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**Framework for Implementing Preferential
Telecommunications in IPCablecom and IPCablecom2
Networks**

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SUMMARY

NOTE: This document is identical to SCTE 173-2 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 provides a framework for implementing preferential capabilities in IPCablecom and IPCablecom2 networks. The approach of this standard is to define a framework for capabilities that can be utilized to meet the requirements in ANSI/SCTE 173-1 2010 and forms the basis for detailed IPCablecom and IPCablecom2 standards in support of preferential telecommunications.

INTRODUCTION

Emergency/disaster telecommunications for authorized users plays 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 capabilities of IPCablecom and IPCablecom2 cable infrastructures offer an important resource for assured preferential telecommunication services.

The essential aspects of preferential telecommunication over cable networks that this framework standard addresses are grouped into two prime areas: authentication and priority. These two areas are the vital network features needed to obtain the resources of cable networks when preferential treatment is required. Other areas such as policy, traffic engineering, alternate routing, provisioning for restorability, etc., are either out of scope or not addressed in this version.

The evolving nature of telecommunication networks in general, and of cable networks in particular, lends itself to a phased approach for the support of preferential treatment. A phased approach needs to consider the evolution of IPCablecom standards: the initial suite of IPCablecom standards, the IPCablecom standards as revised in 2005, and the IPCablecom2 suite of standards.

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Framework for implementing Preferential Telecommunications in IP_Cablecom and IP_Cablecom2 Networks

1.0 Scope

The objective of this Standard is to provide a framework for the implementation of preferential telecommunications services within cable networks as described in [ANSI/SCTE 24-1] and [ITU-T J.360]. This framework is one of the series of Standards addressing these services.

The key aspects of preferential telecommunications services addressed in this framework are priority and authentication. The architectural differences in the two key aspects are addressed in terms of the logical functional entities defined in [ANSI/SCTE 24-1] and [ITU-T J.360], respectively.

Although this version of the framework addresses the two key aspects, namely, priority and authentication, necessary to support preferential treatment in telecommunications services, other aspects such as policy, traffic engineering, alternate routing, provisioning, etc., are either out of scope or left for future study. As an example, future versions are expected to address provisioning of preferential services for specific users and/or devices (media terminal adapters) at specific locations.

2.0 Normative References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Standard. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Standard 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.

- [ANSI/SCTE 24-1] *Architectural framework for the delivery of time-critical services over cable television networks using cable modems*
- [ANSI/SCTE 24-4] *Dynamic quality of service for the provision of real-time services over cable television networks using cable modems*
- [ANSI/SCTE 24-10] *IP_Cablecom security specification*
- [ANSI/SCTE 159-1] *IP_Cablecom Multimedia Part 1: Multimedia Applications and Service*
- [ANSI/SCTE 173-1] *Requirements for preferential telecommunications over IP_Cablecom networks*
- [ITU-T J.360] Recommendation ITU-T J.360 (2006), *IP_Cablecom2 architecture framework*
- [ITU-T J.368] Recommendation ITU-T J.368 (2008), *IP_Cablecom2 quality of service specification*
- [IETF RFC 3261] IETF RFC 3261 (2002), *SIP: Session Initiation Protocol*
- [IETF RFC 4412] IETF RFC 4412 (2006), *Communications Resource Priority for the Session Initiation Protocol (SIP)*