AMERICAN NATIONAL STANDARD

ANSI/SCTE 84-2 2017

HMS Inside Plant
Management Information Base (MIB)
SCTE-HMS-HE-POWER-SUPPLY-MIB
NOTICE

The Society of Cable Telecommunications Engineers (SCTE) / International Society of Broadband Experts (ISBE) Standards and Operational Practices (hereafter called “documents”) are intended to serve the public interest by providing specifications, test methods and procedures that promote uniformity of product, interchangeability, best practices and ultimately the long-term reliability of broadband communications facilities. These documents shall not in any way preclude any member or non-member of SCTE•ISBE 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•ISBE members.

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

Attention is called to the possibility that implementation of this document may require the use of subject matter covered by patent rights. By publication of this document, no position is taken with respect to the existence or validity of any patent rights in connection therewith. SCTE•ISBE 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 document 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•ISBE web site at http://www.scte.org.

All Rights Reserved
© Society of Cable Telecommunications Engineers, Inc. 2017
140 Philips Road
Exton, PA 19341
SCOPE
This document is identical to SCTE 84-2 2009 except for informative components which may have been updated such as the title page, NOTICE text, headers and footers. No normative changes have been made to this document.

This document provides MIB definitions for HMS Indoor Power Supplies present in the headend (or indoor) and supported by a SNMP agent.

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 1907 SNMPv2-MIB
IETF RFC 2578 SNMPv2-SMI
IETF RFC 2579 SNMPv2-TC
IETF RFC 2580 SNMPv2-CONF
IETF RFC 2737 ENTITY-MIB
SCTE 36 SCTE-ROOT
SCTE 37 SCTE-HMS-ROOTS
SCTE 38-11 SCTE-HMS-HEADENDIDENT-MIB
SCTE 38-1 SCTE-HMS-HE-PROPERTY-MIB
SCTE 84-1 SCTE-HMS-HE-COMMON-MIB

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-HE-POWER-SUPPLY-MIB. It follows the IETF Simple Network Management Protocol (SNMP) for defining managed objects.
The syntax is given below.
SCTE-HMS-HE-POWER-SUPPLY-MIB DEFINITIONS ::= BEGIN

IMPORTS
  OBJECT-TYPE, MODULE-IDENTITY, Unsigned32
  FROM SNMPv2-SMI
  OBJECT-GROUP, MODULE-COMPLIANCE
  FROM SNMPv2-CONF
  DisplayString
  FROM SNMPv2-TC
  hePowerSupply, HeTenthVolt, HeHundredthWatts,
  HeMilliAmp
  FROM SCTE-HMS-HEADENDIDENT-MIB
  entPhysicalIndex
  FROM ENTITY-MIB;

hePowerSupplyMIB MODULE-IDENTITY
LAST-UPDATED "200403250410Z"
ORGANIZATION
  "SCTE HMS Working Group"
CONTACT-INFO
  "SCTE HMS Subcommittee, Chairman
mail to: standards@scte.org"
DESCRIPTION
  "The MIB module is for representing a power supply present in the
headend (or indoor) and supported by a SNMP agent."
 ::= { hePowerSupply 1 }

hePsMIBObjects OBJECT IDENTIFIER ::= { hePowerSupplyMIB 1 }

-- Conformance Information

hePsMIBConformance OBJECT IDENTIFIER ::= { hePowerSupplyMIB 2 }
hePsMIBCompliances OBJECT IDENTIFIER ::= { hePsMIBConformance 1 }
hePsMIBGroups OBJECT IDENTIFIER ::= { hePsMIBConformance 2 }

-- The Power Supply Unit Table

hePsUnitTable OBJECT-TYPE
SYNTAX SEQUENCE OF HePsUnitEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
  "A table containing information about headend (or indoor plant)
  power supplies. These power supplies could be, for example,
  plug-in modules for a chassis."
 ::= { hePsMIBObjects 1 }
hePsUnitEntry OBJECT-TYPE
SYNTAX HePsUnitEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"Information about each Power Supply in the subsystem. Each Power Supply unit will have an entry in the Entity MIB supported for this agent."
INDEX { entPhysicalIndex }
::= { hePsUnitTable 1 }

HePsUnitEntry ::= SEQUENCE {
  hePsUnitCurrentIN
      HeMilliAmp,
  hePsUnitPowerIN
      HeHundredthWatts,
  hePsUnitDescription
      DisplayString,
  hePsUnitVoltageIN
      HeTenthVolt
}

hePsUnitCurrentIN OBJECT-TYPE
SYNTAX HeMilliAmp
UNITS "milliamperes"
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Scaled representation of the input current (AC or DC) for this power supply. This is an RMS value for AC currents.

This object must provide for the alarm management capabilities with a corresponding entry in the propertyTable of SCTE-HMS-PROPERTY-MIB (ANSI/SCTE 38-1).

An alarm shall be recorded as an entry in the currentAlarmTable of SCTE-HMS-PROPERTY-MIB (ANSI/SCTE 38-1).

A log record shall be added as an entry in the heCommonLogTable.

An heCommonAlarmEvent notification shall be sent."
::= { hePsUnitEntry 1 }

hePsUnitPowerIN OBJECT-TYPE
SYNTAX HeHundredthWatts
UNITS "hundredths of a watt"
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Scaled representation of the input power (AC or DC) for this power supply. This is an RMS value for AC powers.

This object must provide for the alarm management capabilities with a corresponding entry in the propertyTable of SCTE-HMS-PROPERTY-MIB (ANSI/SCTE 38-1).

An alarm shall be recorded as an entry in the currentAlarmTable of SCTE-HMS-PROPERTY-MIB (ANSI/SCTE 38-1).

A log record shall be added as an entry in the heCommonLogTable.

An heCommonAlarmEvent notification shall be sent."
 ::= { hePsUnitEntry 2 }

hePsUnitDescription OBJECT-TYPE
SYNTAX DisplayString
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"This string will describe the model type of the Power Supply. Examples are AC+110, AC+220, DC-48, DC+48. This model type should match the entry in the Entity mib for this object."
 ::= { hePsUnitEntry 3 }

hePsUnitVoltageIN OBJECT-TYPE
SYNTAX HeTenthVolt
UNITS "tenths of a volt"
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Scaled representation of the input voltage (AC or DC) for this power supply. This is an RMS value for AC voltages.

This object must provide for the alarm management capabilities with a corresponding entry in the propertyTable of SCTE-HMS-PROPERTY-MIB (ANSI/SCTE 38-1).

An alarm shall be recorded as an entry in the currentAlarmTable of SCTE-HMS-PROPERTY-MIB (ANSI/SCTE 38-1).
A log record shall be added as an entry in the heCommonLogTable.

An heCommonAlarmEvent notification shall be sent.

::= { hePsUnitEntry 4 }

-- The Power Supply Output Table

hePsOutputTable OBJECT-TYPE
SYNTAX SEQUENCE OF HePsOutputEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"A list of monitorable parameter entries for power supply outputs."
 ::= { hePsMIBObjects 2 }

hePsOutputEntry OBJECT-TYPE
SYNTAX HePsOutputEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"An entry containing management information applicable to a particular power supplies outputs."
INDEX { entPhysicalIndex,
   hePsOutputIndex }
 ::= { hePsOutputTable 1 }

HePsOutputEntry ::= SEQUENCE {
   hePsOutputIndex
      Unsigned32,
   hePsOutputVoltage
      HeTenthVolt, 
   hePsOutputCurrent
      HeMilliAmp,
   hePsOutputPower
      HeHundredthWatts
}

hePsOutputIndex OBJECT-TYPE
SYNTAX Unsigned32
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"An arbitrary value which uniquely identifies each entry."
 ::= { hePsOutputEntry 1 }
hePsOutputVoltage  OBJECT-TYPE
SYNTAX     HeTenthVolt
UNITS  "tenths of a volt"
MAX-ACCESS read-only
STATUS     current
DESCRIPTION
"Scaled representation of the output voltage for this power supply output.

If a single PHYSICAL power supply provides multiple voltages, each
voltage
shall have its own entry in this table.

This object must provide for the alarm management capabilities
with a corresponding entry in the propertyTable of
SCTE-HMS-PROPERTY-MIB (ANSI/SCTE 38-1).

An alarm shall be recorded as an entry in the currentAlarmTable
of SCTE-HMS-PROPERTY-MIB (ANSI/SCTE 38-1).

A log record shall be added as an entry in the heCommonLogTable.

An heCommonAlarmEvent notification shall be sent."
::= { hePsOutputEntry 2 }

hePsOutputCurrent  OBJECT-TYPE
SYNTAX     HeMilliAmp
UNITS  "milliamperes"
MAX-ACCESS read-only
STATUS     current
DESCRIPTION
"Scaled representation of the output current for this power supply output.

This object must provide for the alarm management capabilities
with a corresponding entry in the propertyTable of
SCTE-HMS-PROPERTY-MIB (ANSI/SCTE 38-1).

An alarm shall be recorded as an entry in the currentAlarmTable
of SCTE-HMS-PROPERTY-MIB (ANSI/SCTE 38-1).

A log record shall be added as an entry in the heCommonLogTable.

An heCommonAlarmEvent notification shall be sent."
::= { hePsOutputEntry 3 }

hePsOutputPower  OBJECT-TYPE
SYNTAX     HeHundredthWatts
UNITS "hundredths of a watt"
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Scaled representation of the output power for this power supply output.

This object must provide for the alarm management capabilities with a corresponding entry in the propertyTable of SCTE-HMS-PROPERTY-MIB (ANSI/SCTE 38-1).

An alarm shall be recorded as an entry in the currentAlarmTable of SCTE-HMS-PROPERTY-MIB (ANSI/SCTE 38-1).

A log record shall be added as an entry in the heCommonLogTable.

An heCommonAlarmEvent notification shall be sent."
 ::= { hePsOutputEntry 4 }

-- Compliance statements

hePsCompliance MODULE-COMPLIANCE
 STATUS current
 DESCRIPTION
 "The minimum compliance statement for indoor power supplies."
 MODULE
  MANDATORY-GROUPS { hePsOutputMandatoryGroup }
  GROUP hePsUnitGroup
  DESCRIPTION
 "The hePsUnitGroup is unconditionally optional."
  GROUP hePsOutputGroup
  DESCRIPTION
 "The hePsOutputGroup is unconditionally optional."
 ::= { hePsMIBCompliances 1 }

-- this module

hePsOutputMandatoryGroup OBJECT-GROUP
 OBJECTS { hePsOutputVoltage }
 STATUS current
 DESCRIPTION
 "A mandatory collection of objects that provide information applicable to a particular power supply's output parameters."
 ::= { hePsMIBGroups 1 }

hePsUnitGroup OBJECT-GROUP
OBJECTS { hePsUnitVoltageIN,  
    hePsUnitCurrentIN,  
    hePsUnitPowerIN,  
    hePsUnitDescription }  
STATUS current  
DESCRIPTION  
"A collection of objects that provide information applicable to a  
particular power supply's input parameters."  
::= { hePsMIBGroups 2 }

hePsOutputGroup OBJECT-GROUP  
OBJECTS { hePsOutputCurrent,  
    hePsOutputPower }  
STATUS current  
DESCRIPTION  
"A collection of objects that provide information applicable to a  
particular power supply's output parameters."  
::= { hePsMIBGroups 3 }

END