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Data Standards Subcommittee

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**DOCSIS 4.0 Part 2: MAC and Upper Layer Protocols
Interface Specification**

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1. Introduction

1.1. Executive Summary

The present document provides the SCTE endorsement of CableLabs specification: CM-SP-MULPIv4.0-I01-190815.

1.2. Scope

This specification is part of the DOCSIS®¹ family of specifications developed by Cable Television Laboratories (CableLabs). In particular, this specification is part of a series of specifications that defines the sixth generation of high-speed data-over-cable systems, commonly referred to as the DOCSIS 4.0 specifications. This specification was developed for the benefit of the cable industry and includes contributions by operators and vendors from North and South America, Europe, China, and other regions.

This generation of the DOCSIS specifications builds upon the previous generations of DOCSIS specifications (commonly referred to as the DOCSIS 3.1 and earlier specifications), leveraging the existing Media Access Control (MAC) and Physical (PHY) layers, but with the addition of a new PHY layer designed to improve spectral efficiency and provide better scaling for larger bandwidths (and appropriate updates to the MAC and management layers to support the new PHY layer). It includes backward compatibility for the existing PHY layers in order to enable a seamless migration to the new technology.

2. Normative References

The following documents contain provisions, which, through reference in this text, constitute provisions of this document. At the time of Subcommittee approval, the editions indicated were valid. All documents are subject to revision; and while parties to any agreement based on this document are encouraged to investigate the possibility of applying the most recent editions of the documents listed below, they are reminded that newer editions of those documents might not be compatible with the referenced version.

2.1. SCTE References

- No normative references are applicable.

2.2. Standards from Other Organizations

[1] MAC and Upper Layer Protocols Interface Specification, CM-SP-MULPIv4.0-I01-190815, August 15, 2019, Cable Television Laboratories, Inc. www.cablelabs.com

2.3. Published Materials

- No normative references are applicable.

3. Informative References

The following documents might provide valuable information to the reader but are not required when complying with this document.

¹ DOCSIS® is a registered trademark of Cable Television Laboratories, Inc

3.1. SCTE References

- No informative references are applicable.

3.2. Standards from Other Organizations

- No informative references are applicable.

3.3. Published Materials

- No informative references are applicable.

4. Compliance Notation

<i>shall</i>	This word or the adjective “ <i>required</i> ” means that the item is an absolute requirement of this document.
<i>shall not</i>	This phrase means that the item is an absolute prohibition of this document.
<i>forbidden</i>	This word means the value specified shall never be used.
<i>should</i>	This word or the adjective “ <i>recommended</i> ” means that there may exist valid reasons in particular circumstances to ignore this item, but the full implications should be understood and the case carefully weighted before choosing a different course.
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<i>deprecated</i>	Use is permissible for legacy purposes only. Deprecated features may be removed from future versions of this document. Implementations should avoid use of deprecated features.

5. Abbreviations and Definitions

5.1. Abbreviations

For the purposes of the present document, the abbreviations given in CableLabs specification: CM-SP-MULPIv4.0-I01-190815, [1] apply.

5.2. Definitions

For the purposes of the present document, the abbreviations given in CableLabs specification: CM-SP-MULPIv4.0-I01-190815 [1] apply.

6. Endorsement Notice

All elements of CableLabs specification: CM-SP-MULPIv4.0-I01-190815 [1] *shall* apply without modifications.