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Access, Terminals, Transmission and Multiplexing (ATTM);
Integrated Broadband Cable and Television Networks;
IPCablecom 1.5;
Part 8: Network Call Signalling (NCS) MIB Requirements

Reference
DTS/ATTM-003011-8

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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 8 of a multi-part IPCablecom 1.5 deliverable covering the Digital Broadband Cable Access to the Public Telecommunications Network; IP Multimedia Time Critical Services, 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 present document describes the IPCablecom Signalling (SIG) MIB requirements.

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] ETSI TS 103 161-4: "Access, Terminals, Transmission and Multiplexing (ATTM); Integrated Broadband Cable and Television Networks; IPCablecom 1.5; Part 4: Network Call Signalling Protocol".

[2] ETSI TS 103 161-3: "Access, Terminals, Transmission and Multiplexing (ATTM); Integrated Broadband Cable and Television Networks; IPCablecom 1.5; Part 3: Audio Codec Requirements for the Provision of Bi-Directional Audio Service over Cable Television Networks using Cable Modems".

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.

Not applicable.

3 Definitions, symbols and abbreviations

Void.

4 Void

5 Requirements

The IPCablecom NCS MIB must be implemented as defined below, using the references [1] and [2].

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

IMPORTS
      MODULE-IDENTITY,
      OBJECT-TYPE,
      Integer32,
      IpAddress,
      BITS
            FROM SNMPv2-SMI
      TEXTUAL-CONVENTION,
      RowStatus,
      TruthValue
            FROM SNMPv2-TC
      OBJECT-GROUP,
      MODULE-COMPLIANCE
            FROM SNMPv2-CONF
      SnmpAdminString
            FROM SNMP-FRAMEWORK-MIB
      clabProjPacketCable
            FROM CLAB-DEF-MIB
      ifIndex
            FROM IF-MIB;

pktcSigMib  MODULE-IDENTITY
      LAST-UPDATED    "200501280000Z" -- January 28, 2005
      ORGANIZATION    "CableLabs -- PacketCable OSS Group"
      CONTACT-INFO
            "Sumanth Channabasappa
            Postal:  CableLabs, Inc.
                     858 Coal Creek Circle
                     Louisville, CO 80027-9750
                     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
            object for the PacketCable Signaling
            protocols. This version of the MIB includes
            common signaling and Network Call Signaling
            (NCS) related signaling objects.
            Acknowledgements:
            Angela Lyda       Arris Interactive
            Sasha Medvinsky   Motorola
            Roy Spitzer       Telogy Networks, Inc.
            Rick Vetter       Motorola
            Itay Sherman      Texas Instruments
            Klaus Hermanns    Cisco Systems
            Eugene Nechamkin  Broadcom Corp.
            Satish Kumar      Texas Instruments
            Copyright 1999-2005 Cable Television Laboratories, Inc.
            All rights reserved."
      REVISION "200501280000Z"
      DESCRIPTION
            "This revision, published as part of the PacketCable
            1.5 Signaling MIB I01 specification."
      ::=  { clabProjPacketCable 2 }

PktcCodecType     ::= TEXTUAL-CONVENTION
      STATUS       current
      DESCRIPTION
            "Textual Convention defines various types of
            CODECs that may be supported.   The list of CODECs
            must be consistent with the Codec RTP MAP Parameters
            Table in the CODEC specification.  In-line
```

```
            embedded comments below contain the Literal Codec Name
            for each CODEC. The Literal Codec Name corresponds to
            the second column of the Codec RTP MAP Parameters Table.
            The Literal Codec Name Column contains the CODEC name
            that is used in the LCD of the NCS messages CRCX/MDCX,
            and is also used to identify the CODEC in the CMS
            Provisioning Specification. The RTP Map Parameter
            Column of the Codec RTP MAP Parameters Table contains
            the string used in the media attribute line ('a=') of the
            SDP parameters in NCS messages."
      REFERENCE
            "CODEC Specification"
      SYNTAX INTEGER {
            other    (1),
            unknown  (2),
            g729     (3),  -- G729
            reserved (4),  -- reserved for future use
            g729E    (5),  -- G729E
            pcmu     (6),  -- PCMU
            g726at32 (7),  -- G726-32
            g728     (8),  -- G728
            pcma     (9),  -- PCMA
            g726at16 (10), -- G726-16
            g726at24 (11), -- G726-24
            g726at40 (12), -- G726-40
            ilbc     (13), -- iLBC
            bv16     (14)  -- BV16
            }

PktcRingCadence    ::= TEXTUAL-CONVENTION
      STATUS        current
      DESCRIPTION
            "This object represents a ring cadence in bit string
            format. The ring cadence representation starts with the
            first 1 in the pattern (the leading 0s in the MSB are
            padding and are to be ignored).  Each bit
            represents 100ms of tone; 1 is tone, 0 is no tone. 64
            bits must be used for cadence representation, LSB 4 bits
            are used for representing repeatable characteristics.
            0000 means repeatable, and 1000 means non repeatable.
            During SNMP SET operations 64 bits must be used,
            otherwise MTA must reject the value. As an example, the
            hex representation of a ring cadence of 0.5 secs on; 4
            secs off; repeatable would be:0x0001F00000000000."
      SYNTAX  BITS {
            interval1 (0),
            interval2 (1),
            interval3 (2),
            interval4 (3),
            interval5 (4),
            interval6 (5),
            interval7 (6),
            interval8 (7),
            interval9 (8),
            interval10 (9),
            interval11 (10),
            interval12 (11),
            interval13 (12),
            interval14 (13),
            interval15 (14),
            interval16 (15),
            interval17 (16),
            interval18 (17),
            interval19 (18),
            interval20 (19),
            interval21 (20),
            interval22 (21),
            interval23 (22),
            interval24 (23),
            interval25 (24),
            interval26 (25),
            interval27 (26),
            interval28 (27),
            interval29 (28),
            interval30 (29),
            interval31 (30),
            interval32 (31),
            interval33 (32),
```

```
            interval34 (33),
            interval35 (34),
            interval36 (35),
            interval37 (36),
            interval38 (37),
            interval39 (38),
            interval40 (39),
            interval41 (40),
            interval42 (41),
            interval43 (42),
            interval44 (43),
            interval45 (44),
            interval46 (45),
            interval47 (46),
            interval48 (47),
            interval49 (48),
            interval50 (49),
            interval51 (50),
            interval52 (51),
            interval53 (52),
            interval54 (53),
            interval55 (54),
            interval56 (55),
            interval57 (56),
            interval58 (57),
            interval59 (58),
            interval60 (59),
            interval61 (60),
            interval62 (61),
            interval63 (62),
            interval64 (63)
      }


PktcSigType     ::= TEXTUAL-CONVENTION
      STATUS       current
      DESCRIPTION
            "These are the various types of signaling that
            may be supported.
            ncs - network call signaling a derivation of MGCP
            (Media Gateway Control Protocol) version 1.0
            dcs - distributed call signaling a derivation
            of SIP (Session Initiation Protocol) RFC 3261"
      SYNTAX INTEGER {
            other(1),
            unknown(2),
            ncs(3),
            dcs(4)
    }

pktcSigMibObjects            OBJECT IDENTIFIER
                                          ::= { pktcSigMib 1 }
pktcSigDevConfigObjects      OBJECT IDENTIFIER
                                          ::= { pktcSigMibObjects 1 }
pktcNcsEndPntConfigObjects   OBJECT IDENTIFIER
                                          ::= { pktcSigMibObjects 2 }
pktcSigEndPntConfigObjects  OBJECT IDENTIFIER
                                          ::= { pktcSigMibObjects 3 }
pktcDcsEndPntConfigObjects  OBJECT IDENTIFIER
                                          ::= { pktcSigMibObjects 4 }

--
--      The pktcSigDevCodecTable defines the codecs supported by this
--      Media Terminal Adapter (MTA).  There is one entry for each
--      codecs supported.
--

pktcSigDevCodecTable    OBJECT-TYPE
      SYNTAX      SEQUENCE OF PktcSigDevCodecEntry
      MAX-ACCESS  not-accessible
      STATUS      current
      DESCRIPTION
            "This table describes the MTA supported codec types."
      ::= { pktcSigDevConfigObjects 1 }

pktcSigDevCodecEntry  OBJECT-TYPE
      SYNTAX      PktcSigDevCodecEntry
      MAX-ACCESS  not-accessible
```

```
      STATUS      current
      DESCRIPTION
            "List of supported codecs types for the MTA."
      INDEX { pktcSigDevCodecIndex }
      ::= { pktcSigDevCodecTable 1 }

PktcSigDevCodecEntry  ::= SEQUENCE {
      pktcSigDevCodecIndex  Integer32,
      pktcSigDevCodecType   PktcCodecType,
      pktcSigDevCodecMax    Integer32
      }

pktcSigDevCodecIndex  OBJECT-TYPE
     SYNTAX     Integer32 (1..16383)
     MAX-ACCESS  not-accessible
     STATUS     current
     DESCRIPTION
          "The index value which uniquely identifies an entry
          in the pktcSigDevCodecTable."
   ::= { pktcSigDevCodecEntry 1 }


pktcSigDevCodecType  OBJECT-TYPE
      SYNTAX       PktcCodecType
      MAX-ACCESS   read-only
      STATUS       current
      DESCRIPTION
            "A codec type supported by this MTA."
      ::= { pktcSigDevCodecEntry 2 }

pktcSigDevCodecMax  OBJECT-TYPE
      SYNTAX    Integer32(1..16383)
      MAX-ACCESS  read-only
      STATUS   current
      DESCRIPTION
            "The maximum number of simultaneous sessions of the
            specific codec that the MTA can support"
    ::= { pktcSigDevCodecEntry 3 }


--
--    These are the common signaling related definitions that affect
--    the entire MTA device.
--


pktcSigDevEchoCancellation  OBJECT-TYPE
      SYNTAX       TruthValue
      MAX-ACCESS       read-only
      STATUS         current
      DESCRIPTION
            "This object specifies if the device is capable
            of echo cancellation."
    ::= { pktcSigDevConfigObjects 2 }

pktcSigDevSilenceSuppression  OBJECT-TYPE
      SYNTAX       TruthValue
      MAX-ACCESS       read-only
      STATUS       current
      DESCRIPTION
            "This object specifies if the device is capable of
             silence suppression (Voice Activity Detection)."
    ::= { pktcSigDevConfigObjects 3 }

pktcSigDevConnectionMode     OBJECT-TYPE
      SYNTAX BITS {
            voice(0),
            fax(1),
            modem(2)
    }
      MAX-ACCESS   read-only
      STATUS       current
      DESCRIPTION
            "This object specifies the connection modes that the
             MTA device can support."
    ::= { pktcSigDevConfigObjects 4 }

--
```

```
--      In the United States Ring Cadences 0, 6, and 7 are custom
--      ring cadences definable by the user.  The following three
--      objects are used for these definitions.
--

pktcSigDevR0Cadence     OBJECT-TYPE
      SYNTAX    PktcRingCadence
      MAX-ACCESS       read-write
      STATUS       current
      DESCRIPTION
            "This object specifies ring cadence 0 (a user defined
            field) where each bit (least significant bit)
            represents a duration of 200 milliseconds (6 seconds
            total)."
      DEFVAL {{ interval1, interval2, interval3, interval4, interval5,
      interval6, interval7, interval8,  interval9, interval10,
      interval11, interval12, interval13, interval14, interval15,
      interval16, interval17, interval18, interval19, interval20}}
      -- '11111111111111111111000000000000000000000000000000000000000'
      -- 00000'
      ::= { pktcSigDevConfigObjects 5 }


pktcSigDevR6Cadence     OBJECT-TYPE
      SYNTAX    PktcRingCadence
      MAX-ACCESS       read-write
      STATUS       current
      DESCRIPTION
            "This object specifies ring cadence 6 (a user defined
            field) where each bit (least significant bit)
            represents a duration of 200 milliseconds (6 seconds
            total)."
      DEFVAL { { interval1, interval2, interval3, interval4,
      interval5, interval6, interval7, interval8, interval9,
      interval10, interval11, interval12, interval13, interval14,
      interval15, interval16, interval17, interval18, interval19,
      interval20 } }
      -- '11111111111111111111000000000000000000000000000000000000000'
      -- 00000'
      ::= { pktcSigDevConfigObjects 6 }

pktcSigDevR7Cadence     OBJECT-TYPE
      SYNTAX    PktcRingCadence
      MAX-ACCESS       read-write
      STATUS       current
      DESCRIPTION
            "This object specifies ring cadence 7 (a user defined
            field) where each bit (least significant bit)
            represents a duration of 200 milliseconds (6 seconds
            total)."

      DEFVAL { { interval1, interval2, interval3, interval4,
      interval5, interval6, interval7, interval8, interval9,
      interval10, interval11, interval12, interval13, interval14,
      interval15, interval16, interval17, interval18, interval19,
      interval20 } }
      -- '11111111111111111111000000000000000000000000000000000000000'
      -- 00000'
      ::= { pktcSigDevConfigObjects 7 }


pktcSigDefCallSigTos  OBJECT-TYPE
      SYNTAX      Integer32 (0..63)
      MAX-ACCESS    read-write
      STATUS    current
      DESCRIPTION
            "The default value used in the IP header for setting the
            Type of Service (TOS) value for call signalling."
      REFERENCE
            "Refer to NCS specification"    DEFVAL { 0 }
      ::= { pktcSigDevConfigObjects 8 }

pktcSigDefMediaStreamTos  OBJECT-TYPE
      SYNTAX      Integer32 (0..63)
      MAX-ACCESS    read-write
      STATUS    current
      DESCRIPTION
```

```
            "This object contains the default value used in the IP
            header for setting the Type of Service (TOS) for media
            stream packets. The MTA must not update this object with
            the value supplied by the CMS in the NCS messages (if
            present).  When the value of this object is updated by
            SNMP, the MTA must use the new value as a default starting
            from the new connection.  Existing connections are not
            affected by the value's update."
      REFERENCE
            "Refer to NCS specification"
      DEFVAL { 0 }
      ::= { pktcSigDevConfigObjects 9 }

pktcSigTosFormatSelector  OBJECT-TYPE
      SYNTAX      INTEGER {
            ipv4TOSOctet(1),
            dscpCodepoint(2)
      }
      MAX-ACCESS    read-write
      STATUS    current
      DESCRIPTION
            "The format of the default signaling and media
            Type of Service (TOS) values."
      DEFVAL { ipv4TOSOctet }
      ::= { pktcSigDevConfigObjects 10 }

--
--      pktcSigCapabilityTable - This table defines the valid signaling
--      types supported by this MTA.
--

pktcSigCapabilityTable    OBJECT-TYPE
      SYNTAX        SEQUENCE OF PktcSigCapabilityEntry
      MAX-ACCESS    not-accessible
      STATUS        current
      DESCRIPTION
            "This table describes the signaling types by this MTA."
      ::= { pktcSigDevConfigObjects 11 }

pktcSigCapabilityEntry    OBJECT-TYPE
      SYNTAX        PktcSigCapabilityEntry
      MAX-ACCESS    not-accessible
      STATUS        current
      DESCRIPTION
            "Entries in pktcMtaDevSigCapabilityTable - List of
            supported signaling types, versions and vendor extensions
            for this MTA. Each entry in the list provides for one
            signaling type and version combination. If the device
            supports multiple versions of the same signaling type -
            it will require multiple entries."
      INDEX { pktcSignalingIndex }
      ::= { pktcSigCapabilityTable 1 }

PktcSigCapabilityEntry  ::= SEQUENCE {
      pktcSignalingIndex             Integer32,
      pktcSignalingType              PktcSigType,
      pktcSignalingVersion           SnmpAdminString,
      pktcSignalingVendorExtension   SnmpAdminString
      }

pktcSignalingIndex       OBJECT-TYPE
      SYNTAX        Integer32 (1..16383)
      MAX-ACCESS    not-accessible
      STATUS        current
      DESCRIPTION
            "The index value which uniquely identifies
            an entry in the pktcSigCapabilityTable."
      ::= { pktcSigCapabilityEntry 1 }

pktcSignalingType      OBJECT-TYPE
      SYNTAX        PktcSigType
      MAX-ACCESS    read-only
      STATUS        current
      DESCRIPTION
            "The Type identifies the type of signaling
            used, this can be NCS, DCS, etc. This value
            has to be associated with a single signaling
            version - reference pktcMtaDevSignalingVersion."
```

```
    ::= { pktcSigCapabilityEntry 2 }

pktcSignalingVersion      OBJECT-TYPE
      SYNTAX        SnmpAdminString
      MAX-ACCESS    read-only
      STATUS        current
      DESCRIPTION
            "Provides the version of the signaling type -
            reference pktcSignalingType. Examples
            would be 1.0 or 2.33 etc."
    ::= { pktcSigCapabilityEntry 3 }

pktcSignalingVendorExtension      OBJECT-TYPE
      SYNTAX        SnmpAdminString
      MAX-ACCESS    read-only
      STATUS        current
      DESCRIPTION
            "The vendor extension allows vendors to
            provide a list of additional capabilities,
            vendors can decide how to encode these
            Extensions, although space separated text is
            suggested."
    ::= { pktcSigCapabilityEntry 4 }

pktcSigDefNcsReceiveUdpPort  OBJECT-TYPE
      SYNTAX      Integer32 (1025..65535)
      MAX-ACCESS    read-only
      STATUS    current
      DESCRIPTION
            "This object contains the MTA User Datagram Protocol
            (UDP) receive port that is being used for NCS call
            signaling. This object should only be changed by the
            configuration file."
      REFERENCE
            "Refer to NCS specification"
      DEFVAL { 2427 }
      ::= { pktcSigDevConfigObjects 12 }

pktcSigServiceClassNameUS   OBJECT-TYPE
      SYNTAX    SnmpAdminString (SIZE (0..15))
      MAX-ACCESS   read-write
      STATUS       obsolete
      DESCRIPTION
            "This object contains a string indicating the Service
            Class name to create an Upstream Service (US) Flow for
            NCS. If the object has an empty string value then the
            upstream NCS SF is not created and the best effort
            SF is used for upstream NCS data. The creation of the NCS
            SF primary occurs before Voice Communication Service is
            activated on the device. If this object is set to a
            non-empty (non-zero length) string, the MTA must create
            the NCS SF if it does not currently exist and the
            pktcSigServiceClassNameMask object has a non-zero value.
            If this object is subsequently set to an empty
            (zero-length)string , the MTA must delete the NCS SF
            if it exists.  Setting this object to a different value
            does not cause the Upstream Service Flow to be
            re-created. The string must contain printable ASCII
            characters. The length of the string does not include a
            terminating zero.  The MTA must append a terminating zero
            when the MTA creates the service flow. "
      ::= { pktcSigDevConfigObjects 13 }

pktcSigServiceClassNameDS   OBJECT-TYPE
      SYNTAX     SnmpAdminString (SIZE (0..15))
      MAX-ACCESS   read-write
      STATUS       obsolete
      DESCRIPTION
            "This object contains a string indicating the Service
           Class Name to create a Downstream Service Flow for NCS.
            If the object has an empty string value then the
            NCS SF is not created and the best effort primary SF is
            used for downstream NCS data. The creation of the NCS SF
            occurs before Voice Communication Service is activated on
            the device. If this object is set to a non-empty (non-zero
            length) string, the MTA must create the NCS SF if it does
            not currently exist and the pktcSigServiceClassNameMask
            object has a non-zero value.  If this object is
```

```
            subsequently set to an empty (zero-length) string, the MTA
            must delete the NCS SF if it exists.  Setting this object
            to a different value does not cause the Downstream Service
            Flow to be re-created.  The string must contain printable
            ASCII characters. The length of the string does not include
            a terminating zero.  The MTA must append a terminating
            zero when the MTA creates the service flow. "
      ::= { pktcSigDevConfigObjects 14 }

pktcSigServiceClassNameMask   OBJECT-TYPE
      SYNTAX  Integer32
      MAX-ACCESS read-write
      STATUS     obsolete
      DESCRIPTION
            "This object contains a value for the Call Signaling
            Network Mask. The value is used as the NCS Call Signaling
            classifier mask. The object is used to delete the NCS SF
            when set to zero. When the object is set to a non-zero
            value by the SNMP Manager, the NCS SF are to be created."
      DEFVAL { 0 }
      ::= { pktcSigDevConfigObjects 15 }

pktcSigNcsServiceFlowState  OBJECT-TYPE
      SYNTAX      INTEGER {
            notactive  (1),
            active     (2),
            error      (3)
      }
      MAX-ACCESS read-only
      STATUS     obsolete
      DESCRIPTION
            "This object contains a status value of the Call Signaling
            Service Flow.
            - 'notactive' indicates that the NCS SF is not being used,
            and has not tried to be created,
            - 'active' indicates that the NCS SF is in use,
            - 'error' indicates that the NCS SF creation resulted in
            an error and the best effort channel is used for NCS
            Signaling."
      ::= { pktcSigDevConfigObjects 16 }

pktcSigDevR1Cadence       OBJECT-TYPE
      SYNTAX    PktcRingCadence
      MAX-ACCESS       read-write
      STATUS       current
      DESCRIPTION
            "This object specifies ring cadence 1 (a user defined
            field) where each bit (least significant bit)
            represents a duration of 100 milliseconds (6 seconds
            total)."

      DEFVAL { { interval1, interval2, interval3, interval4,
      interval5, interval6, interval7, interval8, interval9,
      interval10, interval11, interval12, interval13, interval14,
      interval15, interval16, interval17, interval18, interval19,
      interval20 } }
      -- '11111111111111111111000000000000000000000000000000000000000000'
      -- 00000'
      ::= { pktcSigDevConfigObjects 17 }

pktcSigDevR2Cadence       OBJECT-TYPE
      SYNTAX    PktcRingCadence
      MAX-ACCESS       read-write
      STATUS       current
      DESCRIPTION
            "This object specifies ring cadence 2 (a user
            defined field) where each bit (least significant
            bit) represents a duration of 100 milliseconds
            (6 seconds total)."

      DEFVAL { { interval1, interval2, interval3, interval4,
      interval5, interval6, interval7, interval8, interval13,
      interval14, interval15, interval16, interval17, interval18,
      interval19, interval20 } }
      -- '11111111000011111111000000000000000000000000000000000000000000'
      -- 00000'
      ::= { pktcSigDevConfigObjects 18 }
```

```
pktcSigDevR3Cadence       OBJECT-TYPE
      SYNTAX    PktcRingCadence
      MAX-ACCESS       read-write
      STATUS       current
      DESCRIPTION
        "This object specifies ring cadence 3 (a user
        defined field) where each bit (least significant
        bit) represents a duration of 100 milliseconds
       (6 seconds total)."

      DEFVAL { { interval1, interval2, interval3, interval4,
      interval7, interval8, interval9, interval10, interval13,
      interval14, interval15, interval16, interval17, interval18,
      interval19, interval20 } }
      -- '11110011110011111111100000000000000000000000000000000000000000
      -- 00000'
    ::= { pktcSigDevConfigObjects 19 }

pktcSigDevR4Cadence        OBJECT-TYPE
      SYNTAX    PktcRingCadence
      MAX-ACCESS       read-write
      STATUS       current
      DESCRIPTION
            "This object specifies ring cadence 4 (a user
            defined field) where each bit (least significant
            bit) represents a duration of 100 milliseconds
            (6 seconds total)."
      DEFVAL { { interval1, interval2, interval3, interval6,
      interval7, interval8, interval9, interval10, interval11,
      interval12, interval13, interval14, interval15, interval18,
      interval19, interval20 } }
      -- '11100111111111100111000000000000000000000000000000000000000000
      -- 00000'
    ::= { pktcSigDevConfigObjects 20 }

pktcSigDevR5Cadence       OBJECT-TYPE
      SYNTAX    PktcRingCadence
      MAX-ACCESS   read-write
      STATUS       current
      DESCRIPTION
            "This object specifies ring cadence 5 (a user
            defined field) where each bit (least significant
            bit) represents a duration of 100 milliseconds."
      DEFVAL { { interval1, interval2, interval3, interval4,
      interval5, interval61 } }
      -- '11111000000000000000000000000000000000000000000000000000000000
      -- 01000'
      ::= { pktcSigDevConfigObjects 21 }

pktcSigDevRgCadence       OBJECT-TYPE
      SYNTAX    PktcRingCadence
      MAX-ACCESS       read-write
      STATUS       current
      DESCRIPTION
            "This object specifies ring cadence rg (a user
            defined field) where each bit (least significant
            bit) represents a duration of 100 milliseconds
           (6 seconds total)."

      DEFVAL { { interval1, interval2, interval3, interval4,
      interval5, interval6, interval7, interval8, interval9,
      interval10, interval11, interval12, interval13, interval14,
      interval15, interval16, interval17, interval18, interval19,
      interval20 } }
      -- '11111111111111111111000000000000000000000000000000000000000000
      -- 00000'
    ::= { pktcSigDevConfigObjects 22 }

pktcSigDevRsCadence       OBJECT-TYPE
      SYNTAX       PktcRingCadence
      MAX-ACCESS   read-write
      STATUS       current
      DESCRIPTION
            "This object specifies ring cadence rs (a user
            defined field) where each bit (least significant bit)
            represents a duration of 100 milliseconds (6 seconds
            total). MTA must reject any attempt to make this
            object repeatable."
```

```
      DEFVAL { { interval1, interval2, interval3, interval4,
      interval5, interval61 } }
      -- '11111000000000000000000000000000000000000000000000000000000
      -- 01000'
    ::= { pktcSigDevConfigObjects 23 }

pktcSigDevRtCadence       OBJECT-TYPE
      SYNTAX    PktcRingCadence
      MAX-ACCESS   read-write
      STATUS       current
      DESCRIPTION
            "This object specifies ring cadence rt (a user
            defined field) where each bit (least significant
            bit) represents a duration of 100 milliseconds
           (6 seconds total)."
      DEFVAL { { interval1, interval2, interval3, interval4,
      interval5, interval6, interval7, interval8, interval9,
      interval10, interval11, interval12, interval13, interval14,
      interval15, interval16, interval17, interval18, interval19,
      interval20 } }
      -- '11111111111111111111000000000000000000000000000000000000000
      -- 00000'
    ::= { pktcSigDevConfigObjects 24 }

--
-- The following Table will provide endpoint configuration
-- information that is common to all signaling Protocols.
-- Currently only the signaling index is present in an effort
-- not to deprecate any MIB objects.
--

pktcSigEndPntConfigTable    OBJECT-TYPE
      SYNTAX        SEQUENCE OF PktcSigEndPntConfigEntry
      MAX-ACCESS    not-accessible
      STATUS        current
      DESCRIPTION
            "This table describes the PacketCable EndPoint selected
            signaling type. The number of entries in this table
            represents the number of provisioned end points.
            For each conceptual row of pktcSigEndPntConfigTable
            defined, an associated row must be defined in one of
            the specific signaling tables such as
            pktcNcsEndPntConfigTable."
     ::=  { pktcSigEndPntConfigObjects 1 }

pktcSigEndPntConfigEntry    OBJECT-TYPE
      SYNTAX        PktcSigEndPntConfigEntry
      MAX-ACCESS    not-accessible
      STATUS        current
      DESCRIPTION
            "Entries in pktcSigEndPntConfigTable - Each entry
            describes what signaling type a particular endpoint uses."
      INDEX { ifIndex }
      ::=  { pktcSigEndPntConfigTable 1 }

PktcSigEndPntConfigEntry  ::= SEQUENCE {
            pktcSigEndPntCapabilityIndex           Integer32
      }


pktcSigEndPntCapabilityIndex    OBJECT-TYPE
      SYNTAX        Integer32 (1..16383)
      MAX-ACCESS    read-create
      STATUS        current
      DESCRIPTION
            "The associated index value in the pktcSigCapablityTable."
      ::= { pktcSigEndPntConfigEntry 1 }
--
--    The NCS End Point Config Table is used to define attributes that
--    are specific to connection EndPoints.
--
--

pktcNcsEndPntConfigTable  OBJECT-TYPE
      SYNTAX        SEQUENCE OF PktcNcsEndPntConfigEntry
      MAX-ACCESS    not-accessible
      STATUS        current
      DESCRIPTION
```

```
            "This table describes the PacketCable EndPoint selected
             signaling type. The number of entries in this table
             represents the number of provisioned end points.
             For each conceptual row of pktcSigEndPntConfigTable
             defined, an associated row must be defined in one of
             the specific signaling tables such as
             pktcNcsEndPntConfigTable."
      ::=  { pktcNcsEndPntConfigObjects 1 }

pktcNcsEndPntConfigEntry  OBJECT-TYPE
      SYNTAX        PktcNcsEndPntConfigEntry
      MAX-ACCESS    not-accessible
      STATUS        current
      DESCRIPTION
            "Entries in pktcNcsEndPntConfigTable - Each entry
            describes what signaling type a particular endpoint uses."
      INDEX { ifIndex }
      ::=  { pktcNcsEndPntConfigTable 1 }

PktcNcsEndPntConfigEntry  ::= SEQUENCE {
      pktcNcsEndPntConfigCallAgentId            SnmpAdminString,
      pktcNcsEndPntConfigCallAgentUdpPort       Integer32,
      pktcNcsEndPntConfigPartialDialTO          Integer32,
      pktcNcsEndPntConfigCriticalDialTO         Integer32,
      pktcNcsEndPntConfigBusyToneTO             Integer32,
      pktcNcsEndPntConfigDialToneTO             Integer32,
      pktcNcsEndPntConfigMessageWaitingTO       Integer32,
      pktcNcsEndPntConfigOffHookWarnToneTO      Integer32,
      pktcNcsEndPntConfigRingingTO              Integer32,
      pktcNcsEndPntConfigRingBackTO             Integer32,
      pktcNcsEndPntConfigReorderToneTO          Integer32,
      pktcNcsEndPntConfigStutterDialToneTO      Integer32,
      pktcNcsEndPntConfigTSMax                  Integer32,
      pktcNcsEndPntConfigMax1                   Integer32,
      pktcNcsEndPntConfigMax2                   Integer32,
      pktcNcsEndPntConfigMax1QEnable            TruthValue,
      pktcNcsEndPntConfigMax2QEnable            TruthValue,
      pktcNcsEndPntConfigMWD                    Integer32,
      pktcNcsEndPntConfigTdinit                 Integer32,
      pktcNcsEndPntConfigTdmin                  Integer32,
      pktcNcsEndPntConfigTdmax                  Integer32,
      pktcNcsEndPntConfigRtoMax                 Integer32,
      pktcNcsEndPntConfigRtoInit                Integer32,
      pktcNcsEndPntConfigLongDurationKeepAlive  Integer32,
      pktcNcsEndPntConfigThist                  Integer32,
      pktcNcsEndPntConfigStatus                 RowStatus,
      pktcNcsEndPntConfigCallWaitingMaxRep      Integer32,
      pktcNcsEndPntConfigCallWaitingDelay     Integer32,
      pktcNcsEndPntStatusCallIpAddress        IpAddress,
      pktcNcsEndPntStatusError                INTEGER
      }

pktcNcsEndPntConfigCallAgentId     OBJECT-TYPE
      SYNTAX     SnmpAdminString(SIZE (3..255))
      MAX-ACCESS read-create
      STATUS     current
      DESCRIPTION
            "This object contains a string indicating the call agent
            name(e.g.: ca@abc.def.com). The call agent name
            after the character '@', must be a fully qualified
            domain name and must have a corresponding
            pktcMtaDevCmsFqdn entry in the pktcMtaDevCmsTable.  For
            each particular end-point, the MTA must use the current
            value of this object to communicate with the corresponding
            CMS.  The MTA must update this object with the value of the
            'Notified Entity' parameter of the NCS message.  If the
            Notified Entity parameter does not contain a CallAgent
            port, the MTA must update this object with default value
            of 2727.  Because of the high importance of this object to
            the ability of the MTA to maintain reliable NCS
            communication with the CMS, it is highly recommended not
            to change this object's value through management station
            during normal operations."

    ::= {  pktcNcsEndPntConfigEntry 1 }

pktcNcsEndPntConfigCallAgentUdpPort    OBJECT-TYPE
      SYNTAX    Integer32 (1025..65535)
```

```
      MAX-ACCESS   read-create
      STATUS       current
      DESCRIPTION
            "This object contains the current value of the User
            Datagram Protocol (UDP) receive port on which the call
            agent will receive NCS signaling from the endpoint.
            For each particular end-point, the MTA must use
            the current value of this object to communicate with the
            corresponding CMS.  The MTA must update this
            object with the value of the 'Notified Entity' parameter
            of the NCS message.  If the Notified Entity
            parameter does not contain a CallAgent port, the MTA must
            update this object with default value of 2727.
            Because of the high importance of this object to the
            ability of the MTA to maintain reliable NCS communication
            with the CMS, it is highly recommended not to change this
            object's value through management station during normal
            operations."
      REFERENCE
            "Refer to NCS specification"
      DEFVAL    { 2727 }
      ::= { pktcNcsEndPntConfigEntry 2 }

pktcNcsEndPntConfigPartialDialTO     OBJECT-TYPE
      SYNTAX      Integer32
      UNITS       "seconds"
     MAX-ACCESS   read-create
     STATUS      current
     DESCRIPTION
          "This object contains maximum value of the partial
           dial time out."
     REFERENCE
          "Refer to NCS specification"
     DEFVAL { 16 }
     ::= { pktcNcsEndPntConfigEntry 3 }


pktcNcsEndPntConfigCriticalDialTO     OBJECT-TYPE
      SYNTAX    Integer32
      UNITS        "seconds"
      MAX-ACCESS    read-create
      STATUS    current
      DESCRIPTION
            "This object contains the maximum value of the critical
            dial time out."
      REFERENCE
            "Refer NCS specification"
      DEFVAL { 4 }
      ::= { pktcNcsEndPntConfigEntry 4 }

pktcNcsEndPntConfigBusyToneTO     OBJECT-TYPE
      SYNTAX    Integer32
      UNITS        "seconds"
      MAX-ACCESS   read-create
      STATUS       current
      DESCRIPTION
            "This object contains the default timeout value for busy
            tone.The MTA must not update this object with the
            value provided in the NCS Message (if present).
            If the value of the object is modified by the
            SNMP Management Station, the MTA must use the new value as
            a default only for a new signal requested by the NCS
            message."
      REFERENCE
            "Refer to NCS specification"
      DEFVAL    { 30 }
      ::= { pktcNcsEndPntConfigEntry 5 }

pktcNcsEndPntConfigDialToneTO     OBJECT-TYPE
      SYNTAX    Integer32
      UNITS        "seconds"
      MAX-ACCESS   read-create
      STATUS       current
      DESCRIPTION
            "This object contains the default timeout value for dial
             tone. The MTA must not update this object with
             the value provided in the NCS Message (if present).
             If the value of the object is modified by the
```

```
              SNMP Management Station, the MTA must use the new value
              as a default only for a new signal requested by the NCS
              message."
        REFERENCE
              "Refer to NCS specification "
        DEFVAL    { 16 }
        ::= { pktcNcsEndPntConfigEntry 6 }

pktcNcsEndPntConfigMessageWaitingTO     OBJECT-TYPE
        SYNTAX    Integer32
        UNITS        "seconds"
        MAX-ACCESS    read-create
        STATUS    current
        DESCRIPTION
              "This object contains the default timeout value for
              message waiting indicator The MTA must not
              update this object with the value provided in the NCS
              Message (if present).  If the value of the object
              is modified by the SNMP Management Station, the MTA must
              use the new value as a default only for a new signal
              requested by the NCS message."
        REFERENCE
              "Refer to NCS specification"
        DEFVAL    { 16 }
        ::= { pktcNcsEndPntConfigEntry 7 }

pktcNcsEndPntConfigOffHookWarnToneTO     OBJECT-TYPE
        SYNTAX    Integer32
        UNITS        "seconds"
        MAX-ACCESS   read-create
        STATUS       current
        DESCRIPTION
              "This object contains the default timeout value for the
              off hook Warning tone. The MTA must not update
              this object with the value provided in the NCS Message (if
              present).  If the value of the object is modified
              by the SNMP Management Station, the MTA must use the new
              value as a default only for a new signal requested by the
              NCS message. "
        REFERENCE
              "Refer to NCS specification"
        DEFVAL { 0 }
        ::= { pktcNcsEndPntConfigEntry 8 }

pktcNcsEndPntConfigRingingTO     OBJECT-TYPE
        SYNTAX    Integer32
        UNITS        "seconds"
        MAX-ACCESS    read-create
        STATUS    current
        DESCRIPTION
              "This object contains the default timeout value for
              ringing. The MTA must not update this object with
              the value provided in the NCS Message (if present).
              If the value of the object is modified by the
              SNMP Management Station, the MTA must use the new value
              as a default only for a new signal requested by the NCS
              message."
        REFERENCE
              "Refer to NCS specification"
        DEFVAL    { 180 }
        ::= { pktcNcsEndPntConfigEntry 9 }

pktcNcsEndPntConfigRingBackTO     OBJECT-TYPE
        SYNTAX    Integer32
        UNITS        "seconds"
        MAX-ACCESS    read-create
        STATUS    current
        DESCRIPTION
              "This object contains the default timeout value for ring
              back. The MTA must not update this object with
              the value provided in the NCS Message (if present).
              If the value of the object is modified by the
              SNMP Management Station, the MTA must use the new value as
              a default only for a new signal requested by the NCS
              message."
        REFERENCE
              "Refer to NCS specification"
        DEFVAL    { 180 }
```

```
      ::= { pktcNcsEndPntConfigEntry 10 }

pktcNcsEndPntConfigReorderToneTO     OBJECT-TYPE
      SYNTAX    Integer32
      UNITS        "seconds"
      MAX-ACCESS    read-create
      STATUS    current
      DESCRIPTION
            "This object contains the default timeout value for
            reorder tone. The MTA must not update this
            object with the value provided in the NCS Message (if
            present).  If the value of the object is modified
            by the SNMP Management Station, the MTA must use the new
            value as a default only for a new signal requested by
            the NCS message."
      REFERENCE
            "Refer to NCS specification"
      DEFVAL    { 30 }
      ::= { pktcNcsEndPntConfigEntry 11 }

pktcNcsEndPntConfigStutterDialToneTO     OBJECT-TYPE
      SYNTAX    Integer32
      UNITS        "seconds"
      MAX-ACCESS    read-create
      STATUS    current
      DESCRIPTION
            "This object contains the default timeout value for
            stutter dial tone. The MTA must not update this
            object with the value provided in the NCS Message (if
            present).  If the value of the object is modified
            by the SNMP Management Station, the MTA must use the new
            value as a default only for a new signal requested by the
            NCS message."
      REFERENCE
          "Refer to NCS specification"
      DEFVAL    { 16 }
      ::= { pktcNcsEndPntConfigEntry 12 }

pktcNcsEndPntConfigTSMax     OBJECT-TYPE
      SYNTAX      Integer32
      MAX-ACCESS    read-create
      STATUS    current
      DESCRIPTION
            "This object contains the max time in seconds since the
            sending of the initial datagram."
      REFERENCE
            "Refer to NCS specification"
      DEFVAL { 20 }
      ::= { pktcNcsEndPntConfigEntry 13 }

pktcNcsEndPntConfigMax1     OBJECT-TYPE
      SYNTAX      Integer32
      MAX-ACCESS    read-create
      STATUS    current
      DESCRIPTION
            "This object contains the suspicious error threshold
            for signaling messages."
      REFERENCE
            "Refer to NCS specification"
      DEFVAL { 5 }
      ::= { pktcNcsEndPntConfigEntry 14 }


pktcNcsEndPntConfigMax2     OBJECT-TYPE
      SYNTAX      Integer32
      MAX-ACCESS    read-create
      STATUS    current
      DESCRIPTION
            "This object contains the disconnect error
            threshold for signaling messages."
      REFERENCE
            "Refer to NCS specification"
      DEFVAL { 7 }
      ::= { pktcNcsEndPntConfigEntry 15 }

pktcNcsEndPntConfigMax1QEnable     OBJECT-TYPE
      SYNTAX      TruthValue
      MAX-ACCESS    read-create
```

```
      STATUS    current
      DESCRIPTION
            "This object enables/disables the Max1 Domain Name
            Server (DNS) query operation when Max1 expires."
      DEFVAL { true }
      ::= { pktcNcsEndPntConfigEntry 16 }

pktcNcsEndPntConfigMax2QEnable     OBJECT-TYPE
      SYNTAX      TruthValue
      MAX-ACCESS    read-create
      STATUS    current
      DESCRIPTION
            "This object enables/disables the Max2 DNS query
            operation when Max2 expires."
      DEFVAL { true }
      ::= { pktcNcsEndPntConfigEntry 17 }

pktcNcsEndPntConfigMWD     OBJECT-TYPE
      SYNTAX      Integer32
      UNITS     "seconds"
      MAX-ACCESS    read-create
      STATUS    current
      DESCRIPTION
            "Maximum Waiting Delay (MWD) contains the maximum
            number of seconds a MTA waits after a restart."
      REFERENCE
            "Refer to NCS specification"
      DEFVAL { 600 }
      ::= { pktcNcsEndPntConfigEntry 18 }


pktcNcsEndPntConfigTdinit     OBJECT-TYPE
      SYNTAX      Integer32
      UNITS     "seconds"
      MAX-ACCESS    read-create
      STATUS    current
      DESCRIPTION
            "This object contains the initial number of seconds
            a MTA waits after a disconnect."
      REFERENCE
            "Refer to NCS specification"
      DEFVAL { 15 }
      ::= { pktcNcsEndPntConfigEntry 19 }

pktcNcsEndPntConfigTdmin     OBJECT-TYPE
      SYNTAX      Integer32
      UNITS     "seconds"
      MAX-ACCESS    read-create
      STATUS    current
      DESCRIPTION
            "This object contains the minimum number of seconds a
            MTA waits after a disconnect."
      REFERENCE
            "Refer to NCS specification"
      DEFVAL { 15 }
      ::= { pktcNcsEndPntConfigEntry 20 }

pktcNcsEndPntConfigTdmax     OBJECT-TYPE
      SYNTAX      Integer32
      UNITS     "seconds"
      MAX-ACCESS    read-create
      STATUS    current
      DESCRIPTION
            "This object contains the maximum number of seconds
            a MTA waits after a disconnect."
      REFERENCE
            "Refer to NCS specification"
      DEFVAL { 600 }
      ::= { pktcNcsEndPntConfigEntry 21 }

pktcNcsEndPntConfigRtoMax     OBJECT-TYPE
      SYNTAX      Integer32
      UNITS     "seconds"
      MAX-ACCESS    read-create
      STATUS    current
      DESCRIPTION
            "This object contains the maximum number of seconds
            for the retransmission timer."
```

```
      REFERENCE
            "Refer to NCS specification"
      DEFVAL { 4 }
      ::= { pktcNcsEndPntConfigEntry 22 }


pktcNcsEndPntConfigRtoInit     OBJECT-TYPE
      SYNTAX      Integer32
      UNITS          "milliseconds"
      MAX-ACCESS    read-create
      STATUS    current
      DESCRIPTION
            "This object contains the initial number of seconds
            for the retransmission timer."
      REFERENCE
            "Refer to NCS specification"
      DEFVAL { 200 }
      ::= { pktcNcsEndPntConfigEntry 23 }

pktcNcsEndPntConfigLongDurationKeepAlive     OBJECT-TYPE
      SYNTAX      Integer32
      UNITS     "minutes"
      MAX-ACCESS    read-create
      STATUS    current
      DESCRIPTION
            "Specifies a timeout value in minutes for sending
            long duration call notification message."
      REFERENCE
            "Refer to NCS specification"
      DEFVAL { 60 }
      ::= { pktcNcsEndPntConfigEntry 24 }

pktcNcsEndPntConfigThist  OBJECT-TYPE
      SYNTAX    Integer32
      UNITS     "seconds"
      MAX-ACCESS    read-create
      STATUS    current
      DESCRIPTION
            "Timeout period in seconds before no response is
            declared."
      REFERENCE
            "Refer to NCS specification"
      DEFVAL { 30 }
      ::= { pktcNcsEndPntConfigEntry 25 }

pktcNcsEndPntConfigStatus     OBJECT-TYPE
      SYNTAX      RowStatus
      MAX-ACCESS    read-create
      STATUS    current
      DESCRIPTION
            "This object contains the Row Status associated with
            the pktcNcsEndPntConfigTable."
      ::= { pktcNcsEndPntConfigEntry 26 }

pktcNcsEndPntConfigCallWaitingMaxRep     OBJECT-TYPE
      SYNTAX    Integer32 (0..10)
      MAX-ACCESS    read-create
      STATUS    current
      DESCRIPTION
            "This object contains the default value of the maximum
            number of repetitions of the call waiting tone that the
            MTA will play from a single CMS request. The MTA
            must not update this object with the information provided
            in the NCS Message (if present).  If the value of
            the object is modified by the SNMP Management Station,
            the MTA must use the new value as a default only for a new
            signal requested by the NCS message."
      DEFVAL    { 1 }
      ::= { pktcNcsEndPntConfigEntry 27 }

pktcNcsEndPntConfigCallWaitingDelay     OBJECT-TYPE
      SYNTAX    Integer32 (1..100)
      UNITS "seconds"
      MAX-ACCESS    read-create
      STATUS    current
      DESCRIPTION
            "This object contains the delay between repetitions
            of the call waiting tone that the MTA will play from
```

```
            a single CMS request."
      DEFVAL    { 10 }
      ::= { pktcNcsEndPntConfigEntry 28 }

pktcNcsEndPntStatusCallIpAddress  OBJECT-TYPE
      SYNTAX IpAddress
      MAX-ACCESS read-only
      STATUS current
      DESCRIPTION
            "This object contains the IP address of the CMS
            currently being used for this endpoint. This IP
            address is used to create the appropriate security
            association."
      ::= { pktcNcsEndPntConfigEntry 29 }

pktcNcsEndPntStatusError  OBJECT-TYPE
      SYNTAX INTEGER {
            operational           (1),
            noSecurityAssociation (2),
            disconnected          (3)
      }
      MAX-ACCESS   read-only
      STATUS       current
      DESCRIPTION
            "This object contains the error status for this interface.
            The operational state indicates that all operations
            necessary to put the line in service have occurred and CMS
            has acknowledged the RSIP message successfully.
            If 'pktcMtaDevCmsIpsecCtrl' is enabled for the associated
            Call Agent, the noSecurityAssociation status indicates
            that no Security Association (SA) yet exists for this
            endpoint. Otherwise, the state is unused.
            The disconnected status indicates one of the following two:
            1. If 'pktcMtaDevCmsIpsecCtrl' is disabled then no
            security association is involved with this endpoint: the
            NCS signaling Software is in process of establishing the
            NCS signaling Link via an RSIP exchange.
            2. Otherwise, pktcMtaDevCmsIpsecCtrl is enabled, the
            security Association has been established and the NCS
            signaling Software is in process of establishing the NCS
            signaling Link via an RSIP exchange."

      ::= { pktcNcsEndPntConfigEntry 30 }
--
-- notification group is for future extension.
--
pktcSigNotificationPrefix OBJECT IDENTIFIER     ::= { pktcSigMib 2 }
pktcSigNotification  OBJECT IDENTIFIER     ::= {
 pktcSigNotificationPrefix 0 }
pktcSigConformance   OBJECT IDENTIFIER     ::= { pktcSigMib 3 }
pktcSigCompliances   OBJECT IDENTIFIER     ::= { pktcSigConformance 1 }
pktcSigGroups        OBJECT IDENTIFIER     ::= { pktcSigConformance 2 }


-- compliance statements

pktcSigBasicCompliance  MODULE-COMPLIANCE
      STATUS     current
      DESCRIPTION
        "The compliance statement for devices that implement Signaling
        on the MTA."

MODULE  -- pktcSigMib

-- unconditionally mandatory groups

MANDATORY-GROUPS {
      pktcSigGroup
      }
      GROUP pktcNcsGroup
      DESCRIPTION
            "This group is mandatory for any MTA implementing NCS
            signaling"
      ::={ pktcSigCompliances 1 }

-- units of conformance

pktcSigGroup  OBJECT-GROUP
```

```
        OBJECTS {
        pktcSigDevCodecType,
        pktcSigDevCodecMax,
        pktcSigDevEchoCancellation,
        pktcSigDevSilenceSuppression,
        pktcSigDevConnectionMode,
        pktcSigDevR0Cadence,
        pktcSigDevR6Cadence,
        pktcSigDevR7Cadence,
        pktcSigDefCallSigTos,
        pktcSigDefMediaStreamTos,
        pktcSigTosFormatSelector,
        pktcSignalingType,
        pktcSignalingVersion,
        pktcSignalingVendorExtension,
        pktcSigEndPntCapabilityIndex,
        pktcSigDefNcsReceiveUdpPort,
        pktcSigDevR1Cadence,
        pktcSigDevR2Cadence,
        pktcSigDevR3Cadence,
        pktcSigDevR4Cadence,
        pktcSigDevR5Cadence,
        pktcSigDevRgCadence,
        pktcSigDevRsCadence,
        pktcSigDevRtCadence
        }
        STATUS current
        DESCRIPTION
            "Group of objects for the common portion of the
            PacketCable Signaling MIB."
        ::= { pktcSigGroups 1 }

pktcNcsGroup  OBJECT-GROUP
        OBJECTS {
        pktcNcsEndPntConfigCallAgentId,
       pktcNcsEndPntConfigCallAgentUdpPort,
        pktcNcsEndPntConfigPartialDialTO,
        pktcNcsEndPntConfigCriticalDialTO,
        pktcNcsEndPntConfigBusyToneTO,
        pktcNcsEndPntConfigDialToneTO,
        pktcNcsEndPntConfigMessageWaitingTO,
        pktcNcsEndPntConfigOffHookWarnToneTO,
        pktcNcsEndPntConfigRingingTO,
        pktcNcsEndPntConfigRingBackTO,
        pktcNcsEndPntConfigReorderToneTO,
        pktcNcsEndPntConfigStutterDialToneTO,
        pktcNcsEndPntConfigTSMax,
        pktcNcsEndPntConfigMax1,
        pktcNcsEndPntConfigMax2,
        pktcNcsEndPntConfigMax1QEnable,
        pktcNcsEndPntConfigMax2QEnable,
        pktcNcsEndPntConfigMWD,
        pktcNcsEndPntConfigTdinit,
        pktcNcsEndPntConfigTdmin,
        pktcNcsEndPntConfigTdmax,
        pktcNcsEndPntConfigRtoMax,
        pktcNcsEndPntConfigRtoInit,
        pktcNcsEndPntConfigLongDurationKeepAlive,
        pktcNcsEndPntConfigThist,
        pktcNcsEndPntConfigStatus,
        pktcNcsEndPntConfigCallWaitingMaxRep,
        pktcNcsEndPntConfigCallWaitingDelay,
        pktcNcsEndPntStatusCallIpAddress,
        pktcNcsEndPntStatusError
        }
        STATUS current
        DESCRIPTION
              "Group of objects for the NCS portion of the
              PacketCable Signaling MIB.  This is mandatory for
              NCS signaling."
        ::= { pktcSigGroups 2 }
```

```
pktcSigObsoleteGroup  OBJECT-GROUP
      OBJECTS {
            pktcSigServiceClassNameUS,
            pktcSigServiceClassNameDS,
            pktcSigServiceClassNameMask,
            pktcSigNcsServiceFlowState
      }
      STATUS  obsolete
      DESCRIPTION
            " Collection of obsolete objects for PacketCable
            Signaling MIB."
      ::= { pktcSigGroups 3}
END
```

Annex A (informative): Bibliography

- ETSI TS 103 161-10: "ATTM (Access, Terminals, Transmission and Multiplexing) Integrated Broadband Cable and Television Networks; IPCablecom 1.5 Part 10: Management Information Base (MIB) Framework".
- ETSI TS 103 161-11: "ATTM (Access, Terminals, Transmission and Multiplexing) Integrated Broadband Cable and Television Networks; IPCablecom 1.5 Part 11: Media terminal adapter (MTA) device provisioning".
- ETSI TS 103 161-2: "ATTM (Access, Terminals, Transmission and Multiplexing) Integrated Broadband Cable and Television Networks; IPCablecom 1.5 Part 2: Architectural framework for the delivery of time critical services over cable Television networks using cable modems".
- IETF RFC 3261: "SIP: Session Initiation Protocol", February 2002.

History

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