

CableHome PSDEV MIB Specification

Superseded

CH-SP-MIB-PSDEV-I09-050408

Issued

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1 SCOPE

This specification describes the CableHome Portal Service (CH-SP) requirements.

2 REFERENCES

2.1 Normative 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.

- [1] CableHome 1.0 Specification, CH-SP-CH1.0-I05-030801, August 1, 2003.
- [2] CableHome 1.1 Specification, CH-SP-CH1.1-I08-050408, April 8, 2005.
- [3] CableLabs® Definition MIB Specification, CL-SP-MIB-CLABDEF-I05-050408, April 8, 2005.

2.2 Reference Acquisition

CableLabs Specifications:

- Cable Television Laboratories, Inc. <http://www.cablelabs.com/>

3 ACRONYMS

This specification uses the following acronyms:

CAP	CableHome Addressing Portal
CDC	CableHome DHCP Client (component of CDP)
CDP	CableHome DHCP Portal
CDS	CableHome DHCP Server (component of CDP)
CMP	CableHome Management Portal
CTP	CableHome Test Portal
DHCP	Dynamic Host Configuration Protocol
NAPT	Network Address and Port Translation
NAT	Network Address Translation
PS	Portal Services

4 REQUIREMENTS

The CableHome™ PSDev MIB MUST be implemented as defined below.

```

CABH-PS-DEV-MIB DEFINITIONS ::= BEGIN
IMPORTS
    MODULE-IDENTITY,
    OBJECT-TYPE,
    Integer32,
    Unsigned32,
    TimeTicks,
    NOTIFICATION-TYPE                FROM SNMPv2-SMI

    TruthValue,
    PhysAddress,
    DateAndTime,
    TimeStamp,
    RowStatus                        FROM SNMPv2-TC

    SnmpAdminString                 FROM SNMP-FRAMEWORK-MIB

    OBJECT-GROUP,
    MODULE-COMPLIANCE,
    NOTIFICATION-GROUP              FROM SNMPv2-CONF

    ifIndex                         FROM IF-MIB

    InetAddressType,
    InetAddress                     FROM INET-ADDRESS-MIB

    IANAifType                      FROM IANAifType-MIB

    docsDevSwCurrentVers,
    docsDevEvLevel,
    docsDevEvId,
    docsDevEvText,
    docsDevSwFilename,
    docsDevSwServer                 FROM DOCS-CABLE-DEVICE-MIB -- RFC2669

    cabhCdpServerDhcpAddress,
    cabhCdpWanDataAddrClientId,
    cabhCdpLanTransThreshold,
    cabhCdpLanTransCurCount        FROM CABH-CDP-MIB

    ZeroBasedCounter32             FROM RMON2-MIB

    cabhQos2NumActivePolicyHolder,
    cabhQos2PolicyHolderEnabled,
    cabhQos2PolicyAdmissionControl FROM CABH-QOS2-MIB

    clabProjCableHome              FROM CLAB-DEF-MIB;

cabhPsDevMib MODULE-IDENTITY
    LAST-UPDATED "200504080000Z" -- April 8, 2005
    ORGANIZATION "CableLabs Broadband Access Department"
    CONTACT-INFO
        "Kevin Luehrs
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```

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 E-mail: k.luehrs@cablelabs.com; mibs@cablelabs.com"

DESCRIPTION

"This MIB module supplies the basic management objects for the Portal Services logical element of a CableHome compliant Residential Gateway device. The PS device parameters describe general PS Device attributes and behavior characteristics.
 Most the PS Device MIB is needed for configuration download."

```
::= { clabProjCableHome 1 }
```

-- Textual Conventions

```
cabhPsDevMibObjects OBJECT IDENTIFIER ::= { cabhPsDevMib 1 }
cabhPsDevBase OBJECT IDENTIFIER ::= { cabhPsDevMibObjects 1 }
cabhPsDevProv OBJECT IDENTIFIER ::= { cabhPsDevMibObjects 2 }
cabhPsDevAttrib OBJECT IDENTIFIER ::= { cabhPsDevMibObjects 3 }
cabhPsDevPsAttrib OBJECT IDENTIFIER ::= { cabhPsDevAttrib 1 }
cabhPsDevBpAttrib OBJECT IDENTIFIER ::= { cabhPsDevAttrib 2 }
cabhPsDevStats OBJECT IDENTIFIER ::= { cabhPsDevMibObjects 4 }
cabhPsDevAccessControl OBJECT IDENTIFIER ::= { cabhPsDevMibObjects 5 }
cabhPsDevMisc OBJECT IDENTIFIER ::= { cabhPsDevMibObjects 6 }
cabhPsDevUI OBJECT IDENTIFIER ::= { cabhPsDevMisc 1 }
cabhPsDev802dot11 OBJECT IDENTIFIER ::= { cabhPsDevMisc 2 }
cabhPsDevUpnp OBJECT IDENTIFIER ::= { cabhPsDevMisc 3 }
cabhPsDevUpnpBase OBJECT IDENTIFIER ::= { cabhPsDevUpnp 1 }
cabhPsDevUpnpCommands OBJECT IDENTIFIER ::= { cabhPsDevUpnp 2 }
```

--

-- The following group describes the base objects in the PS.

-- These are device based parameters.

--

cabhPsDevDateTime OBJECT-TYPE

SYNTAX DateAndTime

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"The date and time, with optional timezone information."

```
::= { cabhPsDevBase 1 }
```

cabhPsDevResetNow OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"Setting this object to true(1) causes the stand-alone or embedded PS device to reboot. Device code initializes as if starting from a power-on reset. The CMP ensures that MIB object values persist as specified in Appendix I of the CableHome specification. Reading this object always returns false(2)."

```
::= { cabhPsDevBase 2 }
```

cabhPsDevSerialNumber OBJECT-TYPE

SYNTAX SnmpAdminString (SIZE (0..128))

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The manufacturer's serial number for this PS. This parameter is manufacturer provided and is stored in

```

        non-volatile memory."
 ::= { cabhPsDevBase 3 }

cabhPsDevHardwareVersion OBJECT-TYPE
    SYNTAX      SnmpAdminString (SIZE (0..48))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The manufacturer's hardware version for this PS. This
        parameter is manufacturer provided and is stored in
        non-volatile memory."
 ::= { cabhPsDevBase 4 }

cabhPsDevWanManMacAddress OBJECT-TYPE
    SYNTAX      PhysAddress (SIZE (0..16))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The PS WAN-Man MAC address. This is the PS hardware
        address to be used by the CDC to uniquely identify
        the PS to the cable data network DHCP server for
        the acquisition of an IP address to be used for
        management messaging between the cable network
        NMS and the CMP."
 ::= { cabhPsDevBase 5 }

cabhPsDevWanDataMacAddress OBJECT-TYPE
    SYNTAX      PhysAddress (SIZE (0..16))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The PS WAN-Data MAC address. The PS could have multiple
        WAN-Data Interfaces, which share the same hardware address.
        The client identifiers will be unique so that each may be
        assigned a different, unique IP address."
 ::= { cabhPsDevBase 6 }

cabhPsDevTypeIdentifier OBJECT-TYPE
    SYNTAX      SnmpAdminString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "This is a copy of the device type identifier used in the
        DHCP option 60 exchanged between the PS and the DHCP
        server."
    REFERENCE
        "CableHome Specification, CDC Function System
        Description section."
 ::= { cabhPsDevBase 7 }

cabhPsDevSetToFactory OBJECT-TYPE
    SYNTAX      TruthValue
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Setting this object to true(1) sets all PsDev MIB objects
        to the factory default values. Reading this object always
        returns false(2)."
```

```

 ::= { cabhPsDevBase 8 }

cabhPsDevWanManClientId OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE (1..80))
    MAX-ACCESS  read-write
```

```

STATUS      deprecated
DESCRIPTION
    "This is the client ID used for WAN-MAN DHCP requests.
    The default value is the 6 byte MAC address."
 ::= { cabhPsDevBase 9 }

cabhPsDevTodSyncStatus OBJECT-TYPE
SYNTAX      TruthValue
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "This object indicates whether the PS was able to
    successfully synchronize with the Time of Day (ToD) Server
    in the cable network. The PS sets this object to true(1) if
    the PS successfully synchronizes its time with the ToD
    server. The PS sets this object to false(2) if the PS does
    not successfully synchronize with the ToD server."
DEFVAL { false }
 ::= { cabhPsDevBase 10 }

cabhPsDevProvMode OBJECT-TYPE
SYNTAX      INTEGER
{
    dhcpmode(1),
    snmpmode(2),
    dormantCHmode(3)
}
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "This object indicates the provisioning mode in which the
    PS is operating. If the PS is operating in DHCP
    Provisioning Mode as described in the CableHome
    specification, the PS sets this object to dhcpmode(1).
    If the PS is operating in SNMP Provisioning Mode, the PS
    sets this object to snmpmode(2). If the PS is not
    configured to operate in either dhcpmode or snmpmode
    it will fall back to Dormant CableHome Mode and set
    the value of cabhPsDevProvMode to dormantCHmode(3)."
 ::= { cabhPsDevBase 11 }

cabhPsDevLastSetToFactory OBJECT-TYPE
SYNTAX      TimeStamp
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The value of sysUpTime when cabhPsDevSetToFactory was
    last set to true. Zero if never reset."
 ::= { cabhPsDevBase 12 }

cabhPsDevTrapControl OBJECT-TYPE
SYNTAX BITS {
    cabhPsDevInitTLVUnknownTrap(0),
    cabhPsDevInitTrap(1),
    cabhPsDevInitRetryTrap(2),
    cabhPsDevDHCPFailTrap(3),
    cabhPsDevSwUpgradeInitTrap(4),
    cabhPsDevSwUpgradeFailTrap(5),
    cabhPsDevSwUpgradeSuccessTrap(6),
    cabhPsDevSwUpgradeCVCFailTrap(7),
    cabhPsDevTODFailTrap(8),
    cabhPsDevCdpWanDataIpTrap(9),
    cabhPsDevCdpThresholdTrap(10),

```

```

        cabhPsDevCspTrap(11),
        cabhPsDevCapTrap(12),
        cabhPsDevCtpTrap(13),
        cabhPsDevProvEnrollTrap(14),
        cabhPsDevCdpLanIpPoolTrap(15),
        cabhPsDevUpnpMultiplePHTrap(16)
    }
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "The object is used to enable PS notifications.
    From left to right, the set bit indicates
    the corresponding PS notification is enabled.
    For example, if the first bit is set, then
    cabhPsDevInitTLVUnknownTrap is enabled.
    If the bit is zero, the trap is disabled."
DEFVAL { '0000'h }
 ::= { cabhPsDevBase 13 }

--
-- The following group defines Provisioning Specific parameters
--

cabhPsDevProvisioningTimer OBJECT-TYPE
SYNTAX      INTEGER (0..16383)
UNITS       "minutes"
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "This object enables the user to set the duration of the
    provisioning timeout timer. The value is in minutes.
    Setting the timer to 0 disables it. The default value
    for the timer is 5."
DEFVAL { 5 }
 ::= { cabhPsDevProv 1 }

cabhPsDevProvConfigFile OBJECT-TYPE
SYNTAX      SnmpAdminString (SIZE(1..128))
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "The URL of the TFTP host for downloading provisioning and
    configuration parameters to this device. Returns NULL if
    the server address is unknown."
 ::= { cabhPsDevProv 2 }

cabhPsDevProvConfigHash OBJECT-TYPE
SYNTAX      OCTET STRING (SIZE(0|20))
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "Hash of the contents of the PS config file, which is
    calculated by the NMS and sent to the PS. For the SHA-1
    authentication algorithm the hash length is 160 bits. This
    hash value is encoded in binary format."
 ::= { cabhPsDevProv 3 }

cabhPsDevProvConfigFileSize OBJECT-TYPE
SYNTAX      Integer32
UNITS       "bytes"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION

```

```

        "Size of the configuration file."
 ::= { cabhPsDevProv 4 }

cabhPsDevProvConfigFileStatus OBJECT-TYPE
SYNTAX      INTEGER
{
    idle(1),
    busy(2)
}
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "This object indicates the current status of the
    configuration file download process. It is provided to
    indicate to the management entity that the PS will reject
    PS Configuration File triggers (set request to
    cabhPsDevProvConfigFile) when busy."
 ::= { cabhPsDevProv 5 }

cabhPsDevProvConfigTLVProcessed OBJECT-TYPE
SYNTAX      INTEGER (0..16383)
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Number of TLVs processed in config file."
 ::= { cabhPsDevProv 6 }

cabhPsDevProvConfigTLVRejected OBJECT-TYPE
SYNTAX      INTEGER (0..16383)
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Number of TLVs rejected in config file."
 ::= { cabhPsDevProv 7 }

cabhPsDevProvSolicitedKeyTimeout OBJECT-TYPE
SYNTAX      Integer32 (15..600)
UNITS       "seconds"
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "This timeout applies only when the Provisioning Server
    initiated key management (with a Wake Up message) for
    SNMPv3. It is the period during which the PS will save
    a number (inside the sequence number field) from the sent
    out AP Request and wait for the matching AP Reply from the
    Provisioning Server."
DEFVAL { 120 }
 ::= { cabhPsDevProv 8 }

cabhPsDevProvState OBJECT-TYPE
SYNTAX      INTEGER
{
    pass(1),
    inProgress(2),
    fail(3)
}
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "This object indicates the completion state of the
    initialization process. Pass or Fail states occur after
    completion of the initialization flow. InProgress occurs

```

```

        from PS initialization start to PS initialization end."
 ::= { cabhPsDevProv 9 }

cabhPsDevProvAuthState OBJECT-TYPE
SYNTAX      INTEGER
{
    accepted(1),
    rejected(2)
}
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "This object indicates the authentication state of the
    configuration file."
 ::= { cabhPsDevProv 10 }

cabhPsDevProvCorrelationId OBJECT-TYPE
SYNTAX      Integer32
MAX-ACCESS  read-only
STATUS      deprecated
DESCRIPTION
    "Random value generated by the PS for use in registration
    authorization. It is for use only in the PS initialization
    messages and for PS configuration file download. This value
    appears in both cabhPsDevProvisioningStatus and
    cabhPsDevProvisioningEnrollmentReport informs to verify the
    instance of loading the configuration file."
 ::= { cabhPsDevProv 11 }

cabhPsDevTimeServerAddrType OBJECT-TYPE
SYNTAX      InetAddressType
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The IP address type of the Time server (RFC-868).
    IP version 4 is typically used."
 ::= { cabhPsDevProv 12 }

cabhPsDevTimeServerAddr OBJECT-TYPE
SYNTAX      InetAddress
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The IP address of the Time server (RFC-868). Returns
    0.0.0.0 if the time server IP address is unknown."
 ::= { cabhPsDevProv 13 }

=====
--
-- PS Device Profile Group
--
-- The cabhPsDevPsProfile contains the Residential Gateway's
-- device attributes. This set of attributes is analogous to
-- some attributes of the BP Device profile.
--
=====

cabhPsDevPsDeviceType OBJECT-TYPE
SYNTAX      SnmpAdminString (SIZE(1..32))
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The type of device, as defined in the CableHome

```

```

        specifications (Residential Gateway Device or CableHome
        Host Device), that implements this OID."
REFERENCE
    "CableHome 1.1 Specification,
    6.5.3.1.3 Device Profile Description."
DEFVAL { "CableHome Residential Gateway" }
 ::= { cabhPsDevPsAttrib 1 }

cabhPsDevPsManufacturerUrl OBJECT-TYPE
SYNTAX      SnmpAdminString (SIZE(0..32))
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Universal Resource Locator to the Residential Gateway
    device manufacturer's web site."
REFERENCE
    "CableHome 1.1 Specification,
    6.5.3.1.3 Device Profile Description"
 ::= { cabhPsDevPsAttrib 3 }

cabhPsDevPsModelUrl OBJECT-TYPE
SYNTAX      SnmpAdminString (SIZE(0..32))
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Universal Resource Locator to the web site describing this
    CableHome compliant residential gateway device."
REFERENCE
    "CableHome 1.1 Specification,
    6.5.3.1.3 Device Profile Description."
 ::= { cabhPsDevPsAttrib 7 }

cabhPsDevPsModelUpc OBJECT-TYPE
SYNTAX      SnmpAdminString (SIZE(0..32))
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Universal Product Code of the CableHome compliant
    residential gateway device."
REFERENCE
    "CableHome 1.1 Specification,
    6.5.3.1.3 Device Profile Description.
    See also: Uniform Code Council www.uc-council.org"
 ::= { cabhPsDevPsAttrib 8 }

=====
--
--   CableHome Host/BP Device Profile Table
--
--   The cabhPsDevBpProfile contains the list of the CableHome Host
--   device attributes provided to the PS by BPs passing their Device
--   Profile XML schema via SOAP/HTTP.
--
=====

cabhPsDevBpProfileTable OBJECT-TYPE
SYNTAX SEQUENCE OF CabhPsDevBpProfileEntry
MAX-ACCESS not-accessible
STATUS      obsolete
DESCRIPTION
    "This table contains the information for the CableHome Host
    Device Profiles. Attributes of a device make up a Device
    Profile."

```

```

 ::= { cabhPsDevBpAttrib 1 }

cabhPsDevBpProfileEntry OBJECT-TYPE
    SYNTAX      CabhPsDevBpProfileEntry
    MAX-ACCESS  not-accessible
    STATUS      obsolete
    DESCRIPTION
        "The table that describes the CableHome Host Device
        Profile."
    INDEX { cabhPsDevBpIndex }
    ::= { cabhPsDevBpProfileTable 1 }

CabhPsDevBpProfileEntry ::= SEQUENCE {
    cabhPsDevBpIndex          INTEGER,
    cabhPsDevBpDeviceType    SnmpAdminString,
    cabhPsDevBpManufacturer  SnmpAdminString,
    cabhPsDevBpManufacturerUrl SnmpAdminString,
    cabhPsDevBpSerialNumber  SnmpAdminString,
    cabhPsDevBpHardwareVersion SnmpAdminString,
    cabhPsDevBpHardwareOptions SnmpAdminString,
    cabhPsDevBpModelName     SnmpAdminString,
    cabhPsDevBpModelNumber   SnmpAdminString,
    cabhPsDevBpModelUrl      SnmpAdminString,
    cabhPsDevBpModelUpc      SnmpAdminString,
    cabhPsDevBpModelSoftwareOs SnmpAdminString,
    cabhPsDevBpModelSoftwareVersion SnmpAdminString,
    cabhPsDevBpLanInterfaceType IANAifType,
    cabhPsDevBpNumberInterfacePriorities INTEGER,
    cabhPsDevBpPhysicalLocation SnmpAdminString,
    cabhPsDevBpPhysicalAddress PhysAddress
}

cabhPsDevBpIndex OBJECT-TYPE
    SYNTAX      INTEGER (1..65535)
    MAX-ACCESS  not-accessible
    STATUS      obsolete
    DESCRIPTION
        "Integer index into the CableHome Host Device Profile
        Table."
    ::= { cabhPsDevBpProfileEntry 1 }

cabhPsDevBpDeviceType OBJECT-TYPE
    SYNTAX      SnmpAdminString (SIZE(0..32))
    MAX-ACCESS  read-only
    STATUS      obsolete
    DESCRIPTION
        "The type of device, as defined by the CableHome
        specifications (CableHome Residential Gateway or CableHome
        Host Device), that passed the Device Profile whose
        information is made available through this table row."
    REFERENCE
        "CableHome 1.1 Specification,
        6.5.3.1.3 Device Profile Description."
    DEFVAL { "CableHome Host" }
    ::= { cabhPsDevBpProfileEntry 2 }

cabhPsDevBpManufacturer OBJECT-TYPE
    SYNTAX      SnmpAdminString (SIZE(0..32))
    MAX-ACCESS  read-only
    STATUS      obsolete
    DESCRIPTION
        "The name of the CableHome Host Device's manufacturer."

```

```
REFERENCE
    "CableHome 1.1 Specification,
    6.5.3.1.3 Device Profile Description."
DEFVAL { "" }
 ::= { cabhPsDevBpProfileEntry 3 }

cabhPsDevBpManufacturerUrl OBJECT-TYPE
SYNTAX      SnmpAdminString (SIZE(0..32))
MAX-ACCESS  read-only
STATUS      obsolete
DESCRIPTION
    "Universal Resource Locator to the CableHome Host device
    manufacturer's web site."
REFERENCE
    "CableHome 1.1 Specification,
    6.5.3.1.3 Device Profile Description."
DEFVAL { "" }
 ::= { cabhPsDevBpProfileEntry 4 }

cabhPsDevBpSerialNumber OBJECT-TYPE
SYNTAX      SnmpAdminString (SIZE(0..32))
MAX-ACCESS  read-only
STATUS      obsolete
DESCRIPTION
    "The serial number assigned by the manufacturer for this
    CableHome Host Device."
DEFVAL { "" }
 ::= { cabhPsDevBpProfileEntry 5 }

cabhPsDevBpHardwareVersion OBJECT-TYPE
SYNTAX      SnmpAdminString (SIZE(0..32))
MAX-ACCESS  read-only
STATUS      obsolete
DESCRIPTION
    "The hardware version number assigned by the manufacturer
    for this CableHome Host Device."
REFERENCE
    "CableHome 1.1 Specification,
    6.5.3.1.3 Device Profile Description."
DEFVAL { "" }
 ::= { cabhPsDevBpProfileEntry 6 }

cabhPsDevBpHardwareOptions OBJECT-TYPE
SYNTAX      SnmpAdminString (SIZE(0..32))
MAX-ACCESS  read-only
STATUS      obsolete
DESCRIPTION
    "The hardware options implemented on this CableHome Host
    Device."
REFERENCE
    "CableHome 1.1 Specification,
    6.5.3.1.3 Device Profile Description."
DEFVAL { "" }
 ::= { cabhPsDevBpProfileEntry 7 }

cabhPsDevBpModelName OBJECT-TYPE
SYNTAX      SnmpAdminString (SIZE(0..32))
MAX-ACCESS  read-only
STATUS      obsolete
DESCRIPTION
    "The model name assigned by the manufacturer for this
    CableHome Host Device."
REFERENCE
```

```

        "CableHome 1.1 Specification,
        6.5.3.1.3 Device Profile Description."
DEFVAL { "" }
 ::= { cabhPsDevBpProfileEntry 8 }

cabhPsDevBpModelNumber OBJECT-TYPE
SYNTAX      SnmpAdminString (SIZE(0..32))
MAX-ACCESS  read-only
STATUS      obsolete
DESCRIPTION
    "The model number assigned by the manufacturer for this
    CableHome Host Device."
REFERENCE
    "CableHome 1.1 Specification,
    6.5.3.1.3 Device Profile Description."
DEFVAL { "" }
 ::= { cabhPsDevBpProfileEntry 9 }

cabhPsDevBpModelUrl OBJECT-TYPE
SYNTAX      SnmpAdminString (SIZE(0..32))
MAX-ACCESS  read-only
STATUS      obsolete
DESCRIPTION
    "The Universal Resource Locator to the web site describing
    this CableHome Host Device model."
REFERENCE
    "CableHome 1.1 Specification,
    6.5.3.1.3 Device Profile Description."
DEFVAL { "" }
 ::= { cabhPsDevBpProfileEntry 10 }

cabhPsDevBpModelUpc OBJECT-TYPE
SYNTAX      SnmpAdminString (SIZE(0..32))
MAX-ACCESS  read-only
STATUS      obsolete
DESCRIPTION
    "Universal Product Code of the CableHome Host Device."
REFERENCE
    "CableHome 1.1 Specification,
    6.5.3.1.3 Device Profile Description."
DEFVAL { "" }
 ::= { cabhPsDevBpProfileEntry 11 }

cabhPsDevBpModelSoftwareOs OBJECT-TYPE
SYNTAX      SnmpAdminString (SIZE(0..32))
MAX-ACCESS  read-only
STATUS      obsolete
DESCRIPTION
    "Software operating system implemented on the CableHome
    Host Device."
REFERENCE
    "CableHome 1.1 Specification,
    6.5.3.1.3 Device Profile Description."
DEFVAL { "" }
 ::= { cabhPsDevBpProfileEntry 12 }

cabhPsDevBpModelSoftwareVersion OBJECT-TYPE
SYNTAX      SnmpAdminString (SIZE(0..32))
MAX-ACCESS  read-only
STATUS      obsolete
DESCRIPTION
    "Version of the operating system implemented on the
    CableHome Host Device."

```

```

REFERENCE
    "CableHome 1.1 Specification,
    6.5.3.1.3 Device Profile Description."
DEFVAL { "" }
 ::= { cabhPsDevBpProfileEntry 13 }

cabhPsDevBpLanInterfaceType OBJECT-TYPE
SYNTAX      IANAifType
MAX-ACCESS  read-only
STATUS      obsolete
DESCRIPTION
    "The ifType for the LAN Interface implemented on the
    CableHome Host Device."
REFERENCE
    "http://www.iana.org/assignments/ianaiftype-mib.
    See also: CableHome 1.1 Specification,
    6.5.3.1.3 Device Profile Description."
DEFVAL { other }
 ::= { cabhPsDevBpProfileEntry 14 }

cabhPsDevBpNumberInterfacePriorities OBJECT-TYPE
SYNTAX      INTEGER (1..8)
MAX-ACCESS  read-only
STATUS      obsolete
DESCRIPTION
    "Number of QoS priorities supported by the LAN technology
    (Data Link Layer) implemented in the CableHome Host
    Device."
DEFVAL { 1 }
 ::= { cabhPsDevBpProfileEntry 15 }

cabhPsDevBpPhysicalLocation OBJECT-TYPE
SYNTAX      SnmpAdminString (SIZE(0..32))
MAX-ACCESS  read-only
STATUS      obsolete
DESCRIPTION
    "Physical location of the CableHome Host Device."
REFERENCE
    "CableHome 1.1 Specification,
    6.5.3.1.3 Device Profile Description."
DEFVAL { "" }
 ::= { cabhPsDevBpProfileEntry 16 }

cabhPsDevBpPhysicalAddress OBJECT-TYPE
SYNTAX      PhysAddress (SIZE (0..16))
MAX-ACCESS  read-only
STATUS      obsolete
DESCRIPTION
    "The CableHome Host Device's hardware address."
REFERENCE
    "CableHome 1.1 Specification,
    6.5.3.1.3 Device Profile Description."
DEFVAL { 'h' }
 ::= { cabhPsDevBpProfileEntry 17 }

=====
--
-- LAN IP Traffic Statistics Table
--
-- The cabhPsDevLanIpTrafficTable contains the Traffic Statistics
-- for all LAN IP Devices connected to the PS. When the PS learns a
-- new LAN IP address an entry is added to this table
--

```

```

=====
cabhPsDevLanIpTrafficCountersReset OBJECT-TYPE
    SYNTAX      INTEGER
    {
        clearCounters(1),
        clearTable(2)
    }
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Setting this object to clearCounters(1) resets all the
        traffic statistic counter entries to zero in the
        cabhPsDevLanIpTrafficTable. Setting this object to
        clearTable(2) removes all entries in the
        cabhPsDevLanIpTrafficTable. Reading this object always
        returns clearCounters(1)."
```

```

    DEFVAL { clearCounters }
    -- Default read value
    ::= { cabhPsDevStats 1 }
```

```

cabhPsDevLanIpTrafficCountersLastReset OBJECT-TYPE
    SYNTAX      TimeStamp
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The value of sysUpTime when
        cabhPsDevLanIpTrafficCountersReset was last written to.
        Zero if never written to."
    ::= { cabhPsDevStats 2 }
```

```

cabhPsDevLanIpTrafficEnabled OBJECT-TYPE
    SYNTAX      TruthValue
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Setting this object to true(1) turns on the IP traffic
        counters. Setting this object false(2) turns off the IP
        traffic counters."
    DEFVAL { false } -- IP traffic counters are off by default
    ::= { cabhPsDevStats 3 }
```

```

cabhPsDevLanIpTrafficTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF CabhPsDevLanIpTrafficEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "This table contains IP-layer Traffic Statistics for all
        LAN IP Devices connected to the PS."
    ::= { cabhPsDevStats 4 }
```

```

cabhPsDevLanIpTrafficEntry OBJECT-TYPE
    SYNTAX      CabhPsDevLanIpTrafficEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "List of Traffic Statistics for LAN IP Devices."
    INDEX { cabhPsDevLanIpTrafficIndex }
    ::= { cabhPsDevLanIpTrafficTable 1 }
```

```

CabhPsDevLanIpTrafficEntry ::= SEQUENCE {
    cabhPsDevLanIpTrafficIndex      INTEGER,
    cabhPsDevLanIpTrafficInetAddressType  InetAddressType,
```

```

    cabhPsDevLanIpTrafficInetAddress      InetAddress,
    cabhPsDevLanIpTrafficInOctets        ZeroBasedCounter32,
    cabhPsDevLanIpTrafficOutOctets       ZeroBasedCounter32
}

cabhPsDevLanIpTrafficIndex OBJECT-TYPE
    SYNTAX      INTEGER      (1..65535)
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The Index into the LAN IP Traffic Statistics Table."
    ::= { cabhPsDevLanIpTrafficEntry 1 }

cabhPsDevLanIpTrafficInetAddressType OBJECT-TYPE
    SYNTAX      InetAddressType
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The type of IP address assigned to the LAN IP device to
        which the statistics in this table row apply.  IP version
        4 is typically used."
    DEFVAL { ipv4 }
    ::= { cabhPsDevLanIpTrafficEntry 2 }

cabhPsDevLanIpTrafficInetAddress OBJECT-TYPE
    SYNTAX      InetAddress
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The IP address of the LAN IP device to which the
        statistics in this table row apply.  An IPv4 IP
        address is typically used."
    ::= { cabhPsDevLanIpTrafficEntry 3 }

cabhPsDevLanIpTrafficInOctets OBJECT-TYPE
    SYNTAX      ZeroBasedCounter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of octets the PS forwarded from the WAN
        interfaces to the LAN IP device associated with the value
        of cabhPsDevLanIpTrafficInetAddress. This counter object
        does not include LAN-to-LAN traffic."
    ::= { cabhPsDevLanIpTrafficEntry 4 }

cabhPsDevLanIpTrafficOutOctets OBJECT-TYPE
    SYNTAX      ZeroBasedCounter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of octets the PS forwarded from the LAN
        IP device associated with the value of
        cabhPsDevLanIpTrafficInetAddress, to the WAN interfaces.
        This counter object does not include LAN-to-LAN traffic."
    ::= { cabhPsDevLanIpTrafficEntry 5 }

-----
--
--      CableHome Interface Access Control Table
--
--      The cabhPsDevAccessControlTable lists the physical addresses
--      of all LAN IP Devices for which the PS will forward traffic to
--      or from an interface type for which the Table is enabled.

```

```
-- If an interface type is enabled, the PS will not forward traffic
-- to or from any device on that interface whose physical address
-- is not listed in the Access Control Table. If an interface type
-- is disabled, the PS does apply forwarding restrictions based on
-- entires of the Access Control Table.
--
--
=====
```

```
cabhPsDevAccessControlEnable OBJECT-TYPE
```

```
SYNTAX      BITS {
    hpna(0), -- most significant bit
    ieee80211(1),
    ieee8023(2),
    homeplug(3),
    usb(4),
    ieee1394(5),
    scsi(6),
    other(7)
}
```

```
MAX-ACCESS  read-write
```

```
STATUS      current
```

```
DESCRIPTION
```

"This object specifies the interface type(s) for which the PSDev Access Control Table access rules are enabled. If a bit field is set to 1, the PS MUST only forward traffic received through that interface type if the source physical address is an entry in the cabhPsDevAccessControlTable. If a bit field is set to 1, the PS MUST only forward traffic destined to a device on that interface type if the destination physical address is an entry in the cabhPsDevAccessControlTable. If the bit field for an interface type is not set, i.e., if it is equal to 0, the PS MUST NOT apply forwarding restrictions for that interface type based on the Access Control Table. The PS MUST implement cabhPsDevAccessControlEnable for bit 1 (wireless LAN) and for bit 3 (HomePlug). If the PS does not implement cabhPsDevAccessControlEnable for any of the other defined bits, the PS MUST return inconsistent value error, and not allow the bit to be set, if an attempt is made to set a bit that is not implemented.

If the PS implements a HomePNA interface and implements the PSDev Access Control Table enable functionality for the HomePNA interface, then if bit 0 is set, the PS MUST apply PSDev Access Control Table access rules to any PS interface of IANAifType 220 (Home Phoneline Networking Alliance). If the PS does not implement PSDev Access Control Table enable functionality for the HomePNA interface, and an attempt is made to set bit 0 to value '1', the PS MUST return 'Inconsistent Value' error and MUST NOT set bit 0 to value '1'.

If bit 1 (ieee80211) is set, the PS MUST apply PSDev Access Control Table access rules to any PS interface of IANAifType 71 (radio spread spectrum).

If the PS implements an IEEE 802.3/CSMA-CD interface and implements the PSDev Access Control Table enable functionality for the IEEE 802.3/CSMA-CD interface, then if bit 2 is set, the PS MUST apply PSDev Access Control Table access rules to any PS interface of IANAifType 6 (ethernetCsmacd). If the PS does not implement PSDev Access Control Table enable functionality for a IEEE

802.3/CSMA-CD interface, and an attempt is made to set bit 2 to value '1', the PS MUST return 'Inconsistent Value' error and MUST NOT set bit 2 to value '1'.

If bit 3 (homeplug) is set, the PS MUST apply PSDev Access Control Table access rules to any PS HomePlug Powerline Alliance (HomePlug) interface as defined by HomePlug Powerline Alliance (www.homeplug.org).

If the PS implements a USB interface and implements the PSDev Access Control Table enable functionality for the USB interface, then if bit 4 is set, the PS MUST apply PSDev Access Control Table access rules to any PS interface of IANAifType 160 (USB). If the PS does not implement PSDev Access Control Table enable functionality for the USB interface, and an attempt is made to set bit 4 to value '1', the PS MUST return 'Inconsistent Value' error and MUST NOT set bit 4 to value '1'.

If the PS implements an IEEE 1394 interface and implements the PSDev Access Control Table enable functionality for the IEEE 1394 interface, then if bit 5 is set, the PS MUST apply PSDev Access Control Table access rules to any PS interface of IANAifType 144 (IEEE1394 High Performance Serial Bus). If the PS does not implement PSDev Access Control Table enable functionality for the IEEE 1394 interface, and an attempt is made to set bit 5 to value '1', the PS MUST return 'Inconsistent Value' error and MUST NOT set bit 5 to value '1'.

If the PS implements a SCSI interface and implements the PSDev Access Control Table enable functionality for the SCSI interface, then if bit 6 is set, the PS MUST apply PSDev Access Control Table access rules to any PS SCSI-2 or SCSI-3 interface. If the PS does not implement PSDev Access Control Table enable functionality for the SCSI interface, and an attempt is made to set bit 6 to value '1', the PS MUST return 'Inconsistent Value' error and MUST NOT set bit 6 to value '1'.

If bit 7 (other) is set, the PS MAY apply PSDev Access Control Table filter access to any PS interface of a type other than the types defined by bits 0 - 6."

```
DEFVAL { '00'h } -- null, all interface types disabled
 ::= { cabhPsDevAccessControl 1 }
```

`cabhPsDevAccessControlTable` OBJECT-TYPE

```
SYNTAX      SEQUENCE OF CabhPsDevAccessControlEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
```

"This table contains a list of the physical addresses of LAN IP Devices to and from which the PS will forward traffic through a LAN interface if `cabhPsDevAccessControlEnable` is enabled(1) for that interface type."

REFERENCE

"CableHome specification, Packet Handling & Address Translation section."

```
 ::= { cabhPsDevAccessControl 2 }
```

`cabhPsDevAccessControlEntry` OBJECT-TYPE

```

SYNTAX      CabhPsDevAccessControlEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
    "List of the physical addresses for LAN IP Devices
    to and from which the PS will forward traffic when
    the PSDev Access Control Table is enabled."
INDEX { cabhPsDevAccessControlIndex }
 ::= { cabhPsDevAccessControlTable 1 }

CabhPsDevAccessControlEntry ::= SEQUENCE {
    cabhPsDevAccessControlIndex    INTEGER,
    cabhPsDevAccessControlPhysAddr PhysAddress,
    cabhPsDevAccessControlRowStatus RowStatus
}

cabhPsDevAccessControlIndex OBJECT-TYPE
SYNTAX      INTEGER (1..65535)
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
    "Integer index into the CableHome PSDev Access Control
    Table."
 ::= { cabhPsDevAccessControlEntry 1 }

cabhPsDevAccessControlPhysAddr OBJECT-TYPE
SYNTAX      PhysAddress (SIZE (1..16))
MAX-ACCESS  read-create
STATUS      current
DESCRIPTION
    "The physical address of the LAN IP Device for which the PS
    will forward traffic when the PSDev Access Control
    Table is enabled. The PS will not forward traffic
    from any LAN IP Device whose physical address is
    not an entry of the PSDev Access Control Table when the
    PSDev Access Control Table is enabled for the
    corresponding interface."
 ::= { cabhPsDevAccessControlEntry 2 }

cabhPsDevAccessControlRowStatus OBJECT-TYPE
SYNTAX      RowStatus
MAX-ACCESS  read-create
STATUS      current
DESCRIPTION
    "The RowStatus interlock for the creation and deletion
    of a cabhPsDevAccessControlTable entry. Any writable
    object in each row of the cabhPsDevAccessControlTable
    can be modified at any time while the row is active(1)."
 ::= { cabhPsDevAccessControlEntry 3 }

-----
--
--      CableHome Miscellaneous MIB
--
--      This branch of cabhPsDevMib contains extensions related to
--      functionalities defined for other standards bodies or outside
--      of CableHome fully defined features.
--
-----

-----
--
--      CableHome User Interface Miscellaneous MIB

```

```

--
-- PS MIB objects for controlling features of the CableHome compliant
-- residential gateways User Interface (UI) if present.
--
=====

cabhPsDevUILogin OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(0..32))
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "This parameter specifies the value of the user login name
        required for access to the CableHome compliant residential
        gateway device's user interface."
    ::= { cabhPsDevUI 1 }

cabhPsDevUIPassword OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(4..32))
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "This parameter specifies the value of the user password
        required for access to the CableHome compliant residential
        gateway device's user interface."
    ::= { cabhPsDevUI 2 }

cabhPsDevUISelection OBJECT-TYPE
    SYNTAX      INTEGER {
                manufacturerLocal(1),
                cableOperatorLocal(2),
                cableOperatorServer(3),
                disabledUI(4)
                }
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Indicates the type of Web user interface (UI)
        to present to the user if Web interface is supported:
        manufacturerLocal:
            PS uses the vendor UI shipped with the device.
        cableOperatorLocal:
            PS uses a cable operator defined UI interface.
            To operate properly, It should require a special code
            image downloaded into the PS. By default, if no cable
            operator UI is being defined, selecting this option
            points to 'manufacturerLocal' selection.
        cableOperatorServer:
            PS redirects HTTP requests to its UI to the URL specified
            in cabhPsDevUIServerUrl.
        disabledUI:
            PS responds to HTTP requests to its UI with an HTTP page
            containing the value of
            cabhPsDevUISelectionDisabledBodyText as the body tag;
            or with a vendor specific message or HTTP error if that
            value is null."
    DEFVAL { manufacturerLocal }
    ::= { cabhPsDevUI 3 }

cabhPsDevUIServerUrl OBJECT-TYPE
    SYNTAX      SnmpAdminString (SIZE(0..255))
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION

```

```

        "URL used by the Indicate the UI to present to the user.
        The well formed URL is resolved by the PS by querying the
        DNS servers listed in cabhCdpWanDnsServerTable."
DEFVAL { "" }
 ::= { cabhPsDevUI 4 }

cabhPsDevUISelectionDisabledBodyText OBJECT-TYPE
SYNTAX      SnmpAdminString (SIZE(0..255))
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "Default text for the HTTP body tag to include in the
    response to UI requests when the object
    cabhPsDevUISelection is set to 'disabledUI'
    An example of a body tag is below:
    <body>Feature currently disabled by Cable Operator</body>."
 ::= { cabhPsDevUI 5 }

-- =====
-- IEEE802dot11-MIB CableHome extension
-- =====

cabhPsDev802dot11BaseTable OBJECT-TYPE
SYNTAX      SEQUENCE OF CabhPsDev802dot11BaseEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
    "CableHome specifics controls for 80211 wireless
    interfaces."
 ::= { cabhPsDev802dot11 1 }

cabhPsDev802dot11BaseEntry OBJECT-TYPE
SYNTAX      CabhPsDev802dot11BaseEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
    "An entry in cabhPsDev802dot11BaseTable associated to a
    wireless interface of IANAifType ieee80211.(71)"
INDEX { ifIndex }
 ::= { cabhPsDev802dot11BaseTable 1 }

CabhPsDev802dot11BaseEntry ::=
SEQUENCE {
    cabhPsDev802dot11BaseSetToDefault      TruthValue,
    cabhPsDev802dot11BaseLastSetToDefault  TimeStamp,
    cabhPsDev802dot11BaseAdvertiseSSID    TruthValue,
    cabhPsDev802dot11BasePhyCapabilities  BITS,
    cabhPsDev802dot11BasePhyOperMode     INTEGER
}

cabhPsDev802dot11BaseSetToDefault OBJECT-TYPE
SYNTAX      TruthValue
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "When set to true(1) the PS MUST reset to default values
    the Mib objects of IEEE802dot11-MIB module and others under
    cabhPsDev802dot11 for this entry related IfIndex.
    Reading this object always return false(2)."
```

```

DEFVAL { false }
 ::= { cabhPsDev802dot11BaseEntry 1 }

cabhPsDev802dot11BaseLastSetToDefault OBJECT-TYPE

```

```

SYNTAX      TimeStamp
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The value of sysUpTime when
    cabhPsDev802dot11MIBSetToDefault was last set to true.
    Zero if never reset."
 ::= { cabhPsDev802dot11BaseEntry 2 }

```

cabhPsDev802dot11BaseAdvertiseSSID OBJECT-TYPE

```

SYNTAX      TruthValue
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "When set to false(2) the PS does not advertise the BSS
    SSID in a proprietary manner. To avoid interoperability
    problems and service disruption it is RECOMMENDED to set
    this object always to true. This feature does not provide
    any security, and does not prevent Wireless Stations to
    obtain the SSID by sniffing frames from other stations in
    the ESS. If the device does not support the feature of
    turning on/off the SSID advertisement, this object always
    reports 'true(1)' and reports the error 'wrongValue' when
    set to 'false(2).'"
DEFVAL { true }
 ::= { cabhPsDev802dot11BaseEntry 3 }

```

cabhPsDev802dot11BasePhyCapabilities OBJECT-TYPE

```

SYNTAX      BITS {
                --ieee80211DSSS(0) , not interest
                ieee80211a(0),
                ieee80211b(1),
                ieee80211g(2)
                --ieee80211FHSS(8),
                --ieee80211IR(16)
                --values with comments are not requirements
                --included for completeness of 80211 spec.
            }
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Indicates the PHY capabilities of the wireless interface."
 ::= { cabhPsDev802dot11BaseEntry 4 }

```

cabhPsDev802dot11BasePhyOperMode OBJECT-TYPE

```

SYNTAX      INTEGER {
                ieee80211a(1),
                ieee80211b(2),
                ieee80211g(4),
                ieee80211bg(24)
            }
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "Indicates the PHY mode of operation being set for the
    wireless interface. Setting this object will update the
    value of dot11PhyType. Accordingly (if implemented), as
    well as the object dot11OperationalRateSet to the 80211
    mandatory rates for dot11PhyType.

    It is left to vendors the option to update the values of
    PS optional dot11SupportedDataRatesTxEntry and
    dot11SupportedDataRatesRxEntry tables based on the

```

operational mode.

In the case of selecting ieee80211bg(14), dot11PhyType reports erp(6) and dot11OperationalRateSet should report HRDSSS and ERP mandatory rates and in addition 54 Mbps rate if supported by PS. e.g. : (this example assumes 54 Mbps OFDM is supported).

HR-DSSS :

Mandatory:

1 Mbps '80'H + '01'H
 2 Mbps '80'H + '02'H
 5.5 Mbps '80'H + '0B'H
 11 Mbps '80'H + '16'H

ERP :

Mandatory:

6 Mbps '80'H + '0C'H
 12 Mbps '80'H + '18'H
 24 Mbps '80'H + '30'H

(if supported) 54 Mbps '80'H + '6C'

Optional:

22 Mbps '00'H + '2C'H
 33 Mbps '00'H + '42'H
 18 Mbps '00'H + '24'H
 36 Mbps '00'H + '48'H
 48 Mbps '00'H + '60'H

Combined operational rates in :

dot11OperationalRateSet value in rate order regardless of '80'H flag and using dots for clarity :
 + means flagged '80'H, - not flagged.

Rates Mbps: +1,+2,+5.5,+6,+11,+12,-18,-22,+24,-33,-36,-48,+54
 Hex: '81.82.8B.8C.96.98. 24.2C.B0.48.42. 60.EC'H

The default value of this object is left to the vendor to accommodate the factory defaults for the device."

REFERENCE

"IEEE Std 802.11, 1999 Edition,
 IEEE Std 802.11a-1999,
 IEEE Std 802.11b-1999/Cor 1-2001,
 IEEE Std 802.11g-2003."

::= { cabhPsDev802dot11BaseEntry 5 }

```
-- =====
-- IEEE802dot11MIB CableHome extension for security configuration
-- =====
```

cabhPsDev802dot11SecTable OBJECT-TYPE

SYNTAX SEQUENCE OF CabhPsDev802dot11SecEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"CableHome specifics controls for configuring the security mechanisms of 80211 wireless interfaces."

::= { cabhPsDev802dot11 2 }

cabhPsDev802dot11SecEntry OBJECT-TYPE

SYNTAX CabhPsDev802dot11SecEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"An entry in cabhPsDev802dot11SecTable associated to a wireless interface of IANAifType ieee80211(71)."

```

INDEX { ifIndex }
 ::= { cabhPsDev802dot11SecTable 1 }

CabhPsDev802dot11SecEntry ::=
SEQUENCE {
    cabhPsDev802dot11SecCapabilities      BITS,
    cabhPsDev802dot11SecOperMode         BITS,
    cabhPsDev802dot11SecPassPhraseToWEPKey OCTET STRING,
    cabhPsDev802dot11SecUsePassPhraseToWEPKeyAlg TruthValue,
    cabhPsDev802dot11SecPSKPassPhraseToKey OCTET STRING,
    cabhPsDev802dot11SecWPAPreSharedKey  OCTET STRING,
    cabhPsDev802dot11SecWPARekeyTime     Unsigned32,
    cabhPsDev802dot11SecControl          INTEGER,
    cabhPsDev802dot11SecCommitStatus     INTEGER
}

cabhPsDev802dot11SecCapabilities OBJECT-TYPE
SYNTAX      BITS {
                wep64(0),
                wep128(1),
                wpaPSK(2)
                --wpa2PSK(3)
            }
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The PS capabilities for Authentication and encryption used
    to authenticate 802.11 clients."
 ::= { cabhPsDev802dot11SecEntry 1 }

cabhPsDev802dot11SecOperMode OBJECT-TYPE
SYNTAX      BITS {
                wep64(0),
                wep128(1),
                wpaPSK(2)
                -- wpa2PSK(3)
            }
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "Indicates the Authentication and encryption mechanism to
    be enabled for the users and advertised in Beacon messages.
    Bits set to this object and not supported by the PS in
    cabhPsDev802dot11SecCapabilities are set to '0' without
    failing the SNMP set. Setting two bit that the PS does not
    support in combination returns an error 'wrongValue'.
    In particular:
        Setting to '1' both wep64(0)and wep128(1) bits returns an
        error'wrongValue'.
        Setting a combination of WEP bits (wep64(0) or wep128(1))
        and wpaPSK bit returns is not a mandatory requirement,
        therefore an error 'wrongValue' may be reported.

    Setting any bit to '1' must not affect the value of object
    dot11PrivacyInvoked.

    If dot11PrivacyInvoked is set to 'false', the 80211 WEP
    security mechanism is disabled (see dot11PrivacyInvoked
    description) and the value of this object is not used.

    Setting the wpaPSK(2) bit to '1' indicates the usage of
    WPA-PSK TKIP.

```

Note that to enable the PSK security mechanism, the value of cabhPsDev802dot11SecWPAPreSharedKey must be a non-zero length string."

```
::= { cabhPsDev802dot11SecEntry 2 }
```

cabhPsDev802dot11SecPassPhraseToWEPKey OBJECT-TYPE

SYNTAX OCTET STRING (SIZE(0|5..63))

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"The Password used for PS to derive WEP encryption keys.

After a successful set, the values of dot11WEPDefaultKeyValue are populated as described below:

For wep64:

If cabhPsDev802dot11SecOperMode wep64 bit is set to '1'

This object value (x) is used as a generator of a 4 octet seed.

```
seed[i%4] = XOR(seed[i%4],x[i]); i from 1 to len(x) -1
```

The values of the four dot11WEPDefaultKeyValue are calculated as indicated below :

```
loop j 1..4
```

```
loop k 0..4
```

```
seed = seed * ((26*8+1)*256-1)*4+1) + 2531011
```

The value is always truncated at 32 bits.

```
OCTETk = (seed >> 16 )& 0xFF -lowest octet-
```

```
end loop
```

```
dot11WEPDefaultKeyValue(j) = OCTET0,OCTET1, ... OCTET4
```

```
end loop
```

Note that seed value is constantly re-computed when calculating each octet of each default WEP key.

For wep128:

If cabhPsDev802dot11SecOperMode wep128 bit is set to '1'

This object value (x) fills a 64 octet buffer y :

y = x,x,x...up to 64 octets.

Calculate the 128-bit MD5 digest of y

the values of all dot11WEPDefaultKeyValue (1..4)

are calculated by truncating the first first 13 octets of MD5y.

```
dot11WEPDefaultKeyValue = MD5y0,MD5y1, .. MD5y12
```

This object value is normally read by issuing SNMP

request PDUs. This object can be cleared with an SNMP

SET to an empty string Value and the PS MUST not update

the type of keys being set to '1' in

cabhPsDev802dot11SecOperMode.

If cabhPsDev802dot11SecUsePassPhraseToKeyAlg is set to false(2), the behavior of a SET to this object depends on the bits set for cabhPsDev802dot11SecOperMode as follows:

If cabhPsDev802dot11SecOperMode bit wep64 is set to '1'

and this object value length is 5 octets, the MIB object

dot11WEPDefaultKeyValue.1 (WEP key 0) is populated with

this object value, otherwise an error 'inconsistentValue'

is reported.

If cabhPsDev802dot11SecOperMode bit wep128 is set to '1' and this object value length is 13 octets, the MIB object dot11WEPDefaultKeyValue.1 (WEP key 0) is populated with this object value, otherwise an error 'inconsistentValue' is reported.

Vector examples for wep64 and wep128 key derivation:

Note:

% refers to the module operation (remainder of the quotient of i and 4); XOR is the OR exclusive boolean operation.

For wep64:

passphrase:

'ABCD4321' (hex code 0x41.42.43.44.34.33.32.31)

First loop: (octets 0..3)

XOR (0x00,A) -> XOR(0x00,0x41) -> 0x41
 XOR (0x00,B) -> XOR(0x00,0x42) -> 0x42
 XOR (0x00,C) -> XOR(0x00,0x43) -> 0x43
 XOR (0x00,D) -> XOR(0x00,0x44) -> 0x44

Second loop: (octets 4..7)

XOR (A,4) -> XOR(0x41,0x34) -> 0x75
 XOR (B,3) -> XOR(0x42,0x33) -> 0x71
 XOR (C,2) -> XOR(0x43,0x32) -> 0x71
 XOR (D,1) -> XOR(0x44,0x31) -> 0x75

initial seed 0x75717175 -> 1970368885

DefaultKeys calculation

key1

seed : 0x16545E64 -> 2nd MSB byte : 0x54
 seed : 0x41681397 -> 2nd MSB byte : 0x68
 seed : 0x1BE77FFE -> 2nd MSB byte : 0xE7
 seed : 0xAA6996C9 -> 2nd MSB byte : 0x69
 seed : 0xD1523E68 -> 2nd MSB byte : 0x52
 dot11WEPDefaultKeyValue.1 = 0x5468E76952

key2

seed : 0x1FFB838B -> 2nd MSB byte : 0xFb
 seed : 0xF9C60022 -> 2nd MSB byte : 0xC6
 seed : 0xAB43A65D -> 2nd MSB byte : 0x43
 seed : 0xE9A35FAC -> 2nd MSB byte : 0xA3
 seed : 0xE7AA2FBF -> 2nd MSB byte : 0xAA
 dot11WEPDefaultKeyValue.2 = 0xFBC643A3AA

key3

seed : 0x6D13CB86 -> 2nd MSB byte : 0x13
 seed : 0x5D8CD431 -> 2nd MSB byte : 0x8C
 seed : 0xCC702630 -> 2nd MSB byte : 0x70
 seed : 0xD78AEC33 -> 2nd MSB byte : 0x8A
 seed : 0x24DC662A -> 2nd MSB byte : 0xDC
 dot11WEPDefaultKeyValue.3 = 0x138C708ADC

key4

seed : 0x4F329445 -> 2nd MSB byte : 0x32
 seed : 0x3EC035F4 -> 2nd MSB byte : 0xC0
 seed : 0xF416CCE7 -> 2nd MSB byte : 0x16

```
seed : 0x9904940E -> 2nd MSB byte : 0x04
seed : 0x28969A99 -> 2nd MSB byte : 0x96
dot11WEPDefaultKeyValue.4 = 0x32C0160496
```

```
For wep128:
passphrase:
  'ABCD4321' ( hex code 0x41.42.43.44.34.33.32.31 )
128-bit MD-5 digest 0xFECBACF05B42F7A138A5F3928E
dot11WEPDefaultKeyValue.1..4 = 0xFECBACF05B42F7A138A5"
 ::= { cabhPsDev802dot11SecEntry 3 }
```

cabhPsDev802dot11SecUsePassPhraseToWEPKeyAlg OBJECT-TYPE

```
SYNTAX      TruthValue
MAX-ACCESS  read-write
STATUS      current
```

DESCRIPTION

"When this object value is true(1) the WEP Pass Phrase to key mechanism described in cabhPsDev802dot11SecPassPhraseToWEPKey applies. When this object is set to false(2) the Pass Phrase to WEP Key mechanism is ignored and the password is used as WEP key to populate the MIB object keydot11WEPDefaultKeyValue object as indicated in cabhPsDev802dot11SecPassPhraseToWEPKey description."

```
DEFVAL { true }
```

```
::= { cabhPsDev802dot11SecEntry 4 }
```

cabhPsDev802dot11SecPSKPassPhraseToKey OBJECT-TYPE

```
SYNTAX      OCTET STRING (SIZE(8..63))
MAX-ACCESS  read-write
STATUS      current
```

DESCRIPTION

"The Password used for PS to derive WPA PSK encryption key. After a successful set, the values of cabhPsDev802dot11SecWPAPreSharedKey is updated as described below:

For wpaPSK:

If cabhPsDev802dot11SecOperMode wpaPSK bit is set to '1' the value of cabhPsDev802dot11SecWPAPreSharedKey is updated with the Password Base Key Derivation Function from the Password-based Cryptographic Specification PKCS #5 v2.0 RFC 2898 (PBKDF2) with the following specific parameters:

```
PSK = PBKDF2(PassPhrase, ssid, ssidLength, 4096, 256)
PassPhrase is the value of this object
ssid is the PS SSID value used as the function salt
ssidLength is the number of octets of ssid
the iterations count is 4096 and the key generation length
is 256 bits (32 octets).
```

This object value is normally read by issuing SNMP request PDUs. This object can be cleared with an SNMP SET to an empty string Value and the PS MUST not update the type of keys being set to '1' in cabhPsDev802dot11SecOperMode.

Vector examples for wpaPSK:

```
for wpaPSK:
passphrase:
  'ABCD4321' ( hex code 0x41.42.43.44.34.33.32.31 )
SSID: 'ABCD4321' ( hex code 0x41.42.43.44.34.33.32.31 )
```

```

    256 bit PBKDF2('ABCD4321', 'ABCD4321', 8, 4096, 32)
    cabhPsDev802dot11SecWPAPreSharedKey =
    0x7C199CF2FEF9AF206C8EE0E9703920C2
    3517068B3F96B011E0F975C9131BDB58"
 ::= { cabhPsDev802dot11SecEntry 5 }

cabhPsDev802dot11SecWPAPreSharedKey OBJECT-TYPE
SYNTAX      OCTET STRING (SIZE(0|32))
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "The Pre-shared key used for the PS when the bit 'wpaPSK'
    is set to '1'. This object can be set directly or derived
    from the password phrase set in
    cabhPsDev802dot11SecPSKPassPhraseToKey. This object is
    meaningful when the bit wpaPSK is set to '1'.

    If the value of this object is the zero-length string, the
    PS must not activate the PSK security mechanism."
DEFVAL { ''H }
 ::= { cabhPsDev802dot11SecEntry 6 }

cabhPsDev802dot11SecWPAREkeyTime OBJECT-TYPE
SYNTAX      Unsigned32 (1..4294967295)
UNITS       "seconds"
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "Time interval to initiate WPA Group Keys (GTK) updates."
DEFVAL { 86400 }
 ::= { cabhPsDev802dot11SecEntry 7 }

cabhPsDev802dot11SecControl OBJECT-TYPE
SYNTAX INTEGER {
    restoreConfig(1),
    commitConfig(2)
}
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "The control for the indexed 80211 device configuration.
    All changes to the cabhPsDev802dot11SecEntry MIB objects
    are reflected when reading the value of the MIB objects;
    however, those changes are NOT applied to the running
    configuration of the indexed 80211 device until they are
    successfully committed via use of the
    cabhPsDev802dot11SecControl object.

    If changes are made to the cabhPsDev802dot11SecEntry MIB
    objects which are not yet successfully committed to the
    indexed 80211 device, the cabhPsDev802dot11SecControl
    object can be used to rollback all changes to the last
    valid 80211 device configuration and discard all
    intermediate changes.

    restoreConfig - Setting cabhPsDev802dot11SecControl to this
    value will cause any changes to the
    cabhPsDev802dot11SecEntry objects not yet committed be
    reset to the values from the current running
    configuration of the indexed 80211 device.

    commitConfig - Setting cabhPsDev802dot11SecControl to this
    value will cause the indexed 80211 device to validate and

```

```

        apply the valid cabhPsDev802dot11SecEntry MIB settings to
        its running configuration. The
        cabhPsDev802dot11SecCommitStatus object will detail the
        status of this operation."
DEFVAL { restoreConfig }
 ::= { cabhPsDev802dot11SecEntry 8 }

cabhPsDev802dot11SecCommitStatus OBJECT-TYPE
    SYNTAX INTEGER {
        commitSucceeded(1),
        commitNeeded(2),
        commitFailed(3)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Indicates the status of committing the current
        cabhPsDev802dot11SecEntry MIB object values to the running
        configuration of the indexed 80211 device.

        commitSucceeded - indicates the current
        cabhPsDev802dot11SecEntry MIB object values are valid and
        have been successfully committed to the running
        configuration of the indexed 80211 device.

        commitNeeded - indicates that the value of one or more
        objects in cabhPsDev802dot11SecEntry MIB group have been
        changed but not yet committed to the running configuration
        of the indexed 80211 device.

        commitFailed - indicates the PS was unable to commit the
        cabhPsDev802dot11SecEntry MIB object values to the running
        configuration of the indexed 80211 device due to conflicts
        in those values."
    DEFVAL { commitSucceeded }
    ::= { cabhPsDev802dot11SecEntry 9 }

-- =====
--
-- UPNP Services
-- Contains CableHome Portal Server UPNP information of LAN hosts
--
-- =====

cabhPsDevUpnpEnabled OBJECT-TYPE
    SYNTAX TruthValue
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Setting this object to false(1) disable PS UPNP
        services and UPNP MIB objects related functionality.
        When this object reports 'false' any set to
        UPNP read-write or read-create objects returns error
        'InconsistentValue'. Transitions of this object from
        'true' to 'false' and viceversa does not alter the content
        of persistent MIB objects and may clear dynamically UPNP
        created entries. This object value persists upon system
        reinitialization."
    DEFVAL { true }
    ::= { cabhPsDevUpnpBase 1 }

cabhPsDevUpnpCommandIpType OBJECT-TYPE
    SYNTAX InetAddressType

```

```

MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "The type of InetAddress for cabhPsDevUpnpCommandIp."
DEFVAL { ipv4 }
 ::= { cabhPsDevUpnpCommands 1 }

cabhPsDevUpnpCommandIp OBJECT-TYPE
SYNTAX InetAddress
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "The IP address Of the device for which the UPnP
    information is being requested. This may be a an IPv4 or
    IPv6 prefix. When quering specific information about the
    PS itself the PS router IP address 192.168.0.1
    should be specified ."
DEFVAL { 'COA80001'h } -- 192.168.0.1
 ::= { cabhPsDevUpnpCommands 2 }

cabhPsDevUpnpCommand OBJECT-TYPE
SYNTAX INTEGER {
    discoveryInfo(1),
    qosDeviceCapabilities(2),
    qosDeviceState(3)
}
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "The type of information to be retrieved from the Upnp
    Devices in the LAN side and stored in
    cabhPsDevUpnpInfoTable.
    The following selections are supported:

    - discoveryInfo :
    PS retrieve the Discovery information of UPnP devices.
    If the Ip address specified in
    cabhPsDevUpnpCommandIp is 255.255.255.255
    the PS executes an M-search command and then
    retrieve the discovery information of the
    responding devices. The data stored in
    cabhPsDevUpnpInfoTable also contain UPnP
    discovery data of the PS itself.

    - qosDeviceCapabilities:
    This command is executed for unicast address only
    and will trigger the PS to retrieve the QOS device
    information pertain QOS capabilities.

    - qosDeviceState:
    This command is executed for unicast address only
    and will trigger the PS to retrieve the QOS device
    information pertain QOS Device state."
DEFVAL { discoveryInfo }
 ::= { cabhPsDevUpnpCommands 3 }

cabhPsDevUpnpCommandUpdate OBJECT-TYPE
SYNTAX TruthValue
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "If set to 'true' triggers the execution of the command
    indicated in cabhPsDevUpnpCommand for the host(s) in

```

```

        cabhPsDevUpnpCommandIp. Setting to true this object will
        return error 'wrongValie if host IP corresponds to
        255.255.255.255 and cabhPsDevUpnpCommand value is not
        'discoveryInfo'. Reading this value always return 'false'."
 ::= { cabhPsDevUpnpCommands 4 }

cabhPsDevUpnpLastCommandUpdate OBJECT-TYPE
    SYNTAX      TimeTicks
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The sysUpTime value of the last time the object
        cabhPsDevUpnpLastCommandUpdate was set to 'true'."
 ::= { cabhPsDevUpnpCommands 5 }

cabhPsDevUpnpCommandStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        none(1),
        inProgress(2),
        complete(3),
        failed(4)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The status of cabhPsDevUpnpCommandUpdate trigger
        none(1)
        initial state.
        inProgress(2)
        the information is being acquired by the
        device, PS does not change from'inProgeess
        to the final state (complete, failed)
        until the execution has finished.
        complete(3) The overall execution is finished with
        no error conditions..
        failed(4).
        The UPnP Device has experienced a timeout. In the
        case of multiple devices query
        (cabhPsDevUpnpCommand set to 'discoveryInfo')
        The failed devices are stored with content information
        empty. At system initialization this object returns
        'none'."
    DEFVAL { none }
 ::= { cabhPsDevUpnpCommands 6 }

cabhPsDevUpnpInfoTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF CabhPsDevUpnpInfoEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "This table contains QOS related information of LAN
        UPnP devices or thePS itself."
 ::= { cabhPsDevUpnpCommands 7 }

cabhPsDevUpnpInfoEntry OBJECT-TYPE
    SYNTAX      CabhPsDevUpnpInfoEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The Indexes for this entries
        Entries are created after setting to 'true' the
        value of cabhPsDevUpnpCommand."
    INDEX { cabhPsDevUpnpInfoIpType, cabhPsDevUpnpInfoIp,

```

```

        cabhPsDevUpnpInfoXmlFragmentIndex }
 ::= { cabhPsDevUpnpInfoTable 1 }

CabhPsDevUpnpInfoEntry ::= SEQUENCE {
    cabhPsDevUpnpInfoIpType          InetAddressType,
    cabhPsDevUpnpInfoIp              InetAddress,
    cabhPsDevUpnpInfoXmlFragmentIndex Unsigned32,
    cabhPsDevUpnpInfoXmlFragment    OCTET STRING
}

cabhPsDevUpnpInfoIpType OBJECT-TYPE
    SYNTAX      InetAddressType
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The type of InetAddress for cabhPsDevUpnpInfoIp."
 ::= { cabhPsDevUpnpInfoEntry 1 }

cabhPsDevUpnpInfoIp OBJECT-TYPE
    SYNTAX      InetAddress
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The IP address Of the device for which the UPnP
        information is being stored. This may be a DNS name
        (LAN Host name), an IPv4 or IPv6 prefix. Information
        pertaining to the PS itself is indicated by the PS
        well-known LAN IP address interface 192.168.0.1."
 ::= { cabhPsDevUpnpInfoEntry 2 }

cabhPsDevUpnpInfoXmlFragmentIndex OBJECT-TYPE
    SYNTAX      Unsigned32 (1..4294967295)
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The index of the sequence of entries of
        cabhPsDevUpnpInfoXmlFragment for an specific
        cabhPsDevUpnpInfoIp IP address starting with '1'."
 ::= { cabhPsDevUpnpInfoEntry 3 }

cabhPsDevUpnpInfoXmlFragment OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(0..400))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The UPnP Device information being requested by
        cabhPsDevUpnpCommand for the IP addresses specified
        in cabhPsDevUpnpInfoIp for LAN host(s). If the
        information is greater than 400 bytes
        cabhPsDevUpnpInfoXmlFragmentIndex indicates the
        sequence of the consecutive portions per host identified in
        the table."
 ::= { cabhPsDevUpnpInfoEntry 4 }

--

cabhPsNotification          OBJECT IDENTIFIER ::= { cabhPsDevMib 2 }
cabhPsDevNotifications     OBJECT IDENTIFIER ::= { cabhPsNotification 0 }
cabhPsConformance         OBJECT IDENTIFIER ::= { cabhPsDevMib 3 }
cabhPsCompliances         OBJECT IDENTIFIER ::= { cabhPsConformance 1 }
cabhPsGroups              OBJECT IDENTIFIER ::= { cabhPsConformance 2 }

--

```

```

--      Notification Group
--
cabhPsDevInitTLVUnknownTrap NOTIFICATION-TYPE
    OBJECTS {
        docsDevEvLevel,
        docsDevEvId,
        docsDevEvText,
        cabhPsDevWanManMacAddress
    }
    STATUS      current
    DESCRIPTION
        "Event due to detection of unknown TLV during the TLV
        parsing process. The values of docsDevEvLevel, docsDevId,
        and docsDevEvText are from the entry which logs this event
        in the docsDevEventTable. The value of
        cabhPsDevWanManMacAddress indicates the WAN-Man MAC address
        of the PS. This part of the information is uniform across
        all PS Traps."
    ::= { cabhPsDevNotifications 1 }

cabhPsDevInitTrap NOTIFICATION-TYPE
    OBJECTS {
        docsDevEvLevel,
        docsDevEvId,
        docsDevEvText,
        cabhPsDevWanManMacAddress,
        cabhPsDevProvConfigFile,
        cabhPsDevProvConfigTLVProcessed,
        cabhPsDevProvConfigTLVRejected
    }
    STATUS      current
    DESCRIPTION
        "This inform is issued to confirm the successful completion
        of the CableHome provisioning process."
    ::= { cabhPsDevNotifications 2 }

cabhPsDevInitRetryTrap NOTIFICATION-TYPE
    OBJECTS {
        docsDevEvLevel,
        docsDevEvId,
        docsDevEvText,
        cabhPsDevWanManMacAddress
    }
    STATUS      current
    DESCRIPTION
        "An event to report a failure happened during the
        initialization process and was detected in the PS."
    ::= { cabhPsDevNotifications 3 }

cabhPsDevDHCPFailTrap NOTIFICATION-TYPE
    OBJECTS {
        docsDevEvLevel,
        docsDevEvId,
        docsDevEvText,
        cabhPsDevWanManMacAddress,
        cabhCdpServerDhcpAddress
    }
    STATUS      current
    DESCRIPTION
        "An event to report the failure of a DHCP server. The
        value of cabhCdpServerDhcpAddress is the IP address of
        the DHCP server."

```

```
 ::= { cabhPsDevNotifications 4 }

cabhPsDevSwUpgradeInitTrap NOTIFICATION-TYPE
OBJECTS {
    docsDevEvLevel,
    docsDevEvId,
    docsDevEvText,
    cabhPsDevWanManMacAddress,
    docsDevSwFilename,
    docsDevSwServer
}
STATUS      current
DESCRIPTION
    "An event to report a software upgrade initiated event.
    The values of docsDevSwFilename, and docsDevSwServer
    indicate the software image name and the IP address of the
    server from which the image was downloaded."
 ::= { cabhPsDevNotifications 5 }

cabhPsDevSwUpgradeFailTrap NOTIFICATION-TYPE
OBJECTS {
    docsDevEvLevel,
    docsDevEvId,
    docsDevEvText,
    cabhPsDevWanManMacAddress,
    docsDevSwFilename,
    docsDevSwServer
}
STATUS      current
DESCRIPTION
    "An event to report the failure of a software upgrade
    attempt. The values of docsDevSwFilename, and
    docsDevSwServer indicate the software image name and the IP
    address of the server from which the image was downloaded."
 ::= { cabhPsDevNotifications 6 }

cabhPsDevSwUpgradeSuccessTrap NOTIFICATION-TYPE
OBJECTS {
    docsDevEvLevel,
    docsDevEvId,
    docsDevEvText,
    cabhPsDevWanManMacAddress,
    docsDevSwFilename,
    docsDevSwServer
}
STATUS      current
DESCRIPTION
    "An event to report the Software upgrade success event.
    The values of docsDevSwFilename, and docsDevSwServer
    indicate the software image name and the IP address of the
    server from which the image was downloaded."
 ::= { cabhPsDevNotifications 7 }

cabhPsDevSwUpgradeCVCFailTrap NOTIFICATION-TYPE
OBJECTS {
    docsDevEvLevel,
    docsDevEvId,
    docsDevEvText,
    cabhPsDevWanManMacAddress
}
STATUS      current
DESCRIPTION
    "An event to report the failure of the verification of code
```

```

        file happened during a secure software upgrade attempt."
 ::= { cabhPsDevNotifications 8 }

cabhPsDevTODFailTrap NOTIFICATION-TYPE
OBJECTS {
    docsDevEvLevel,
    docsDevEvId,
    docsDevEvText,
    cabhPsDevTimeServerAddr,
    cabhPsDevWanManMacAddress
}
STATUS      current
DESCRIPTION
    "An event to report the failure of a time of day server.
    The value of cabhPsDevTimeServerAddr indicates the server
    IP address."
 ::= { cabhPsDevNotifications 9 }

cabhPsDevCdpWanDataIpTrap NOTIFICATION-TYPE
OBJECTS {
    docsDevEvLevel,
    docsDevEvId,
    docsDevEvText,
    cabhCdpWanDataAddrClientId,
    cabhPsDevWanManMacAddress
}
STATUS      current
DESCRIPTION
    "An event to report the failure of PS to obtain all
    needed WAN-Data Ip Addresses.
    cabhCdpWanDataAddrClientId indicates the ClientId for
    which the failure occurred."
 ::= { cabhPsDevNotifications 10 }

cabhPsDevCdpThresholdTrap NOTIFICATION-TYPE
OBJECTS {
    docsDevEvLevel,
    docsDevEvId,
    docsDevEvText,
    cabhPsDevWanManMacAddress,
    cabhCdpLanTransThreshold
}
STATUS      current
DESCRIPTION
    "An event to report that the LAN-Trans address assignment
    threshold has been exceeded."
 ::= { cabhPsDevNotifications 11 }

cabhPsDevCspTrap NOTIFICATION-TYPE
OBJECTS {
    docsDevEvLevel,
    docsDevEvId,
    docsDevEvText,
    cabhPsDevWanManMacAddress
}
STATUS      current
DESCRIPTION
    "To report an event with the CableHome Security Portal."
 ::= { cabhPsDevNotifications 12 }

cabhPsDevCapTrap NOTIFICATION-TYPE
OBJECTS {
    docsDevEvLevel,

```

```

        docsDevEvId,
        docsDevEvText,
        cabhPsDevWanManMacAddress
    }
    STATUS          current
    DESCRIPTION
        "To report an event with the CableHome Address Portal."
    ::= { cabhPsDevNotifications 13 }

cabhPsDevCtpTrap NOTIFICATION-TYPE
    OBJECTS {
        docsDevEvLevel,
        docsDevEvId,
        docsDevEvText,
        cabhPsDevWanManMacAddress
    }
    STATUS          current
    DESCRIPTION
        "To report an event with the CableHome Test Portal."
    ::= { cabhPsDevNotifications 14 }

cabhPsDevProvEnrollTrap NOTIFICATION-TYPE
    OBJECTS {
        cabhPsDevHardwareVersion,
        docsDevSwCurrentVers,
        cabhPsDevTypeIdentifier,
        cabhPsDevWanManMacAddress
    }
    STATUS          current
    DESCRIPTION
        "This notification is issued to initiate the CableHome
        provisioning process for SNMP Provisioning Mode."
    REFERENCE
        "CableHome 1.1 Specification,
        13.4 Provisioning the PS for Management:
        SNMP Provisioning Mode."
    ::= { cabhPsDevNotifications 15 }

cabhPsDevCdpLanIpPoolTrap NOTIFICATION-TYPE
    OBJECTS {
        docsDevEvLevel,
        docsDevEvId,
        docsDevEvText,
        cabhPsDevWanManMacAddress,
        cabhCdpLanTransCurCount
    }
    STATUS          current
    DESCRIPTION
        "An event to report that the pool of IP addresses for LAN
        clients, as defined by cabhCdpLanPoolStart and
        cabhCdpLanPoolEnd, is exhausted."
    ::= { cabhPsDevNotifications 16 }

cabhPsDevUpnpMultiplePHTrap NOTIFICATION-TYPE
    OBJECTS {
        docsDevEvLevel,
        docsDevEvId,
        docsDevEvText,
        cabhQos2NumActivePolicyHolder,
        cabhQos2PolicyHolderEnabled,
        cabhQos2PolicyAdmissionControl
    }
    STATUS          current

```

```

DESCRIPTION
    "To report that more than one active UPnP Policy Holders
    have been detected.
    This notification is triggered in the case the PS
    has cabhPsDevUpnpEnabled true."
 ::= { cabhPsDevNotifications 17 }

-- compliance statements

cabhPsBasicCompliance MODULE-COMPLIANCE
    STATUS      current
    DESCRIPTION
        "The compliance statement for devices that implement the
        CableHome Portal Services logical element."
    MODULE      -- cabhPsMib

-- unconditionally mandatory groups

MANDATORY-GROUPS {
    cabhPsDevBaseGroup,
    cabhPsDevProvGroup,
    cabhPsNotificationGroup,
    cabhPsDevAttribGroup,
    cabhPsDevStatsGroup,
    cabhPsDevAccessControlGroup,
    cabhPsDevUpnpGroup
}

-- conditionally mandatory groups

GROUP cabhPsDev802dot11Group
    DESCRIPTION
        "This group is implemented only if PS
        supports interfaces of ifType ieee80211(71)."
```

```

GROUP cabhPsDevUIGroup
    DESCRIPTION
        "This group is implemented only in CableHome compliant
        residential gateways that implement a User Interface (UI)."
```

```

OBJECT cabhPsDevTimeServerAddrType
    SYNTAX      InetAddressType { ipv4(1) }
    DESCRIPTION
        "An implementation is only required to support IPv4
        addresses. "
```

```

OBJECT cabhPsDevTimeServerAddr
    SYNTAX      InetAddress (SIZE(4))
    DESCRIPTION
        "An implementation is only required to support IPv4
        addresses."
```

```

OBJECT cabhPsDevLanIpTrafficInetAddress
    SYNTAX      InetAddress (SIZE(4))
    DESCRIPTION
        "An implementation is only required to support IPv4
        addresses."
```

```

OBJECT cabhPsDevUpnpCommandIpType
    SYNTAX      InetAddressType { ipv4(1) }
    DESCRIPTION
        "An implementation is only required to support IPv4
        addresses."
```

```

OBJECT cabhPsDevUpnpCommandIp
  SYNTAX      InetAddress (SIZE(4))
  DESCRIPTION
    "An implementation is only required to support IPv4
    addresses."

OBJECT cabhPsDevUpnpInfoIpType
  SYNTAX      InetAddressType { ipv4(1) }
  DESCRIPTION
    "An implementation is only required to support IPv4
    addresses. "

OBJECT cabhPsDevUpnpInfoIp
  SYNTAX      InetAddress (SIZE(4))
  DESCRIPTION
    "An implementation is only required to support IPv4
    addresses."

 ::= { cabhPsCompliances 1 }

cabhPsDeprecatedCompliance MODULE-COMPLIANCE
  STATUS      deprecated
  DESCRIPTION
    "The compliance statement for deprecated MIB objects."
  MODULE      -- cabhPsMib

-- deprecated groups

GROUP cabhPsDevDeprecatedGroup
  DESCRIPTION
    "Group containing deprecated MIB objects."
  ::= { cabhPsCompliances 2 }

cabhPsObsoleteCompliance MODULE-COMPLIANCE
  STATUS      obsolete
  DESCRIPTION
    "The compliance statement for obsolete MIB objects."
  MODULE      -- cabhPsMib

GROUP cabhPsDevObsoleteGroup
  DESCRIPTION
    "Group containing obsolete MIB objects."

  ::= { cabhPsCompliances 3 }

cabhPsDevBaseGroup OBJECT-GROUP
  OBJECTS {
    cabhPsDevDateTime,
    cabhPsDevResetNow,
    cabhPsDevSerialNumber,
    cabhPsDevHardwareVersion,
    cabhPsDevWanManMacAddress,
    cabhPsDevWanDataMacAddress,
    cabhPsDevTypeIdentifier,
    cabhPsDevSetToFactory,
    cabhPsDevTodSyncStatus,
    cabhPsDevProvMode,
    cabhPsDevLastSetToFactory,
    cabhPsDevTrapControl
  }
  STATUS      current

```

```

DESCRIPTION
    "A collection of objects for providing device status and
    control."
 ::= { cabhPsGroups 1 }

cabhPsDevProvGroup OBJECT-GROUP
  OBJECTS {
    cabhPsDevProvisioningTimer,
    cabhPsDevProvConfigFile,
    cabhPsDevProvConfigHash,
    cabhPsDevProvConfigFileSize,
    cabhPsDevProvConfigFileStatus,
    cabhPsDevProvConfigTLVProcessed,
    cabhPsDevProvConfigTLVRejected,
    cabhPsDevProvSolicitedKeyTimeout,
    cabhPsDevProvState,
    cabhPsDevProvAuthState,
    cabhPsDevTimeServerAddrType,
    cabhPsDevTimeServerAddr
  }
  STATUS      current
  DESCRIPTION
    "A collection of objects for controlling and providing
    status on provisioning."
 ::= { cabhPsGroups 2 }

cabhPsDevAttribGroup OBJECT-GROUP
  OBJECTS {
    cabhPsDevPsDeviceType,
    cabhPsDevPsManufacturerUrl,
    cabhPsDevPsModelUrl,
    cabhPsDevPsModelUpc
  }
  STATUS      current
  DESCRIPTION
    "A collection of objects for providing information on
    LAN IP devices known to the PS."
 ::= { cabhPsGroups 3 }

cabhPsDevStatsGroup OBJECT-GROUP
  OBJECTS {
    cabhPsDevLanIpTrafficCountersReset,
    cabhPsDevLanIpTrafficCountersLastReset,
    cabhPsDevLanIpTrafficEnabled,
    cabhPsDevLanIpTrafficInetAddressType,
    cabhPsDevLanIpTrafficInetAddress,
    cabhPsDevLanIpTrafficInOctets,
    cabhPsDevLanIpTrafficOutOctets
  }
  STATUS      current
  DESCRIPTION
    "A collection of objects for providing information
    on LAN IP traffic."
 ::= { cabhPsGroups 4 }

cabhPsDevDeprecatedGroup OBJECT-GROUP
  OBJECTS {
    cabhPsDevWanManClientId,
    cabhPsDevProvCorrelationId
  }
  STATUS      deprecated
  DESCRIPTION
    "Group of deprecated PSDev MIB objects."

```

```

 ::= { cabhPsGroups 5 }

cabhPsNotificationGroup NOTIFICATION-GROUP
NOTIFICATIONS {
    cabhPsDevInitTLVUnknownTrap,
    cabhPsDevInitTrap,
    cabhPsDevInitRetryTrap,
    cabhPsDevDHCPFailTrap,
    cabhPsDevSwUpgradeInitTrap,
    cabhPsDevSwUpgradeFailTrap,
    cabhPsDevSwUpgradeSuccessTrap,
    cabhPsDevSwUpgradeCVCFailTrap,
    cabhPsDevTODFailTrap,
    cabhPsDevCdpWanDataIpTrap,
    cabhPsDevCdpThresholdTrap,
    cabhPsDevCspTrap,
    cabhPsDevCapTrap,
    cabhPsDevCtpTrap,
    cabhPsDevProvEnrollTrap,
    cabhPsDevCdpLanIpPoolTrap,
    cabhPsDevUpnpMultiplePHTrap
}
STATUS          current
DESCRIPTION
    "These notifications indicate change in status of the
    Portal Services set of functions in a device complying
    with CableLabs CableHome(tm) specifications."
 ::= { cabhPsGroups 6 }

cabhPsDevAccessControlGroup OBJECT-GROUP
OBJECTS {
    cabhPsDevAccessControlEnable,
    cabhPsDevAccessControlPhysAddr,
    cabhPsDevAccessControlRowStatus
}
STATUS          current
DESCRIPTION
    "Group of Access Control objects for the CableHome PSDev
    MIB."
 ::= { cabhPsGroups 7 }

cabhPsDevUIGroup OBJECT-GROUP
OBJECTS {
    cabhPsDevUILogin,
    cabhPsDevUIPassword,
    cabhPsDevUISelection,
    cabhPsDevUIServerUrl,
    cabhPsDevUISelectionDisabledBodyText
}
STATUS          current
DESCRIPTION
    "A collection of objects for configuring the selection and
    operation of the User Interface displayed to an HTTP
    client, if a UI is implemented."
 ::= { cabhPsGroups 8 }

cabhPsDev802dot11Group OBJECT-GROUP
OBJECTS {
    cabhPsDev802dot11BaseSetToDefault,
    cabhPsDev802dot11BaseLastSetToDefault,
    cabhPsDev802dot11BaseAdvertiseSSID,
    cabhPsDev802dot11BasePhyCapabilities,
    cabhPsDev802dot11BasePhyOperMode,

```

```

        cabhPsDev802dot11SecCapabilities,
        cabhPsDev802dot11SecOperMode,
        cabhPsDev802dot11SecPassPhraseToWEPKey,
        cabhPsDev802dot11SecUsePassPhraseToWEPKeyAlg,
        cabhPsDev802dot11SecPSKPassPhraseToKey,
        cabhPsDev802dot11SecWPAPreSharedKey,
        cabhPsDev802dot11SecWPAREkeyTime,
        cabhPsDev802dot11SecControl,
        cabhPsDev802dot11SecCommitStatus
    }
    STATUS          current
    DESCRIPTION
        "Group of CableHome proprietary objects for the
        management of IEEE 80211 interfaces."
    ::= { cabhPsGroups 9 }

cabhPsDevUpnpGroup OBJECT-GROUP
    OBJECTS {
        cabhPsDevUpnpEnabled,
        cabhPsDevUpnpCommandIpType,
        cabhPsDevUpnpCommandIp,
        cabhPsDevUpnpCommand,
        cabhPsDevUpnpCommandUpdate,
        cabhPsDevUpnpLastCommandUpdate,
        cabhPsDevUpnpCommandStatus,
        cabhPsDevUpnpInfoXmlFragment
    }
    STATUS          current
    DESCRIPTION
        "Group of MIB objects for the
        management interface of UPnP Services."
    ::= { cabhPsGroups 10 }

cabhPsDevObsoleteGroup OBJECT-GROUP
    OBJECTS {
        cabhPsDevBpDeviceType,
        cabhPsDevBpManufacturer,
        cabhPsDevBpManufacturerUrl,
        cabhPsDevBpSerialNumber,
        cabhPsDevBpHardwareVersion,
        cabhPsDevBpHardwareOptions,
        cabhPsDevBpModelName,
        cabhPsDevBpModelNumber,
        cabhPsDevBpModelUrl,
        cabhPsDevBpModelUpc,
        cabhPsDevBpModelSoftwareOs,
        cabhPsDevBpModelSoftwareVersion,
        cabhPsDevBpLanInterfaceType,
        cabhPsDevBpNumberInterfacePriorities,
        cabhPsDevBpPhysicalLocation,
        cabhPsDevBpPhysicalAddress
    }
    STATUS          obsolete
    DESCRIPTION
        "Group of BP related objects with obsoleted status."
    ::= { cabhPsGroups 11 }

END

```

5 ACKNOWLEDGEMENTS

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Roy Spitzer, Consultant to CableLabs
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Rick Vetter, Consultant to CableLabs

Appendix I Revision History

The following Engineering Change Notices were incorporated into CH-SP-MIB-PSDEV-I02-020920:

ECN Number	ECN Date	Summary
CH1-N-02003	8/15/02	There is currently no event defined for reporting the exhaustion of addresses from the CDS pool.
CH1-N-02008	6/20/02	Correct single dash in the LAST-UPDATED line of the MODULE-IDENTITY. Clarify the description for cabhPsDevResetNow object. Rename cabhPsDevResetDefaults to cabhPsDevSetToFactory to be consistent with other CableHome MIBs. Clarify the description for cabhPsDevProvMode object.
CH1-N-02018	8/15/02	Define CableHome acronyms. Correct cabhPsGroup OID numbering: should be the first, not the third, leaf on the cabhPsCompliances branch. Change SYNTAX from DisplayString to SnmpAdminString. Change 'headend DHCP server' reference in DESCRIPTION for cabhPsDevWanManMacAddress to 'cable data network DHCP server'. Correct grammatical error in the description for cabhPsDevWanDataMacAddress. Correct the grammatical/typographical error in the description for cabhPsDevProvConfigHash.

The following Engineering Change Notices were incorporated into CH-SP-MIB-PSDEV-I03-030411:

ECN Number	ECN Date	Summary
CH1-N-02041	1/23/03	Add cabhCdpLanTransCurCount to list of OIDs to IMPORT from CDP MIB.
CH1-N-02046	1/23/03	Change the STATUS of the cabhPsDevWanManClientId object from "current" to "deprecated".
CH1-N-02050	1/23/03	cabhSecFwPolicyFileHash and cabhPsDevProvConfigHash are defined as 20 octet should return binary values.
CH1-N-02065	1/23/03	Align the PSDev MIB with draft-jones-cable-gateway-device-MIB-00.txt and add new option for Dormant CableHome mode.

The following Engineering Change Notices were incorporated into CH-SP-MIB-PSDEV-I04-030801:

ECN Number	ECN Date	Summary
CH1-N-03007	04/17/03	Update PSDev MIB to incorporate CableHome 1.1 objects and conformance statements.
CH-MIB-N-03054	07/03/03	Update PSDev MIB to incorporate changes needed to align the CableLabs version with the version submitted to the IETF.

The following Engineering Change Notices were incorporated into CH-SP-MIB-PSDEV-I05-040129:

ECN Number	ECN Date	Summary
CH-MIB-N-03083	11/06/03	Correct the name of the deprecated group of objects.
MIB-PSDEV-N-03.0102-1	12/04/03	Remove references to the CableHome 1.0 specification.

The following Engineering Change Notices were incorporated into CH-SP-MIB-PSDEV-I06-040806

ECN Number	ECN Date	Summary
MIB-PSDEV-N-04.0170-2	8/5/04	Corrects cabhPsDevAccessControlPhysAddr object definition
MIB-PSDEV-N-04.0139-2	5/13/04	Define User Interface control parameters and define PSDev Access Control Table
MIB-PSDEV-N-04.0138-10	7/22/04	MIB Requirements for wireless 80211b

The following Engineering Change Notices were incorporated into CH-SP-MIB-PSDEV-I07-041216

ECN Number	ECN Date	Summary
MIB-PSDEV-N-04.0184-1	11/11/04	Changes to wireless 80211b MIB for synchronization
MIB-PSDEV-N-04.0176-1	10/7/04	Define new objects to support Time of Day Offset configuration
MIB-PSDEV-N-04.0171-5	10/7/04	CH1.1 Access Table Exception for Ethernet and USB Interfaces

The following Engineering Change Notices were incorporated into CH-SP-MIB-PSDEV-I08-050211

ECN Number	ECN Date	Summary
MIB-PSDEV-N-04.0190-3	1/13/05	Requirements for UPnP support

The following Engineering Change Notices were incorporated into CH-SP-MIB-PSDEV-I09-050408

ECN Number	ECN Date	Summary
MIB-PSDEV-N-04.0202-2	12/22/2004	Access Control Table