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

In the Matter of	)	
Joint Petition for Expedited Rulemaking, filed by the United States Department of Justice, Federal Bureau of Investigation and Drug Enforcement Administration Pursuant to Section 107(b) Of the Communications Assistance for Law Enforcement Act	)	RM-11376

COMMENTS OF CISCO SYSTEMS, INC.

Introduction

Cisco Systems, Inc. ("Cisco") submits these comments in the above-captioned proceeding. Cisco is the worldwide leader in IP-based networking solutions and services and is a leading manufacturer of IP-based equipment that powers the Internet, service provider networks, and enterprise networks worldwide. Cisco actively participates in many of the industry forums that discuss implementation of lawful intercept and the Communications Assistance for Law Enforcement Act ("CALEA") across a range of platforms. Together with third party vendors, Cisco offers lawful intercept solutions where standards exist to U.S. service provider customers. Cisco's comments on the above-captioned proceeding are limited to one issue – law enforcement's apparent inability to receive high-bandwidth content intercepts and its proposed remedy that providers either buffer that content for later retrieval or provide law enforcement with

collocation rights.[1] In Cisco's view, the proposed remedy presented by law enforcement will substantially and adversely affect the development and implementation of new, innovative high-bandwidth services, and is likely to be the least cost-effective solution to law enforcement's concerns. Even more fundamentally, CALEA places the obligations for the delivery arrangements of intercepted communications solely on law enforcement, not on providers. The proposed remedies would therefore require Congressional action.

On May 15, 2007, the United States Department of Justice, including the Federal Bureau of Investigation, Drug Enforcement Administration , and National Security Division (hereinafter "federal law enforcement agencies" or "LEAs"), filed a Petition for Expedited Rulemaking asking that the FCC declare TIA's J-STD-025-B deficient under Section 107(b) of CALEA.[2] J-STD-025-B governs lawful intercept of CDMA2000 wireless packet communications. The LEAs cited four sets of deficiencies with the standard: (1) inadequate packet activity reporting; (2) lack of time stamp information; (3) lack of locational information; and (4) inadequate security, performance, and reliability requirements. With reference to the last issue, the LEAs noted that the loss, omission, or corruption of "key packets" disables law enforcement's ability to understand the communication. The LEAs suggest that, for content intercepts, the FCC either mandate that service providers allow law enforcement to collocate buffering or storage equipment near the collection device to allow for near-real-time delivery, or mandate that service

[1] As used in this comment, collocation refers to the ability of law enforcement to obtain collocation from a service provider for the purpose of storing intercepted information, without regard to the specific form of collocation or the physical relationship between the intercept point, collocation site, and the delivery function location.

[2] Public Notice, Report No. 2816, released May 25, 2007 (hereinafter "Petition")

providers buffer the packets and enable law enforcement to retrieve them "within hours" over a secure virtual private network (VPN).[3]

In Cisco's view, the service provider requirement under CALEA is limited to handing over a reliable packet information that that can reasonably be viewed as replicating either the communications identifying information associated with a communication and, if applicable, the content.[4] Under the statute, it is up to law enforcement to make arrangements for the transport of that communication to its premises. Pursuant to Section 103(a)(3), the equipment or facilities that law enforcement uses to receive the intercept must be procured by the government. Not only is this the explicit statutory direction, but it makes sound policy sense in that it encourages law enforcement to make efficient transmission arrangements. The LEA's alternative approach – forcing the provider to bear some of the costs – represents a significant barrier to new and innovative high bandwidth services being developed or deployed. Before the FCC could consider the LEA's proposal, Congress would need to amend the law. As an alternative to changing the statute, the LEAs could address any inadequacies in delivery mechanisms by negotiating flexible arrangements with providers for either transmission or collocation. Finally, it is important to note that there has been movement in two industry organizations to resolve the technical "how to" issues around buffering or collocation.[5] These efforts ensure that should law enforcement desire it, buffering or

---

[3] Petition at 49 and note 110.

[4] One of the conundrums of wireless intercept is that the provider cannot verify what packets the target actually received at his or her client device. The provider can generally only provide what packets were sent.

[5] Both the cable industry in its technical specification, and ATIS in a still-pending technical report document, are addressing the issue of buffering and/or collocation.

collocation can be made available. With these developments, there is no policy reason to mandate that buffering or collocation be included as a CALEA capability.

Cisco therefore requests that the FCC either exclude this topic from any subsequent Notice of Proposed Rulemaking that it might choose to issue in response to the Petition, or if the issue is included, that the FCC reach no tentative conclusion favoring either of the approaches suggested by law enforcement. If the issue is included, Cisco also requests that the FCC specifically seek comment on the extent to which arrangements for the delivery of intercepted content is a provider obligation under CALEA and its legislative history, and whether the solutions proposed by law enforcement are the most consistent with the specific statutory direction from Congress to the FCC contained in Section 107(b) to ensure that CALEA implementation is both cost-effective and does not result in discouraging new technologies, features, and services.

Discussion

Congress provided very specific guidance to the FCC in addressing petitions for deficiency. At Section 107(b), Congress calls out five policy objectives that it says the FCC must honor when examining potential changes to industry-led standards for lawful intercept:

- Meet the assistance capability requirements by using cost-effective methods
- Protect the privacy and security of communications not authorized to be intercepted
- Minimize the cost of such compliance on residential ratepayers
- Encourage new technologies and services
- Provide reasonable time and conditions for compliance with any changes ordered.

As the Commission is well aware, in a previous review of J-STD-025-A, the court remanded to the Commission its decision a deficiency petition for failing to explain how its decision addressed each of these five policy goals.[6]

As an initial matter, the LEAs do not include an argument about how their proposed remedies would meet the criteria articulated by the Congress in Section 107(b). The Petition basically describes the agencies' concerns: loss, omission or corruption of packets in a communications stream. The Petition then offers up, in a footnote, two remedies: (1) law enforcement would place its own buffering or storage device in a collocation space provided at the collection facility, enabling it to retrieve packets as it wishes or (2) the provider arranges to buffer (store) the packets, and enables the LEAs to retrieve the stored packets over a secured VPN at a later time.[7] The Petition does not address whether the LEAs would pay for the collocation space that they are using, the cross connection functionality needed to service the collocation space, how the cross connect would be administered by the provider when an intercept is ordered, or who would pay for the expedited VPN. What the Petition makes expressly clear is that law enforcement does not want to pay for and install high capacity connections that would service content intercepts of high bandwidth services. The LEAs complain that this solution is not cost-effective (from public data, it appears that approximately 90 percent of intercepts are not content intercepts), nor time efficient because it takes 30 or more days to provision such a high capacity line.[8]

---

[6] United States Telephone Association v. FCC, 227 F3d 450 (D.C. Cir. 2000).

[7] Petition at 49 and note 110.

[8] It is not clear from the Petition that law enforcement has adequately explored all options for the deliver of broadband content intercepts, including creating permanent, flexible bandwidth

In this case, the LEAs desire to have delivery mechanisms arranged for them in order to more easily receive high bandwidth intercepts, while understandable, is simply not supported by the statute. Section 103(a)(3) places the obligation of undertaking the intercept on the provider, while the obligation for enabling the transmission of that intercept to law enforcement's premises rests with law enforcement. The service provider is responsible for:

> …delivering intercepted communications and call-identifying information to the government…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…"[9]

The language in the statute mirrors both the House and Senate reports, which similarly state that law enforcement must lease or procure lines for the transmission of communications to a location away from the carrier's premises.[10] But perhaps even more telling is the Committees' mutual concern that the capability requirements provided for in the statute be considered as "both a floor and ceiling," while explicitly cautioning against overbroad interpretations of the capability requirements. The Petition's expansive reading of the capability requirements is, simply put, out of step with the express statutory language of the delivery provisions and its legislative history, as well.

From a Section 107(b) perspective, there are two additional impediments to the LEAs' arguments. First, the remedies of collocation and buffering appear to be the least cost-effective method of addressing the delivery issue. Under the facts as presented, some entity (either the provider or law enforcement or both) will need to pay for the cost

---

arrangements with the largest carriers under federal procurement arrangements, and service level agreements that would address, inter alia, packet loss rates and capacity requirements.

[9] CALEA Section 103(a)(3), 47 U.S.C. Section 1002 (a)(3).

[10] House Report 103-827, "Telecommunications Assistance to the Government" (Oct. 4, 1994) at 22; Senate Report 103-402, "The Digital Telephone Bill of 1994" (Oct. 6, 1994) at 22.

of delivery. The question under Section 107(b) of the act is what is the most cost-effective method to address the delivery issue? In Cisco's view, imposing collocation or buffering costs on providers yields a much larger cost number than imposing the cost on law enforcement.[11] Each time a high-bandwidth service is considered for deployment in a network, the provider will need to think about not just the network requirements for providing the service itself, but what collocation or buffering capabilities it will need to introduce throughout its network in order to comply with its CALEA obligations. Because the service provider needs to be responsive to a court-ordered or administratively-ordered intercept, it will not have the luxury of time to make these arrangements on an ad hoc basis. As a result, collocation or buffering capabilities will need to be mapped out in advance, requiring a substantial investment in equipment in the case of buffering, or a combination of operating expense and significant revenue foregone in the case of collocation. Given that this will happen in a distributed way throughout the network, the CALEA obligation – if interpreted to include a collocation or buffering requirement – will represent a cost that is likely to be far higher than the cost that law enforcement would incur for making its own delivery and/or storage arrangements that will meet its needs for broadband content intercepts.

Second, the remedies suggested by law enforcement have the perverse effect of inhibiting new technologies, thereby operating at odds with one of the key policy goals of Section 107(b). Both the statute and its legislative history are explicit that CALEA

[11] In the original enactment of CALEA, Congress paid a great deal of attention to minimizing costs of implementation, and even provided for a $500 million fund to pay for the initial implementation. In fact, one of the "get out of jail" cards that a provider can use to escape implementation is that the requested implementation is not "reasonably achievable" – a determination that will involve the economic judgment of whether "…the total cost of compliance is wholly out of proportion to the usefulness of achieving compliance for a particular type or category of services or features." House Report at 28.

should not impede the introduction of new technologies, features and services.[12] Yet by requiring service providers to shoulder the burden of collocation or buffering for content intercepts, the law would place a substantial impediment on high bandwidth services. Cisco can imagine no worse a time for such a development – with new video technologies poised to explode on the Internet. Video images will not just be used to entertain or inform, but will also be used as a routine business and consumer communications tool. The advent of high definition television, and the growing popularity of television sets that support the HDTV standard, is one small indicator of the high resolution video communications capabilities that service providers will be delivering on broadband networks for use in a variety of applications. Innovations in video delivery on broadband networks will be one of the hallmarks of Internet development for the next few years. But these innovations will of necessity consume much more bandwidth than the innovations of the past (e.g., email, web browsing, VoIP). A burdensome CALEA requirement to provide for buffering or collocation will act as a brake on implementation of these innovative new services and therefore will impede the development of such services as well. Congress has set its new services policy and asked the FCC to avoid such conflicts. The FCC should do so here, by placing the burden of arranging for the efficient transmission and/or storage of intercepted communications on law enforcement.

. Finally, two industry organizations are proposing to resolve the technical "how to" issues around buffering or collocation. In one case, buffering or collocation will be

[12] Senate Report at 9, 13. The Senate was so emphatic on this point that its report language states that a new technology could be deployed without CALEA capability when the cost of compliance, relative to the cost of developing, acquiring, and deploying, is too great. Id. at 19.

mandatory. As the FCC is aware, standards (or standards-like requirements) can be more comprehensive than the statute, and the decision by one organization to include buffering or collocation in a technical specification is not an admission that the functionality is required by CALEA. In the other case, a pending technical report, once adopted, describes an optional buffering function.[13] Yet both these efforts ensure that should law enforcement desire it, buffering and/or collocation can be made available. As a result of these developments, there is no reason for the FCC to examine in a rulemaking whether carrier-provided buffering or collocation should be mandated under CALEA.

Conclusion

Section 103(a)(3) requires that law enforcement procure its transmission network for the delivery of intercepted communications and does not place that obligation on providers. Furthermore, law enforcement has the ability to negotiate for competitively supplied, flexible bandwidth arrangements for the transmission of communications to their premises and/or storage of such communications, and there are or will be buffering and/or collocation technical specifications available should that option be the most attractive to law enforcement. As the cost causer, law enforcement is best positioned to create delivery and/or storage arrangements that are the most cost efficient. Placing those obligations on the service provider is the least cost efficient, and substantially and negatively burdens the introduction of new high bandwidth services. The FCC should, in response to the Petition, exclude this issue from further consideration in any Notice of Proposed Rulemaking that it chooses to issue. Alternatively, if the FCC elects to include this issue in a further proceeding, it should refrain from reaching a tentative conclusion

[13] Both the cable industry in its technical specification, and ATIS in still-pending technical requirements document, are addressing the issue of buffering and collocation.

favoring either of the approaches suggested by law enforcement. The FCC should specifically request information about the statutory requirements on providers and law enforcement to supply transmission for delivery, and should seek additional comment on the relative costs of the proposals and effects on new technologies, features and services.

Respectfully submitted,

CISCO SYSTEMS, INC.

By:

Mary L. Brown
Director, Technology and Spectrum Policy
Global Policy and Government Affairs
1300 Pennsylvania Ave. NW Suite 250
Washington, D.C. 20004
(202) 354-2923

July 25, 2007