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DPoE Architecture Specification

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1. Introduction

1.1. Executive Summary

The present document provides the SCTE endorsement of CableLabs specification: DPoE-SP-ARCHv2.0-I07-190213.

1.2. Scope

This specification describes the version 2.0 architecture for DPoE Networks.

Existing business services include one or more DOCSIS IP services, baseband and broadband Ethernet services over coaxial cable, IP and Ethernet over fiber with baseband and broadband (Course Wavelength Division Multiplexing (CWDM) and Dense Wavelength Division Multiplexing (DWDM)), Broadband Passive Optical Network (BPON), Ethernet Passive Optical Network (EPON), and wireless services. The majority of business services (and all residential Internet and voice) customers are supported by the DOCSIS systems and processes. The maturity of both the technology and the back office systems and processes allows for a high degree of scaling as evidenced by the growth of IP(HSD) (residential broadband) and more recently voice service, using these existing processes and systems.

This version of the document specifies requirements for these services only:

- MEF E-Line, E-LAN, and E-Tree services
- IP(HSD) Internet Service as defined by DOCSIS 3.0.

An operator can offer IP-based services over the Metro Ethernet service platform by treating IP as an application over the DPoE Network.

Other services can be operated "over-the-top" of the above services, but the provisioning, operations, and other requirements for such services are not specified in this version of DPoE specifications.

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] DPoE Architecture Specification, DPoE-SP-ARCHv2.0-I07-190213, February 13, 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.

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: DPoE-SP-ARCHv2.0-I07-190213, [1] apply.

5.2. Definitions

For the purposes of the present document, the definitions given in CableLabs specification: DPoE-SP-ARCHv2.0-I07-190213 [1] apply.

6. Endorsement Notice

All elements of CableLabs specification: DPoE-SP-ARCHv2.0-I07-190213 [1] *shall* apply without modifications.