Superseded

CableLabs® Definition MIB Specification

CL-SP-MIB-CLABDEF-I03-040113

Issued

Notice

Document Status Sheet

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Key to Document Status Codes:

Work in Progress	An incomplete document, designed to guide discussion and generate feedback, which 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 stable document, which has undergone rigorous member and vendor review and is suitable for product design and development, cross-vendor interoperability, and for certification testing.
Closed	A static document, reviewed, tested, validated, and closed to further engineering change requests to the specification through CableLabs.

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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 OIDs for CableLabs, and as such, to provide the private layout of the CableLabs object identifier (OID) 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/specifications/)

- DOCSIS Set-top Gateway (DSG) Interface Specification: SP-DSG
- DOCSIS Test MIB
- Software Loopback for eDOCSIS (SLED) MIB

CableHome Specifications (http://www.cablelabs.com/projects/cablehome/specifications/)

- 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/specifications/)

- 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

The CableLabs Definition MIB Specification follows the Internet Standard Management Framework described in IETF RFC 3410 [2]. The CableLabs Definition MIB module also imports its X.509 textual convention from the IETF DOCSIS BPI Plus MIB document [1].

2.1 Normative References

[1] IETF Internet-Draft, draft-ietf-ipcdn-bpiplus-mib-12, S. Green, K. Ozawa, A. Katsnelson, E. Cardona, "Management Information Base for DOCSIS Cable Modems and Cable Modem Termination Systems for Baseline Privacy Plus", October 2003

2.2 Informative References

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

3 ACRONYMS

This specification uses the following acronyms:

CA	Certificate Authority
CMS	Call Management Server
CVC	Code Verification Certificate
DER	Distinguished Encoding Rules
DOCSIS	Data Over Cable Service Interface Specification
eDOCSIS	Embedded DOCSIS
KDC	Key Distribution Center
MIB	Management Information Base
OID	Object Identifier
PS	Portal Services
X509	ITU-T Recommendation X.509: Information Technology – Open Systems Interconnection – The Directory: Authentication Framework

4 REQUIREMENTS

The CableLabs Definition MIB MUST be implemented as defined below.

```
CLAB-DEF-MIB DEFINITIONS ::= BEGIN
IMPORTS
    MODULE-IDENTITY,
    OBJECT-TYPE,
    enterprises
                    FROM SNMPv2-SMI
    DocsX509ASN1DEREncodedCertificate
                    FROM DOCS-IETF-BPI2-MIB;

cableLabs MODULE-IDENTITY
    LAST-UPDATED "200401131700Z" -- January 13, 2004
    ORGANIZATION "Cable Television Laboratories, Inc."
    CONTACT-INFO
           "Editor: Jean-Francois Mule
            Postal: Cable Television Laboratories, Inc.
                    858 Coal Creek Circle
                    Louisville, Colorado 80027-9750
                    U.S.A.
            Phone:  +1 303-661-9100
            Fax:    +1 303-661-9199
            E-mail: jfm@cablelabs.com
                    mibs@cablelabs.com"
    DESCRIPTION
            "This MIB module defines the namespace organization for the
            CableLabs enterprise OID registry.

            Copyright 1999-2004 Cable Television Laboratories, Inc.
            All rights reserved."

    REVISION "200401131700Z" -- January 13, 2004
    DESCRIPTION
            "This revision, published as CL-SP-MIB-CLABDEF-I03."
    ::= { enterprises 4491 }

-- Sub-tree for Registrations
clabFunction            OBJECT IDENTIFIER ::= { cableLabs 1 }
clabFuncMib2            OBJECT IDENTIFIER ::= { clabFunction 1 }
clabFuncProprietary     OBJECT IDENTIFIER ::= { clabFunction 2 }

-- Sub-tree for Project Definitions
clabProject             OBJECT IDENTIFIER ::= { cableLabs 2 }
clabProjDocsis          OBJECT IDENTIFIER ::= { clabProject 1 }
clabProjPacketCable     OBJECT IDENTIFIER ::= { clabProject 2 }
clabProjOpenCable       OBJECT IDENTIFIER ::= { clabProject 3 }
clabProjCableHome       OBJECT IDENTIFIER ::= { clabProject 4 }

-- Sub-tree for Global Security Definitions
clabSecurity            OBJECT IDENTIFIER ::= { cableLabs 3 }
clabSecCertObject       OBJECT IDENTIFIER ::= { clabSecurity 1 }


--
-- CableLabs DOCSIS Project Sub-tree Definitions
--
dsgMIB OBJECT IDENTIFIER
    -- DOCSIS Set-top Gateway (DSG) MIB module
```

```
    -- Reference:
    -- CableLabs DOCSIS Set-top Gateway (DSG) Interface Specification
    ::= { clabProjDocsis 1 }

docsTestMIB OBJECT IDENTIFIER
    -- DOCSIS Test MIB module supporting programmable test features
    -- for DOCSIS 2.0 compliant Cable Modems (CM) and Cable Modems
    -- Termination Systems (CMTS).
    -- Reference:
    -- CableLabs DOCSIS 2.0 Testing MIB Specification
    ::= { clabProjDocsis 12 }

sledMib OBJECT IDENTIFIER
    -- eDOCSIS MIB module supporting the Software Loopback Application
    -- for eDOCSIS (SLED).
    -- Reference:
    -- CableLabs eDOCSIS Specification
    ::= { clabProjDocsis 13 }


--
-- CableLabs CableHome Project Sub-tree Definitions
-- Reference
-- CableLabs CableHome Specification
--
cabhPsDevMib OBJECT IDENTIFIER
    -- CableHome MIB module defining the basic management objects for
    -- the Portal Services logical element of a CableHome compliant
    -- Residential Gateway device. The PS device parameters describe
    -- general PS Device attributes and behavior characteristics
    ::= { clabProjCableHome 1 }

cabhSecMib OBJECT IDENTIFIER
    -- CableHome MIB module defining the basic management objects for
    -- the firewall and other security features of the Portal Services
    -- element.
    ::= { clabProjCableHome 2 }

cabhCapMib OBJECT IDENTIFIER
    -- CableHome MIB module defining the basic management objects for
    -- the CableHome Addressing Portal (CAP) function of the Portal
    -- Services element.
    ::= { clabProjCableHome 3 }

cabhCdpMib OBJECT IDENTIFIER
    -- This MIB module supplies the basic management objects for the
    -- CableHome DHCP Portal (CDP) function of the Portal Services
    -- element.
    ::= { clabProjCableHome 4 }

cabhCtpMib OBJECT IDENTIFIER
    -- CableHome MIB module supporting the remote LAN diagnostic
    -- features provided by the CableHome Test Portal (CTP) function
    -- of the Portal Services element.
    ::= { clabProjCableHome 5 }

cabhQosMib OBJECT IDENTIFIER
    -- CableHome MIB module defining management objects for the
    -- configuration and monitoring of CableHome prioritized QoS
    -- capability.
    ::= { clabProjCableHome 6 }
```

```
--
-- CableLabs PacketCable Project Sub-tree Definitions
--
pktcMtaMib OBJECT IDENTIFIER
    -- PacketCable MIB module defining the basic management object for
    -- the Multimedia Terminal Adapter (MTA) devices compliant with
    -- PacketCable requirements.
    -- Reference
    -- CableLabs PacketCable MTA Device Provisioning Specification
    ::= { clabProjPacketCable 1 }

pktcSigMib OBJECT IDENTIFIER
    -- PacketCable MIB module defining the basic management object for
    -- the PacketCable MTA Signaling protocols. This version of the MIB
    -- includes common signaling and Network Call Signaling (NCS)
    -- related signaling objects.
    -- Reference
    -- CableLabs PacketCable MTA Device Provisioning Specification
    ::= { clabProjPacketCable 2 }

pktcEventMib OBJECT IDENTIFIER
    -- PacketCable MIB module defining the basic management objects for
    -- event reporting.
    -- Reference
    -- CableLabs PacketCable Management Event Specification
    ::= { clabProjPacketCable 3 }

pktcSecurity OBJECT IDENTIFIER
    -- CableLabs OID reserved for security and used to specify errors
    -- that can be returned for the Kerberos KDC - Provisioning
    -- Server interface, or the MTA-CMS Kerberized IPsec interface, or
    -- the MTA-Provisioning Server Kerberized SNMPv3 interface.
    -- CableLabs PacketCable Security Specification
    ::= { clabProjPacketCable 4 }

pktcLawfulIntercept OBJECT IDENTIFIER
    -- CableLabs OID reserved for the PacketCable Electronic
    -- Surveillance Protocol (PCESP) between the Delivery Function
    -- and Collection Function. This OID is used to define the ASN.1
    -- PCESP messages.
    -- CableLabs PacketCable Electronic Surveillance Protocol
    -- Specification
    ::= { clabProjPacketCable 5 }


--
-- Definition of CableLabs Security Certificate Objects
--
clabSrvcPrvdrRootCACert OBJECT-TYPE
    SYNTAX      DocsX509ASN1DEREncodedCertificate
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "The X509 DER-encoded CableLabs Service Provider Root CA
            Certificate."
    REFERENCE
            "CableLabs CableHome Specification;
             CableLabs PacketCable Security Specification."
    ::= { clabSecCertObject 1 }

clabCVCRootCACert OBJECT-TYPE
    SYNTAX      DocsX509ASN1DEREncodedCertificate
    MAX-ACCESS  read-only
```

```
    STATUS      current
    DESCRIPTION
            "The X509 DER-encoded CableLabs CVC Root CA Certificate."
    REFERENCE
            "CableLabs CableHome Specification;
             CableLabs PacketCable Security Specification."
    ::= { clabSecCertObject 2 }

clabCVCCACert OBJECT-TYPE
    SYNTAX      DocsX509ASN1DEREncodedCertificate
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "The X509 DER-encoded CableLabs CVC CA Certificate."
    REFERENCE
            "CableLabs CableHome Specification;
             CableLabs PacketCable Security Specification."
    ::= { clabSecCertObject 3 }

clabMfgCVCCert OBJECT-TYPE
    SYNTAX      DocsX509ASN1DEREncodedCertificate
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "The X509 DER-encoded Manufacturer CVC Certificate."
    REFERENCE
            "CableLabs CableHome Specification;
             CableLabs PacketCable Security Specification."
    ::= { clabSecCertObject 4 }

END
```

Appendix I Revision History

The following Engineering Change Notices were 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 Notices were 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.