SCTE · ISBE

STANDARDS

Network Operations Subcommittee

AMERICAN NATIONAL STANDARD

ANSI/SCTE 84-2 2017

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

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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.

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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
```