SCTE·ISBE STANDARDS

Network Operations Subcommittee

AMERICAN NATIONAL STANDARD

ANSI/SCTE 84-3 2017

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

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SCOPE

This document is identical to SCTE 84-3 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 the branch object identifiers for each of the Fan MIBs within the SCTE HMS Tree.

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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-FAN-MIB. It follows the IETF Simple Network Management Protocol (SNMP) for defining managed objects.

The syntax is given below.

```
SCTE-HMS-HE-FAN-MIB DEFINITIONS ::= BEGIN

IMPORTS
        OBJECT-TYPE, MODULE-IDENTITY, Unsigned32
            FROM SNMPv2-SMI
        OBJECT-GROUP, MODULE-COMPLIANCE
            FROM SNMPv2-CONF
        entPhysicalIndex
            FROM ENTITY-MIB
        heFans, HeMilliAmp, HeFaultStatus
            FROM SCTE-HMS-HEADENDIDENT-MIB;

heFanModuleMIB 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 Fans and Fan Groupings present
                in the headend (or indoor) plant which are supported by a SNMP
agent."
::= { heFans 1 }

heFanMIBObjects     OBJECT IDENTIFIER ::= { heFanModuleMIB 1 }

-- Conformance information

heFanMIBConformance  OBJECT IDENTIFIER ::= { heFanModuleMIB 2 }
heFanMIBCompliances  OBJECT IDENTIFIER ::= { heFanMIBConformance 1 }
heFanMIBGroups      OBJECT IDENTIFIER ::= { heFanMIBConformance 2 }

--      The Fan Unit Table

heFanUnitTable  OBJECT-TYPE
        SYNTAX SEQUENCE OF HeFanUnitEntry
        MAX-ACCESS not-accessible
        STATUS    current
        DESCRIPTION
            "A table containing information about headend (or indoor)
                fan groupings. Fans can be in a Fan Tray, Power Supplies,
                attached to the Cabinet, or any fan entity managed by this
                SNMP agent. Each fan grouping will have an associated entry
                in the Entity mib."
```

```
        ::= { heFanMIBObjects 1 }

heFanUnitEntry  OBJECT-TYPE
        SYNTAX      HeFanUnitEntry
        MAX-ACCESS not-accessible
        STATUS    current
        DESCRIPTION
              "Information about each Fan Grouping in the subsystem."
        INDEX { entPhysicalIndex }
        ::= { heFanUnitTable 1 }

HeFanUnitEntry ::= SEQUENCE {
        heFanUnitAlarm
              HeFaultStatus
}

heFanUnitAlarm  OBJECT-TYPE
        SYNTAX    HeFaultStatus
        MAX-ACCESS read-only
        STATUS    current
        DESCRIPTION
              "The fan grouping status. If every fan in the grouping is
                  operating in normal condition the value returned is
                  normal(1), otherwise the value returned will be fault(2).

                  This object must provide for the alarm management capabilities
                  with a corresponding entry in the discretePropertyTable 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."
        ::= { heFanUnitEntry 1 }

--      The Fan Status Table

heFanStatusTable  OBJECT-TYPE
        SYNTAX SEQUENCE OF HeFanStatusEntry
        MAX-ACCESS not-accessible
        STATUS    current
        DESCRIPTION
              "A list of monitorable parameter entries for each fan or fan grouping."
        ::= { heFanMIBObjects 2 }
```

heFanStatusEntry OBJECT-TYPE
        SYNTAX   HeFanStatusEntry
        MAX-ACCESS not-accessible
        STATUS   current
        DESCRIPTION
                "An entry containing management information applicable
                        to a particular fan or fan grouping for this particular fan entity
unit."
        INDEX { entPhysicalIndex,
                heFanStatusIndex }
        ::= { heFanStatusTable 1 }

HeFanStatusEntry ::= SEQUENCE {
        heFanStatusIndex
                Unsigned32,
        heFanStatusCurrent
                HeMilliAmp,
        heFanStatusAlarm
                HeFaultStatus
}

heFanStatusIndex OBJECT-TYPE
        SYNTAX   Unsigned32
        MAX-ACCESS not-accessible
        STATUS   current
        DESCRIPTION
                "An arbitrary value which uniquely identifies the fan or fan grouping
                for this particular fan entity unit."
        ::= { heFanStatusEntry 1 }

heFanStatusCurrent OBJECT-TYPE
        SYNTAX   HeMilliAmp
        UNITS   "milliamperes"
        MAX-ACCESS read-only
        STATUS   current
        DESCRIPTION
                "Current of this fan or fan grouping for this particular fan entity unit."
        ::= { heFanStatusEntry 2 }

heFanStatusAlarm OBJECT-TYPE
        SYNTAX   HeFaultStatus
        MAX-ACCESS read-only
        STATUS   current
        DESCRIPTION
                "This object contains the current alarm status for

this fan or fan grouping for this particular fan entity unit.

This object must provide for the alarm management capabilities with a corresponding entry in the discretePropertyTable 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."
        ::= { heFanStatusEntry 3 }

-- Compliance statements

heFanCompliance MODULE-COMPLIANCE
        STATUS   current
        DESCRIPTION
            "The minimum compliance statement for indoor fans."
        MODULE
            MANDATORY-GROUPS { heFanUnitMandatoryGroup }
            GROUP heFanStatusGroup
            DESCRIPTION
            "The heFanStatusGroup is unconditionally optional."
        ::= { heFanMIBCompliances 1 }

-- this module

heFanUnitMandatoryGroup OBJECT-GROUP
        OBJECTS { heFanUnitAlarm }
        STATUS   current
        DESCRIPTION
            "The main group defines mandatory objects for all indoor fans."
        ::= { heFanMIBGroups 1 }

heFanStatusGroup OBJECT-GROUP
        OBJECTS { heFanStatusAlarm,
            heFanStatusCurrent }
        STATUS   current
        DESCRIPTION
            "A collection of objects that provide information applicable
                to a particular fan's status parameters."
        ::= { heFanMIBGroups 2 }
END