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**Cable Gateway Device Management Information Base
for CableHome[®] compliant Residential Gateways**

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Abstract

This memo defines a portion of the Management Information Base (MIB) for use with network management protocols in the Internet community. In particular, it defines a basic set of managed objects for SNMP based management of CableHome [21] compliant WAN Gateway Devices and homerouters.

This memo specifies a MIB module in a manner that is compliant to the SNMP SMIV2 [5][6][7]. The set of objects is consistent with the SNMP framework and existing SNMP standards.

Conventions used in this document

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC-2119](#) [2].

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[1. The Internet-Standard Management Framework](#)

For a detailed overview of the documents that describe the current Internet-Standard Management Framework, please refer to [section 7 of RFC 3410](#) [12].

Managed objects are accessed via a virtual information store, termed the Management Information Base or MIB. MIB objects are generally accessed through the Simple Network Management Protocol (SNMP). Objects in the MIB are defined using the mechanisms defined in the Structure of Management Information (SMI). This memo specifies a MIB module that is compliant to the SMIV2, which is described in STD 58, [RFC 2578](#) [7], STD 58, [RFC 2579](#) [8] and STD 58, [RFC 2580](#) [9].

2. Glossary

The terms in this document are derived either from normal cable system usage, from normal residential gateway operation, or from the documents associated with the CableHome Specifications [21].

2.1 CableHome Residential Gateway

A CableHome Residential gateway passes data traffic between the cable operator's broadband data network (the Wide Area Network, WAN) and the Local Area Network (LAN) in the cable data service subscriber's residence or business. In addition to passing traffic between the WAN and LAN, the CableHome Residential Gateway provides several services including a DHCP client and a DHCP server ([RFC2131](#)) [22], a TFTP server ([RFC1350](#)) [23], management services as enabled by SNMPv1/v2c/v3 agent compliant with the RFCs listed in [Section 1](#), and security services including stateful packet inspection firewall functionality and software code image verification using techniques.

2.2 Portal Services

A logical element aggregating the set of CableHome-specified functionality in a CableHome compliant cable gateway device.

2.3 LAN IP Device

A LAN IP Device is representative of a typical IP device expected to reside on home networks, and is assumed to contain a TCP/IP stack as well as a DHCP client.

2.4 WAN Management (WAN-Man) Address

WAN Management Addresses are intended for network management traffic on the cable network between the network management system and the PS element. Typically, these addresses will reside in private IP address space.

2.5 WAN Data (WAN-Data) Address

WAN Data Addresses are intended for subscriber application traffic on the cable network and beyond, such as traffic between LAN IP Devices and Internet hosts. Typically, these addresses will reside in public IP address space.

2.6 LAN Translated (LAN-Trans) Address

LAN Translated Addresses are intended for subscriber application and management traffic on the home network between LAN IP Devices and the

PS element. Typically, these addresses will reside in private IP address space, and can typically be reused across subscribers.

2.7 LAN Passthrough (LAN-Pass) Address

LAN Passthrough Addresses are intended for subscriber application traffic, such as traffic between LAN IP Devices and Internet hosts, on the home network, the cable network, and beyond. Typically, these addresses will reside in public IP address space.

2.8 Cable Gateway DHCP Portal (CDP)

A logical element residing within the PS that encapsulates DHCP functionality within a Cable Gateway Device. This includes both DHCP client as well as DHCP server capabilities.

3. Overview

This MIB provides a set of objects required for the management of CableHome compliant residential gateway (RG) devices. The specification is derived from the CableHome Specification [21].

3.1 Structure of the MIB

Two MIBs are included in this Internet-Draft. The first, CABH-DEV-MIB, is a stub under which the following CableHome MIBs are grouped:

[draft-jones-cable-gateway-addressing-mib-01](#)
[draft-jones-cable-gateway-config-mib-01](#)
[draft-jones-cable-gateway-device-mib-01](#)
[draft-jones-cable-gateway-security-mib-01](#)
[draft-jones-cable-gateway-qos-mib-00](#)
[draft-jones-cable-gateway-tools-mib-01](#)

The second MIB, CABH-PS-DEV-MIB, contains the set of objects to manage a CableHome Residential Gateway Device. This MIB is structured into three groups and is described in the remainder of this section:

- û The cabhPsDevBase group extends the CableLabs projects-CableHome group with objects needed to implement and configure the CableHome Portal Services set of functions.

- o The cabhPsDevProv Group provides objects allowing the manager to configure residential gateway device provisioning parameters.
- o The cabhPsNotification group provides SNMP notification objects for the reporting of Portal Services status and exception conditions.

3.2 Management Requirements

3.2.1. Portal Services device-specific parameters

The PsDevBase group consists largely of read-only parameters providing information specific to the device, primarily for identification purposes. By reading these parameters the device manager can gain unique identification information about the cable gateway device in which the Portal Services set of functions resides.

In addition to device-specific identification parameters the PsDevBase group provides device-specific provisioning and operating parameters such as the current date and time and time of day synchronization status indicator.

The PsDevBase group also includes manager-controlled parameters enabling the reset of the Portal Services functionality and enabling the reset of cable gateway device MIB objects to their default values without resetting all Portal Services functionality.

3.2.2 Portal Services provisioning parameters

The second group of OIDs in the Cable Gateway Device MIB, the PsDevProv group, includes parameters required by Portal Services functions that are responsible for provisioning processes, particularly the Portal Services configuration file download processes.

The provisioning process, described in [Section 13](#) of [21], is timed so that it does not get stuck waiting for a failed process to complete. The timeout value for the provisioning process is configurable by the manager but has a default value of 5 minutes.

When the Portal Services is configured to operate in the DHCP Provisioning mode as described in [Section 5.5](#) and [Section 7.1.1](#) of [21], it is required to download via TFTP a file containing zero or more configuration parameters. The name in URL format and location of this configuration file are passed to the Portal Services in a DHCP Option field. The file name and location are stored in PsDevProv objects for retrieval by the manager using the management messaging interface between the manager's console and the Portal Services element. Also stored are the length of the configuration file and the number of Type-Length-Value (TLV) fields passed in the configuration

file, and the number of those TLV fields that were rejected by the configuration file processing function. These parameters allow the manager to verify that configuration parameters he or she passed to the Portal Services element were received and processed correctly.

Integrity of the Portal Services configuration file is verified through the use of a SHA-1 hash value. This process is described in [Section 7.3.3.3.1](#) in [21]. The hash value used to verify the integrity of the configuration file is stored and is accessible to the manager via an object of the PsDevProv group.

The PsDevProv group also includes status parameters such as an indication about the progress of the provisioning process, the configuration file name and location (URL format), hash value for configuration file integrity checking, and the size of the configuration file. The PsDevProv group also includes statistics for tracking the number of Type-Length-Value (TLV) fields passed in the PS configuration file and whether those TLVs were processed or rejected. This group also contains objects for keeping track of whether the file was authenticated, and an object to store the timeout value for the authentication process key exchange.

The location of the Time of Day server, passed from the cable data network DHCP server to the Portal Services element in a DHCP option code, is stored by the Portal Services and accessible to the manager via an object in the PsDevProv group.

[3.2.3. Portal Services Notification objects](#)

The Portal Services element is required to report about exception conditions that occur as well as to report on the status of certain parameters. CableHome specifications defines four ways to report these events: SNMP trap as defined in [RFC3416](#) [18] or SNMP notification described in [RFC3411](#) [13] and [RFC3412](#) [14], reporting to a SYSLOG server, writing to a volatile local log, or writing to a nonvolatile local log. Local log information is accessible to the manager via the DOCSIS device MIB, [RFC2669](#) [24]. The CableHome event reporting process is described in [Section 6.5](#) of [21], and defined events are listed in [Appendix II](#) Format and Content for Event, SYSLOG and SNMP Trap, in the same reference.

4. MIB Definitions

```
CABH-PS-DEV-MIB DEFINITIONS ::= BEGIN
```

```
IMPORTS
```

```
    MODULE-IDENTITY,  
    OBJECT-TYPE,  
    Integer32,  
    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
```

```
    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;
```

```
cabhPsDevMib MODULE-IDENTITY
```

```
    LAST-UPDATED      "200303010000Z" -- March 1, 2003  
    ORGANIZATION      "CableLabs Broadband Access Department"  
    CONTACT-INFO  
        "Kevin Luehrs  
        Postal: Cable Television Laboratories, Inc.
```


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DESCRIPTION

"This MIB module supplies the basic management objects for the Portal Services logical element of a CableHome 1.1-compliant Residential Gateway device. The PS device parameters describe general PS Device attributes and behavior characteristics."

REVISION "200303010000Z" -- March 1, 2003

DESCRIPTION

"Initial version, published as RFC xxxx."

-- RFC editor to assign xxxx

::= { mib-2 xx } -- xx to be assigned by IANA

-- 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 }
cabhPsDevPsStats OBJECT IDENTIFIER ::= { cabhPsDevMibObjects 4 }

--

-- 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

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if starting from a power-on reset. The CMP ensures that MIB object values persist as specified in [Appendix I](#) of the CableHome 1.0 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

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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."

::= { 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

{

dhcprmode(1),

snmpmode(2),

dormantCHmode(3)

}

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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 1.1 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 }

cabhPsDevLastReset OBJECT-TYPE

SYNTAX TimeStamp

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The value of sysUpTime when cabhPsDevResetNow was last set to true. Zero if never reset."

::= { cabhPsDevBase 12 }

--

-- 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 config file, which is calculated and sent by the NMS to the PS. For the SHA-1 authentication algorithm the hash length is 160 bits. This hash value is encoded in the binary format."

DEFVAL {'h}

::= { 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

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"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

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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."

-- DEFVAL { CableHome Residential Gateway }

`::= { cabhPsDevPsAttrib 1 }`

```
cabhPsDevPsManufacturerUrl  OBJECT-TYPE
    SYNTAX                     SnmpAdminString (SIZE(1..32))
    MAX-ACCESS                 read-write
    STATUS                     current
    DESCRIPTION
        "Universal Resource Locator to the Residential Gateway
        device manufacturer's web site."
    DEFVAL { '00'h }
    ::= { cabhPsDevPsAttrib 3 }
```

```
cabhPsDevPsModelUrl          OBJECT-TYPE
    SYNTAX                     SnmpAdminString (SIZE(1..32))
    MAX-ACCESS                 read-write
    STATUS                     current
    DESCRIPTION
        "Universal Resource Locator to the web site describing
this
        CableHome compliant residential gateway device."
    DEFVAL { '00'h }
    ::= { cabhPsDevPsAttrib 7 }
```

```
cabhPsDevPsModelUpc          OBJECT-TYPE
    SYNTAX                     SnmpAdminString (SIZE(1..32))
    MAX-ACCESS                 read-write
    STATUS                     current
    DESCRIPTION
        "Universal Product Code of the CableHome compliant
        residential gateway device."
    DEFVAL { '00'h }
    ::= { 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                     current
    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                    current
    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,
    cabhPsDevBpPlanInterface IANAIfType,
    cabhPsDevBpNumberInterfacePriorities INTEGER,
    cabhPsDevBpPhysicalLocation SnmpAdminString,
    cabhPsDevBpPhysicalAddress PhysAddress,
    cabhPsDevBpRowStatus      RowStatus
}
```

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

```
cabhPsDevBpDeviceType  OBJECT-TYPE
    SYNTAX              SnmpAdminString (SIZE(1..32))
```

MAX-ACCESS

read-only

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STATUS current

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."

-- DEFVAL { CableHome Host }

::= { cabhPsDevBpProfileEntry 2 }

cabhPsDevBpManufacturer OBJECT-TYPE

SYNTAX SnmpAdminString (SIZE(1..32))

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The name of the CableHome Host Device's manufacturer."

DEFVAL { '00'h }

::= { cabhPsDevBpProfileEntry 3 }

cabhPsDevBpManufacturerUrl OBJECT-TYPE

SYNTAX SnmpAdminString (SIZE(1..32))

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"Universal Resource Locator to the CableHome Host device manufacturer's web site."

DEFVAL { '00'h }

::= { cabhPsDevBpProfileEntry 4 }

cabhPsDevBpSerialNumber OBJECT-TYPE

SYNTAX SnmpAdminString (SIZE(1..32))

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The serial number assigned by the manufacturer for this CableHome Host Device."

DEFVAL { '00'h }

::= { cabhPsDevBpProfileEntry 5 }

cabhPsDevBpHardwareVersion OBJECT-TYPE

SYNTAX SnmpAdminString (SIZE(1..32))

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The hardware version number assigned by the manufacturer for this CableHome Host Device."

DEFVAL { '00'h }

```
::= { cabhPsDevBpProfileEntry 6 }
```

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cabhPsDevBpHardwareOptions OBJECT-TYPE
SYNTAX SnmpAdminString (SIZE(1..32))
MAX-ACCESS read-only
STATUS current
DESCRIPTION
 "The hardware options implemented on this CableHome Host
 Device."
 DEFVAL { '00'h }
 ::= { cabhPsDevBpProfileEntry 7 }

cabhPsDevBpModelName OBJECT-TYPE
SYNTAX SnmpAdminString (SIZE(1..32))
MAX-ACCESS read-only
STATUS current
DESCRIPTION
 "The model name assigned by the manufacturer for this
 CableHome Host Device."
 DEFVAL { '00'h }
 ::= { cabhPsDevBpProfileEntry 8 }

cabhPsDevBpModelNumber OBJECT-TYPE
SYNTAX SnmpAdminString (SIZE(1..32))
MAX-ACCESS read-only
STATUS current
DESCRIPTION
 "The model number assigned by the manufacturer for this
 CableHome Host Device."
 DEFVAL { '00'h }
 ::= { cabhPsDevBpProfileEntry 9 }

cabhPsDevBpModelUrl OBJECT-TYPE
SYNTAX SnmpAdminString (SIZE(1..32))
MAX-ACCESS read-create
STATUS current
DESCRIPTION
 "The Universal Resource Locator to the web site describing
 this CableHome Host Device model."
 DEFVAL { '00'h }
 ::= { cabhPsDevBpProfileEntry 10 }

cabhPsDevBpModelUpc OBJECT-TYPE
SYNTAX SnmpAdminString (SIZE(1..32))
MAX-ACCESS read-only
STATUS current
DESCRIPTION
 "Universal Product Code of the CableHome Host Device."

DEFVAL { '00'h }

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```
::= { cabhPsDevBpProfileEntry 11 }
```

```
cabhPsDevBpModelSoftwareOs      OBJECT-TYPE
    SYNTAX          SnmpAdminString (SIZE(1..32))
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "Software operating system implemented on the CableHome
        Host Device."
    DEFVAL { '00'h }
    ::= { cabhPsDevBpProfileEntry 12 }
```

```
cabhPsDevBpModelSoftwareVersion  OBJECT-TYPE
    SYNTAX          SnmpAdminString (SIZE(1..32))
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "Version of the operating system implemented on the
        CableHome Host Device."
    DEFVAL { '00'h }
    ::= { cabhPsDevBpProfileEntry 13 }
```

```
cabhPsDevBpLanInterface          OBJECT-TYPE
    SYNTAX          IANAifType
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "The ifType for the LAN Interface implemented on the
        CableHome Host Device."
    REFERENCE
        "http://www.iana.org/assignments/ianaiftype-mib"
    DEFVAL { other }
    ::= { cabhPsDevBpProfileEntry 14 }
```

```
cabhPsDevBpNumberInterfacePriorities  OBJECT-TYPE
    SYNTAX          INTEGER (1..8)
    MAX-ACCESS      read-only
    STATUS          current
    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(1..32))
    MAX-ACCESS      read-create
    STATUS          current
```

DESCRIPTION

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```
"Physical location of the CableHome Host Device."
 ::= { cabhPsDevBpProfileEntry 16 }
```

```
cabhPsDevBpPhysicalAddress  OBJECT-TYPE
    SYNTAX                    PhysAddress (SIZE (0..16))
    MAX-ACCESS                read-only
    STATUS                    current
    DESCRIPTION
        "The CableHome Host Device's hardware address."
    DEFVAL { '00'h }
    ::= { cabhPsDevBpProfileEntry 17 }
```

```
cabhPsDevBpRowStatus  OBJECT-TYPE
    SYNTAX                RowStatus
    MAX-ACCESS            read-create
    STATUS                current
    DESCRIPTION
        "The Row Status interlock for creation and deletion
        of row entries. There are no restrictions on setting the
        read-create and read-write columns of this table when the
        status of cabhPsDevBpRowStatus is active."
    ::= { cabhPsDevBpProfileEntry 18 }
```

```
--=====
--
--  LAN IP Traffic Statistics Table
--
--  The cabhPsDevLanIpTrafficTable contains the Traffic Statistics for
--  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
--
--=====
```

```
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."
    ::= { cabhPsDevPsStats 1 }
```

```
cabhPsDevLanIpTrafficEntry  OBJECT-TYPE
    SYNTAX                CabhPsDevLanIpTrafficEntry
    MAX-ACCESS            not-accessible
    STATUS                current
    DESCRIPTION
        "List of Traffic Statistics for LAN IP Devices."
```

INDEX { cabhPsDevLanIpTrafficIndex }

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```
 ::= { cabhPsDevLanIpTrafficTable 1 }
```

```
CabhPsDevLanIpTrafficEntry ::= SEQUENCE {
    cabhPsDevLanIpTrafficIndex      INTEGER,
    cabhPsDevLanIpTrafficIpType     InetAddressType,
    cabhPsDevLanIpTrafficIp        InetAddress,
    cabhPsDevLanIpTrafficIpInOctets ZeroBasedCounter32,
    cabhPsDevLanIpTrafficIpOutOctets ZeroBasedCounter32,
    cabhPsDevLanIpTrafficIpCountersReset TruthValue,
    cabhPsDevLanIpTrafficIpCountersLastReset TimeStamp,
    cabhPsDevLanIpTrafficIpEnabled  TruthValue,
    cabhPsDevLanIpTrafficRowStatus  RowStatus
}
```

```
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 }
```

```
cabhPsDevLanIpTrafficIpType 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 }
```

```
cabhPsDevLanIpTrafficIp 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 }
```

```
cabhPsDevLanIpTrafficIpInOctets OBJECT-TYPE
    SYNTAX      ZeroBasedCounter32
    MAX-ACCESS   read-only
    STATUS       current
    DESCRIPTION
```

"The total number of octets received from the LAN IP

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```
        address."
 ::= { cabhPsDevLanIpTrafficEntry 4 }

cabhPsDevLanIpTrafficIpOutOctets OBJECT-TYPE
    SYNTAX      ZeroBasedCounter32
    MAX-ACCESS   read-only
    STATUS       current
    DESCRIPTION
        "The total number of octets transmitted to the LAN IP
        address."
 ::= { cabhPsDevLanIpTrafficEntry 5 }

cabhPsDevLanIpTrafficIpCountersReset    OBJECT-TYPE
    SYNTAX      TruthValue
    MAX-ACCESS   read-create
    STATUS       current
    DESCRIPTION
        "Setting this object to true(1) resets the traffic
        statistic counter to zero for this LAN IP device. Reading
        this object always returns false(2)."
```

```
 ::= { cabhPsDevLanIpTrafficEntry 6 }

cabhPsDevLanIpTrafficIpCountersLastReset    OBJECT-TYPE
    SYNTAX      TimeStamp
    MAX-ACCESS   read-only
    STATUS       current
    DESCRIPTION
        "The value of sysUpTime when
cabhPsDevLanIpTrafficIpCountersReset was
        last set to true. Zero if never reset."
 ::= { cabhPsDevLanIpTrafficEntry 7 }

cabhPsDevLanIpTrafficIpEnabled OBJECT-TYPE
    SYNTAX      TruthValue
    MAX-ACCESS   read-create
    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
 ::= { cabhPsDevLanIpTrafficEntry 8 }

cabhPsDevLanIpTrafficRowStatus OBJECT-TYPE
    SYNTAX      RowStatus
    MAX-ACCESS   read-create
```

STATUS

current

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DESCRIPTION

"The Row Status interlock for creation and deletion of row entries. There are no restrictions on setting the read-create and read-write columns of this table when the status of cabhPsDevLanIpTrafficRowStatus is active."

::= { cabhPsDevLanIpTrafficEntry 9 }

--

cabhPsNotification OBJECT IDENTIFIER ::= { cabhPsDevMib 2 }
cabhPsDevNotifications OBJECT IDENTIFIER ::= { cabhPsNotification 2 }
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

}

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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."

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```
::= { 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

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"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
IPaddress."

::= { 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."

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```
::= { 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 inform is issued to initiate the CableHome  
    provisioning process for SNMP Provisioning Mode."
```

REFERENCE

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```
"Inform as defined in RFC 1902"
 ::= { 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 cabh CdpLanPoolStart and
    cabhCdpLanPoolEnd, is exhausted."
  ::= { cabhPsDevNotifications 16}

-- 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
}

-- conditionally mandatory group
GROUP cabhPsDevAttribGroup
  DESCRIPTION
    "This group is implemented only in CableHome 1.1 PS
    elements, not CableHome 1.0 PS elements."

-- conditionally mandatory group
GROUP cabhPsDevPsStatsGroup
  DESCRIPTION
    "This group is implemented only in CableHome 1.1 PS
    elements, not CableHome 1.0 PS elements."

 ::= { cabhPsCompliances 1}
```


cabhPsDevBaseGroup OBJECT-GROUP

OBJECTS {

```
cabhPsDevDateTime,
cabhPsDevResetNow,
cabhPsDevSerialNumber,
cabhPsDevHardwareVersion,
cabhPsDevWanManMacAddress,
cabhPsDevWanDataMacAddress,
cabhPsDevTypeIdentifier,
cabhPsDevSetToFactory,
cabhPsDevTodSyncStatus,
cabhPsDevProvMode,          -- added dormant mode
cabhPsDevLastReset
```

}

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,

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```
    cabhPsDevBpDeviceType,
    cabhPsDevBpManufacturer,
    cabhPsDevBpManufacturerUrl,
    cabhPsDevBpSerialNumber,
    cabhPsDevBpHardwareVersion,
    cabhPsDevBpHardwareOptions,
    cabhPsDevBpModelName,
    cabhPsDevBpModelNumber,
    cabhPsDevBpModelUrl,
    cabhPsDevBpModelUpc,
    cabhPsDevBpModelSoftwareOs,
    cabhPsDevBpModelSoftwareVersion,
    cabhPsDevBpLanInterface,
    cabhPsDevBpNumberInterfacePriorities,
    cabhPsDevBpPhysicalLocation,
    cabhPsDevBpPhysicalAddress,
    cabhPsDevBpRowStatus
}
STATUS          current
DESCRIPTION
    "A collection of objects for providing information on
    LAN IP devices known to the PS."
::= { cabhPsGroups 3 }
```

```
cabhPsDevPsStatsGroup OBJECT-GROUP
    OBJECTS {
        cabhPsDevLanIpTrafficIpType,
        cabhPsDevLanIpTrafficIp,
        cabhPsDevLanIpTrafficIpInOctets,
        cabhPsDevLanIpTrafficIpOutOctets,
        cabhPsDevLanIpTrafficIpCountersReset,
        cabhPsDevLanIpTrafficIpCountersLastReset,
        cabhPsDevLanIpTrafficIpEnabled,
        cabhPsDevLanIpTrafficRowStatus
    }
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

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```
"Group of objects deprecated."  
 ::= { cabhPsGroups 5 }
```

```
cabhPsNotificationGroup    NOTIFICATION-GROUP  
    NOTIFICATIONS {  
        cabhPsDevInitTLVUnknownTrap,  
        cabhPsDevInitTrap,  
        cabhPsDevInitRetryTrap,  
        cabhPsDevDHCPFailTrap,  
        cabhPsDevSwUpgradeInitTrap,  
        cabhPsDevSwUpgradeFailTrap,  
        cabhPsDevSwUpgradeSuccessTrap,  
        cabhPsDevSwUpgradeCVCFailTrap,  
        cabhPsDevTODFailTrap,  
        cabhPsDevCdpWanDataIpTrap,  
        cabhPsDevCdpThresholdTrap,  
        cabhPsDevCspTrap,  
        cabhPsDevCapTrap,  
        cabhPsDevCtpTrap,  
        cabhPsDevProvEnrollTrap,  
        cabhPsDevCdpLanIpPoolTrap  
    }  
    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 }  
  
END
```

5. Acknowledgements

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6. Formal Syntax

The following syntax specification uses the augmented Backus-Naur Form (BNF) as described in [RFC-2234](#) [3].

7. Security Considerations

There are a number of management objects defined in this MIB that have a MAX-ACCESS clause of read-write and/or read-create. Such objects may be considered sensitive or vulnerable in some network environments. The support for SET operations in a non-secure environment without proper protection can have a negative effect on network operations.

It is thus important to control even GET access to these objects and possibly to even encrypt the values of these objects when sending them over the network via SNMP. Not all versions of SNMP provide features for such a secure environment.

SNMP versions prior to SNMPv3 did not include adequate security. Even if the network itself is secure (for example by using IPSec), even then, there is no control as to who on the secure network is allowed to access and GET/SET (read/change/create/delete) the objects in this MIB module.

It is RECOMMENDED that implementers consider the security features as provided by the SNMPv3 framework (see [\[RFC3410\]](#), [section 8](#)), including full support for the SNMPv3 cryptographic mechanisms (for authentication and privacy).

Further, deployment of SNMP versions prior to SNMPv3 is NOT RECOMMENDED. Instead, it is RECOMMENDED to deploy SNMPv3 and to enable cryptographic security. It is then a customer/operator responsibility to ensure that the SNMP entity giving access to an instance of this MIB module, is properly configured to give access to the objects only to those principals (users) that have legitimate rights to indeed GET or SET (change/create/delete) them.

8. References

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- 5 Rose, M. and K. McCloghrie, "Concise MIB Definitions", STD 16, [RFC 1212](#), March 1991.
- 6 Rose, M., "A Convention for Defining Traps for use with the SNMP", [RFC 1215](#), March 1991.
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