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S T A N D A R D S

Network Operations Subcommittee

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**Hybrid Fiber/Coax Outside Plant Status Monitoring
SCTE-HMS-PROPERTY-MIB
Management Information Base (MIB) Definition**

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140 Philips Road
Exton, PA 19341

CONTENTS

SCOPE.....	4
COPYRIGHT	4
NORMATIVE REFERENCE.....	4
INFORMATIVE REFERENCE.....	4
TERMS AND DEFINITIONS	4
REQUIREMENTS.....	4

SCOPE

This document is identical to SCTE 38-1 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 defines the "properties" that may be associated with each parameter in HMS MIBs.

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NORMATIVE REFERENCE

IETF RFC 1155

SCTE 37

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

The syntax is given below.

-- Module Name: HMS026R16.MIB (SCTE 38-1)

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

IMPORTS

Integer32, MODULE-IDENTITY, OBJECT-TYPE
FROM SNMPv2-SMI
OBJECT-GROUP, MODULE-COMPLIANCE
FROM SNMPv2-CONF
propertyIdent
FROM SCTE-HMS-ROOTS; -- see HMS072

propertyModuleIdentity MODULE-IDENTITY

LAST-UPDATED "200403290000Z" -- March 29, 2004

ORGANIZATION "SCTE HMS Working Group"

CONTACT-INFO

"Hung Nguyen,
SCTE HMS Subcommittee, Chairman
Time Warner Cable
mailto:standards@scte.org"

DESCRIPTION

"This MIB contains information that must be supported by all HMS network elements, including but not limited to, transponders, line monitors, amplifiers, fiber nodes, and power supplies.

The Property MIB defines the 'properties' that may be associated with each parameter. This MIB is defined so that these 'properties' may be applied to any parameter, because the index to the MIB is the object identifier of the parameter. The purpose of a 'property' is to provide a mechanism to manage alarm thresholds. It is not the responsibility of the transponder to check for violation of the above recommendations. The element manager is responsible for checking alarm limit values.

Entries in the property table are specifically for 'analog' parameters. The discrete property table is used to monitor other parameters.

Each property entry has four alarm threshold levels that may be established. These are:

LOLO	Alarm threshold for the extreme low condition.
LO	Alarm threshold for the low condition.
HI	Alarm threshold for the high condition.
HIHI	Alarm threshold for the extreme high condition.

In addition, there is a 'Deadband' setting which applies to all alarm thresholds. After an alarm occurs, the parameter value must pass back over the alarm threshold by this amount for the alarm condition to be cleared. This Deadband is smaller than the distance between any two alarm thresholds to avoid indeterminate states.

Alarm detection for each threshold is controlled by a specific bit in the alarmEnable variable for the entry. Alarm detection is active when the corresponding bit in alarmEnable is enabled.

When an alarm condition is detected, in either the propertyTable or the discretePropertyTable, an entry is created in the alarm log (see HMS023Rx.MIB) and an alarmEvent SNMP trap sent by the transponder/agent.

NOTE

Parameters which do not 'exist' must NOT have properties that are accessible. For example, in the HMS027 MIB (SCTE 38-4), the MIB object psOutputPowerSupport indicates whether or not the power supply supports the psPowerOut object. If the psPowerOut object is NOT supported, then the properties normally associated with the psPowerOut object must not be accessible.

Some devices only require 16 bit integer or smaller and therefore only support 16 bit (or smaller) values. Values outside of the supported range will return a bad value error.

"

REVISION "200403290000Z" -- March 29, 2004

DESCRIPTION

"

1. SCTE-HMS-PROPERTY-MIB MIB module converted to SMIV2 syntax so as to define MODULE-COMPLIANCE groups. These groups need to be referred to by other MIB modules such as those defined by HMS Indoor Optics.

The publishing of this MIB in SMIV2 does not imply the agent implementation must use a particular version of SNMP (the SNMP agent could communicate using SNMPv1, v2c or v3).

2. Clarification made in the DESCRIPTION clause on usage of the MIB variable currentAlarmOID.

This version published as 'HMS026R16.mib' (SCTE 38-1)
This version obsoletes 'HMS026R14.mib' .

..

::= { propertyIdent 4 }

propertyMIBConformance OBJECT IDENTIFIER ::= { propertyModuleIdentity 1 }
propertyMIBCompliances OBJECT IDENTIFIER ::= { propertyMIBConformance 1 }
propertyMIBGroups OBJECT IDENTIFIER ::= { propertyMIBConformance 2 }

propertyTable OBJECT-TYPE
SYNTAX SEQUENCE OF PropertyEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"A table that contains information about NE parameter properties."
::= { propertyIdent 1 }

propertyEntry OBJECT-TYPE
SYNTAX PropertyEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"A list of information about each property.

The OID suffix for an entry in this table is constructed by appending the length of parameterOID and then the components of parameterOID to identify an instance.

The first two components of parameterOID will generally be