



***Society of Cable
Telecommunications
Engineers***

**ENGINEERING COMMITTEE
Hybrid Management Sub-Layer Subcommittee**

AMERICAN NATIONAL STANDARD

ANSI/SCTE 38-11 2008

**HMS Headend Management Information Base (MIB)
SCTE-HMS-HEADENDIDENT-MIB**

NOTICE

The Society of Cable Telecommunications Engineers (SCTE) Standards are intended to serve the public interest by providing specifications, test methods and procedures that promote uniformity of product, interchangeability and ultimately the long term reliability of broadband communications facilities. These documents shall not in any way preclude any member or nonmember of SCTE from manufacturing or selling products not conforming to such documents, nor shall the existence of such standards preclude their voluntary use by those other than SCTE members, whether used domestically or internationally.

SCTE assumes no obligations or liability whatsoever to any party who may adopt the Standards. Such adopting party assumes all risks associated with adoption of these Standards or Recommended Practices, and accepts full responsibility for any damage and/or claims arising from the adoption of such Standards or Recommended Practices.

Attention is called to the possibility that implementation of this standard may require use of subject matter covered by patent rights. By publication of this standard, no position is taken with respect to the existence or validity of any patent rights in connection therewith. SCTE shall not be responsible for identifying patents for which a license may be required or for conducting inquiries into the legal validity or scope of those patents that are brought to its attention.

Patent holders who believe that they hold patents which are essential to the implementation of this standard have been requested to provide information about those patents and any related licensing terms and conditions. Any such declarations made before or after publication of this document are available on the SCTE web site at <http://www.scte.org>.

All Rights Reserved
© Society of Cable Telecommunications Engineers, Inc. 2008
140 Philips Road
Exton, PA 19341

CONTENTS

SCOPE	1
COPYRIGHT	1
NORMATIVE REFERENCE	1
INFORMATIVE REFERENCE	1
TERMS AND DEFINITIONS	1
REQUIREMENTS	1

SCOPE

This document provides the branch object identifiers for each of the MIBs within the SCTE HMS HEADENDIDENT Tree.

COPYRIGHT

The MIB definition found in this document may be incorporated directly in products without further permission from the copyright owner, SCTE.

NORMATIVE REFERENCE

IETF RFC 2578 SNMPv2-SMI

IETF RFC 2579 SNMPv2-TC

IETF RFC 2580 SNMPv2-CONF

SCTE 36 2007 SCTE-ROOT Management Information Base (MIB) Definitions

SCTE 37 2008 Hybrid Fiber/Coax Outside Plant Status Monitoring SCTE-HMS-ROOTS Management Information Base (MIB) Definition

INFORMATIVE REFERENCE

None

TERMS AND DEFINITIONS

This document defines the following terms:

Management Information Base (MIB) – the specification of information in a manner that allows standard access through a network management protocol.

REQUIREMENTS

This section defines the mandatory syntax of the SCTE-HMS-HEADENDIDENT-MIB. It follows the IETF Simple Network Management Protocol (SNMP) for defining managed objects.

The syntax is given below.

```

SCTE-HMS-HEADENDIDENT-MIB DEFINITIONS ::= BEGIN

IMPORTS
    Integer32, Unsigned32, OBJECT-IDENTITY, MODULE-IDENTITY
        FROM SNMPv2-SMI
    DisplayString, TEXTUAL-CONVENTION
        FROM SNMPv2-TC
    insidePlantIdent
        FROM SCTE-HMS-ROOTS; -- see ANSI_SCTE 37 (formerly HMS072)

headEndIdentMib MODULE-IDENTITY
    LAST-UPDATED "200801161300Z"
    ORGANIZATION "SCTE HMS Working Group"
    CONTACT-INFO
        "    SCTE HMS Subcommittee, Chairman
         mailto:standards@scte.org"

    DESCRIPTION
        "The MIB module is for representing optical equipment
        present in the headend (or indoor) and is supported by
        a SNMP agent. This module defines the root OID (under
        the scteHmsTree) for the indoor optic device MIBs such
        as Optical transmitters, receivers, amplifiers etc.
        This module also defines textual conventions that are
        common across indoor devices."

    REVISION "200801161300Z"
    DESCRIPTION
        "Changed due to Comment Resolution Meeting."

    REVISION "200710030000Z" -- Oct 03, 2007
    DESCRIPTION
        "added heDigital and heManagedServer to the mib tree."

    ::= { insidePlantIdent 0 }

-- Registration subtree

heOptics    OBJECT-IDENTITY
    STATUS   current
    DESCRIPTION
        "Defines the base OID for the inside plant optical
equipment
        (see SCTE 83-1, formerly HMS108) including, but not limited
to,
        optical transmitters (see SCTE 85-1, formerly HMS112),
        optical receivers (see SCTE 85-2, formerly HMS113),
        optical amplifiers (see SCTE 85-3, formerly HMS118),
        optical switches etc."
    ::= { insidePlantIdent 1 }

heBaseIdent OBJECT-IDENTITY
    STATUS   current
    DESCRIPTION
        "Defines the base OID for the common part of the inside
plant

```

```

        equipment (see SCTE 84-1; formerly HMS111) including, but
not
        limited to, power supplies (see SCTE 84-2; formerly
HMS116),
        fans (see SCTE 84-3; formerly HMS117), etc."
 ::= { insidePlantIdent 2 }

heCommon OBJECT-IDENTITY
STATUS current
DESCRIPTION
    "Defines the base OID for the modelling of
    all indoor equipment(see SCTE 84-1; formerly HMS111)."
```

```

 ::= { heBaseIdent 1 }

hePowerSupply OBJECT-IDENTITY
STATUS current
DESCRIPTION
    "Defines the base OID for the modelling of
    indoor Power Supply(see SCTE 84-2; formerly HMS116)."
```

```

 ::= { heBaseIdent 2 }

heFans OBJECT-IDENTITY
STATUS current
DESCRIPTION
    "Defines the base OID for the modelling of
    indoor Fans (see SCTE 84-3; formerly HMS117)."
```

```

 ::= { heBaseIdent 3 }

heHMTS OBJECT-IDENTITY
STATUS current
DESCRIPTION
    "Defines the base of the HMTS (see SCTE 83-3; formerly
HMS120)."
```

```

 ::= { insidePlantIdent 3 }

heRF OBJECT-IDENTITY
STATUS current
DESCRIPTION
    "Defines the base OID for the inside plant RF equipment
    (see SCTE 83-4, formerly HMS133) including, but not limited
to,
    RF amplifiers (see SCTE 94-1, formerly HMS131),
    RF switches (see SCTE 94-2, formerly HMS132) etc."
```

```

 ::= { insidePlantIdent 4 }

heDigital OBJECT-IDENTITY
STATUS current
DESCRIPTION
    "Defines the base OID for the inside plant Digital devices
    including QAM, Encoders, Decoders, MPEG, IP etc ...."
```

```

 ::= { insidePlantIdent 5 }

heManagedServer OBJECT-IDENTITY
STATUS current
DESCRIPTION
    "Defines the base OID for the inside plant Managed Servers.
```

```

        Servers can be any machine that is used to serve data such
        as a video server, a timing server, a resource server
..etc"
    ::= { insidePlantIdent 6 }

-- Textual Conventions

HeTenthVolt ::= TEXTUAL-CONVENTION
    DISPLAY-HINT "d-1"
    STATUS      current
    DESCRIPTION
        "This data type represents voltage levels that are normally
        expressed in volts. Units are in tenths of a volt;
        for example, -48.1 volts will be represented as -481."
    SYNTAX      Integer32

HeTenthdBm ::= TEXTUAL-CONVENTION
    DISPLAY-HINT "d-1"
    STATUS      current
    DESCRIPTION
        "This data type represents power levels
        that are normally expressed in dBm. Units
        are in tenths of a dBm;
        for example, -5.1 dBm will be represented as -51."
    SYNTAX      Integer32

HeTenthdBmV ::= TEXTUAL-CONVENTION
    DISPLAY-HINT "d-1"
    STATUS      current
    DESCRIPTION
        "This data type represents power levels
        that are normally expressed in dBmV. Units
        are in tenths of a dBmV;
        for example, -5.1 dBmV will be represented as -51."
    SYNTAX      Integer32

HeTenthCentigrade ::= TEXTUAL-CONVENTION
    DISPLAY-HINT "d-1"
    STATUS      current
    DESCRIPTION
        "This data type represents temperature values that
        are normally expressed in Centigrade. Units are in
        tenths of a Centigrade;
        for example, -5.1 Centigrade will be represented as -51."
    SYNTAX      Integer32

HeHundredthNanoMeter ::= TEXTUAL-CONVENTION
    DISPLAY-HINT "d-2"
    STATUS      current
    DESCRIPTION
        "This data type represents wavelength values that
        are normally expressed in nano meters. Units are in
        hundredths of a NanoMeter;
        for example, 1550.56 nm will be represented as 155056."
    SYNTAX      Unsigned32

```

HeTenthdB ::= TEXTUAL-CONVENTION

DISPLAY-HINT "d-1"

STATUS current

DESCRIPTION

"This data type represents power levels that are normally expressed in dB. Units are in tenths of a dB; for example, -5.1 dB will be represented as -51."

SYNTAX Integer32

HeOnOffControl ::= TEXTUAL-CONVENTION

STATUS current

DESCRIPTION

"An enumerated value that provides a control of a particular

hardware or software parameter that usually represent some sort of switch.

A SET request with a value off(1) will cause the switch to be shut off.

A SET request with a value on(2) will cause the switch to be turned on.

A value meaningless(3) will be implemented by the variables that represent a switch with write-only access. A GET request for the value of the write-only variable shall return a value meaningless(3).

A SET request with a value meaningless(3) for the variable with write access shall have no effect and no exception is generated.

A value may be used by the variables with both read-write and write-only access.

The variables with read-only access shall be defined with the textual convention HeOnOffStatus."

SYNTAX INTEGER {

off(1),

on(2),

meaningless(3)

}

HeOnOffStatus ::= TEXTUAL-CONVENTION

STATUS current

DESCRIPTION

"An enumerated value that provides a status of a particular hardware or software parameter that usually represent some sort of switch.

A value off(1) indicates the switch is off.

A value on(2) indicates the switch is on."

SYNTAX INTEGER {

off(1),

on(2)


```

}

HeFaultStatus ::= TEXTUAL-CONVENTION
  STATUS      current
  DESCRIPTION
    "An enumerated value that provides a fault status of
    a particular hardware or software parameter that
    usually represent some sort of condition.

    A value normal(1) indicates the normal condition.

    A value fault(2) indicates the fault condition."
  SYNTAX      INTEGER {
    normal(1),
    fault(2)
  }

HeLaserType   ::= TEXTUAL-CONVENTION
  STATUS      current
  DESCRIPTION
    "Laser type. Some example values are: unisolated FP,
    isolated FP, uncooled DFB, cooled DFB, ITU (up to
    32 colors)."
```

```

  SYNTAX      DisplayString

HeMilliAmp   ::= TEXTUAL-CONVENTION
  DISPLAY-HINT "d-3"
  STATUS      current
  DESCRIPTION
    "This data type represents current levels that are normally
    expressed in amperes. Units are in milliamperes;
    for example, 2.1 Amperes would be expressed as 2100."
  SYNTAX      Unsigned32

HeHundredthWatts ::= TEXTUAL-CONVENTION
  DISPLAY-HINT "d-2"
  STATUS      current
  DESCRIPTION
    "This data type represents power values that
    are normally expressed in watts. Units are in
    hundredths of a watt;
    for example, 420 watts will be represented as 42000."
  SYNTAX      Unsigned32

END
```