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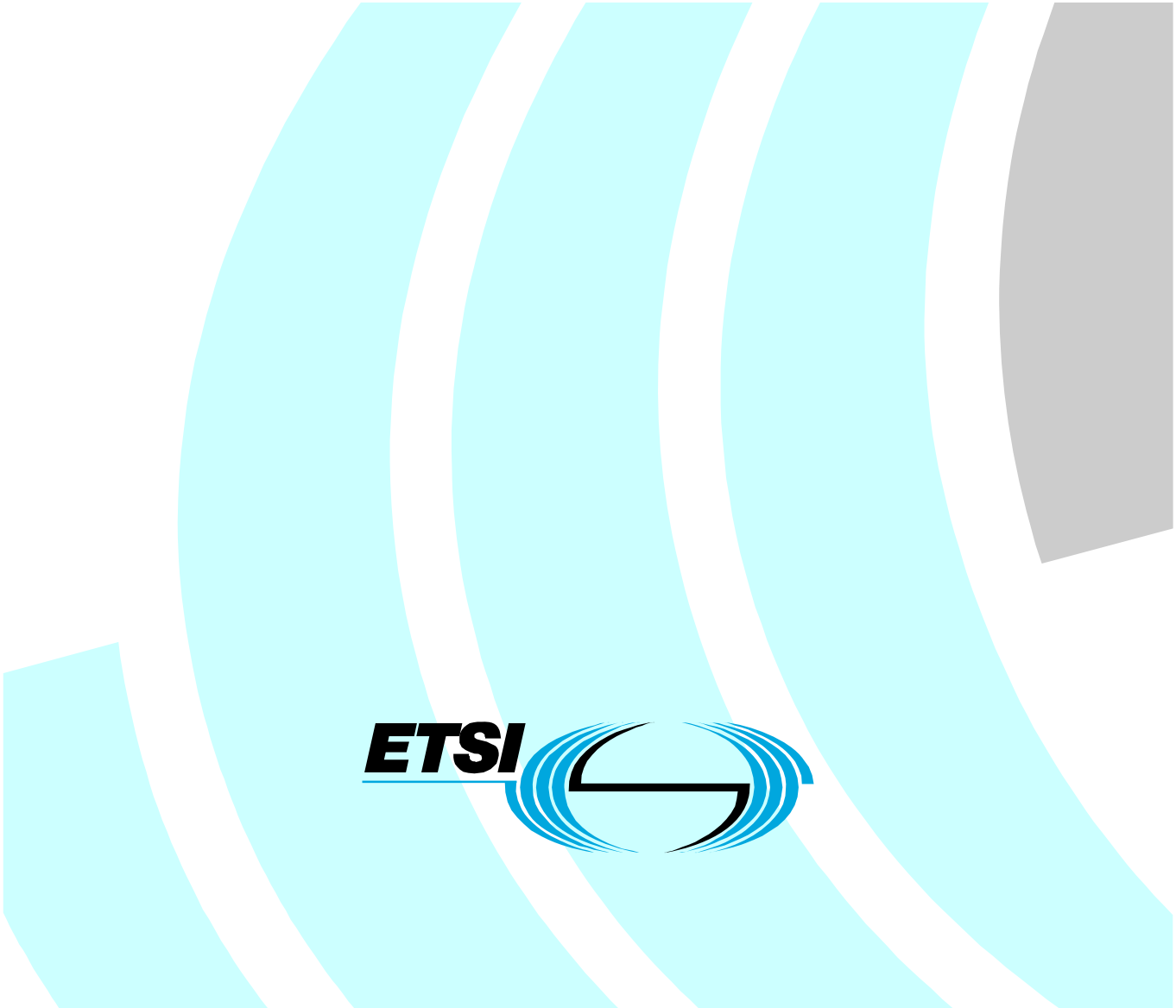
Technical Specification

**Access, Terminals, Transmission and Multiplexing (ATTM);
Integrated Broadband Cable and Television Networks;
IPCablecom 1.5;
Part 20: Management Event MIB Specification**



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Contents

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Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee Access, Terminals, Transmission and Multiplexing (ATTM).

The present document is part 20 of a multi-part deliverable covering Access, Terminals, Transmission and Multiplexing (ATTM); Integrated Broadband Cable and Television Networks; IPCablecom 1.5, as identified below:

Part 1: "Overview";

Part 2: "Architectural framework for the delivery of time critical services over cable Television networks using cable modems";

Part 3: "Audio Codec Requirements for the Provision of Bi-Directional Audio Service over Cable Television Networks using Cable Modems";

Part 4: "Network Call Signalling Protocol";

Part 5: "Dynamic Quality of Service for the Provision of Real Time Services over Cable Television Networks using Cable Modems";

Part 6: "Event Message Specification";

Part 7: "Media Terminal Adapter (MTA) Management Information Base (MIB)";

Part 8: "Network Call Signalling (NCS) MIB Requirements";

Part 9: "Security";

Part 10: "Management Information Base (MIB) Framework";

Part 11: "Media Terminal Adapter (MTA) device provisioning";

Part 12: "Management Event Mechanism";

Part 13: "Trunking Gateway Control Protocol - MGCP option";

Part 14: "Embedded MTA Analog Interface and Powering Specification";

Part 15 "Analog Trunking for PBX Specification";

Part 16: "Signalling for Call Management Server";

Part 17: "CMS Subscriber Provisioning Specification";

Part 18: "Media Terminal Adapter Extension MIB";

Part 19: "IPCablecom Audio Server Protocol Specification - MGCP option";

Part 20: "Management Event MIB Specification";

Part 21: "Signalling Extension MIB Specification".

NOTE 1: Additional parts may be proposed and will be added to the list in future versions.

NOTE 2: The choice of a multi-part format for this deliverable is to facilitate maintenance and future enhancements.

1 Scope

The Management Event MIB provides a common data and format definition for events (informative, alarm, etc.). It also specifies by what means events are transmitted. Use of a common event mechanism facilitates management of the MTA in a multi-vendor environment and provides a standard means to implement IPCablecom specified events.

The present document describes an SNMP MIB in SMIv2, to support the management event mechanism as described in [1]. It is intended to be implemented in the MTA and management devices.

1.1 Organization of document

The Management Event MIB defined in the present document provides a set of objects required for the management of IPCablecom-compliant Multimedia Terminal Adapter (MTA) devices. The mechanisms to control the event reporting are defined in the present document.

This MIB itself is structured as six groups:

- Management information that controls the event reporting (pktcDevEventControl).
- Management information that configures the reporting of the various programmable events (pktcDevEventConfig).
- Management information that configures the event throttling control (pktcDevEventThrottle).
- Management information that configures that allows the retrieval of events via SNMP (pktcDevEventLocal).
- Management information that specifies the information sent in traps and informs (pktcDevEventNotify).
- Management information that defines the trap and inform messages (pktcDevEventNotification).

2 References

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the reference document (including any amendments) applies.

Referenced documents which are not found to be publicly available in the expected location might be found at http://docbox.etsi.org/Reference.

NOTE: While any hyperlinks included in this clause were valid at the time of publication ETSI cannot guarantee their long term validity.

2.1 Normative references

The following referenced documents are necessary for the application of the present document.

[1] PacketCable 1.5 PKT-SP-MEM1.5-I02-050812: "Management Event Mechanism", August 12, 2005, Cable Television Laboratories, Inc.

[2] Void.

[3] Void.

[4] Void.

[5] Void.

[6] Void.

[7] Void.

2.2 Informative references

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

[i.1] ETSI TR 102 473: "Digital Video Broadcasting (DVB); IP Datacast over DVB-H: Use Cases and Services".

[i.2] ETSI TR 102 469: "Digital Video Broadcasting (DVB); IP Datacast over DVB-H: Architecture".

[i.3] PacketCable 1.5 MTA MIB, PKT-SP-MIB-MTA1.5-I01-050128, January 28, 2005, Cable Television Laboratories, Inc.

[i.4] PacketCable 1.5 Signaling MIB, PKT-SP-MIB-SIG1.5-I01-050128, January 28, 2005, Cable Television Laboratories, Inc.

[i.5] PacketCable 1.5 Network-Based Call Signaling Protocol Specification, PKT-SP-NCS1.5-I02-050812, August 12, 2005, Cable Television Laboratories, Inc.

[i.6] PacketCable 1.5 Security Specification, PKT-SP-SEC1.5-I01-050128, January 28, 2005, Cable Television Laboratories, Inc.

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

endpoint: Terminal, Gateway or MCU

3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

FQDN	Fully Qualified Domain Name
IANA	Internet Assigned Numbers Authority
IP	Internet Protocol
MIB	Management Information Base
MTA	Media Terminal Adapter
SNMP	Simple Network Management Protocol

4 Void

5 IPCablecom Management Event MIB

The IPCablecom 1.5 Management Event MIB MUST be implemented as defined below.

```
PKTC-EVENT-MIB DEFINITIONS ::= BEGIN

IMPORTS
    MODULE-IDENTITY,
    OBJECT-TYPE,
    Unsigned32,
    NOTIFICATION-TYPE,
    BITS                            FROM SNMPv2-SMI
    DateAndTime                     FROM SNMPv2-TC
    clabProjPacketCable             FROM CLAB-DEF-MIB
    SnmpAdminString                 FROM SNMP-FRAMEWORK-MIB
    OBJECT-GROUP,
    MODULE-COMPLIANCE,
    NOTIFICATION-GROUP              FROM SNMPv2-CONF
    ifPhysAddress                   FROM IF-MIB
    InetAddressType,
    InetAddress,
    InetPortNumber                  FROM INET-ADDRESS-MIB ;

pktcEventMib MODULE-IDENTITY
    LAST-UPDATED    "200508120000Z" -- August 12, 2005
    ORGANIZATION    "Cable Television Laboratories, Inc"
    CONTACT-INFO
            "Sumanth Channabasappa
            Postal: Cable Television Laboratories, Inc.
                    858 Coal Creek Circle
                    Louisville, Colorado 80027
                    U.S.A.
            Phone:  +1 303-661-9100
            Fax:    +1 303-661-9199
            E-mail: mibs@cablelabs.com"

    DESCRIPTION
            "This MIB module supplies the basic management objects
            for event reporting

            Acknowledgements:
              Eugene Nechamkin       - Broadcom Corp
              John Berg              - CableLabs, Inc.
              Kevin Marez            - Motorola, Inc.
              Satish Kumar           - Texas Instruments
              Venkatesh Sunkad       - CableLabs, Inc."
    ::=  { clabProjPacketCable 3 }

   --
   --
    pktcDevEventControl    OBJECT IDENTIFIER ::= { pktcEventMib 1 }
    pktcDevEventThrottle   OBJECT IDENTIFIER ::= { pktcEventMib 2 }
    pktcDevEventStatus     OBJECT IDENTIFIER ::= { pktcEventMib 3 }
    pktcDevEventDescr      OBJECT IDENTIFIER ::= { pktcEventMib 4 }
    pktcDevEventLog        OBJECT IDENTIFIER ::= { pktcEventMib 5 }
    pktcDevEvNotification  OBJECT IDENTIFIER ::= { pktcEventMib 6 }
   --

   ---
   ---   Event Reporting control objects
   ---
pktcDevEvControl  OBJECT-TYPE
    SYNTAX       BITS {
                resetEventLogTable(0),
                resetEventDescrTable(1)
                }    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
            "This MIB object defines the actions related to the event
            log configuration.

            The MTA MUST take the appropriate action whenever
            a bit is set to a value of '1'.

            Setting the resetEventLogTable(0) bit to
            a value of '1' clears the entire event log
            (Deletes all entries in pktcDevEventLogTable).
```

```
            Setting  resetEventDescrTable(1) to a value of '1'
            resets the pktcDevEventDescrTable to the
            factory default values.

            Setting a control bit to a value of '0' MUST not result in
            any action.

            Reading this MIB object MUST always return '00'."
    ::= { pktcDevEventControl 1 }

pktcDevEvSyslogAddressType  OBJECT-TYPE
    SYNTAX      InetAddressType
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
            "This MIB Object defines the address type of the
            Syslog server.
            IPCablecom devices implementing this MIB MUST
            support an InetAddressType of ipv4(1).
            IPCablecom devices MAY optionally implement other
            address types.

            If an unsupported InetAddressType is used to set
            this object, the IPCablecom device MUST reject it
            and report an SNMP error stating 'wrong value'.

            If an SNMP SET results in a type that does not match
            the value contained in the MIB Object
            pktcDevEvSyslogAddress, the IPCablecom device MUST
            reject the SNMP SET with an 'inconsistent value'
            error."
    ::= { pktcDevEventControl 2 }

pktcDevEvSyslogAddress  OBJECT-TYPE
    SYNTAX      InetAddress
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
            "This MIB Object contains the IP address of the
            Syslog server. If this is set to either 0.0.0.0 or
            255.255.255.255 the device MUST inhibit syslog
            transmission.
            The use of FQDNs is syntactically allowed, but
            discouraged since a failure to resolve them in a
            timely manner may leave the device without access to
            the Syslog daemon during critical network events.
            The type of address this object represents is defined
            by the MIB Object pktDevEvSyslogAddressType.

            If an SNMP SET results in a type that does not match
            that indicated by the MIB Object
            pktcDevEvSyslogAddressType, the IPCablecom device MUST
            reject the SNMP SET with an 'inconsistent value'
            error."
    ::= { pktcDevEventControl 3 }

pktcDevEvSyslogUdpPort  OBJECT-TYPE
    SYNTAX      InetPortNumber
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
            "This MIB Object contains the UDP Port Number of the Syslog
             Server. The IPCablecom device must send the Syslog
             messages to this port on the Syslog Server."
    DEFVAL { 514 }
    ::= { pktcDevEventControl 4 }

--
--   Event throttling control
--

pktcDevEvThrottleAdminStatus  OBJECT-TYPE
    SYNTAX      INTEGER {
                unconstrained(1),
                maintainBelowThreshold(2),
                stopAtThreshold(3),
                inhibited(4)
```

```
                }
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION

            "This MIB Object controls the throttling of the
            transmitted messages upon generation of an event
            (SNMP/Syslog).

            A value of unconstrained(1) causes event messages
            to be transmitted without regard to the threshold
            settings.

            A value of maintainBelowThreshold(2) causes event
            messages to be suppressed if the number of transmissions
            would otherwise exceed the threshold.
            A value of stopAtThreshold(3) causes event message
            transmission to cease at the threshold, and not
            resume until directed to do so.

            A value of inhibited(4) causes all event message
            Transmission to be suppressed.

            An event causing both an SNMP and a Syslog message
            is still treated as a single event.

            Writing to this object resets the thresholding state.

            Refer to MIB Objects pktcDevEvThrottleThreshold and
            pktcDevEvThrottleInterval for information on throttling."
    DEFVAL { unconstrained }
    ::= { pktcDevEventThrottle 1 }


pktcDevEvThrottleThreshold  OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
            "This MIB Object contains the number of events per
            pktcDevEvThrottleInterval to be transmitted before
            throttling.


            An event causing both a  SNMP and a syslog message is
            still treated as a single event."
    DEFVAL { 2 }
    ::= { pktcDevEventThrottle 2 }

pktcDevEvThrottleInterval  OBJECT-TYPE
    SYNTAX      Unsigned32
    UNITS       "seconds"
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION

            "This MIB Object contains the interval over which
             the throttle threshold applies."    DEFVAL { 1 }
    ::= { pktcDevEventThrottle 3 }


---
-- Status Reporting
---

pktcDevEvTransmissionStatus  OBJECT-TYPE

    SYNTAX      BITS {
                syslogThrottled(0),
                snmpThrottled(1),
                validSyslogServerAbsent(2),
                validSnmpManagerAbsent(3),
                syslogTransmitError(4),
                snmpTransmitError(5)
                }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
```

```
            "This MIB Object reflects the status of the event
             transmission.

            If a bit corresponding to a state is set to a value
            of:
                '1', it indicates that the state is true
                '0', it indicates that the state is false

            'Event throttling' is based on thresholds and the current
            setting of pktcDevEvThrottleAdminStatus.

            'Server/Manager' indicators must be based on the
            availability of valid Syslog server/SNMP managers.

            'Transmit Errors' must only be used in cases where the
            IPCablecom Device can identify unavailable servers."


    ::= { pktcDevEventStatus 1 }



---
-- Event Descriptions
---

pktcDevEventDescrTable  OBJECT-TYPE
    SYNTAX      SEQUENCE OF PktcDevEventDescrEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "This MIB table contains all the possible events
            that can be generated by the device. This includes
            both IPCablecom defined and vendor-specific events."
    ::= { pktcDevEventDescr 1 }

pktcDevEventDescrEntry  OBJECT-TYPE
    SYNTAX      PktcDevEventDescrEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "An entry in this table is created for each
            event the IPCablecom Device implementing this
            MIB is capable of reporting."
    INDEX { pktcDevEventDescrId, pktcDevEventDescrEnterprise }
    ::= { pktcDevEventDescrTable 1 }

PktcDevEventDescrEntry::= SEQUENCE {
    pktcDevEventDescrId              Unsigned32,
    pktcDevEventDescrEnterprise      Unsigned32,
    pktcDevEventDescrFacility        INTEGER,
    pktcDevEventDescrLevel           INTEGER,
    pktcDevEventDescrReporting       BITS,
    pktcDevEventDescrText            SnmpAdminString
    }

pktcDevEventDescrId  OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "This MIB Object contains the event identifier for the
            specific event to which the priority and display
            strings belong.
            The event identifier can either be IPCablecom defined
            or vendor-specific."
    ::= { pktcDevEventDescrEntry 1 }

pktcDevEventDescrEnterprise  OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "This MIB Object provides the IANA enterprise number of
            the Organization defining the event. Thus, all IPCablecom
            defined events will contain the CableLabs IANA enterprise
            number and for vendor-specific events it will contain
            the IANA enterprise number of the defining organization."
```

```
    ::= { pktcDevEventDescrEntry 2 }


pktcDevEventDescrFacility  OBJECT-TYPE
    SYNTAX      INTEGER {
                kernel(0),
                user(1),
                mail(2),
                daemon(3),
                auth(4),
                syslog(5),
                lpr(6),
                news(7),
                uucp(8),
                cron(9),
                authPriv(10),
                ftp(11),
                ntp(12),
                security(13),
                console(14),
                clockDaemon(15),
                local0(16),
                local1(17),
                local2(18),
                local3(19),
                local4(20),
                local5(21),
                local6(22),
                local7(23)
                }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "This MIB Object contains the facility
            for the event.
            For IPCablecom events this MUST be set to
            local0(16)."
    ::= { pktcDevEventDescrEntry 3 }

pktcDevEventDescrLevel  OBJECT-TYPE
    SYNTAX      INTEGER {
                emergency(0),
                alert(1),
                critical(2),
                error(3),
                warning(4),
                notice(5),
                info(6),
                debug(7)
                }
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
            "This MIB Object contains the priority level that
             is controlled by this entry.
            The levels are described as:

            emergency(0) - A condition that makes the system unusable.
            alert(1)     - A service-affecting condition for which
                           immediate action must be taken.
            critical(2)  - A service-affecting critical condition.
            error(3)     - An error condition.
            warning(4)   - A warning condition.
            notice(5)    - A normal but significant condition.
            info(6)      - An informational message.
            debug(7)     - A debug message."
    ::= { pktcDevEventDescrEntry 4 }

pktcDevEventDescrReporting  OBJECT-TYPE
    SYNTAX      BITS {
                local(0),
                syslog(1),
                snmpTrap(2),
                snmpInform(3)
                }
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
```

```
            "This MIB Object defines the action to be taken on
            occurrence of this event class.

            Setting a bit to a value of '1' indicates that the
            corresponding action will be taken upon occurrence of
            this event, provided the required parameters are present.
            (e.g.: Syslog Server for Syslog messages, SNMP targets for
            SNMP traps and SNMP INFORMs etc). If none of the bits
            are set then no action is taken upon occurrence of the
            event.

             The default value of this MIB OBject is dependent on the
             value of the MIB Object 'pktcDevEventDescrLevel', for the
             corresponding event.

            For the following values of 'pktcDevEventDescrLevel':
               emergency(0), alert(1), critical(2) and error(3),
            the IPCablecom device MUST set the bits for local(0),
            syslog(1) and snmpInform(3) to a value of '1' and the rest
            to a value of '0'.

            For all the remaining values of 'pktcDevEventDescrLevel',
            the IPCablecom device MUST set the bits for local(0) and
            syslog(1) to a value of '1' and the rest to a value of
            '0'."
    ::= { pktcDevEventDescrEntry 5 }

pktcDevEventDescrText  OBJECT-TYPE
    SYNTAX      SnmpAdminString(SIZE (0..127))
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
            "This MIB Object contains event display
            string providing a human-readable description of the
            event."
    ::= { pktcDevEventDescrEntry 6 }


---
-- Events generated
---
pktcDevEventLogTable  OBJECT-TYPE
    SYNTAX      SEQUENCE OF PktcDevEventLogEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "This MIB table contains a log of the events
            generated by the IPCablecom device.
            A description of all the events that can be
            generated by the device can be obtained from the
            MIB table 'pktcDevEventDescrTable'."
    ::= { pktcDevEventLog 1 }

pktcDevEventLogEntry  OBJECT-TYPE
    SYNTAX      PktcDevEventLogEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "Each entry in this table describes an event that
            has occurred, indexed in the chronological order of
            generation. The details of the event are borrowed
            from the parameters associated with the corresponding
            event entry in 'pktcDevEventDescrTable', at the
            time of the event generation.
            While all entries created as such can be cleared using
            the MIB Object pktcDevEvControl, the Event entries
            themselves cannot be individually deleted."

    INDEX { pktcDevEvLogIndex }
    ::= { pktcDevEventLogTable 1 }

PktcDevEventLogEntry ::= SEQUENCE {
    pktcDevEvLogIndex             Unsigned32,
    pktcDevEvLogTime              DateAndTime,
    pktcDevEvLogEnterprise        Unsigned32,
    pktcDevEvLogId                Unsigned32,
    pktcDevEvLogText              SnmpAdminString,
    pktcDevEvLogEndpointName      SnmpAdminString,
```

```
    pktcDevEvLogType              BITS,
    pktcDevEvLogTargetInfo        SnmpAdminString,
    pktcDevEvLogCorrelationId     Unsigned32,
    pktcDevEvLogAdditionalInfo    SnmpAdminString
    }

pktcDevEvLogIndex  OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "This MIB Object provides relative ordering of the
            objects in the event log.
             This object will always increase except when
            (a) the log is reset via pktcDevEvControl,
            (b) the device reboots and does not implement non-volatile
            storage for this log,
            (c) it reaches the value 2^31.
            The next entry for all the above cases is 0.
            This also serves as an indicator of event sequence."
    ::= { pktcDevEventLogEntry 1 }


pktcDevEvLogTime  OBJECT-TYPE
    SYNTAX       DateAndTime
    MAX-ACCESS   read-only
    STATUS       current
    DESCRIPTION
            "This MIB Object provides a human-readable description
            of the time at which the event occurred."
    ::= { pktcDevEventLogEntry 2 }


pktcDevEvLogEnterprise  OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "This MIB Object provides the IANA enterprise number of
            the Organization defining the event. Thus, all IPCablecom
            defined events will contain the CableLabs IANA enterprise
            number and for vendor-specific events it will contain
            the IANA enterprise number of the defining organization."


    ::= { pktcDevEventLogEntry 3 }

pktcDevEvLogId  OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION

            "This MIB Object contains the event identifier for the
            specific event to which the priority and
            display strings belong.
            The event identifier can either be IPCablecom defined
            or vendor-specific."
    ::= { pktcDevEventLogEntry 4 }

pktcDevEvLogText  OBJECT-TYPE
    SYNTAX      SnmpAdminString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "This MIB Object contains the contents of
            pktcDevEventDescrText, corresponding to the event, at
            the moment of generation."
    ::= { pktcDevEventLogEntry 5 }


pktcDevEvLogEndpointName  OBJECT-TYPE
    SYNTAX      SnmpAdminString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "This MIB Object provides the endpoint identifier
             followed by the IPCablecom MTA's Fully Qualified
```

```
              Domain Name (FQDN) and the IP Address (IP)
              of the IPCablecom MTA device.

              This will be denoted as follows:
              aaln/n:<FQDN>/<IP>, where 'n' is the Endpoint number.
               or
              <FQDN>/<IP> if it is not specific to an endpoint."

    ::= { pktcDevEventLogEntry 6 }

pktcDevEvLogType  OBJECT-TYPE
    SYNTAX      BITS {
                local(0),
                syslog (1),
                trap (2),
                inform (3)
                }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "This MIB Object contains the kind of actions taken by
             the IPCablecom device when the event under consideration
             occurred.

             A bit with a value of 1 indicates the corresponding
             action was taken. Setting it to a value of 0 indicates
             that the corresponding action was not taken.

             An event may trigger one or more actions (e.g.: Syslog and
             SNMP) or may remain as a local event since transmissions
             could be disabled or inhibited as defined by the Throttle
             MIB Objects."

    ::= { pktcDevEventLogEntry 7 }

pktcDevEvLogTargetInfo  OBJECT-TYPE
    SYNTAX      SnmpAdminString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "This MIB Object contains a comma separated list of the
            actions taken, along with the target IP address for the
            generated event.

            The syntax is as:
            <action-1/IP:port>,<action-2/IP:port>,<action-3/IP:port>

            Where <action-n/IP> is to be denoted as follows:
              For Syslog events:
                      syslog/<IP address of the Syslog Server:port>
              For SNMP traps:
                      snmpTrap/<IP address of the SNMP Server:port>
              For SNMP INFORMS:
                      snmpInform/<IP address of the SNMP Server:port>

             If there are multiple targets for the same type (SNMP
             Traps sent to multiple IP addresses) or if there are
             multiple messages sent to the same IP (Syslog and SNMP
             sent to the same IP address) they need to be reported
             individually."
    ::= { pktcDevEventLogEntry 8 }

pktcDevEvLogCorrelationId  OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            " This MIB Object contains the correlation ID
            generated by the MTA as per section 5.4.5 of [7] that
            was being used by the MTA when the event
            was generated."
    ::= { pktcDevEventLogEntry 9 }

pktcDevEvLogAdditionalInfo  OBJECT-TYPE
    SYNTAX      SnmpAdminString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
```

```
            "This MIB Object contains additional, useful
            information in relation to the corresponding event that a
            IPCablecom device might wish to report (for example:
            parameterized data or debugging information). The format
            is vendor-specific.
            However, the IPCablecom device is not required to
            implement this functionality."
    ::= { pktcDevEventLogEntry 10 }

---
-- Notifications
---

pktcDevEvNotificationIndex  OBJECT IDENTIFIER ::=
                                          { pktcDevEvNotification 0 }

pktcDevEvInform NOTIFICATION-TYPE
    OBJECTS {pktcDevEvLogIndex, pktcDevEvLogTime,
    pktcDevEvLogEnterprise,pktcDevEvLogId,
    pktcDevEvLogEndpointName,pktcDevEvLogCorrelationId,ifPhysAddress}
    STATUS      current
    DESCRIPTION
            "This Notification MIB Objects contains the Inform
             contents for event reporting "
    ::= { pktcDevEvNotificationIndex 1 }

pktcDevEvTrap NOTIFICATION-TYPE
    OBJECTS {pktcDevEvLogIndex, pktcDevEvLogTime,
    pktcDevEvLogEnterprise,pktcDevEvLogId,
    pktcDevEvLogEndpointName,pktcDevEvLogCorrelationId,ifPhysAddress}
    STATUS      current
    DESCRIPTION
            "This Notification MIB Objects contains the Trap contents
             for event reporting "
    ::= { pktcDevEvNotificationIndex 2 }

---
-- Conformance/Compliance
---

pktcEventConformance  OBJECT IDENTIFIER ::= { pktcEventMib 7 }
pktcEventCompliances  OBJECT IDENTIFIER ::= { pktcEventConformance 1 }
pktcEventGroups       OBJECT IDENTIFIER ::= { pktcEventConformance 2 }


pktcEventBasicCompliance MODULE-COMPLIANCE
    STATUS      current
    DESCRIPTION
            "The compliance statement for devices that implement
            Event reporting feature."
    MODULE   --pktcEventMib


MANDATORY-GROUPS {
                 pktcEventGroup,
                 pktcEventNotificationGroup
                 }
   -- units of conformance
    ::= { pktcEventCompliances 3 }

pktcEventGroup  OBJECT-GROUP
    OBJECTS {
            pktcDevEvControl,
            pktcDevEvSyslogAddressType,
            pktcDevEvSyslogAddress,
            pktcDevEvSyslogUdpPort,
            pktcDevEvThrottleAdminStatus,
            pktcDevEvThrottleThreshold,
            pktcDevEvThrottleInterval,
            pktcDevEvTransmissionStatus,
            pktcDevEventDescrEnterprise,
            pktcDevEventDescrFacility,
            pktcDevEventDescrLevel,
            pktcDevEventDescrReporting,
            pktcDevEventDescrText,
            pktcDevEvLogIndex,
            pktcDevEvLogTime,
            pktcDevEvLogEnterprise,
```

```
            pktcDevEvLogId,
            pktcDevEvLogText,
            pktcDevEvLogEndpointName,
            pktcDevEvLogType,
            pktcDevEvLogTargetInfo,
            pktcDevEvLogCorrelationId,
            pktcDevEvLogAdditionalInfo
            }

    STATUS      current
    DESCRIPTION
            "Group of MIB objects for IPCablecom Management Event
            MIB."
    ::= { pktcEventGroups 1 }


pktcEventNotificationGroup NOTIFICATION-GROUP
    NOTIFICATIONS { pktcDevEvInform, pktcDevEvTrap }
    STATUS      current
    DESCRIPTION
            "Group of MIB objects for notifications related to
            change in status of the MTA Device."
    ::= { pktcEventGroups 2 }
END
```

Annex A (informative): Bibliography

- IETF RFC 1034: "Domain names - concepts and facilities", November, 1987.
- IETF RFC 2578: "Structure of Management Information Version 2 (SMIv2)", April 1999.
- IETF RFC 2579: "Textual Conventions for SMIv2", April 1999.
- IETF RFC 2580: "Conformance Statements for SMIv2", April 1999.
- IETF RFC 3550: "RTP: A Transport Protocol for Real-Time Applications", July 2003.
- PacketCable 1.5 MTA Device Provisioning Specification, PKT-SP-PROV1.5-I02-050812, August 12, 2005, Cable Television Laboratories, Inc.

History

Document history		
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