Society of Cable Telecommunication Engineers

ENGINEERING COMMITTEE
HFC Management Subcommittee

AMERICAN NATIONAL STANDARD

ANSI/SCTE 83-3 2009

Hybrid Fiber/Coax Inside Plant Status Monitoring
SCTE-HMS-HMTS-MIB
Management Information Base (MIB) Definition

Documents
Document Sharing Hub

Full document details: SCTE 83-3 2009

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 inquires 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. 2009
140 Philips Road
Exton, PA 19341

Documents
Document Sharing Hub

Full document details: SCTE 83-3 2009

CONTENTS

SCOPE 1
COPYRIGHT 1
NORMATIVE REFERENCE 1
INFORMATIVE REFERENCE 1
TERMS AND DEFINITIONS 1
REQUIREMENTS 2

Documents
Document Sharing Hub

Full document details: SCTE 83-3 2009

SCOPE

This document provides the MIB definitions for management of an HMTS system and defines how to address the HMS transponders connected to the HTMS system.

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 2573 SNMP-NOTIFICATION-MIB.
IETF RFC 2573 SNMP-TARGET-MIB.
IETF RFC 2578 SNMPv2-SMI.
IETF RFC 2579 SNMPv2-TC.
IETF RFC 2580 SNMPv2-CONF.
IETF RFC 2737 ENTITY-MIB.
IETF RFC 3418 SNMPv2-MIB.
SCTE 25-2 HMS MAC Specification.
SCTE 36 SCTE-ROOTS.
SCTE 37 SCTE-HMS-ROOTS.
SCTE 38-1 SCTE-HMS-PROPERTY-MIB.
SCTE 38-11 SCTE-HMS-HEADENDIDENT-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.

HMTS: Hybrid Management Termination System.

HMS: Hybrid Management System.

EMS: Element Management System.

XP / Xpndr: Abbreviation for transponder.

IP: Internet Protocol.

Documents
Document Sharing Hub

Full document details: SCTE 83-3 2009

SNMP: Simple Network Management Protocol.

MAC: Media Access Control. Basically a data packet definition that provides for end to end transmission of data between two network elements.

Broadcast Address: A MAC specific address value that all devices will recognize and process requests to, but not reply to.

Multicast Address: A MAC specific address value that can be configured into multiple devices such that a group is created. Use of a multicast address will cause all members of the group to act upon the request, but none of the members will reply. This differs from the broadcast address only in that all devices are pre-configured with the broadcast address.

Unicast Address: A MAC specific unique address that is used to identify what device is to process a message and return a reply.

Forward Path / Return Path: bi-directional communication requires a forward (from HMTS to HMS device) and return (from HMS device to HMTS) path (communication connection) regardless of the type of port in use.

REQUIREMENTS

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

The syntax is given below.

Documents
Document Sharing Hub

Full document details: SCTE 83-3 2009

```
SCTE-HMS-HMTS-MIB DEFINITIONS ::= BEGIN

-- ************************************************************************
-- *
-- * Module Name: SCTE 83-3 (formerly HMS120)
-- *
-- * SCTE Status:
-- *
-- * See also: HMS134, The HMTS Theory of Operation document. HMS134 has
-- *          the status of recommended practice document.
-- *
-- ************************************************************************
-- *
-- ************************************************************************


IMPORTS
    OBJECT-TYPE,
    MODULE-IDENTITY,
    NOTIFICATION-TYPE,
    IpAddress,
    Unsigned32,
    Integer32
      FROM SNMPv2-SMI

    OBJECT-GROUP,
    MODULE-COMPLIANCE
      FROM SNMPv2-CONF

    TEXTUAL-CONVENTION,
    RowStatus,
    MacAddress,
    DisplayString
      FROM SNMPv2-TC

    systemGroup
      FROM SNMPv2-MIB

    entityNotificationsGroup,
    entityGeneralGroup,
    entityPhysical2Group,
    entityPhysicalGroup
      FROM ENTITY-MIB

    snmpTargetBasicGroup
      FROM SNMP-TARGET-MIB

    currentAlarmsGroup,
    discreteAlarmsGroup,
    analogAlarmsGroup
      FROM SCTE-HMS-PROPERTY-MIB     -- SCTE 38-1  (Formerly HMS026)

    heHMTS
      FROM SCTE-HMS-HEADENDIDENT-MIB -- SCTE 38-11 (Formerly HMS114)

    heCommonNotificationsGroup,
```


Documents
Document Sharing Hub
Full document details: SCTE 83-3 2009

```
    heCommonLogGroup
      FROM SCTE-HMS-HE-COMMON-MIB;   -- SCTE 84-1  (Formerly HMS111)

heHMTSMIB MODULE-IDENTITY
    LAST-UPDATED "200405040000Z" -- May 4, 2004
    ORGANIZATION
      "SCTE HMS HMTS Working Group"
    CONTACT-INFO
      "Hung Nguyen,
       SCTE HMS Subcommittee, Chairman
       AOL Time Warner Cable
       http://www.scte.org/standards/
       mailto:standards@scte.org

       Bart Van Assche
       HMTS Working Group, Editor
       Scientific-Atlanta
       Luipaardstraat 12
       B-8500 Kortrijk
       Belgium
       mailto:Bart.VanAssche@sciatl.com
      "
   DESCRIPTION
      "This MIB contains information that must be supported by all Hybrid
       Management Termination Systems (HMTS).  An HMTS is defined as a
       gateway between a IP (Internet Protocol) network and the HMS Physical
       and MAC layers defined by SCTE 25-1 (Formerly HMS005) and SCTE 25-2
       (Formerly HMS004).

       The HMTS shall support, but is not limited to the following MIBs:
         RFC-1213 - all current groups and objects
         SNMPv2-MIB - all current groups and objects
         SCTE 38-1 (formerly HMS026) - Properties MIB
         SCTE 84-1 (formerly HMS111) - HMS HE Common
      "
::= { heHMTS 2 }

-- *
-- *   Textual Conventions in the HMTS MIB
-- *

HmtsComStatCodes ::= TEXTUAL-CONVENTION
    STATUS     current
    DESCRIPTION
      "This enumerates the communication status condition codes.
       These codes indicate the state of the communication with a
       network elements transponder (device).  The conditions attempt
       to indicate where the problem with communication to the device
       is to be found.
      "
    SYNTAX INTEGER {
      noError(1),       -- No communication fault detected.
      noRevPortId(2),   -- Device entry's reverse port ID is not assigned.
      notActive(3),     -- Device entry is not active.
      notRegis(4),      -- Device is not registered.
      pendRegis(5),     -- Device registration is pending.
```


Documents
Document Sharing Hub

Full document details: SCTE 83-3 2009

```
      registering(6),   -- Device is registering.
      transDisabled(7), -- Device's HMTS transmitter is disabled.
      rcvrDisabled(8),  -- Device's HMTS receiver is disabled.
      rtrnLvl(9),       -- Device's return level is bad.
      notResp(10),      -- Device is not responding.
      invMac(11),       -- Device has an invalid MAC address.
      fwdFreqMismatch(12), -- Forward frequencies of Transmitter/CHNLDESC PDU
                           --   do not match.
      -- The following errors (20-29) only apply to HMTS' that support
      -- IP Based Proxies.
      invIP(20),        -- Device has an invalid IP address (IP is the
                        --   Default).
      dupIP(21),        -- Device has a duplicate IP Address.
      -- The following errors (30-39) only apply to HMTS' that support
      -- Community Based Proxies.
      invComm(30),      -- Device has an invalid community string.
      dupComm(31),      -- Device has a duplicate community string.
      other(32)         -- Any status other than the above.
    }


-- *
-- *   Groups in the HMTS MIB
-- *

heHMTSObjects        OBJECT IDENTIFIER ::= { heHMTSMIB 1 }
hmtsNotifications    OBJECT IDENTIFIER ::= { heHMTSObjects 0 }
hmtsInfoGroup        OBJECT IDENTIFIER ::= { heHMTSObjects 1 }
hmtsManagementGroup  OBJECT IDENTIFIER ::= { heHMTSObjects 2 }
hmtsDeviceGroup      OBJECT IDENTIFIER ::= { heHMTSObjects 3 }
hmtsIPGroup          OBJECT IDENTIFIER ::= { heHMTSObjects 4 }
hmtsCommGroup        OBJECT IDENTIFIER ::= { heHMTSObjects 5 }


-- ***************************************************************************
-- *
-- *  HMTS Information Group
-- *
-- *  Description:
-- *    This group provides a set of information common to each HMTS.
-- *    This group is current for all termination systems.
-- *
-- ***************************************************************************

hmtsAdminState  OBJECT-TYPE
    SYNTAX INTEGER {
      active (1),
      inactive (2)
    }
    MAX-ACCESS read-write
    STATUS     current
    DESCRIPTION
      "This controls whether the HMTS monitoring service is active
       active   - The HMTS is actively looking for traps and
                  non-responding devices on the serial links.  Fully Enabled
                  functionality of the HMTS.
```


Documents
Document Sharing Hub
Full document details: SCTE 83-3 2009

```
        inactive - The HMTS does not poll devices to search for
                   non-respondering devices or alarms (Synchronous or
                   Asynchronous), but HMTS continues all other
                   activities.  Contention mode is set to OFF while
                   inactive.  This disables registration as well as
                   polling.  No messages from a higher level manager
                   will be forwarded to the devices.  In essence all
                   directed communication to or from the device is
                   disabled.
        In both states SNMP requests to configured serial equipment is
        possible.  Sending CHNLDESC and TIME PDUs continues at their
        configured intervals.
        This object is non-volatile.
       "
    ::= { hmtsInfoGroup 1 }

hmtsOperState OBJECT-TYPE
    SYNTAX INTEGER {
      operational (1),
      swFailure (2),
      hwFailure (3)
    }
    MAX-ACCESS read-only
    STATUS     current
    DESCRIPTION
      "This reports the overall status of the termination system.
       Vendors must use caution and prevent repeating alarms when
       trying to automatically recover a failure.
       operational - System is fully operational, no detected failures.
       hwFailure   - System has detected a hardware failure.
       swFailure   - System has detected a software failure, and can
                     not be recovered.

       This object has a threshold property in the discretePropertyTable as
       defined in SCTE 38-1 (formerly HMS026). Note: it will depend on the
       type or software or hardware failure whether or not it is possible to
       send out an SNMP trap for a specific type of failure. Furthermore,
       whether or not a trap will be sent is vendor specific.
      "
    ::= { hmtsInfoGroup 2 }

hmtsProxyType OBJECT-TYPE
    SYNTAX INTEGER {
      ipBased (1),
      communityBased (2),
      both (3)
    }
    MAX-ACCESS read-write
    STATUS     current
    DESCRIPTION
      "This value controls the type of proxy supported by the HMTS,
       Community, IP, or MIB based. If the termination system does not
       support setting a specific value the termination system shall
       return a bad-value response.
       The HMTS will either be:
       ipBased       - The HMTS uses an IP address to designate the
```


Documents
Document Sharing Hub

Full document details: SCTE 83-3 2009

```
                    network element where the SNMP request is
                    destined.
        communityBased - The HMTS uses the SNMP community string to
                    designate the network element there the SNMP
                    request is destined.
        both         - The HMTS can use either proxy schemas to
                    designate the network element where the SNMP
                    request is destined.
        This object is non-volatile.
      "
    ::= { hmtsInfoGroup 3 }


hmtsFreqSwitchMethod  OBJECT-TYPE
    SYNTAX INTEGER {
      automatic (1),
      manual (2)
    }
    MAX-ACCESS read-write
    STATUS     current
    DESCRIPTION
      "This controls whether the HMTS automatically changes the Forward
       ports frequency (hmtsFwdHmtsFrequency) when hmtsFwdXpndrFrequency
       is set.
       automatic - The HMTS automatically sets its transmitter to
                 the newly commanded transponder frequency.  The
                 algorithm executed for this change is vender
                 specific.
       manual    - The HMTS requires the that its forward port
                 transmitter frequency be explicitly set by a
                 higher level manager.
       The HMTS shall respond with a bad value error if an attempt
       is made to set this object to an unsupported value.
       This object is non-volatile.
      "
    DEFVAL     { manual }
    ::= { hmtsInfoGroup 4 }

hmtsModel OBJECT-TYPE
    SYNTAX     DisplayString (SIZE (0..255))
    MAX-ACCESS read-only
    STATUS     current
    DESCRIPTION
      "Vendor-specific HMTS model identification string, in human-readable format.
      "
    ::= { hmtsInfoGroup 5 }

hmtsSerialNumber OBJECT-TYPE
    SYNTAX     DisplayString (SIZE (0..255))
    MAX-ACCESS read-only
    STATUS     current
    DESCRIPTION
      "Serial number of the device, in human-readable format.
      "
    ::= { hmtsInfoGroup 6 }
```


Documents
Document Sharing Hub

Full document details: SCTE 83-3 2009

```
hmtsSoftwareVersion OBJECT-TYPE
    SYNTAX     DisplayString (SIZE (0..255))
    MAX-ACCESS read-only
    STATUS     current
    DESCRIPTION
      "Version of the running HMTS software.
      "
    ::= { hmtsInfoGroup 7 }

hmtsTimeServerAddress OBJECT-TYPE
    SYNTAX     IpAddress
    MAX-ACCESS read-write
    STATUS     current
    DESCRIPTION
      "If not set to 0.0.0.0, IP address of the time server the HMTS should
       synchronize its internal clock with. If supported, the vendor must
       specify the protocol used. Examples:
       - daytime protocol (RFC 867), local time, string format;
         DAY, MONTH DD, YYYY HH:MM:SS.
       - NTP, UTC (RFC 958, NTP's time format is specified in the RFC).

       Note: you can query the HMTS' clock via heCommonTime.
       This object is non-volatile.
      "
    DEFVAL { '0000'h } -- '0000'h is IP address 0.0.0.0
    ::= { hmtsInfoGroup 8 }

hmtsTimeServerSyncInterval OBJECT-TYPE
    SYNTAX     Integer32 (3600..8640000)
    UNITS      "1 s"
    MAX-ACCESS read-write
    STATUS     current
    DESCRIPTION
      "Specifies the time between successive clock synchronization attempts.
       This object is non-volatile.
      "
    DEFVAL { 86400 }
    ::= { hmtsInfoGroup 9 }


-- ***************************************************************************
-- *
-- *  HMTS MAC Protocol Information Group
-- *
-- *  Description:
-- *    This group provides controls of the MAC payload commands.
-- *    This group is current for all termination systems.
-- *
-- ***************************************************************************

hmtsMacPduGroup          OBJECT IDENTIFIER
   ::= { hmtsManagementGroup 1 }

hmtsRegistrationGroup    OBJECT IDENTIFIER
   ::= { hmtsManagementGroup 2 }
```


Documents
Document Sharing Hub
Full document details: SCTE 83-3 2009

```
hmtsSnmpTrapControlGroup  OBJECT IDENTIFIER
   ::= { hmtsManagementGroup 3 }

hmtsSnmpProtocolGroup OBJECT IDENTIFIER
   ::= { hmtsManagementGroup 4 }

-- ***************************************************************************
-- *
-- *  HMTS Mac PDU Group
-- *
-- *  Description:
-- *    This group defines the controls for the generic behavior of the
-- *    MAC PDUs within the HMTS.  This also includes the control of
-- *    broadcasting the TIME and CHNLDESC PDUs.
-- *    This group is mandatory for all termination systems.
-- *
-- ***************************************************************************

hmtsMacPduTimeout OBJECT-TYPE
    SYNTAX     Integer32
    UNITS      "1 ms"
    MAX-ACCESS read-write
    STATUS     current
    DESCRIPTION
      "This is the timeout of all MAC PDUs except the TALK PDU.
       This object is non-volatile.
      "
    DEFVAL     { 15 }
    ::= { hmtsMacPduGroup 1 }

hmtsTalkPduTimeout OBJECT-TYPE
    SYNTAX     Integer32
    UNITS      "1 ms"
    MAX-ACCESS read-write
    STATUS     current
    DESCRIPTION
      "This is the timeout of the TALK PDU.
       This object is non-volatile.
      "
    DEFVAL { 5000 }
    ::= { hmtsMacPduGroup 2 }

hmtsMacBroadcastDelay OBJECT-TYPE
    SYNTAX     Integer32
    UNITS      "1 ms"
    MAX-ACCESS read-write
    STATUS     current
    DESCRIPTION
      "This is the delay after sending a broadcast MAC PDU.
       This object is non-volatile.
      "
    DEFVAL { 250 }
    ::= { hmtsMacPduGroup 3 }

hmtsAlarmDiscoveryMode OBJECT-TYPE
    SYNTAX INTEGER {
```


Documents
Document Sharing Hub
Full document details: SCTE 83-3 2009

```
      polling (1),
      contention (2),
      hybrid (3),
      off (4)
    }
    MAX-ACCESS read-write
    STATUS     current
    DESCRIPTION
      "This is the mode of operation for discovering alarms:
       Polling    - HMTS uses polling to determine if the device has
                    an alarm.
       Contention - HMTS uses broadcast contention mode to be notified
                    asynchronously about an alarm.
       Hybrid     - HMTS uses a vendor specific means for combining polling
                    and contention modes to discover alarms.
       Off        - HMTS is not looking for any alarms.

       If the termination system does not support setting a specific
       value the termination system shall return a bad-value response.
       This object is non-volatile.
      "
    ::= { hmtsMacPduGroup 4 }

hmtsChnldescPduInt OBJECT-TYPE
    SYNTAX     Integer32 (1..30)
    UNITS      "1 s"
    MAX-ACCESS read-write
    STATUS     current
    DESCRIPTION
      "This is the delay between the broadcasting of the
       CHNLDESC PDUs.  This should continue even if the hmtsAdminState is
       inactive.  If either the hmtsFwdXpndrFrequency or the
       hmtsRevFrequency are not valid then this PDU shall not be sent.
       This object is non-volatile.
      "
    DEFVAL     { 30 }
    ::= { hmtsMacPduGroup 5 }

hmtsTimePduInt OBJECT-TYPE
    SYNTAX     Integer32
    UNITS      "1 s"
    MAX-ACCESS read-write
    STATUS     current
    DESCRIPTION
      "This is the delay between the broadcasting of the
       TIME PDU.  The time within the HMTS must first be synchronized
       before the broadcasting of this PDU.
       This object is non-volatile.
      "
    DEFVAL     { 3600 }
    ::= { hmtsMacPduGroup 6 }

hmtsDeviceAccessMode OBJECT-TYPE
    SYNTAX INTEGER {
      immediate (1),
      queued (2),
```


Documents
Document Sharing Hub
Full document details: SCTE 83-3 2009

```
      interrupt (3)
    }
    MAX-ACCESS read-write
    STATUS     current
    DESCRIPTION
      "This object reports and controls how the HMTS will respond to
       requests to devices during a contention period.
       immediate - means the HMTS will forward the request to the device
                   even during an ongoing contention period.  In this
                   mode it is possible for the devices response to have a
                   collision with an asynchronous response from another
                   device.
       queued    - means that the HMTS will queue this message.  When the
                   contention period has completed the HMTS will forward
                   the queued requests.
       interrupt - means that the HMTS will abort the contention period
                   and forward the request, and the resume of normal
                   operations.

       The HMTS must support at least one of these modes of operation.  When
       an attempt is made to set an unsupported value the HMTS shall return a
       bad value error.
       DEFAULT: vendor specific.
       This object is non-volatile.
      "
    ::= { hmtsMacPduGroup 7 }



-- ***************************************************************************
-- *
-- *  HMTS Registration Control Group
-- *
-- *  Description:
-- *    This group defines the controls for asynchronous registration
-- *    requests.  This group controls the broadcasting of the
-- *    CONTMODE REG PDU. This is part of the MAC Protocol Group.
-- *    This group is mandatory for all termination systems.
-- *
-- ***************************************************************************

hmtsRegInterval OBJECT-TYPE
    SYNTAX     Integer32 (1..86400)
    UNITS      "1 s"
    MAX-ACCESS read-write
    STATUS     current
    DESCRIPTION
      "This is the delay between the beginnings of each
       registration period.
       DEFAULT: vendor specific.
       This object is non-volatile.
      "
    ::= { hmtsRegistrationGroup 1 }

hmtsRegMinDuration OBJECT-TYPE
    SYNTAX     Integer32 (1..255)
```


Documents
Document Sharing Hub

Full document details: SCTE 83-3 2009

```
    UNITS      "1 s"
    MAX-ACCESS read-write
    STATUS     current
    DESCRIPTION
      "This is the minimum time for the registration
       duration period.   This is the minimum amount of time the
       registration window will be open.  Attempt to set minimum
       duration greater than the maximum duration will result in
       a bad value error being returned.
       DEFAULT: vendor specific.
       This object is non-volatile.
      "
    ::= { hmtsRegistrationGroup 2 }

hmtsRegMaxDuration OBJECT-TYPE
    SYNTAX     Integer32 (1..255)
    UNITS      "1 s"
    MAX-ACCESS read-write
    STATUS     current
    DESCRIPTION
      "This is the maximum time for the registration duration
       period.  This is provided to allow a dynamic duration when a
       large number of TALKRQST PDUs are received during registration
       period.  How the HMTS increases the registration duration
       period to this value is vendor specific.  Attempt to set the
       maximum duration less than the minimum duration will result in
       a bad value error being returned.
       DEFAULT: vendor specific.
       This object is non-volatile.
      "
    ::= { hmtsRegistrationGroup 3 }

hmtsRegContinuity OBJECT-TYPE
    SYNTAX INTEGER {
      immediate (1),
      queued (2),
      continuous (3)
    }
    MAX-ACCESS read-write
    STATUS     current
    DESCRIPTION
      "This indicates the manner that the HMTS uses to handle
       processing of the TALKRQST PDU for auto discovery.
       immediate  - means that the HMTS immediately terminates the
                    contention period and request the discover PDU.
       queued     - means that the HMTS will request the discover PDU
                    after the contention period terminates.
       continuous - means that the HMTS will request the discovery PDU
                    despite the contention period being open.
       If the HMTS does not support setting a specific value the HMTS
       shall return a bad-value response.  The HMTS shall support at
       least one of the above values.
       DEFAULT: vendor specific.
       This object is non-volatile.
      "
    ::= { hmtsRegistrationGroup 4 }
```


Documents
Document Sharing Hub
Full document details: SCTE 83-3 2009

```
-- ************************************************************************
-- *
-- *  HMTS SNMP Trap Control Group
-- *
-- *  Description:
-- *    This group shall be supported if the termination system supports
-- *    the broadcasting of the CONTMODE ON/OFF/RES/INH PDUs.  For the
-- *    asynchronous collection of SNMP Traps
-- *    This group is optional.
-- *
-- ************************************************************************

hmtsTrapControlTable OBJECT-TYPE
    SYNTAX SEQUENCE OF HmtsTrapControlEntry
    MAX-ACCESS not-accessible
    STATUS     current
    DESCRIPTION
      "This table contains entries to control multicast groups for
       alarm collection.  This table allows for multiple groups of
       alarms to be collected.  It is expected that a higher level
       manager will add entries to this table and the transponders
       multicast address table.  When trap contention modes are used
       polling will be disable while an active entry in this table has
       contention enabled.  This way the polling does not interfere with
       the possible asynchronous notifications.  As default this table
       shall have one entry, containing the broadcast address.  This is
       a non-volatile table.
      "
    ::= { hmtsSnmpTrapControlGroup 1 }

hmtsTrapControlEntry OBJECT-TYPE
    SYNTAX HmtsTrapControlEntry
    MAX-ACCESS not-accessible
    STATUS     current
    DESCRIPTION
      "A list of information about the Trap Control Entry.
      "
    INDEX     { hmtsTControlId }
    ::= { hmtsTrapControlTable 1 }

HmtsTrapControlEntry ::= SEQUENCE {
    hmtsTControlId
       Integer32,
    hmtsTControlInterval
       Integer32,
    hmtsTControlChainId
       Integer32,
    hmtsTControlMinDuration
       Integer32,
    hmtsTControlMaxDuration
       Integer32,
    hmtsTControlContinuity
       INTEGER,
    hmtsTControlMulticastAddr
       MacAddress,
```


Documents
Document Sharing Hub
Full document details: SCTE 83-3 2009

```
    hmtsTControlRowStatus
      RowStatus
}


hmtsTControlId OBJECT-TYPE
    SYNTAX     Integer32 ( 1..2147483647 )
    MAX-ACCESS not-accessible
    STATUS     current
    DESCRIPTION
      "This value uniquely identifies this entry.

       DEFAULT: vendor specific.
       This object is non-volatile.
      "
    ::= { hmtsTrapControlEntry 1 }

hmtsTControlInterval OBJECT-TYPE
    SYNTAX     Integer32 ( 0..86400 )
    UNITS      "1 s"
    MAX-ACCESS read-create
    STATUS     current
    DESCRIPTION
      "This is the time between the beginnings of two
       consecutive alarm discovery periods.  If the
       record is chained this is the interval between
       start of this entry and the start of the next
       entry with the same chain Id.
       DEFAULT: vendor specific.
       This object is non-volatile.
      "
    ::= { hmtsTrapControlEntry 2 }

hmtsTControlChainId OBJECT-TYPE
    SYNTAX     Integer32 ( 0..86400 )
    MAX-ACCESS read-create
    STATUS     current
    DESCRIPTION
      "This identifies which Trap control
       records are to be run consecutively.  The value of zero
       indices that the entry is independent from all other
       entries in this table.  Likewise and entry with the
       chain id of 1 is independent of the chain id of 2.
       DEFAULT: vendor specific.
       This object is non-volatile.
      "
    ::= { hmtsTrapControlEntry 3 }


hmtsTControlMinDuration OBJECT-TYPE
    SYNTAX     Integer32 ( 1..86400 )
    UNITS      "1 s"
    MAX-ACCESS read-create
    STATUS     current
    DESCRIPTION
      "This is the minimum time for the alarm/trap discovery
```


Documents
Document Sharing Hub
Full document details: SCTE 83-3 2009