PacketCable™ 1.5 Specifications

Signaling MIB

PKT-SP-MIB-SIG1.5-I01-050128

ISSUED

Notice

This PacketCable specification is a cooperative effort undertaken at the direction of Cable Television Laboratories, Inc. (CableLabs®) for the benefit of the cable industry. Neither CableLabs, nor any other entity participating in the creation of this document, is responsible for any liability of any nature whatsoever resulting from or arising out of use or reliance upon this document by any party. This document is furnished on an AS-IS basis and neither CableLabs, nor other participating entity, provides any representation or warranty, express or implied, regarding its accuracy, completeness, or fitness for a particular purpose.

© Copyright 2004-2005 Cable Television Laboratories, Inc. All rights reserved.

Document Status Sheet

Document Control Number: PKT-SP-MIB-SIG1.5-I01-050128

Document Title: Signaling MIB

Revision History: D01 — Released September 30, 2004

101 — Issued January 28, 2005

Date: January 28, 2005

Status: Work in Draft Issued Closed

Progress

Distribution Restrictions: Author CL/Member CL/ Public

Only

PacketCable Vendor

Key to Document Status Codes:

feedback, that may include several alternative requirements for

consideration.

Draft A document in specification format considered largely complete, but

lacking review by Members and vendors. Drafts are susceptible to

substantial change during the review process.

Issued A stable document, which has undergone rigorous member and vendor

review and is suitable for product design and development, cross-vendor

interoperability, and for certification testing.

Closed A static document, reviewed, tested, validated, and closed to further

engineering change requests to the specification through CableLabs.

Trademarks:

DOCSIS[®], eDOCSIS[™], PacketCable[™], CableHome[®], OpenCable[™], Cable Office[™], CableCARD[™], and CableLabs[®] are trademarks of Cable Television Laboratories, Inc.

Contents

1	SCO	PE	1	
2	REF	ERENCES	1	
:	2.1	Normative References	1	
:	2.2	Informative References	1	
:	2.3	Reference Acquisition	1	
3	ABB	BREVIATIONS	1	
4	REC	QUIREMENTS	2	
Δ	APPENDIX A ACKNOWI EDGEMENTS 2			

This page left blank intentionally.

1 SCOPE

This specification describes the PacketCable Signaling (SIG) MIB requirements.

2 REFERENCES

In order to claim compliance with this specification, it is necessary to conform to the following standards and other works as indicated, in addition to the other requirements of this specification. Notwithstanding, intellectual property rights may be required to use or implement such normative references.

2.1 Normative References

- [1] PacketCable 1.5 MIB Framework, PKT-SP-MIBS1.5-I01-050128, January 28, 2005, Cable Television Laboratories, Inc.
- [2] PacketCable 1.5 Network-Based Call Signaling Protocol Specification, PKT-SP-NCS1.5-I01-050128, January 28, 2005, Cable Television Laboratories, Inc
- [3] PacketCable 1.5 MTA Device Provisioning Specification, PKT-SP-PROV1.5-I01-050128, January 28, 2005, Cable Television Laboratories, Inc.

2.2 Informative References

- [4] PacketCable 1.5 Architecture Framework Technical Report, PKT-TR-ARCH1.5 -V01-I01-050128, January 28, 2005, Cable Television Laboratories Inc.
- [5] IETF RFC 3261, SIP: Session Initiation Protocol, February 2002.

2.3 Reference Acquisition

- Cable Television Laboratories, Inc., 858 Coal Creek Circle, Louisville, CO 80027; Phone 303-661-9100; Fax 303-661-9199; Internet: www.packetcable.com./ or www.cablemodem.com.
- Internet Engineering Task Force (IETF) Secretariat c/o Corporation for National Research Initiatives, 1895
 Preston White Drive, Suite 100, Reston, VA 20191-5434, Phone 703-620-8990,
 Fax 703-620-9071, Internet http://www.ietf.org/

3 ABBREVIATIONS

There are no abbreviations used in this document.

4 REQUIREMENTS

The PacketCableTM NCS MIB MUST be implemented as defined below.

```
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
                  +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
                            Telogy Networks, Inc.
           Roy Spitzer
           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 PacketCable 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
            "PacketCable CODEC Specification"
      SYNTAX INTEGER {
            other
                     (1),
            unknown (2),
                          -- G729
            q729
                     (3),
            reserved (4), -- reserved for future use
                    (5), -- G729E
            g729E
                          -- PCMU
                    (6),
            pcmu
            g726at32 (7), -- G726-32
                    (8), -- G728
            q728
                     (9), -- PCMA
           pcma
            g726at16 (10), -- G726-16
            g726at24 (11), -- G726-24
            g726at40 (12), -- G726-40
                  (13), -- iLBC
            ilbc
                     (14) -- BV16
            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:0x0001F0000000000."
      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)
```

}

```
::= TEXTUAL-CONVENTION
PktcSigType
      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)
    }
pktcSiqMibObjects
                             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
                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
                Integer32 (1..16383)
      SYNTAX
      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
                 read-only
     MAX-ACCESS
      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
                   read-only
     MAX-ACCESS
                  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}}
     -- 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 } }
     -- 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 } }
     -- 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 }
      ::= { pktcSiqDevConfiqObjects 8 }
Integer32 (0..63)
     SYNTAX
     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 }
                         OBJECT-TYPE
pktcSignalingVersion
      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
               Integer32 (1025..65535)
      SYNTAX
      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
              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
               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 } }
     -- 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 } }
     -- 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 } }
     -- 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 } }
     -- 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 } }
     -- 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 } }
     -- 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 } }
     ::= { 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 } }
     -- 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
                 not-accessible
     MAX-ACCESS
     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
             Integer32 (1..16383)
      SYNTAX
      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
                 PktcNcsEndPntConfigEntry
     SYNTAX
     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
                                 OBJECT-TYPE
pktcNcsEndPntConfigCallAgentId
      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
      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
                   "seconds"
      UNITS
      MAX-ACCESS
                   read-create
      STATUS
                   current
      DESCRIPTION
            "This object contains maximum value of the partial
             dial time out."
      REFERENCE
            "Refer to PacketCable NCS specification"
      DEFVAL { 16 }
      ::= { pktcNcsEndPntConfigEntry 3 }
pktcNcsEndPntConfigCriticalDialTO
                                      OBJECT-TYPE
      SYNTAX Integer32
                   "seconds"
      UNITS
      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
                   "seconds"
      UNITS
                 read-create
      MAX-ACCESS
      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 "
              { 16 }
      DEFVAL
      ::= { 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
              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
                 "seconds"
      UNITS
      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
                  "seconds"
      UNITS
     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"
              { 16 }
      ::= { pktcNcsEndPntConfigEntry 12 }
```

```
pktcNcsEndPntConfigTSMax
                           OBJECT-TYPE
               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 }
                         OBJECT-TYPE
pktcNcsEndPntConfigMax2
             Integer32
     SYNTAX
     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 }
pktcNcsEndPntConfiqMax1QEnable
                                 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 guery
           operation when Max2 expires."
     DEFVAL { true }
      ::= { pktcNcsEndPntConfigEntry 17 }
pktcNcsEndPntConfigMWD
                         OBJECT-TYPE
     SYNTAX
               Integer32
               "seconds"
     UNITS
     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
               "seconds"
      UNITS
     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 }
                             OBJECT-TYPE
pktcNcsEndPntConfigTdmax
     SYNTAX Integer32
               "seconds"
      UNITS
      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 }
                                           OBJECT-TYPE
pktcNcsEndPntConfigLongDurationKeepAlive
     SYNTAX
              Integer32
               "minutes"
      UNITS
      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
               Integer32
      SYNTAX
                "seconds"
      UNITS
     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
```

```
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
            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 }
                                         ::= { pktcSigConformance 1 }
pktcSigCompliances OBJECT IDENTIFIER
                    OBJECT IDENTIFIER
pktcSigGroups
                                           ::= { pktcSigConformance 2 }
-- compliance statements
```

```
pktcSigBasicCompliance MODULE-COMPLIANCE
                 current
      STATUS
      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
```

Appendix A. Acknowledgements

The PacketCable project would like to acknowledge the members of the PacketCable OSS focus group whose efforts have been invaluable for creation of this document. In particular we wish to recognize and thank the following for their contribution to this document:

Angela Lyda (Arris Interactive)
Rick Morris (Arris Interactive)
Klaus Hermanns (Cisco Systems, Inc.)
Eugene Nechamkin (Broadcom Corp.)
Rick Vetter (Motorola, Inc.)
Sasha Medvinsky (Motorola, Inc)
Roy Spitzer (Telogy/TI)
Satish Kumar (Texas Instruments)
Itay Sherman (Texas Instruments)

Jean-Francois Mule, Sumanth Channabasappa, Venkatesh Sunkad (CableLabs, Inc.)