIA Comments, at 68.

¹⁸² SBC Comments, at 13.

target's phone number.¹⁸³ Finally, AirTouch states that it has been informed by a vendor that the cost of developing a surveillance status message would be "exorbitant."¹⁸⁴

108. DoJ/FBI state that, in the context of the analog network, the LEA employs non-automated means to determine whether the interception device is accessing the correct equipment, service, or facility, but that digital switching precludes the LEA from performing this function because it does not allow similar access to the intercept location. DoJ/FBI argue that without a surveillance status message, the LEA would not know when the intercept is turned on or off, or if it has failed; therefore, important evidence could be lost.¹⁸⁵ Finally, DoJ/FBI object to human intervention as a possible solution to this requirement because they state that such intervention would be costly and impractical.¹⁸⁶

109. *Discussion.* CALEA requires carriers to ensure that authorized wiretaps can be performed in an expeditious manner,¹⁸⁷ and we believe that a surveillance status message could assist carriers and LEAs in determining the status of such wiretaps. We tentatively conclude, however, that a surveillance status message does not fall within any of the provisions of Section 103. We do not believe that it is call-identifying information as defined by CALEA, since the information such a feature would provide is unrelated to any particular call. Nor does a surveillance status message appear to be required under Section 103(a)(1), since it is not necessary to intercept either wire or electronic communications carried on a carrier's system. Nor are we persuaded by the FBI's interpretation that a surveillance status message is required by CALEA's direction that a carrier "shall ensure" that its system is capable of meeting the Section 103(a) requirements. Rather, we note that the Act expressly states: "a telecommunications carrier shall ensure that its equipment, facilities, or services . . . are capable of" intercepting communications and allowing LEA access to call-identifying information.¹⁸⁸ We interpret the plain language of the statute to mandate compliance with the capability requirements of Section 103(a), but not to require that such capability be proven or verified on a continual basis.

¹⁸³ PrimeCo Comments, at 20.

¹⁸⁴ AirTouch Comments, at 24.

¹⁸⁵ DoJ/FBI Joint Petition for Expedited Rulemaking, March 27, 1998, at 54-55.

¹⁸⁶ DoJ/FBI Reply Comments, at 73.

¹⁸⁷ Section 103(a) of CALEA, 47 U.S.C. § 1002(a).

¹⁸⁸ *Id.*

110. Thus, we tentatively conclude that the surveillance status punch list item is not an assistance capability requirement under Section 103.¹⁸⁹ However, we invite comment as to how, generally, carriers intend to ensure that wiretaps remain operational. How, specifically, would "human intervention" be exercised? For example, do carriers plan to periodically check the circuit manually and notify the LEA that the wiretap remains operational? Further, to the extent commenters continue to believe that an automated surveillance status message is necessary to implement the requirements of Section 103, we seek comment on the 107(b) factors that the Commission must evaluate under CALEA. In what manner could such a feature be provided? Are there cost effective methods of providing surveillance status information to a LEA? Can this requirement be accomplished in a manner that minimizes costs to residential ratepayers? Could such provision of surveillance status messages compromise the privacy and security of communications not authorized to be intercepted? Would the provision of such information constrain a carrier's ability to develop and deploy new technologies and services? What period of time would be required to develop and deploy such a feature? And, to the extent that this information were to fall under the definition of call-identifying information, is it reasonably available to carriers?

8. Continuity check tone

111. *Background.* This technical requirement would require that, in cases where a LEA has obtained authority to intercept wire or electronic communications, a C-tone or dial tone be placed on the call content channel (CCC) received by the LEA from the telecommunications carrier until a user of the facilities under surveillance initiates or receives a call.¹⁹⁰ At that point, the tone would be turned off, indicating to the LEA that the target facilities were in use. This capability would permit correlation between the time a call is initiated and the time the connection is established. The C-tone would also verify that the connection between the carrier's switch and the LEA is in working order.

112. AirTouch states that there is no basis in CALEA for this capability, and that it particularly objects to the FBI's demand that CMRS providers be responsible for providing a continuity tone over the delivery circuits law enforcement agencies will use. AirTouch asserts that in most circumstances, the LEA will obtain its delivery circuits from a LEC, not from a CMRS provider. In those circumstances, according to AirTouch, the responsibility to ensure that the delivery circuit is operational should fall on the LEC, not the CMRS provider, which has no

¹⁸⁹ Section 107(b)(1) of CALEA, 47 U.S.C. § 1006(b)(1).

¹⁹⁰ This feature differs from a surveillance status message because it permits the LEA to know whether the facilities under surveillance have an active call. A surveillance status message permits the LEA to know that the wiretap is operational, whether or not there is an active call.

control over either the circuits in question or over the LEC that owns and provides the circuits.¹⁹¹ BellSouth contends that a continuity tone check is technically feasible only when dedicated content channels are provided and otherwise should not be required.¹⁹²

113. DoJ/FBI state that the LEA, in the context of the analog network, can provide itself with a continuity tone when it conducts interceptions, and that if a similar capability is not provided in digital networks, the LEA will lose the ability to verify the efficacy, accuracy, and integrity of a wiretap.¹⁹³ DoJ/FBI argue that Section 103 places an affirmative obligation on the carrier to verify that its equipment is operational and law enforcement has access to all communications and call-identifying information within the scope of the authorized surveillance. DoJ/FBI maintain that the interim standard does not contain any provisions that give effect to this affirmative statutory obligation, and state that its proposal would not require any carrier to implement any particular design or equipment.¹⁹⁴

114. *Discussion.* As with the case of surveillance status messages, we believe that continuity tone could assist the LEA in determining the status of a wiretap, but that this technical requirement is not necessary to meet the mandates of Section 103(a). Similar to our reasoning regarding surveillance status messages, we do not believe that a continuity tone falls within CALEA's definition of call-identifying information, nor does it appear to be required under Section 103(a)(1), since it is not necessary to intercept either wire or electronic communications carried on a carrier's system. Furthermore, as explained above, the plain language of the statute mandates compliance with the capability requirements of Section 103(a), but does not require that such capability be proven or verified on a continual basis. Thus, we tentatively conclude that the continuity tone punch list item is not an assistance capability requirement under Section 103.¹⁹⁵

115. However, to the extent commenters continue to believe such a technical requirement is necessary to implement the requirements of Section 103, we seek comment on the 107(b) factors that the Commission must evaluate under CALEA. In what manner could such a feature be provided? Are there cost effective methods of providing a continuity tone to a LEA? Can this requirement be accomplished in a manner that minimizes costs to residential ratepayers? Could provision of a continuity tone somehow compromise the privacy and security of

¹⁹¹ AirTouch Comments, at 24-25.

¹⁹² BellSouth Comments, at 15.

¹⁹³ DoJ/FBI Joint Petition for Expedited Rulemaking, March 27, 1998, at 54.

¹⁹⁴ DoJ/FBI Reply Comments, at 67-70.

¹⁹⁵ Section 107(b)(1) of CALEA, 47 U.S.C. § 1006(b)(1).

communications not authorized to be intercepted? For example, could such a tone be detected by the subscriber whose facilities are under surveillance? Would the provision of such information constrain a carrier's ability to develop and deploy new technologies and services? And finally, what period of time would be required to develop and deploy such a feature?

9. Feature status

116. *Background.* This technical requirement would require a carrier to notify the LEA when specific subscription-based calling services are added to or deleted from the facilities under surveillance, including when the subject modifies capabilities remotely through another phone or through an operator. Examples of such services are call waiting, call hold, three-way calling, conference calling, and call return.¹⁹⁶ Also, the carrier would be required to notify the LEA if the telephone number of the facilities under surveillance was changed or service was disconnected.¹⁹⁷

117. US West states that feature status information does not identify any telephone numbers or digits dialed by subscribers, and is therefore beyond the scope of CALEA.¹⁹⁸ SBC and BellSouth agree that feature status messages are not call-identifying information.¹⁹⁹

118. AT&T states that notification to the LEA of a change in feature status, indicating that a subscriber has added or has dropped services, is provided currently by manual means, *i.e.*, in response to a subpoena to the carrier. AT&T argues that nothing in CALEA requires the automation of such a process, and in fact the complexity and cost involved in doing so likely would be enormous.²⁰⁰ PrimeCo states that the DoJ/FBI claim that feature status information

¹⁹⁶ We note that some services, such as call return, are available on either a subscription or per-call basis. DoJ/FBI assert, however, that the availability of per-call features is irrelevant to their petition and that they do not seek to require carriers to notify a LEA of a subscriber's use of these features. They explain that carriers should simply alert a LEA to the assignment or removal of features that can affect call content or call-identifying information from a line under surveillance. They conclude that, "[a]s a practical matter, law enforcement will know in advance what per-call features a particular carrier makes available to its subscribers, and will have collected enough information to predict the . . . likely use of such features, before initiating an intercept, and will be able to order the appropriate number of call content and call data channels based on this information." *See* DoJ/FBI Reply Comments, at 74.

¹⁹⁷ DoJ/FBI Joint Petition for Expedited Rulemaking, March 27, 1998, at Appendix 1, 14-15.

¹⁹⁸ US West Reply Comments, at 3-4.

¹⁹⁹ SBC Comments, at 13; BellSouth Comments, at 14.

²⁰⁰ AT&T Comments, at 13.

"represents the most appropriate way to 'meet the assistance capability requirements of Section 103 by cost-effective methods'" is unsupported by the record.²⁰¹

119. TIA states that it is unclear whether DoJ/FBI contemplate the delivery of a feature status message at the time the subscriber requests the change or at the time the change is actually executed. TIA asserts that if carriers were required to provide feature status messages at the time that the subscriber submits a request, they would have to reconfigure entire customer service databases and other operating software to provide automatic messaging to law enforcement -- a capability that is not supported by the present design of these systems.²⁰²

120. DoJ/FBI disagree with the above parties, contending that the provision of an automated feature status message is essential to enable the LEA to procure the number of delivery channels or circuits required to ensure that the interception is fully effectuated and the intercepted material delivered as authorized. DoJ/FBI argue that whenever a subscriber has the capability of making multi-party calls, the LEA must have access to all call content channels to ensure that it will receive all communications and call-identifying information that are subject to a court order or other lawful authorization. DoJ/FBI contend that, in modern networks, the subscriber may change calling services at any time and, thus, the LEA needs to know what features are activated on a subscriber's service at any time in order to determine how many interception delivery channels and circuits are necessary to ensure that call content and call-identifying evidence are not lost.²⁰³ In response to TIA's comments, DoJ/FBI state that they are proposing that the LEA be notified only when a change in feature status becomes effective for the subscriber, not when the subscriber requests a change.²⁰⁴

121. *Discussion.* Similar to surveillance status messages and continuity tones, we believe that feature status messages could be useful to a LEA, but that provision of these messages from a carrier to a LEA is not required to meet the mandates of Section 103(a). First, we believe it is clear that feature status messages do not constitute call-identifying information because they do not pertain to the actual placement or receipt of individual calls. Further, feature status messages do not appear to be required under Section 103(a)(1) because they are not necessary to intercept either wire or electronic communications carried on a carrier's system. Rather, they would simply aid a LEA in determining how much capacity is required to implement and maintain effective electronic surveillance of a target facility, information that could be useful

²⁰¹ PrimeCo Reply Comments, at 5.

²⁰² TIA Comments, at 70-72.

²⁰³ DoJ/FBI Joint Petition for Expedited Rulemaking, March 27, 1998, at 56.

²⁰⁴ DoJ/FBI Reply Comments, at 73.

in assuring that an interception is fully effectuated and the intercepted material delivered as authorized. However, as noted by AT&T, the information that would be provided by feature status messages can be provided by other means, such as a subpoena to the carrier. In any event, we reiterate our view that the plain language of the Act mandates compliance with the assistance capability requirements of Section 103(a), but does not require carriers to implement any specific quality control capabilities to assist law enforcement. Thus, we tentatively conclude that the feature status punch list item does not meet the assistance capability requirements of Section 103.²⁰⁵

122. We note, however, that at least some of the information that would be provided by feature status messages -- for example, a change to the phone number of the facilities under surveillance -- must be provided to the LEA expeditiously if electronic surveillance is to be effective. We request comment on whether this information can be provided in such an expeditious manner by other means. We also request comment on any other aspects or interpretations of a feature status capability that might cause at least some portion of this feature to meet the assistance capability requirements of Section 103. To the extent commenters believe that such a capability is necessary to implement the requirements of Section 103, we seek a particularized description of such a capability and comment on the 107(b) factors that the Commission must evaluate under CALEA. In what manner could such a capability be provided? Are there cost effective methods of providing feature status messages to a LEA? Can this requirement be accomplished in a manner that minimizes costs to residential ratepayers? Could provision of feature status messages to a LEA compromise the privacy and security of communications not authorized to be intercepted? Would the provision of such information constrain a carrier's ability to develop and deploy new technologies and services? And finally, what period of time would be required to develop and deploy such a capability?

10. Dialed digit extraction

123. *Background.* This capability would require the telecommunications carrier to provide to the LEA on the call data channel any digits dialed by the subject after connecting to another carrier's service (also known as "post-cut-through digits"). One example of such dialing and signaling would occur when the subject dials an 800 number to access a long distance carrier. After connecting to the long distance carrier through the 800 number, the subject then dials the telephone number that is the ultimate destination of the call.

124. TIA maintains that post-cut-through digits are not call-identifying information for the initial carrier and are not reasonably available to that carrier. Further, according to TIA, the delivery of post-cut-through dialing information pursuant to a pen register order would not

²⁰⁵ Section 107(b) of CALEA, 47 U.S.C. § 1006(b).

protect "the privacy and security of . . . call-identifying information not authorized to be intercepted" because post-cut-through digits could include credit card numbers and other substantive information such as responses to an automatic queuing system, which the LEA is not entitled to without a Title III authorization. TIA states that a carrier would have no means of segregating protected information that is not subject to a pen register order from call-routing digits that are provided. Finally, TIA argues that post-cut-through dialing information is already available to law enforcement under the industry interim standard pursuant to either a Title III content intercept order or a pen register order or subpoena directed to the long-distance carrier that completes the second stage of the call.²⁰⁶ Therefore, TIA concludes that the real agenda of DoJ/FBI is to be able to obtain post cut-through digits through a pen register order addressed solely to the carrier conducting the initial intercept, in order simply to avoid the inconvenience and expense associated with the two methods already available to it.²⁰⁷

125. Ameritech, AT&T, CDT, EPIC/EFF/ACLU, Primeco, SBC, and USTA voice concerns similar to TIA's.²⁰⁸ CDT states that the legislative history of CALEA makes clear that call-identifying information does not include dialed numbers after call cut-through.²⁰⁹ CDT contends, however, that the fact that this capability is not mandated by CALEA in no way prevents the LEA from obtaining post-cut-through digits because those digits are available from the long-distance carrier that completes the call.²¹⁰

126. US West states that, from the perspective of a LEC, once a subject establishes a connection with an IXC the call has terminated at the IXC's platform, and the LEC has no special access to or reason to know the second number dialed.²¹¹ AirTouch states that it is undisputed that CMRS carriers cannot provide post-cut-through digits without additional developmental work by vendors and major system modifications by carriers. Therefore, according to AirTouch, this capability is not reasonably available to the CMRS industry. Further, AirTouch maintains that law enforcement may receive these digits either with a Title III order or a call-identifying order

²⁰⁶ See also AirTouch Reply Comments, at 10.

²⁰⁷ TIA Comments, at 41-46.

²⁰⁸ Ameritech Comments, at 8; AT&T Comments, at 10; CDT Comments, at 41-44; EPIC/EFF/ACLU Comments, at 27; Primeco Comments, at 13; SBC Comments, at 14; and USTA Comments, at 7.

²⁰⁹ CDT Comments, at 42.

²¹⁰ CDT Reply Comments, at 13-16.

²¹¹ US West Comments, at 18.

served on the long-distance carrier that completes the second stage of the call.²¹² Finally, according to AirTouch, a vendor has advised that the cost of developing the post-cut-through dialing capability would likely exceed the cost of developing all of the other punch list items combined.²¹³

127. DoJ/FBI state that dialed digits used to complete a call are "dialing or signaling information" that identifies the "destination" of the call and falls within CALEA's definition of "call-identifying information," but that this information is not included in the industry interim standard.²¹⁴ DoJ/FBI contend that this information must be provided because without it the LEA may find it substantially more difficult, if not impossible, to establish the identity of the party to whom the subject is speaking due to the fact that the subject may use multiple long distance carriers. For example, according to DoJ/FBI, in an illegal drug case the LEA might be unable to link a drug distributor with the source of the drugs because the LEA would have information only about which long distance company the distributor was using --not the subsequent post-cut-through digits that would identify the source. DoJ/FBI conclude by stating that CALEA does not draw any distinction between pre-cut-through and post-cut-through dialing or signaling information to process, direct, or complete a call; and that there is no privacy-based reason under CALEA, the pen register statutes, or the Constitution to prevent a telecommunications carrier from providing all such information to the LEA.²¹⁵

128. Proposal. We tentatively conclude that post-cut-through digits representing all telephone numbers needed to route a call, for example, from the subscriber's telephone through its LEC, then through IXC and other networks, and ultimately to the intended party are call-identifying information. We seek additional comment on whether such call-identifying information is reasonably available to the carrier originating the call. Currently, the second set of numbers a subject dials (the final destination of the call) apparently is transmitted over the CCC (the content portion of the connection) and not over the CDC (a separate signaling channel). This method of transmission raises two primary questions: (1) Since the post-cut-through digits are provided on the content portion of the connection, should those numbers be considered content for purposes of CALEA?; and (2) Technically, how can such post-cut-through digits be extracted from the content channel and delivered to a LEA by a carrier? We seek comment on whether originating, intermediate, or terminating carriers can deliver such call-identifying information by cost-effective means. We are also aware of the concerns expressed by industry and privacy

²¹² AirTouch Reply Comments, at 10.

²¹³ AirTouch Comments, at 18.

²¹⁴ DoJ/FBI Reply Comments, at 38-39.

²¹⁵ DoJ/FBI Joint Petition for Expedited Rulemaking, March 27, 1998, at 39-41.

advocates that this dialed digit extraction feature could prove to be inordinately expensive to design, build, and incorporate into telephone network infrastructures. The record established thus far does not reflect any specific cost estimates but does raise the possibility that there may be newly available, less expensive solutions for this feature,²¹⁶ although it is not clear if such solutions have the capability of separating post-cut-through call-identifying digits from those dialed to perform other functions. We seek comment on this proposal and, as required by section 107(b), on the other factors that we must consider in establishing a technical requirement. Can it be accomplished in a manner that minimizes costs to residential ratepayers? Additionally, we solicit comment on whether our proposal would positively or negatively affect the provision of new technologies and services to the public. Commenters are asked to provide detailed information regarding the amount of time and conditions that they believe will be necessary to successfully develop and deploy this technical requirement in telecommunications systems. Finally, we request detailed comment on how the privacy and security of communications that are not authorized to be intercepted can be protected. In particular, we request comment on whether and how such call-identifying information can be distinguished from digits dialed to perform other functions (*e.g.*, to input a credit card number or to access information services after the call reaches its final destination in the PSTN).

E. Disposition of J-STD-025

129. Parties supporting adoption of J-STD-025 as the final standard state that if deficiencies are found, the Commission should remand to TIA the task of remedying these deficiencies. TIA states that the telecommunications industry drafted the interim standard and is best qualified to modify it pursuant to any instructions from the Commission. TIA raises several reasons as justification for such an approach: the primary role of the industry in standards-setting under CALEA, the technical complexity of the matters at issue, the lack of specificity in the DoJ/FBI petition regarding the bases of the claimed deficiencies of the interim standard, and the fact that the industry is best positioned to adopt standards which provide for CALEA compliance while minimizing costs and impact on ratepayers. TIA also believes that the Commission lacks the experience and resources to modify the standard on its own.²¹⁷

130. AT&T, Nextel Communications, Inc. (Nextel), the Personal Communications Industry Association (PCIA), SBC, and US West generally concur with TIA.²¹⁸ US West states that if we decide to modify J-STD-025 in any respect, we should remand the revised standard for

²¹⁶ See, *e.g.*, Bell Emergis Reply Comments, at 2-3.

²¹⁷ TIA Comments, at 29.

²¹⁸ AT&T Comments, at 15-17; Nextel Comments, at 13; PCIA Comments, at 6-7; SBC Comments, at 16-17; US West Comments, at 31-33.

implementation to TR45.2 because that TIA subcommittee has been developing technical requirements for CALEA for three years.²¹⁹

131. DoJ/FBI disagree, stating that a remand to TR45.2 would result in substantial delay in the implementation of CALEA's assistance capability requirements. DoJ/FBI assert that the Commission has the expertise required to identify and prescribe appropriate technical requirements and standards under section 107(b).²²⁰

132. *Proposal.* We believe that the technical requirements proposed herein can be most efficiently implemented by permitting Subcommittee TR45.2 of the TIA to develop the necessary specifications in accord with our determinations. We note that CALEA contemplates that standards will be developed either "by an industry association or standard-setting organization, or by the Commission."²²¹ We note that both LEAs, carriers and manufacturers are voting members of the Subcommittee. While we could undertake this task, we believe that the Subcommittee already has the experience and resources in place to resolve these issues more quickly. Both law enforcement agencies and telecommunications manufacturers and carriers participate on the Subcommittee. The Subcommittee worked diligently over a period of several years to craft J-STD-025 and both LEAs and privacy groups agree with -- or, at least do not raise any specific objections to -- the vast majority of the features of that standard. A Commission-based standard-setting activity would necessarily have to rely heavily on the Subcommittee to modify J-STD-025 in any event, and thus would very likely take longer than industry-based processes to develop a final safe harbor standard. Our decision to rely on industry to develop the final technical specifications reflects our commitment to achieve a CALEA solution as expeditiously as possible.

133. Accordingly, we expect TIA to undertake the task of modifying J-STD-025 to be consistent with the technical requirements we ultimately adopt in this proceeding. Further, we expect the TIA to complete any such modifications to J-STD-025 within 180 days of release of the Report and Order in this proceeding. While this is an ambitious schedule, we believe it is achievable because the TIA has been examining CALEA technical standards issues for several years, and the modifications to J-STD-025 are likely to be relatively limited. In fact, all of the technical requirements that we have identified for modification were previously considered in detail by TIA Subcommittee TR45.2. We note that any telecommunications carrier conforming with the revised standard will be considered to have complied with CALEA's safe harbor provisions under section 107(a)(2). We consider 180 days a sufficient time period for industry to adopt revised technical standards compliant with CALEA and we believe that industry will be able

²¹⁹ US West Comments, at 31-33.

²²⁰ DoJ/FBI Comments, at 26.

²²¹ 47 U.S.C. § 1006(a)(2).

to comply with the core requirements of J-STD-025 (excluding the packet-mode feature) by June 30, 2000. Therefore, we do not plan to extend the CALEA compliance deadline for the core J-STD-025 requirements beyond that date, except in the case of individual extenuating circumstances, to which the criteria of section 107(c) of CALEA would apply.²²² Based on comments received in response to this Further NPRM, we will set a separate deadline for compliance with the additional technical requirements that we determine CALEA mandates. We seek comment on these tentative findings and conclusions.

F. Other Technologies and Systems

134. We note that TIA's J-STD-025 applies only to "wireline, cellular, and broadband PCS carriers."²²³ CALEA assistance capability requirements for other telecommunications carriers, including paging, specialized mobile radio (SMR), and satellite services, are not covered by J-STD-025. Industry associations or standard-setting organizations that represent such carriers may establish voluntary standards to achieve compliance with Section 103 by the June 30, 2000 deadline, and take advantage of the safe harbor provision of section 107(a). The absence of an industry standard, however, does not relieve such carriers from the obligations imposed by Section 103.²²⁴ In the absence of a publicly available standard, a carrier will have to work with its vendors to develop an individual CALEA solution. And, as noted above, because compliance with an industry standard is voluntary, not compulsory, under the Act, a carrier is free to choose a CALEA solution that is specifically tailored to its particular system and technology.

135. We note that, with regard to these other carriers, the Commission has received no petitions asking us to either set a standard in the absence of one or find that a given standard is deficient. Nevertheless, we believe that the certainty we provide in establishing the technical requirements for wireline, cellular, and broadband PCS carrier CALEA compliance will enable manufacturers and providers of other telecommunication services to work with the law enforcement community to develop technical requirements that will meet CALEA's mandates, and that could be specified in voluntary industry standards that would allow carriers to take advantage of the safe harbor under section 107(a).

136. The comments from industry associations, manufacturers, and telecommunications carriers not covered by the industry interim standard urge the Commission to resolve the dispute

²²² See 47 U.S.C. § 1006(c).

²²³ TIA Comments, at 15 n.43.

²²⁴ 47 U.S.C. § 1006(a)(3)(B).

regarding TIA's J-STD-025 standard and the requirements for compliance with CALEA.²²⁵ Generally, these commenters support the policy of allowing industry associations to develop their own standards for CALEA compliance rather than the Commission doing so through regulatory mandates.²²⁶ PCIA warns that the Commission should not "substitute its judgment for the reasoned consensus of an overwhelming majority of industry participants." Both PCIA and Nextel suggest that the Commission should instead remand "any final determination on capabilities to TIA's TR45 expert committee."²²⁷ Moreover, Nextel's reply comments stress that the "Commission must not preclude other industry associations or standard-setting organizations from promulgating standards or requirements that are aimed more at specific services or technologies such as paging, digital dispatch or wireless data to the extent any of these services are covered by CALEA."²²⁸ Nextel's comments generally stress the importance of creating specific standards that focus on network design and the information generated by certain communications methods, and explain that the Commission's rules should not foreclose the development of such alternative standards.²²⁹

137. These commenters also emphasize that they will work closely with law enforcement to develop standards, which would function as safe harbors, for those carriers not covered by the industry interim standard. For instance, PCIA explains that on May 4, 1998, the CALEA Subcommittee of its Technical Committee, with input from law enforcement, published Version 1.0 of its CALEA Specification for Traditional Paging.²³⁰ Pursuant to this standard, PCIA contends that paging providers offering one-way paging service can comply with Section 103 and be afforded safe harbor under section 107(a) by providing law enforcement officials, upon presentation of a valid warrant, with a cloned pager.²³¹ PCIA's subcommittee also plans to develop and publish standards for advanced paging services and ancillary service providers that would establish a CALEA safe harbor for carriers providing such services.²³²

²²⁵ PCIA Comments, at 4; AMTA Comments, at 5; Nextel Comments, at 13.

²²⁶ PCIA Comments, at 4; AMTA Comments, at 1.

²²⁷ Nextel Comments, at 13; PCIA Comments, at 6.

²²⁸ Nextel Reply Comments, at 4.

²²⁹ *Id.* at 15-16.

²³⁰ PCIA Comments, at 7.

²³¹ *Id.*

²³² *Id.* at 7-8.

138. Similarly, the American Mobile Telecommunications Association (AMTA) notes that "its members have in the past and will in the future cooperate with law enforcement personnel in court-ordered electronic surveillance to the maximum extent possible, whether or not that assistance is provided pursuant to CALEA requirements."²³³ AMTA also explains that although the FBI has been silent in response to questions regarding whether the technical parameters of AMTA members' systems fall under the auspices of CALEA, AMTA has nonetheless undertaken a standards-setting process for SMR systems.²³⁴ AMTA states that it fears that unless it develops a SMR standard for compliance, its members might face enforcement actions and economic penalties under the provisions of the Act.²³⁵

139. Comments by carriers and associations using technologies and systems not covered by J-STD-025 generally express concern about the lack of clarification regarding whether their equipment, facilities and services are subject to the requirements of CALEA.²³⁶ Although it did not comment directly on the standards issue, Iridium explains in its petition for extension of CALEA's compliance deadline that, as a satellite provider, it went to great lengths during the last four years to analyze the technical implications that CALEA would have for its system, to discuss the systems' intercept capabilities with the government, and to explore electronic surveillance architecture solutions particular to its system.²³⁷ To date, however, law enforcement officials have been unwilling to "state in writing that Iridium's approach is compliant with CALEA."²³⁸ Iridium further notes that there is no safe harbor for satellite providers.²³⁹ Globalstar, another satellite provider, also in the context of advocating an extension of CALEA's compliance date, comments on the unique difficulties faced by satellite service providers.²⁴⁰ Although Globalstar has received non-common carrier status, and is therefore not subject to the Act, it explains that the ability of other satellite carriers to meet CALEA's capability requirements is complicated by

²³³ AMTA Comments, at 2.

²³⁴ *Id.* at 4.

²³⁵ *Id.* at 5.

²³⁶ *See e.g.*, Nextel Reply Comments, at 15 n. 38; AMTA Comments, at 2.

²³⁷ Joint Petition For an Extension of the CALEA Assistance Capability Compliance Date by Iridium United States, L.P., and Motorola, Inc., CC Docket No. 97-213, filed on June 30, 1998, at 6 (*Iridium Petition for Extension*).

²³⁸ *Id.* at 11.

²³⁹ *Id.* at i.

²⁴⁰ Globalstar, L.P. Reply Comments for Petitions for Extension of Compliance Deadline, at 2-3.

the facts that the Attorney General has not adopted capacity standards for satellite services and that global satellite systems must receive multiple authorizations from the countries they serve.²⁴¹

140. AirTouch maintains that the problems faced by the paging industry illustrate the difficulties faced by these other carriers in dealing with law enforcement. As AirTouch explains, "[t]he paging industry has long accommodated law enforcement's interception needs by furnishing 'clone' pagers" and until recently the FBI has given the paging industry the impression that doing so satisfies CALEA's requirements.²⁴² AirTouch contends the FBI has only recently declared that "'clone' pager-based interceptions have only limited effectiveness and utility, and fail to fully meet CALEA's Section 103 requirements."²⁴³

141. We seek comment on what role, if any, the Commission can or should play in assisting those telecommunications carriers not covered by J-STD-025 to set standards for, or to achieve compliance with, CALEA's requirements. Insofar as such carriers argue that CALEA contemplates multiple or different standards for services such as paging, digital dispatch and wireless data,²⁴⁴ we seek comment regarding how our determinations regarding J-STD-025, the FBI's punch list items, and location and packet-mode information will affect the requirements and standards already adopted or currently being established by these other industry segments. For example, can the Commission's determinations in this rulemaking proceeding be adapted to these other technologies? Further, we request comment on if and how we should consider the impact of the technical requirements we ultimately adopt in this proceeding on these other technologies and services.

G. Other Matters

142. Section 109(b) of CALEA lays out a detailed regime under which telecommunications carriers or any other interested person may petition the Commission to determine whether, for equipment, facilities, or services installed or deployed after January 1, 1995, compliance with the Section 103 assistance capability requirements is "reasonably achievable." The Attorney General must be notified of the petition, and the Commission must make a determination under the "reasonably achievable" standard within one year after the date such a petition is filed. When considering any such petition under the "reasonably achievable" standard, "the Commission shall determine whether compliance would impose significant difficulty

²⁴¹ *Id.* at 4. See also *supra* ¶ 31 & n.57.

²⁴² AirTouch Comments on Petitions for Extension of Compliance Deadline, at 5.

²⁴³ *Id.*

²⁴⁴ Nextel Reply Comments, at 4.

or expense on the carrier or on the users of the carrier's systems." Eleven factors are to be considered by the Commission in determining whether compliance with the assistance capability requirements of Section 103 is reasonably achievable.²⁴⁵

143. If the Commission determines that compliance with the assistance capability requirements of Section 103 is not reasonably achievable, the affected carrier may petition the Attorney General to pay for the additional, reasonable costs necessary to make compliance reasonably achievable. The Attorney General may agree to compensate the affected carrier for the "additional reasonable costs" of complying with the assistance capability requirements of Section 103. If the Attorney General does not agree to pay such additional reasonable costs, the affected carrier would be deemed to be in compliance with CALEA's capability requirements.²⁴⁶

144. As discussed in paragraph 18, *supra*, in March 1998 CDT submitted a petition for rulemaking to the Commission. In its petition, CDT requests relief from the Commission under section 109 (as well as section 107) of CALEA. CDT argues that "compliance with CALEA is not reasonably achievable with respect to equipment, facilities, and services deployed after

²⁴⁵ Those factors are:

- ! The effect [of compliance] on public safety and national security;
- ! The effect [of compliance] on rates for basic residential telephone service;
- ! The need to protect the privacy and security of communications not authorized to be intercepted;
- ! The need to achieve the capability assistance requirements of Section 103 by cost-effective methods;
- ! The effect [of compliance] on the nature and cost of the equipment, facility, or service at issue;
- ! The effect [of compliance] on the operation of the equipment, facility, or service at issue;
- ! The policy of the United States to encourage the provision of new technologies and services to the public;
- ! The financial resources of the telecommunications carrier;
- ! The effect [of compliance] on competition in the provision of telecommunications services;
- ! The extent to which the design and development of the equipment, facility, or service was initiated before January 1, 1995;
- ! Such other factors as the Commission determines are appropriate.

47 U.S.C. § 1008(b)(1).

²⁴⁶ 47 U.S.C. § 1008(b)(2). We also note that section 109 provides that "[t]he Attorney General may, subject to the availability of appropriations, agree to pay telecommunications carriers for all reasonable costs directly associated with the modifications performed by carriers in connection with equipment, facilities, and services installed or deployed on or before January 1, 1995, to establish the capabilities necessary to comply with Section 103." 47 U.S.C. § 1008(a). If the Attorney General does not agree to pay all reasonable costs directly related to such modifications, the "equipment, facility, or service [deployed on or before January 1, 1995] shall be considered to be in compliance with the assistance capability requirements of Section 103 until the equipment, facility, or service is replaced or significantly upgraded or otherwise undergoes major modification." 47 U.S.C. § 1008(d).

January 1, 1995, for the simple reason that carriers have had to make changes to their systems not knowing what was required to comply with CALEA.²⁴⁷ Lack of a CALEA standard, or a dispute about the CALEA standard, however, is not grounds for a rulemaking under section 109. Rather, a section 109 determination by the Commission presupposes that the final requirements that must be met by telecommunications carriers under Section 103 are in place. Those requirements, however, are still in dispute. Accordingly, we are herein dismissing without prejudice that portion of CDT's petition that relies on section 109.

145. Finally, as discussed in paragraphs 16-17, *supra*, in July 1997 CTIA filed a petition for rulemaking requesting that the Commission establish a standard to implement the mandates of Section 103, and in March 1998 DoJ/FBI submitted a motion to dismiss that petition on the grounds that the December 1997 adoption of J-STD-025 rendered CTIA's petition moot. CTIA agrees with DoJ/FBI that its petition is moot, both because the adoption of the industry interim standard supersedes its request for the Commission to establish a CALEA standard by rule and because its request in its petition to extend the CALEA compliance deadline has been addressed in this proceeding.²⁴⁸ We agree. Accordingly, we herein dismiss as moot CTIA's July 16, 1997 Petition for Rulemaking.²⁴⁹

IV. PROCEDURAL INFORMATION

A. Scope of Proceeding

146. With this *Further Notice of Proposed Rulemaking*, we propose rules to implement CALEA pursuant to section 229 of the Communications Act of 1934, as amended, 47 U.S.C. section 229. The proposed action is also authorized by sections 1, 4, 301, 303, and 332 of the Communications Act of 1934, as amended, and section 107(b) of CALEA, 47 U.S.C. sections 151, 154, 301, 303, 332, and 1006(b). We encourage interested parties to comment not only on the specific proposals that are contained in this Further NPRM but also to provide alternatives to our recommendations and proposed rules that they believe will enable us to implement CALEA efficiently and effectively. We further request that commenters include their recommendations and the text of specific proposed rules in their initial comments, so that other parties will have the opportunity to comment on those proposals in their reply comments.

²⁴⁷ CDT Petition, at 16.

²⁴⁸ CTIA filed separate comments in response to the April 20, 1998 Public Notice which sought comment on whether CTIA's Petition for Rulemaking should be dismissed as moot. *See* CTIA Comments, at 6.

²⁴⁹ 47 C.F.R. § 1.401(e).

B. Ex Parte

147. This is a permit-but-disclose notice and comment rulemaking proceeding. *Ex parte* presentations are permitted, except during the Sunshine Agenda period, provided they are disclosed as provided in the Commission's rules. See generally 47 C.F.R. sections 1.1202, 1.1203, 1.1206(a)(1), and 1.1206(b).

C. Initial Regulatory Flexibility Analysis

148. As required by the Regulatory Flexibility Act (RFA),²⁵⁰ the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the expected significant economic impact on small entities by the policies and rules suggested in this Communications Assistance for Law Enforcement Act, *Further Notice of Proposed Rulemaking* (CALEA Further NPRM). Written public comments are requested on the IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the CALEA Further NPRM provided above on the first page, in the heading. The Secretary shall send a copy of the CALEA Further NPRM, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA) in accordance with paragraph 603(a).²⁵¹

I. Need for and Objectives of the Proposed Rules: This *Further Notice of Proposed Rulemaking* responds to the legislative mandate contained in the Communications Assistance for Law Enforcement Act, Pub. L. No. 103-414, 108 Stat. 4279 (1994) (codified as amended in sections of 18 U.S.C. and 47 U.S.C.).

II. Legal Basis: The proposed action is authorized under the Communications Assistance for Law Enforcement Act, Pub. L. No. 103-414, 108 Stat. 4279 (1994) (codified as amended in scattered sections of 18 U.S.C. and 47 U.S.C.). The proposed action is also authorized by sections 1, 4, 201, 202, 204, 205, 218, 229, 332, 403 and 503 of the Communications Act of 1934, as amended, 47 U.S.C. sections 151, 154, 201-205, 218, 229, 301, 303, 312, 332, 403, 501 and 503.

III. Description and Estimate of the Number of Small Entities To Which the Proposed Rules Will Apply: The proposals set forth in this proceeding may have a significant economic impact on a substantial number of small telephone companies identified by the SBA. We seek comment on the obligations of a telecommunications carrier for the purpose of

²⁵⁰ 5 U.S.C. § 603.

²⁵¹ The Regulatory Flexibility Act, 5 U.S.C. § 601 *et seq.* has been amended by the Contract with America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the "Small Business Regulatory Enforcement Act of 1996" (SBREFA).

complying with CALEA.

149. The RFA generally defines "small entity" as having the same meaning as the term "small business," "small organization," and "small governmental jurisdiction" and the same meaning as the term "small business concern" under the Small Business Act, unless the Commission has developed one or more definitions that are appropriate to its activities.²⁵² Under the Small Business Act, a "small business concern" is one that: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) meets any additional criteria established by the Small Business Administration (SBA).²⁵³ The SBA has defined a small business for Standard Industrial Classification (SIC) categories 4812 (Radiotelephone Communications) and 4813 (Telephone Communications, Except Radiotelephone) to be small entities when they have fewer than 1,500 employees.²⁵⁴ We first discuss generally the total number of small telephone companies falling within both of those SIC categories. Then, we discuss the number of small businesses within the two subcategories, and attempt to refine further those estimates to correspond with the categories of telephone companies that are commonly used under our rules.

150. *Telephone Companies (SIC 483).* Consistent with our prior practice, we shall continue to exclude small incumbent LECs from the definition of a small entity for the purpose of this IRFA.²⁵⁵ Nevertheless, as mentioned above, we include small incumbent LECs in our IRFA. Accordingly, our use of the terms "small entities" and "small businesses" does not encompass "small incumbent LECs." We use the term "small incumbent LECs" to refer to any incumbent LECs that arguably might be defined by SBA as "small business concerns."²⁵⁶

²⁵² 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in 5 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition in the Federal Register."

²⁵³ 15 U.S.C. § 632. See, e.g., *Brown Transport Truckload, Inc. v. Southern Wipers, Inc.*, 176 B.R. 82 (N.D. Ga. 1994).

²⁵⁴ 13 C.F.R. § 121.201.

²⁵⁵ See Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, First Report and Order, 11 FCC Rcd 15499 (1996) at ¶¶ 1328-30, 1342 (Local Competition First Report and Order). We note that the U.S. Court of Appeals for the Eighth Circuit has stayed the pricing rules developed in the Local Competition First Report and Order, pending review on the merits. *Iowa Utilities Board v. FCC*, No. 96-3321 (8th Cir., Oct. 15, 1996).

²⁵⁶ See 13 C.F.R. § 121.210 (SIC 4813).

151. Total Number of Telephone Companies Affected. Many of the decisions and rules adopted herein may have a significant effect on a substantial number of the small telephone companies identified by SBA. The United States Bureau of the Census (the Census Bureau) reports that, at the end of 1992, there were 3,497 firms engaged in providing telephone services, as defined therein, for at least one year.²⁵⁷ This number contains a variety of different categories of carriers, including local exchange carriers, interexchange carriers, competitive access providers, cellular carriers, mobile service carriers, operator service providers, pay telephone operators, PCS providers, covered SMR providers, and resellers. Some of these providers -- for example, all SMR providers -- are not covered by this Further NRPM, and it seems certain that some of the 3,497 telephone service firms may not qualify as small entities or small incumbent LECs because they are not "independently owned and operated."²⁵⁸ For example, a PCS provider that is affiliated with an interexchange carrier having more than 1,500 employees would not meet the definition of a small business. It seems reasonable to conclude, therefore, that fewer than 3,497 telephone service firms are small entity telephone service firms or small incumbent LECs that may be affected by this Further NPRM.

152. Wireline Carriers and Service Providers. SBA has developed a definition of small entities for telephone communications companies other than radiotelephone (wireless) companies. The Census Bureau reports that, there were 2,321 such telephone companies in operation for at least one year at the end of 1992.²⁵⁹ According to SBA's definition, a small business telephone company other than a radiotelephone company is one employing fewer than 1,500 persons.²⁶⁰ All but 26 of the 2,321 non-radiotelephone companies listed by the Census Bureau were reported to have fewer than 1,000 employees. Thus, even if all 26 of those companies had more than 1,500 employees, there would still be 2,295 non-radiotelephone companies that might qualify as small entities or small incumbent LECs. Although it seems certain that some of these carriers are not independently owned and operated, we are unable at this time to estimate with greater precision the number of wireline carriers and service providers that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 2,295 small entity telephone communications companies other than radiotelephone companies that may be affected by the decisions and rules recommended for adoption in this NPRM.

²⁵⁷ United States Department of Commerce, Bureau of the Census, *1992 Census of Transportation, Communications, and Utilities: Establishment and Firm Size*, at Firm Size 1-123 (1995) ("1992 Census").

²⁵⁸ 15 U.S.C. § 632(a)(1).

²⁵⁹ 1992 Census, *supra*, at Firm Size 1-123.

²⁶⁰ 13 C.F.R. § 121.201, Standard Industrial Classification (SIC) Code 4812.

153. *Local Exchange Carriers.* Neither the Commission nor SBA has developed a definition of small providers of local exchange services (LECs). The closest applicable definition under SBA rules is for telephone communications companies other than radiotelephone (wireless) companies. The most reliable source of information regarding the number of LECs nationwide of which we are aware appears to be the data that we collect annually in connection with the Telecommunications Relay Service (TARS). According to our most recent data, 1,347 companies reported that they were engaged in the provision of local exchange services.²⁶¹ Although it seems certain that some of these carriers are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of LECs that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 1,347 small incumbent LECs that may be affected by the decisions and rules recommended for adoption in this NPRM.

154. *Interexchange Carriers.* Neither the Commission nor SBA has developed a definition of small entities specifically applicable to providers of interexchange services (IXCs). The closest applicable definition under SBA rules is for telephone communications companies other than radiotelephone (wireless) companies. The most reliable source of information regarding the number of IXCs nationwide of which we are aware appears to be the data that we collect annually in connection with TARS. According to our most recent data, 130 companies reported that they were engaged in the provision of interexchange services.²⁶² Although it seems certain that some of these carriers are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of IXCs that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 130 small entity IXCs that may be affected by the decisions and rules recommended for adoption in this NPRM.

155. *Competitive Access Providers.* Neither the Commission nor SBA has developed a definition of small entities specifically applicable to providers of competitive access services (CAPs). The closest applicable definition under SBA rules is for telephone communications companies other than radiotelephone (wireless) companies. The most reliable source of information regarding the number of CAPs nationwide of which we are aware appears to be the data that we collect annually in connection with the TARS. According to our most recent data, 57 companies reported that they were engaged in the provision of competitive access services.²⁶³

²⁶¹ Federal Communications Commission, CAB, Industry Analysis Division, *Telecommunications Industry Revenue: TARS Fund Worksheet Data*, Tbl. 21 (Average Total Telecommunications Revenue Reported by Class of Carrier) (December, 1996) ("TARS Worksheet").

²⁶² TARS Worksheet.

²⁶³ 13 C.F.R. § 121.201, SIC 4813.

Although it seems certain that some of these carriers are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of CAPs that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 57 small entity CAPs that may be affected by the decisions and rules recommended for adoption in this NPRM.

156. *Operator Service Providers.* Neither the Commission nor SBA has developed a definition of small entities specifically applicable to providers of operator services. The closest applicable definition under SBA rules is for telephone communications companies other than radiotelephone (wireless) companies. The most reliable source of information regarding the number of operator service providers nationwide of which we are aware appears to be the data that we collect annually in connection with the TARS. According to our most recent data, 25 companies reported that they were engaged in the provision of operator services.²⁶⁴ Although it seems certain that some of these companies are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of operator service providers that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 25 small entity operator service providers that may be affected by the decisions and rules recommended for adoption in this NPRM.

157. *Wireless (Radiotelephone) Carriers.* SBA has developed a definition of small entities for radiotelephone (wireless) companies. The Census Bureau reports that there were 1,176 such companies in operation for at least one year at the end of 1992.²⁶⁵ According to SBA's definition, a small business radiotelephone company is one employing fewer than 1,500 persons.²⁶⁶ The Census Bureau also reported that 1,164 of those radiotelephone companies had fewer than 1,000 employees. Thus, even if all of the remaining 12 companies had more than 1,500 employees, there would still be 1,164 radiotelephone companies that might qualify as small entities if they are independently owned and operated. Although it seems certain that some of these carriers are not independently owned and operated, we are unable at this time to estimate with greater precision the number of radiotelephone carriers and service providers that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 1,164 small entity radiotelephone companies that may be affected by the decisions and rules recommended for adoption in this NPRM.

²⁶⁴ *Id.*

²⁶⁵ 1992 Census, *supra*, at Firm Size 1-123.

²⁶⁶ 13 C.F.R. § 121.201, Standard Industrial Classification (SIC) Code 4812.

158. Cellular and Mobile Service Carriers: In an effort to further refine our calculation of the number of radiotelephone companies affected by the rules adopted herein, we consider the categories of radiotelephone carriers, Cellular Service Carriers and Mobile Service Carriers. Neither the Commission nor the SBA has developed a definition of small entities specifically applicable to Cellular Service Carriers and to Mobile Service Carriers. The closest applicable definition under SBA rules for both services is for telephone companies other than radiotelephone (wireless) companies. The most reliable source of information regarding the number of Cellular Service Carriers and Mobile Service Carriers nationwide of which we are aware appears to be the data that we collect annually in connection with the TARS. According to our most recent data, 792 companies reported that they are engaged in the provision of cellular services and 117 companies reported that they are engaged in the provision of mobile services.²⁶⁷ Although it seems certain that some of these carriers are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of Cellular Service Carriers and Mobile Service Carriers that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 792 small entity Cellular Service Carriers and fewer than 138 small entity Mobile Service Carriers that might be affected by the actions and rules adopted in this NPRM.

159. Broadband PCS Licensees. The broadband PCS spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission defined "small entity" for Blocks C and F as an entity that has average gross revenues of less than \$40 million in the three previous calendar years.²⁶⁸ For Block F, an additional classification for "very small business" was added, and is defined as an entity that, together with its affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.²⁶⁹ These regulations defining "small entity" in the context of broadband PCS auctions have been approved by SBA.²⁷⁰ No small businesses within the SBA-approved definition bid successfully for licenses in Blocks A and B. There were 90 winning bidders that qualified as small entities in the Block C auctions. A total of 93 small and very small business bidders won approximately 40% of the 1,479 licenses for Blocks D, E, and F. However, licenses for Blocks C through F have not been awarded fully, therefore there are few, if any, small

²⁶⁷ TARS Worksheet, at Tbl. 1 (Number of Carriers Reporting by Type of Carrier and Type of Revenue).

²⁶⁸ See *Amendment of Parts 20 and 24 of the Commission's Rules -- Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap*, Report and Order, FCC 96-278, WT Docket No. 96-59, paras. 57-60 (June 24, 1996), 61 FR 33859 (July 1, 1996); see also 47 CFR § 24.720(b).

²⁶⁹ *Id.*, at para. 60.

²⁷⁰ *Implementation of Section 309(j) of the Communications Act -- Competitive Bidding*, PP Docket No. 93-253, Fifth Report and Order, 9 FCC Rcd 5532, 5581-84 (1994).

businesses currently providing PCS services. Based on this information, we conclude that the number of small broadband PCS licenses will include the 90 winning C Block bidders and the 93 qualifying bidders in the D, E, and F blocks, for a total of 183 small PCS providers as defined by the SBA and the Commissioner's auction rules.

160. Resellers. Neither the Commission nor SBA has developed a definition of small entities specifically applicable to resellers. The closest applicable definition under SBA rules is for all telephone communications companies. The most reliable source of information regarding the number of resellers nationwide of which we are aware appears to be the data that we collect annually in connection with the TARS. According to our most recent data, 260 companies reported that they were engaged in the resale of telephone services.²⁷¹ Although it seems certain that some of these carriers are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of resellers that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 260 small entity resellers that may be affected by the decisions and rules recommended for adoption in this NPRM.

IV. Description of Projected Reporting, Recordkeeping and Other Compliance Requirements:

161. The rules proposed in the NPRM require telecommunications carriers to establish policies and procedures governing the conduct of officers and employees who are engaged in surveillance activity. Those proposed rules require telecommunications carriers to maintain records of all interceptions of communications and call identification information. Further, those proposed rules require telecommunications carriers classified as Class A companies pursuant to 47 U.S.C. § 32.11 to file individually with the Commission a statement of its processes and procedures used to comply with the systems security rules promulgated by the Commission. Telecommunications carriers classified as Class B companies pursuant to 47 U.S.C. § 32.11 may elect to either file a statement describing their security processes and procedures or to certify that they observe procedures consistent with the security rules promulgated by the Commission.

162. We tentatively conclude that a substantial number of telecommunications carriers, who have been subjected to demands from law enforcement personnel to provide lawful interceptions and call-identifying information for a period time preceding CALEA, already have in place practices for proper employee conduct and recordkeeping. We seek comment on this tentative conclusion. As a practical matter, telecommunications carriers need these practices to

²⁷¹ *Id.*

protect themselves from suit by persons who claim they were the victims of illegal surveillance.²⁷² By providing general guidance regarding the conduct of carrier personnel and the content of records in this Further NPRM, the Commission permits telecommunications carriers to use their existing practices to the maximum extent possible. Thus, we tentatively conclude that the additional cost to most telecommunications carriers for conforming to the Commission regulations contained in this Further NPRM, should be minimal. We seek comment on this tentative conclusion.

V. Significant Alternatives to Proposed Rules Which Minimize Significant Economic Impact on Small Entities and Accomplish Stated Objectives:

163. As we noted in Part I of this IRFA, *supra*, the need for the proposed regulations is mandated by Federal legislation. The legislation is specific on the content of employee conduct and recordkeeping regulations for telecommunications carriers, which removes from Commission discretion the consideration of alternative employee conduct and recordkeeping regulations for smaller telecommunications carriers. The legislation, however, provides for Commission discretion to formulate compliance reporting requirements for telecommunications carriers that favor smaller telecommunications carriers, and in the NPRM the Commission exercised that discretion by proposing rules that allow smaller carriers the option to file a certification of compliance with the Commission instead of a statement of the policies, processes and procedures they use to comply with the CALEA regulations.²⁷³

VI. Federal Rules that May Overlap, Duplicate, or Conflict with the Proposed Rules:

164. As we noted in Part I of this IRFA, *supra*, the need for the proposed regulations is mandated by Federal legislation. The purpose of CALEA was to empower and require the Federal Communications Commission and the Department of Justice to craft regulations pursuant to specific statutory instructions. Because there were no other Federal Rules in existence before CALEA was enacted, there are no duplicate Federal Rules. In addition, there are no overlapping, duplicating, or conflicting Federal Rules to the Federal Rules proposed in this proceeding.

D. Notice and Comment Provisions

165. Pursuant to Sections 1.415 and 1.419 of the Commission's rules, 47 C.F.R. §§ 1.415, 1.419, interested parties may file comments on before **December 14, 1998**, and reply

²⁷² 18 U.S.C. § 2520 provides for the recovery of civil damages by persons who endured illegal electronic surveillance.

²⁷³ *Id.*

comments on or before **January 13, 1999**. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies. *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 Fed. Reg. 24,121 (1998).

166. Comments filed through the ECFS can be sent as an electronic file via the Internet to <<http://www.fcc.gov/e-file/ecfs.html>>. Generally, only one copy of an electronic submission must be filed. If multiple docket or rulemaking numbers appear in the caption of this proceeding, however, commenters must transmit one electronic copy of the comments to each docket or rulemaking number referenced in the caption. In completing the transmittal screen, commenters should include their full name, Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions for e-mail comments, commenters should send an e-mail to ecfs@fcc.gov, and should include the following words in the body of the message, "get form <your e-mail address.>" A sample form and directions will be sent in reply.

167. Parties who choose to file by paper must file an original and four copies of all comments, reply comments and supporting comments. If participants want each Commissioner to receive a personal copy of their comments, an original plus nine comments must be filed. If more than one docket or rulemaking number appear in the caption of this proceeding, commenters must submit two additional copies for each additional docket or rulemaking number. All filings must be sent to the Commission's Secretary, Magalie Roman Salas, Office of the Secretary, Federal Communications Commission, The Portals, 445 Twelfth Street, S.W., Room TW-A325, Washington, D.C. 20554. Comments and reply comments will be available for public inspection during regular business hours in the Office of the Secretary.

V. ORDERING CLAUSES

168. Accordingly, pursuant to sections 1, 4, 229, 301, 303, and 332 of the Communications Act of 1934, as amended, and 107(b) of the Communications Assistance for Law Enforcement Act, 47 U.S.C. sections 151, 154, 229, 301, 303, 332, and 1006(b), IT IS ORDERED that this Further Notice of Proposed Rulemaking is hereby adopted. IT IS FURTHER ORDERED that the Petition for Rulemaking filed by the Cellular Telecommunications Industry Association on July 16, 1997 IS DISMISSED as moot. IT IS FURTHER ORDERED that the Petition for Rulemaking filed by the Center for Democracy and Technology IS DISMISSED without prejudice to the extent the petition seeks relief under section 109 of CALEA, 47 U.S.C. section 1008. IT IS FURTHER ORDERED that the Commission SHALL SEND a copy of this Further Notice of Proposed Rulemaking, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas
Secretary

VI. APPENDIX OF COMMENTING PARTIESParties That Submitted Comments Regarding Standards Issues in Response to April 20, 1998
Public Notice:

AirTouch Communications, Inc.
AT&T Corporation
American for Tax Reform, Center for Technology Policy of the Free Congress Foundation, and
Citizens for a Sound Economy
Ameritech Operating Companies and Ameritech Mobile Communications, Inc.
BellSouth Corporation, Inc., BellSouth Telecommunications, Inc., BellSouth Cellular Corp.,
BellSouth Personal Communications, Inc., and BellSouth Wireless Data, L.P.
Cellular Telecommunications Industry Association
Center for Democracy and Technology
Department of Justice and Federal Bureau of Investigation
Electronic Privacy Information Center, Electronic Frontier Foundation, and American Civil Liberties
Union
GTE
New York City Police Department
Nextel Communications, Inc.
Personal Communications Industry Association
PrimeCo Personal Communications, L.P.
SBC Communications, Inc. on behalf of its affiliates Southwestern Bell Telephone Company, Pacific
Bell, Nevada Bell, Southwestern Bell Wireless Inc., Southwestern Bell Mobile Systems, Inc., and
Pacific Bell Mobile Services, Inc.
Sprint Spectrum L.P. d/b/a Sprint PCS
Telecommunications Industry Association
United States Telephone Association
US West, Inc.

Parties That Submitted Reply Comments to Comments Regarding Standards Issues:

AirTouch Communications, Inc.
American Mobile Telecommunications Association
AT&T Corporation
Bell Emergis - Intelligent Signalling Technologies
Cellular Telecommunications Industry Association
Center for Democracy and Technology
Denver (CO) Police Department
Department of Justice and Federal Bureau of Investigation
Drug Enforcement Administration

Electronic Privacy Information Center, Electronic Frontier Foundation, and American Civil Liberties Union

National Telephone Cooperative Association

New Jersey State Police

New York State Police Department

Nextel Communications, Inc.

Ocean County (NJ) Prosecutor's Office

PrimeCo Personal Communications, L.P.

Rural Cellular Association

SBC Communications, Inc.

Telecommunications Industry Association

US West, Inc.

Wisconsin Division of Narcotics Enforcement

Separate Statement of Commissioner Harold W. Furchtgott-Roth**In re: Further Notice of Proposed Rulemaking****Communications Assistance for Law Enforcement Act**

By this Further Notice of Proposed Rulemaking, the Commission initiates a proceeding to resolve a dispute among industry, law enforcement, and privacy interests over what technical requirements are necessary for various carriers to meet the assistance capability requirements of the Communications Assistance for Law Enforcement Act, Pub. L. No. 103-414, 108 Stat. 4279 (1994) (codified as amended in Sections of 18 U.S.C. and 47 U.S.C.) ("CALEA"). I support the Further NPRM as a good first step to resolving this dispute. Herein, however, I express two concerns about our proposed approach and make a strong request for quantified cost, benefit, and timing information.

My first concern is general. While trying to ensure (at considerable expense to taxpayers, consumers, and industry) that law enforcement agencies are able to obtain access to communications among people using common wireline, cellular, and PCS telecommunications services, we may be disregarding inexpensive and fairly obvious ways for malefactors to thwart our efforts by using other communications technologies or techniques. Although I believe that, because CALEA requires us to do so, we must ensure appropriate access to the common telecommunications services, I also believe that the practical limits on law enforcement's reach should temper our willingness to burden consumers and industry with significant discretionary expenses.

My more specific concern goes to our tentative conclusion that location information about mobile wireless units is call-identifying information under CALEA. Section 102(2) of CALEA defines call-identifying information as "dialing or signaling information that identifies the origin, direction, destination, or termination" of each communication. 47 U.S.C. 1001(2). Because the words "origin," "destination," and "termination" usually denote, at least partly, location, I

believe that call-identifying information, by the plain meaning of Section 102, includes location information about mobile wireless units.

Some parties, however, say there is good reason to believe Congress intended a more limited meaning. *See* Center for Democracy and Technology, Petition for Rulemaking Under Sections 107 and 109 of the Communications Assistance for Law Enforcement Act (March 26, 1998). Accordingly, although I support the Commission's tentative conclusion based on what I believe to be the plain meaning of the law, I would welcome additional comment on whether, and on what basis, the language of Section 102(2) should be read narrowly.

Finally, let me make a strong request for parties to submit quantified cost and timing information.

In several places, CALEA makes explicit or implicit reference to cost issues. In Section 107(b), for example, the Commission is directed to establish technical requirements or standards that meet assistance capability requirements by "cost-effective methods," and to "minimize the cost" of compliance on residential ratepayers. *Id. at* 107(b)(1) and (3). CALEA also directs us to determine whether compliance with the capability requirements is "reasonably achievable," *id. at* 109(b)(1), and, with respect to call-identifying information, to determine what is "reasonably available," *id. at* 103(a)(2).

In order to properly meet our responsibilities under these provisions of CALEA, I believe the Commission must understand the balance of costs and benefits -- including implementation timing issues -- of the choices before us. I have been disappointed by the level of specificity in the record to date. It does us little good to be told that the implementation of some technical feature would or would not be "difficult" or "expensive" or "take a long time." Reliance on such qualitative assessments make it nearly impossible for us to make reasoned decisions under CALEA. Thus, I request that all parties, when addressing issues of cost or what is "reasonably achievable" or "reasonably available," provide estimates, with as much specificity and quantitative information as possible, the costs, benefits, and the time necessary for industry to implement the technical requirements or standards in dispute.

* * * * *