DPoE Overview

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DPoE Project Objectives



- Facilitate multi-vendor interoperability
- Develop specifications for EPON devices to support DOCSIS network provisioning and service concepts
- Define additional functionality to support Metro Ethernet services (Ethernet Private Line)

DOCSIS Provisioning

- Proven DOCSIS OSS has been in use for years
- Scalability DOCSIS OSS provisions millions of devices
- Troubleshooting systems in place to troubleshoot problems
- Knowledge base existing knowledge of OSS, test systems, etc.

Ethernet Passive Optical Networks (EPON)

Scalable capacity

o 1 Gbps and 10 Gbps systems

- Lowest total cost of ownership among all competing fiber last-mile solutions
- Standards-based equipment and components
- Capable of providing voice, video and data services
- EPON has more ports deployed globally than any other fiber network technology



DPoE Specifications

- Brings the mature systems and business processes of the DOCSIS backoffice to EPON access networks
- Enables full vendor/equipment interoperability similar to CMTS and Cable Modems
- Leverages existing technical and customer care knowledge base, systems, and processes
- Developed by the MSO community and CableLabs
- ➢ Is NOT DOCSIS over fiber

DPoE Elements and Communication



DPoE 1.0 Specs

CableLabs® Cable Data Services DOCSIS® Provisioning of EPON Specifications DPoE™ Architecture Specification

DPoE-SP-ARCHv1.0-I01-110225

ISSUED

MULPI – Specifications for support of a subset of DOCSIS 3.0 MULPI functionality with additional EPON requirements.

MEF – Specifications for MEF services added to DOCSIS static configuration provisioning model

OAM – Extensions beyond IEEE 802.3ah and 802.3av requirements

PHY – Options within EPON declared mandatory, and adds additional requirements

SEC – Provide transparent support of DOCSIS device authentication, code verification, and additional security

IPNE – Best practices and requirements for IP network element management and operations

OSSI – Specifications for support of a subset of DOCSIS 3.0 OSSI functionality with additional EPON requirements

SIEPON / DPoE v1.0 Relationship

• DPoE specs essentially build on SIEPON standard



DPoE Interoperability (EPL Service)



Thank you!