

CableLabs[®] Definition MIB Specification

CL-SP-MIB-CLABDEF-I12-160325

ISSUED

Notice

This CableLabs specification is the result of a cooperative effort undertaken at the direction of Cable Television Laboratories, Inc. for the benefit of the cable industry and its customers. You may download, copy, distribute, and reference the documents herein only for the purpose of developing products or services in accordance with such documents, and educational use. Except as granted by CableLabs in a separate written license agreement, no license is granted to modify the documents herein (except via the Engineering Change process), or to use, copy, modify or distribute the documents for any other purpose.

This document may contain references to other documents not owned or controlled by CableLabs. Use and understanding of this document may require access to such other documents. Designing, manufacturing, distributing, using, selling, or servicing products, or providing services, based on this document may require intellectual property licenses from third parties for technology referenced in this document. To the extent this document contains or refers to documents of third parties, you agree to abide by the terms of any licenses associated with such third-party documents, including open source licenses, if any.

DISCLAIMER

This document is furnished on an "AS IS" basis and neither CableLabs nor its members provides any representation or warranty, express or implied, regarding the accuracy, completeness, noninfringement, or fitness for a particular purpose of this document, or any document referenced herein. Any use or reliance on the information or opinion in this document is at the risk of the user, and CableLabs and its members shall not be liable for any damage or injury incurred by any person arising out of the completeness, accuracy, or utility of any information or opinion contained in the document.

CableLabs reserves the right to revise this document for any reason including, but not limited to, changes in laws, regulations, or standards promulgated by various entities, technology advances, or changes in equipment design, manufacturing techniques, or operating procedures described, or referred to, herein.

This document is not to be construed to suggest that any company modify or change any of its products or procedures, nor does this document represent a commitment by CableLabs or any of its members to purchase any product whether or not it meets the characteristics described in the document. Unless granted in a separate written agreement from CableLabs, nothing contained herein shall be construed to confer any license or right to any intellectual property. This document is not to be construed as an endorsement of any product or company or as the adoption or promulgation of any guidelines, standards, or recommendations.

Document Status Sheet

Document Control Number:	CL-SP-MIB-CLABDEF-I12-160325			
Document Title:	CableLabs® Definition MIB Specification			
Revision History:	I01 – April 5, 2002 I02 – September 20, 2002 I03 – January 13, 2004 I04 – August 4, 2004 I05 – April 8, 2005 I06 – January 19, 2007 I07 – March 6, 2008 I08 – August 11, 2009 I09 – February 10, 2011 I10 – August 9, 2012 I11 – March 17, 2016 I12 – March 25, 2016			
Date:	March 25, 2016			
Status:	Work in Progress	Draft	Issued	Closed
Distribution Restrictions:	Author Only	CL/Member	CL/Vendor	Public

Key to Document Status Codes

- Work in Progress** An incomplete document, designed to guide discussion and generate feedback that may include several alternative requirements for consideration.
- Draft** A document in specification format considered largely complete, but lacking review by Members and vendors. Drafts are susceptible to substantial change during the review process.
- Issued** A generally public document that has undergone Member and Technology Supplier review, cross-vendor interoperability, and is for Certification testing if applicable. Issued Specifications are subject to the Engineering Change Process.
- Closed** A static document, reviewed, tested, validated, and closed to further engineering change requests to the specification through CableLabs.

Trademarks

CableLabs® is a registered trademark of Cable Television Laboratories, Inc. Other CableLabs marks are listed at <http://www.cablelabs.com/certqual/trademarks>. All other marks are the property of their respective owners.

Contents

1	SCOPE.....	5
2	REFERENCES	5
2.1	NORMATIVE REFERENCES	6
2.2	INFORMATIVE REFERENCES.....	6
2.3	REFERENCE ACQUISITION.....	6
3	REQUIREMENTS	8
	APPENDIX I REVISION HISTORY	9

1 SCOPE

This specification describes the namespace organization for the CableLabs enterprise MIB. It defines the CableLabs Definition MIB module (CLAB-DEF-MIB), whose purpose is to be the central registry of Object Identifiers (OIDs) for CableLabs, and as such, to provide the private layout of the CableLabs Object Identifier structure.

2 REFERENCES

This specification is referenced by several CableLabs projects including DOCSIS®, CableHome®, and PacketCable™. It defines the CableLabs OID registry from which each project assigns its own MIB information modules. As such, the CableLabs Definition MIB constitutes a normative reference to several CableLabs specifications, including those listed below.

DOCSIS Specifications (<http://www.cablemodem.com>)

- DOCSIS Set-Top Gateway Interface Specification: CM-SP-DSG
- DOCSIS Testing MIB Specification: CM-SP-TestMIB
- eDOCSIS Specification: CM-SP-eDOCSIS
- DOCSIS M-CMTS Operations Support System Interface Specification: CM-SP-M-OSSI
- DOCSIS Layer 2 Virtual Private Networks Specification: CM-SP-L2VPN
- DOCSIS TDM Emulation Interfaces Specification: CM-SP-TEI
- DOCSIS 3.0 Operations Support System Interface Specification: CM-SP-OSSIV3.0
- DOCSIS IPv4 and IPv6 eRouter Specification: CM-SP-eRouter

CableHome Specifications (closed)

- CableHome 1.0 Specification: CH-SP-CH1.0
- CableHome 1.1 Specification: CH-SP-CH1.1
- CableHome PS Device MIB: CH-SP-MIB-PSDEV
- CableHome Security MIB: CH-SP-MIB-SEC
- CableHome Addressing Portal MIB: CH-SP-MIB-CAP
- CableHome DHCP Portal MIB: CH-SP-MIB-CDP
- CableHome Test Portal MIB: CH-SP-MIB-CTP
- CableHome Quality of Service MIB: CH-SP-MIB-QOS

PacketCable Specifications (<http://www.packetcable.com>)

- PacketCable Multimedia Terminal Adapter (MTA) MIB: PKTC-MTA-MIB
- PacketCable Signaling MIB: PKTC-SIG-MIB
- PacketCable Event Management: MIB: PKTC-SP-EVEMIB
- PacketCable Security Specification: PKT-SP-SEC
- PacketCable Electronic Surveillance Specification: PKT-SP-ESP
- PacketCable Provisioning, Activation, Configuration and Management: PKT-SP-PACM
- PacketCable SMA Provisioning Specification: PKT-SP-SMA-PROV

The CableLabs Definition MIB Specification follows the Internet Standard Management Framework described in IETF RFC 3410 [4]. The CableLabs Definition MIB module also imports its X.509 textual convention from IETF RFC 2578 [1] and RFC 4131 [2].

2.1 Normative References

- [1] IETF RFC 2578, Structure of Management Information Version 2 (SMIv2), April 1999.
- [2] IETF RFC 4131, Management Information Base for Data Over Cable Service Interface Specification (DOCSIS) Cable Modems and Cable Modem Termination Systems for Baseline Privacy Plus, September 2005.
- [3] CableLabs Definition MIB, CLAB-DEF-MIB-2016-03-16, <http://www.cablelabs.com/MIBs/common/>

2.2 Informative References

- [4] IETF RFC 3410, Introduction and Applicability Statements for Internet Standard Management Framework, December 2002.

2.3 Reference Acquisition

CableLabs Specifications:

- Cable Television Laboratories, Inc., 858 Coal Creek Circle, Louisville, CO 80027; Phone +1-303-661-9100; Fax +1-303-661-9199; <http://www.cablelabs.com>.

IETF Specifications:

- Internet Engineering Task Force (IETF) Secretariat, 48377 Fremont Blvd., Suite 117, Fremont, California 94538, USA, Phone: +1-510-492-4080, Fax: +1-510-492-4001, <http://www.ietf.org>

This specification uses the following acronyms:

BSoD	Business Services over DOCSIS
CA	Certificate Authority
CM	Cable Modem
CMS	Call Management Server
CMTS	Cable Modem Termination System
CPE	Customer Premises Equipment
CVC	Code Verification Certificate
DER	Distinguished Encoding Rules
DEPI	Downstream External PHY Interface
DOCSIS	Data-Over-Cable Service Interface Specification
DSID	Downstream Service Identifier
DTI	DOCSIS Timing Interface
eDOCSIS	Embedded DOCSIS
eSAFE	Embedded Service/Application Functional Entity
IETF	Internet Engineering Task Force
KDC	Key Distribution Center
L2VPN	Layer 2 Virtual Private Network
M-CMTS	Modular Cable Modem Termination System
MIB	Management Information Base
OID	Object Identifier
OSSI	Operations Support System Interface

PS	Portal Services
PW	Pseudo Wire
QoS	Quality of Service
RFI	Radio Frequency Interface
SLED	Software Loopback for eDOCSIS
SMA	Security, Monitoring, Automation
TDM	Time Division Multiplexing
TEA	TDM Emulation Adapter
X509	ITU-T Recommendation X.509: Information Technology – Open Systems Interconnection – The Directory: Authentication Framework

3 REQUIREMENTS

The CableLabs Definition MIB MUST be implemented as defined in [3], CLAB-DEF-MIB.

Appendix I Revision History

The following Engineering Change Notice was incorporated into CL-SP-MIB-CLABDEF-I02-020920:

ECN	ECN Date	Summary
CH1-N-02016	7/25/02	Add a new branch into the CLABDEF MIB for CableLabs Security for CableLabs certificates.

The following Engineering Change Notice was incorporated into CL-SP-MIB-CLABDEF-I03-040113:

ECN	ECN Date	Summary
MIB-CLABDEF-N-03.0017-3	1/8/04	Clear SMICng compilation errors and properly register some OID branches. Addition of new TC for X509 certificates.

The following Engineering Change Notice was incorporated into CL-SP-MIB-CLABDEF-I04-040804:

ECN	ECN Date	Summary
MIB-CLABDEF-N-04.0018-3	7/14/04	Add OBJECT IDENTITY place holder for DOCS-LOADBALANCING-MIB. Add Object Entity for CableHome CSA. Updated docsLoadBalMib definition. Add dsgifMib, eSafe branch, typo corrections, add clabMfgCACert MIB object

The following Engineering Change Notices were incorporated into CL-SP-MIB-CLABDEF-I05-050408:

ECN	ECN Date	Summary
MIB-CLABDEF-N-04.0019-4	2/22/05	Addition of PacketCable MIB Extensions
MIB-CLABDEF-N-05.0020-1	3/23/05	New Object Identifiers for CLAB-DEF-MIB MIB Module

The following Engineering Change Notices were incorporated into CL-SP-MIB-CLABDEF-I06-070119:

ECN	ECN Date	Summary
MIB-CLABDEF-N-06.0021-1	3/27/2006	Incorporation of the PacketCable 2.0 sub-tree (the contents of this ECN) was not incorporated, as it was superseded by the following ECN.
MIB-CLABDEF-N-06.0023-2	11/1/2006	Correction to MIB-CLABDEF-N-06.0021-1
MIB-CLABDEF-N-06.0024-4	1/17/2007	Updates to CLAB-DEF-MIB for M-CMTS and DOCSIS OSSIV3.0 MIB Module OID.
MIB-CLABDEF-N-07.0025-1	1/18/07	Editorial corrections and clarification of references.

The following Engineering Change Notices were incorporated into CL-SP-MIB-CLABDEF-I07-080306:

ECN	ECN Date	Summary
MIB-CLABDEF-N-07.0032-4	10/31/2007	Addition of new PacketCable subtrees
MIB-CLABDEF-N-07.0034-2	11/28/2007	CLAB-DEF-MIB New Structure

The following Engineering Change Notice was incorporated into CL-SP-MIB-CLABDEF-I08-090811:

ECN	ECN Date	Summary
MIB-CLABDEF-N-08.0039-2	1/28/2009	Modifications to support SMA devices

The following Engineering Change Notice was incorporated into CL-SP-MIB-CLABDEF-I09-110210:

ECN	ECN Date	Summary
MIB-CLABDEF-N-10.0092-1	1/5/2011	Defining the new OID for the Online Content Access Project

The following Engineering Change Notice was incorporated into CL-SP-MIB-CLABDEF-I10-120809:

ECN	ECN Date	Summary
MIB-CLABDEF-N-12.0113-1	6/13/2012	Definition of Wireless Project oid in CLAB-DEF-MIB

The following Engineering Change Notice was incorporated into CL-SP-MIB-CLABDEF-I11-160317:

ECN	ECN Date	Summary	Author
MIB-CLABDEF-N-15.0138-1	12/16/2015	Add GRE and MAP MIBs defined in the eRouter spec to the CLABDEF spec	Berg
MIB-CLABDEF-N-16.0142-1	3/16/2016	Add DNS, GW and ANI-DEV MIB identifiers	Burroughs

The following editorial-only changes are included in CL-SP-MIB-CLABDEF-I12-160325:

Summary
Corrected LAST-UPDATED and REVISION information in the MIB text
Removed full MIB text to a separate, normatively-referenced file at http://www.cablelabs.com/MIBs/common/