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OpenCable™ Specifications

ETV

Enhanced TV Application Messaging Protocol 1.0

OC-SP-ETV-AM1.0-I05-091125

ISSUED

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1 SCOPE

1.1 Introduction and Overview

Broadcasters and network operators around the world are deploying interactive applications by creating enhancements to a broadcast video stream. These Enhanced Television (ETV) applications rely on embedding various types of data in the video stream, including programs, images, and triggers.

This document specifies the synchronization and signaling mechanisms to be used by ETV applications, regardless of the target receiver or middleware environment. ETV mechanisms must be implementable by legacy set-top boxes as well as OpenCable (OCAP) host devices, and this implementation requirement implies that more than one option must exist for the physical transmission of the signaling and trigger data. This document addresses those various options and describes how a set-top box should interpret signals and triggers delivered via each of those methods.

1.2 Purpose of document

The purpose of this document is to specify ETV application signaling and synchronization mechanisms that meet all of the objectives/requirements of North American cable systems for delivering video-synchronous ETV applications, whether they are broadcast or delivered on-demand.

The intent is to propose a uniform method of inserting signals and triggers that is independent of application environments and software/technology vendors. That said, it is understood that accommodations must be made for the support of specific legacy set-top boxes such as the DCT-2000 and Explorer 2000, while also supplying a standard rich enough to work with advanced set-top boxes based on the OpenCable Host 2.0 Core Functional Requirements [HOST2.1].

In some cases, the need to support a range of devices may result in the need to have more than one signaling packet delivered through the network for the same application. As the number of legacy set-top boxes drops to zero, in any given division over the next several years, this requirement would be relaxed.

This document does not attempt to impose a selection of a particular vendor for implementation. The design of the system is largely based on open industry standards with an objective to leverage currently existing equipment and tools available for implementing such a system.

1.3 Organization of document

This document is divided into four parts:

- a description of the type of applications to be addressed by this specification,
- application signaling and life-cycle management,
- application synchronization and timeline management,
- platform-specific constraints imposed by legacy environments.

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