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Telecommunications
Engineers***

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Data Standards Subcommittee**

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ANSI/SCTE 173-3 2017

**Specification for Authentication in Preferential
Telecommunications over IPCablecom2 Networks**

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140 Philips Road
Exton, PA 19341

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NOTE: This document is identical to SCTE 173-3 2010 except for informative components which may have been updated such as the title page, NOTICE text, headers and footers. No normative changes have been made to this document.

This standard is one of a series of standards to enable support for preferential telecommunication services over IPCablecom networks. It defines the specifications for authentication in preferential telecommunications over IPCablecom2 networks. These specifications satisfy the requirements defined in SCTE 173-1 2010. The essential aspects of preferential telecommunications over IPCablecom2 can be grouped into two areas: prioritization and authentication. This standard defines specifications for authentication only. Authentication must be utilized to prevent unauthorized use of premium services and for emergency services in IPCablecom2 that may require preferential treatment (e.g., telecommunications for disaster relief and the emergency telecommunications service).

User authentication is necessary to determine whether to authorize a request for preferential telecommunication services. This standard covers only authentication and does not address which services the authenticated user is authorized to use

Introduction

Emergency and disaster communications for authorized users play a vital role in the health, safety, and welfare of people in all countries. The common thread to facilitate emergency/disaster operations is the utility of assured capabilities for user-friendly preferential telecommunication services that may be realized by technical solutions and/or administrative policy. The IPCablecom infrastructure offers an important resource for assured emergency/disaster telecommunications.

Emergency and disaster situations can impact telecommunication infrastructures. Typical impacts may include congestion overload and the need to re-deploy or extend communications capabilities beyond that covered by existing infrastructures. Even when telecommunication infrastructures are not damaged by these situations, demand for telecommunication resources soar during such events. Therefore, priority mechanisms are needed so that limited bandwidth resources can be allocated to authorized emergency workers during emergency and disaster situations.

Generally, when preferential or prioritized treatment telecommunication capabilities are offered, users of the service will be authenticated and authorized. Whether authentication and authorization are required or not, as well as implementation aspects, such as databases for personal identification numbers (PIN), are national decisions. However, without authentication and authorization, preferential treatment capabilities may be subject to abuse by non-authorized individuals.

This standard defines specifications stemming from the requirements of standard SCTE 173-1 for mechanisms to provide authentication in IPCablecom2 networks in support of preferential telecommunication services that need or benefit from preferential treatment.

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over IP**Cablecom2** networks

1 Scope

This standard is one of a series of standards to enable support for preferential telecommunication services over IP**Cablecom** networks. These specifications do not apply to ordinary emergency calls such as people calling the police, the fire department, ambulances, etc.

Aspects of preferential telecommunications include provisions for authentication and priority (special handling). The objective of this standard is to provide an initial set of authentication specifications for preferential telecommunications within IP**Cablecom2** networks according to the framework described in SCTE 173-1 2010. This standard defines specifications for capabilities, which, when implemented should help support preferential treatment telecommunication services.

NOTE – Pre-emption specifications and authorization specifications are outside the scope of this standard and are considered to be national matters.

2 References

2.1 SCTE References

The following documents contain provisions, which, through reference in this text, constitute provisions of this standard. At the time of subcommittee approval, the editions indicated were valid. All standards are subject to revision, and parties to agreement based on this standard are encouraged to investigate the possibility of applying the most recent editions of the documents listed below.

- [SCTE 173-1] Requirements for preferential telecommunications over IP**Cablecom** networks
- [SCTE 173-2] Framework for implementing preferential telecommunications in IP**Cablecom** and IP**Cablecom2** networks

2.2 Other References

The following ITU-T recommendation contains provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the edition indicated was valid. All recommendations and other references are subject to revision; users of this recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the recommendations and other references listed below. A list of the currently valid ITU-T recommendations is regularly published. The reference to a document within this standard does not give it, as a stand-alone document, the status of a recommendation.

- [ITU-T J.360] Recommendation ITU-T J.360 (2006), *IP**Cablecom2** architecture framework*

3 Definitions

3.1 Terms defined elsewhere

This standard uses the following terms defined elsewhere:

3.1.1 assured capabilities [SCTE 173-1]: Capabilities providing high confidence or certainty that critical telecommunications are available and perform reliably.