ATIS-1000678.v3.2015(R2020)

Lawfully Authorized Electronic Surveillance (LAES) for Voice over Internet Protocol in Wireline Telecommunications Networks, Version 3

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ATIS-1000678.v.3.2015(R2020), *Lawfully Authorized Electronic Surveillance (LAES) for Voice over Internet Protocol in Wireline Telecommunications Networks, Version 3*

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Alliance for Telecommunications Industry Solutions

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Abstract

This Standard defines the interfaces between a Telecommunication Service Provider (TSP) and a Law Enforcement Agency (LEA) to assist the LEA in conducting lawfully authorized electronic surveillance for Voice over Internet Protocol (VoIP) in Wireline Telecommunications Networks. Version 1 of T1.678 (T1.678-2004) provides support for Voice over Packet (VoP) services utilizing basic SIP call control and basic H.323 call control for IP. Version 2 of T1.678 (ATIS-1000678.v2.2006) adds support for supplementary services such as hold/retrieve, multi-party calls, and call transfer. Version 3 (ATIS-1000678.20xx) incorporates ATIS-1000678.a.v2.2007 (Supplement A to ATIS-1000678.v2.2006), ATIS-1000678.b.v2.2010 (Supplement B to ATIS-1000678.v2.2006), and provides clarifications, corrections, and enhancements. Version 3 also removes support for H.323 call control for IP. Upon publication, this Standard supersedes and replaces ATIS-1000678.v2.2006, ATIS-1000678.a.v2.2007, and ATIS-1000678.b.v2.2010.

This document provides the mechanisms to perform lawfully authorized electronic surveillance of VoIP subject to the appropriate legal and regulatory environment. It is not the intent of this document to imply or impact any pending Communications Assistance for Law Enforcement Act (CALEA) regulatory decisions related to VoIP.

> NOTE – Annex A, *ASN.1 Definitions*, of this Standard has also been formatted as a separate plain text file and electronically packaged with this standard.

Foreword

The information contained in this Foreword is not part of this American National Standard (ANS) and has not been processed in accordance with the American National Standards Institute's (ANSI's) requirements for an ANS. As such, this Foreword may contain material that has not been subjected to public review or a consensus process. In addition, it does not contain requirements necessary for conformance to the standard.

This document is entitled the American National Standard for Telecommunications – Lawfully Authorized Electronic Surveillance (LAES) for Voice over Internet Protocol (VoIP) in Wireline Telecommunications Networks. This standard is the result of work by members of the Packet Technologies and Systems Committee (PTSC), working within the PTSC Lawfully Authorized Electronic Surveillance Subcommittee (LAES). This Standard defines the interfaces between a Telecommunication Service Provider (TSP) and a Law Enforcement Agency (LEA) to assist the LEA in conducting lawfully authorized electronic surveillance for VoIP Technologies in Wireline Telecommunications Networks.

Version 1 of T1.678 (T1.678-2004) provides support for Voice over Packet (VoP) services providing basic SIP call control and basic H.323 call control for IP. Version 2 of T1.678 (ATIS-1000678.v2.2006) adds support for supplementary services such as hold/retrieve, multi-party calls, and call transfer. Version 3 (ATIS-1000678.20xx) provides clarifications, corrections, and enhancements. Version 3 also removes support for H.323 call control for IP.

It is not the intent of this document to imply or impact any pending CALEA regulatory decisions related to VoIP. This document provides the mechanisms to perform lawfully authorized electronic surveillance of VoIP subject to the appropriate legal and regulatory environment. Where CALEA is found to be applicable to VoIP, it is intended that a manufacturer or service provider that is in compliance with this document will have "safe harbor" under Section 107 of CALEA, Public Law 103-414, codified at 47 U.S.C. 1001 et seq.

Future control of this document will reside with PTSC. This control of additions to the specification, such as ongoing protocol evolution, new applications, and operational requirements, will permit compatibility among U.S. networks. Such additions will be incorporated in an orderly manner with due consideration to the International Telecommunications Union – Telecommunications Standardization Sector (ITU-T) layered model principles, conventions, and functional boundaries.

The Packet Technologies and Systems Committee (PTSC) -- formerly T1S1 -- develops and recommends standards and technical reports related to services, architectures, and signaling, in addition to related subjects under consideration in other North American and international standards bodies. PTSC coordinates and develops standards and technical reports relevant to telecommunications networks in the U.S., reviews and prepares contributions on such matters for submission to U.S. ITU-T and U.S. ITU-R Study Groups or other standards organizations, and reviews for acceptability or per contra the positions of other countries in related standards development and takes or recommends appropriate actions.

Suggestions for improvement of this document are welcome. They should be sent to the Alliance for Telecommunications Industry Solutions, PTSC, 1200 G Street NW, Suite 500, Washington, DC 20005.

At the time of consensus on this document, PTSC, which was responsible for its development, had the following leadership:

M. Dolly, PTSC Chair (AT&T)

V. Shaikh, PTSC Vice-Chair (Applied Communication Sciences)

G. Myers, PTSC LAES Chair (Counter Link)

N. Rao, PTSC LAES Vice-Chair (Nokia Networks)

The Lawfully Authorized Electronic Surveillance (LAES) Subcommittee was responsible for the development of this document.

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1 Introduction

1.1 Background

This Standard defines the interface between a Telecommunications Service Provider (TSP) and a Law Enforcement Agency (LEA) to assist the LEA in conducting lawfully authorized electronic surveillance for Voice over Internet Protocol (VoIP) Technologies in Wireline Telecommunications Networks. This Standard is provided for purposes of a "safe harbor" as specified in Section 107 of the Communications Assistance for Law Enforcement Act (CALEA) [Ref 1]: "a telecommunications carrier shall be found to be in compliance with the assistance capability requirements under Section 103, and a manufacturer of telecommunication transmission or switching equipment or a provider of telecommunication support services shall be found 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."[1]

As used in this Standard, *electronic surveillance* refers to the interception and monitoring of communications for a particular telecommunications subscriber as lawfully authorized. The said communications may include Call Identifying Information (CII) with or without the Call Content (CC).

In this Standard, an *intercept subject*, or more simply a *subject*, is a telecommunications service subscriber whose communications have been authorized by a legal instrument to be intercepted and delivered to an LEA. The identification of the subject is limited to subject identifiers or subject related identifiers used by the TSP's equipment, facility, or communication service (e.g., network address, terminal identity, subscription identity).

As a precondition for a TSP's assistance with Lawfully Authorized Electronic Surveillance (LAES), an LEA must serve a TSP with the necessary lawful authorization identifying the intercept subject, the communications and information to be provided, and service areas where the communications and information are to be provided. Once this lawful authorization is served on a TSP, the TSP shall perform the access and delivery of the identified communications and information to the LEA via LEA-procured equipment, facilities, or services.

1.2 Scope & Purpose

The purpose of this Standard is to facilitate a TSP's compliance with the assistance capability requirements defined in Section 103 of CALEA [Ref 1]. This Standard defines capabilities to support LAES and the interfaces to deliver intercepted communications and reasonably available CII to an LEA when authorized. This Standard also defines a protocol for delivering CC and CII to LEAs. Compliance with this Standard addresses the "safe harbor" provisions of Section 107 of CALEA [Ref 1] and helps ensure efficient and industry-wide implementation of capabilities to assist LEAs.

[1] It is not the intent of this document to imply or impact any pending CALEA regulatory decisions related to VoIP. This document provides the mechanisms to perform lawfully authorized electronic surveillance of VoIP subject to the appropriate legal and regulatory environment. Where CALEA is found to be applicable to VoIP, it is intended that a manufacturer or service provider that is in compliance with this document will have "safe harbor" under Section 107 of CALEA, Public Law 103-414, codified at 47 U.S.C. 1001, et seq.