

Superseded

CableHome™ CDP MIB Specification

CH-SP-MIB-CDP-I03-030411

Issued

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- Work in Progress** An incomplete document, designed to guide discussion and generate feedback, that may include several alternative requirements for consideration.
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- Closed** A static document, reviewed, tested, validated, and closed to further engineering change requests to the specification through CableLabs.

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1 SCOPE

This specification describes CableHome DHCP Portal (CDP) MIB requirement.

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-I04-030411, April 11, 2003

2.2 Reference Acquisition

CableLabs Specifications:

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

3 ACRONYMS

This specification uses the following abbreviations:

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
DHCP	Dynamic Host Configuration Protocol
NAPT	Network Address and Port Translation
NAT	Network Address Translation
PS	Portal Services

4 REQUIREMENTS

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

```

CABH-CDP-MIB DEFINITIONS ::= BEGIN
IMPORTS
    MODULE-IDENTITY,
    OBJECT-TYPE,
    Integer32,
    Unsigned32                FROM SNMPv2-SMI
    MacAddress,
    TruthValue,
    DateAndTime,
    RowStatus                FROM SNMPv2-TC
    OBJECT-GROUP,
    MODULE-COMPLIANCE        FROM SNMPv2-CONF
    InetAddressType,
    InetAddress              FROM INET-ADDRESS-MIB
    SnmpAdminString          FROM SNMP-FRAMEWORK-MIB
    clabProjCableHome        FROM CLAB-DEF-MIB;

=====
--
-- History:
--
--      Date          Modified by          Reason
--      04/05/02      Issued I01
--      09/20/02      Issued I02
--      10/25/02      IETF I-D revisions
--      04/11/03      Issued I03
--
=====

cabhCdpMib MODULE-IDENTITY
    LAST-UPDATED      "200304110000Z" -- April 11, 2003
    ORGANIZATION      "CableLabs Broadband Access Department"
    CONTACT-INFO
        "Kevin Luehrs
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        Phone: +1 303-661-9100
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        E-mail: k.luehrs@cablelabs.com"

    DESCRIPTION
        "This MIB module supplies the basic management objects
        for the CableHome DHCP Portal (CDP) portion of the PS database.

        Acknowledgements:
        Roy Spitzer          -   Consultant to CableLabs
        Mike Mannette        -   Consultant to CableLabs
        Randy Dunton         -   Intel
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        Itay Sherman         -   Texas Instruments
        Chris Zacker         -   Broadcom
        Rick Vetter          -   Consultant to CableLabs
        John Bevilacqua      -   YAS"

 ::= { clabProjCableHome 4 }

```

```

cabhCdpObjects          OBJECT IDENTIFIER ::= { cabhCdpMib 1 }
cabhCdpBase             OBJECT IDENTIFIER ::= { cabhCdpObjects 1 }
cabhCdpAddr             OBJECT IDENTIFIER ::= { cabhCdpObjects 2 }
cabhCdpServer           OBJECT IDENTIFIER ::= { cabhCdpObjects 3 }
--
--   The following group describes the base objects in the Cable Home
--   DHCP Portal. The rest of this group deals addresses defined on
--   the LAN side.
--

```

```

cabhCdpSetToFactory OBJECT-TYPE
    SYNTAX TruthValue
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Reading this object always returns false(2). When the
        cabhCdpSetToFactory object is set to true(1), the PS must
        take the following actions:
        1. Clear all cabhCdpLanAddrEntries in the CDP LAN Address
           Table.
        2. The CDS must offer the factory default DHCP options
           at the next lease renewal time.
        3. Reset the following objects to their factory default
           values:
        cabhCdpLanTransThreshold,
        cabhCdpLanTransAction,
        cabhCdpWanDataIpAddrCount,
        cabhCdpLanPoolStartType,
        cabhCdpLanPoolStart,
        cabhCdpLanPoolEndType,
        cabhCdpLanPoolEnd,
        cabhCdpServerNetworkNumberType,
        cabhCdpServerNetworkNumber,
        cabhCdpServerSubnetMaskType,
        cabhCdpServerSubnetMask,
        cabhCdpServerTimeOffset,
        cabhCdpServerRouterType,
        cabhCdpServerRouter,
        cabhCdpServerDnsAddressType,
        cabhCdpServerDnsAddress,
        cabhCdpServerSyslogAddressType,
        cabhCdpServerSyslogAddress,
        cabhCdpServerDomainName,
        cabhCdpServerTTL,
        cabhCdpServerInterfaceMTU,
        cabhCdpServerVendorSpecific,
        cabhCdpServerLeaseTime,
        cabhCdpServerDhcpAddressType,
        cabhCdpServerDhcpAddress,
        cabhCdpServerCommitStatus"
 ::= { cabhCdpBase 1 }

```

```

cabhCdpLanTransCurCount OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The current number of active leases in the
        cabhCdpLanAddrTable (the number of row entries in the
        table that have a cabhCdpLanAddrMethod value of
        reservationActive(2) or dynamicActive(4)). This count

```

```

        does not include expired leases or reservations not
        associated with a current lease."
 ::= { cabhCdpBase 2 }

cabhCdpLanTransThreshold OBJECT-TYPE
    SYNTAX INTEGER (0..65533)
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "The threshold number of LAN-Trans IP addresses allocated
        or assigned above which the PS generates an alarm
        condition. Whenever an attempt is made to allocate a
        LAN-Trans IP address when cabhCdpLanTransCurCount is
        greater than or equal to cabhCdpLanTransThreshold, an
        event is generated. A value of 0 indicates that the CDP
        sets the threshold at the highest number of addresses in
        the LAN address pool."
    DEFVAL { 0 }
 ::= { cabhCdpBase 3 }

cabhCdpLanTransAction OBJECT-TYPE
    SYNTAX INTEGER {
        normal (1),
        noAssignment (2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "The action taken when the CDS assigns a LAN-Trans
        address and the number of LAN-Trans addresses assigned
        (cabhCdpLanTransCurCount) is greater than the threshold
        (cabhCdpLanTransThreshold) The actions are as follows:
        normal - assign a LAN-Trans IP address as would
        normally occur if the threshold was not exceeded.
        noAssignment - do not assign a LAN-Trans IP address."
    DEFVAL { normal }
 ::= { cabhCdpBase 4 }

cabhCdpWanDataIpAddrCount OBJECT-TYPE
    SYNTAX INTEGER ( 0..63 )
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "This is the number of WAN-Data IP addresses the
        PS's CDC must attempt to acquire via DHCP."
    DEFVAL { 0 }
 ::= { cabhCdpBase 5 }
--
--      CDP Address Management Tables
--
=====
--
--      cabhCdpLanAddrTable (CDP LAN Address Table)
--
--      The cabhCdpLanAddrTable contains the DHCP parameters
--      for each IP address served to the LAN-Trans realm.
--
--      This table contains a list of entries for the LAN side CDP
--      parameters. These parameters can be set
--      either by the CDP or by the cable operator through the CMP.
--
=====

```

cabhCdpLanAddrTable OBJECT-TYPE

SYNTAX SEQUENCE OF CabhCdpLanAddrEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"This table is a list of LAN-Trans realm parameters. This table has one row entry for each allocated LAN-Trans IP address. Each row must have at least a valid cabhCdpLanAddrMethod, a cabhCdpLanAddrIpType, a unique cabhCdpLanAddrIp, and a unique cabhCdpLanAddrClientId value.

Static/Manual address assignment: To create a new DHCP address reservation, the NMS creates a row with: an index comprised of a new cabhCdpLanAddrIp and its cabhCdpLanAddrIpType, a new unique cabhCdpLanAddrClientId, (an empty LeaseCreateTime and empty LeaseExpireTime,) and a cabhCdpLanDataAddrRowStatus of createAndGo(4). If the syntax and values of the new row - indicating a reservation - are valid, the PS must set cabhCdpLanAddrMethod to reservationInactive(1) and cabhCdpLanDataAddrRowStatus to active(1). When the PS grants a lease for a reserved IP, it must set the cabhCdpLanAddrMethod object for that row to reservationActive(2). When a lease for a reserved IP expires, the PS must set the corresponding row's cabhCdpLanAddrMethod object to reservationInactive(1). For row entries that represent lease reservations - rows in which the cabhCdpLanAddrMethod object has a value of either reservationInactive(1) or reservationActive(2) - the cabhCdpLanAddrIpType, cabhCdpLanAddrIp, cabhCdpLanAddrClientId, cabhCdpLanAddrMethod, and cabhCdpLanAddrHostName object values must persist across PS reboots.

Dynamic address assignment: When the PS grants a lease for a non-reserved IP, it must set the cabhCdpLanAddrMethod object for that row to dynamicActive(4). When a lease for a non-reserved IP expires, the PS must set the corresponding row's cabhCdpLanAddrMethod object to dynamicInactive(3). The PS must create new row entries using cabhCdpLanAddrIp values that are unique to this table. If all cabhCdpLanAddrIp values in the range defined by cabhCdpLanPoolStart and cabhCdpLanPoolEnd are in use in this table, the PS may overwrite the cabhCdpLanAddrClientId of a row that has a cabhCdpLanAddrMethod object with a value of dynamicInactive(3) with a new cabhCdpLanAddrClientId value and use that cabhCdpLanAddrIp as part of a new lease. For row entries that represent active leases - rows in which the cabhCdpLanAddrMethod object has a value of dynamicActive(4) - the cabhCdpLanAddrIpType, cabhCdpLanAddrIp, cabhCdpLanAddrClientId, cabhCdpLanAddrMethod, and cabhCdpLanAddrHostName object values must persist across PS reboots."

::= { cabhCdpAddr 1 }

cabhCdpLanAddrEntry OBJECT-TYPE

SYNTAX CabhCdpLanAddrEntry

MAX-ACCESS not-accessible

STATUS current

```

DESCRIPTION
    "List of general parameters pertaining to LAN-Trans IP
    address reservations and leases."
INDEX { cabhCdpLanAddrIpType, cabhCdpLanAddrIp }
 ::= { cabhCdpLanAddrTable 1 }

CabhCdpLanAddrEntry ::= SEQUENCE {
    cabhCdpLanAddrIpType      InetAddressType,
    cabhCdpLanAddrIp          InetAddress,
    cabhCdpLanAddrClientID    MacAddress,
    cabhCdpLanAddrLeaseCreateTime    DateAndTime,
    cabhCdpLanAddrLeaseExpireTime    DateAndTime,
    cabhCdpLanAddrMethod        INTEGER,
    cabhCdpLanAddrHostName      SnmpAdminString,
    cabhCdpLanAddrRowStatus     RowStatus
}

cabhCdpLanAddrIpType OBJECT-TYPE
    SYNTAX      InetAddressType
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The type of IP address assigned to the LAN IP Device
        in the LAN-Trans Realm."
    ::= { cabhCdpLanAddrEntry 1 }

cabhCdpLanAddrIp OBJECT-TYPE
    SYNTAX      InetAddress
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The address assigned to the LAN IP Device. This parameter is
        entered by the CDP when the CDS grants a lease to a LAN IP
        Device in the LAN-Trans realm and creates a row in this table.
        Alternatively, this parameter can be entered by the NMS
        through the CMP, when the NMS creates a new DHCP address
        reservation. Each cabhCdpLanAddrIp in the table must fall
        within the range of IPs defined inclusively by
        cabhCdpLanPoolStart and cabhCdpLanPoolEnd. The PS must
        return an inconsistentValue error if the NMS attempts to
        create a row entry with a cabhCdpLanAddrIP value that falls
        outside of this range or is not unique from all existing
        cabhCdpLanAddrIP entries in this table. The address type of
        this object is specified by cabhCdpLanAddrIpType."
    ::= { cabhCdpLanAddrEntry 2 }

cabhCdpLanAddrClientID OBJECT-TYPE
    SYNTAX      MacAddress
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "The client's (i.e., LAN IP Device's) hardware address as indicated in
        the chaddr field of its DHCP REQUEST message. There is a one-to-one
        relationship between the hardware address and the LAN IP Device. This
        parameter is entered by the PS (CDP) when the CDS grants a lease to a
        LAN IP Device in the LAN-Trans realm and creates a row in this table.
        Alternatively this parameter can be created by the NMS through the CMP,
        when the NMS creates a new DHCP address reservation by accessing the
        cabhCdpLanDataAddrRowStatus object with an index comprised of a unique
        cabhCdpLanAddrIp and creating a row with a unique
        cabhCdpLanAddrClientID."
    ::= { cabhCdpLanAddrEntry 3 }

```

```

cabhCdpLanAddrLeaseCreateTime OBJECT-TYPE
    SYNTAX      DateAndTime
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "This is the date and time that the LAN-Trans lease was
         created (if it has not yet been renewed) or last renewed."
    ::= { cabhCdpLanAddrEntry 4 }

cabhCdpLanAddrLeaseExpireTime OBJECT-TYPE
    SYNTAX      DateAndTime
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "This is the date and time that the LAN-trans lease expired
         or will expire."
    ::= { cabhCdpLanAddrEntry 5 }

cabhCdpLanAddrMethod OBJECT-TYPE
    SYNTAX      INTEGER {
        reservationInactive (1),
        reservationActive (2),
        dynamicInactive (3),
        dynamicActive (4)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The IP allocation method indicated by this row.
         reservationInactive(1) indicates a reserved IP that has
         not yet been leased or that has an expired lease.
         reservationActive(2) indicates a reserved IP that has an
         active lease.  dynamicInactive(3) indicates an IP that was
         once dynamically assigned to a LAN-Trans device but
         currently has an expired lease.  dynamicActive(4)
         indicates an IP that was dynamically assigned to a
         LAN-Trans device that has a current lease."
    ::= { cabhCdpLanAddrEntry 6 }

cabhCdpLanAddrHostName OBJECT-TYPE
    SYNTAX      SnmpAdminString(SIZE(0..80))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "This is the Host Name of the LAN IP address, based on DHCP
         option 12."
    ::= { cabhCdpLanAddrEntry 7 }

cabhCdpLanAddrRowStatus OBJECT-TYPE
    SYNTAX      RowStatus
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "The RowStatus interlock for creation and deletion of row entries.
         The PS must not allow the NMS to set RowStatus to notInService(2).
         The PS must assign a RowStatus of notInService(2) to any new row
         entry created with a non-unique, cabhCdpLanAddrClientID value.
         The PS must assign a RowStatus of notReady(3) to any new row
         entry created without a cabhCdpLanAddrClientID.  The PS will
         prevent modification of this table's columns and return an
         inconsistentValue error, if the NMS attempts to make such
         modifications while the RowStatus is active(1)."
    ::= { cabhCdpLanAddrEntry 8 }

```

```

=====
--
--      cabhCdpWanDataAddrTable (CDP WAN-Data Address Table)
--
--      The cabhCdpWanDataAddrTable contains the configuration or DHCP
--      parameters for each IP address mapping per WAN-Data IP Address.
--
=====

cabhCdpWanDataAddrTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF CabhCdpWanDataAddrEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "This table contains WAN-Data address realm information."
    ::= { cabhCdpAddr 2 }

cabhCdpWanDataAddrEntry OBJECT-TYPE
    SYNTAX      CabhCdpWanDataAddrEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "List of general parameter for CDP WAN-Data address realm."
    INDEX { cabhCdpWanDataAddrIndex }
    ::= { cabhCdpWanDataAddrTable 1 }

CabhCdpWanDataAddrEntry ::= SEQUENCE {
    cabhCdpWanDataAddrIndex      INTEGER,
    cabhCdpWanDataAddrClientId  OCTET STRING,
    cabhCdpWanDataAddrIpType    InetAddressType,
    cabhCdpWanDataAddrIp        InetAddress,
    cabhCdpWanDataAddrRenewalTime Integer32,
    cabhCdpWanDataAddrRowStatus RowStatus
}

cabhCdpWanDataAddrIndex OBJECT-TYPE
    SYNTAX      INTEGER (1..65535)
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "Index into table."
    ::= { cabhCdpWanDataAddrEntry 1 }

cabhCdpWanDataAddrClientId OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE (1..80))
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "A unique WAN-Data ClientID used when attempting the acquire a
        WAN-Data IP Address via DHCP."
    ::= { cabhCdpWanDataAddrEntry 2 }

cabhCdpWanDataAddrIpType OBJECT-TYPE
    SYNTAX      InetAddressType
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The address type assigned on the WAN-Data side."
    DEFVAL { ipv4 }
    ::= { cabhCdpWanDataAddrEntry 3 }

```

```

cabhCdpWanDataAddrIp OBJECT-TYPE
    SYNTAX      InetAddress
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The address assigned on the WAN-Data side."
    ::= { cabhCdpWanDataAddrEntry 4 }

cabhCdpWanDataAddrRenewalTime OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "This is the time remaining before the lease expires.
        This is based on DHCP Option 51."
    ::= { cabhCdpWanDataAddrEntry 5 }

cabhCdpWanDataAddrRowStatus OBJECT-TYPE
    SYNTAX      RowStatus
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "The RowStatus interlock for creation and deletion of row
        entries. Any writable object in a row can be modified at
        any time while the row is active(1). The PS must assign a
        RowStatus of notInService(2) to any new row entry created
        with a cabhCdpWanDataAddrClientId that is not unique within
        this table."

    ::= { cabhCdpWanDataAddrEntry 6 }
-----
--
-- cabhCdpWanDnsServerTable (CDP WAN DNS Server Table)
--
-- The cabhCdpWanDnsServerTable is a table of 3 cable network
-- and Internet DNS Servers.
--
-----
cabhCdpWanDnsServerTable OBJECT-TYPE
    SYNTAX SEQUENCE OF CabhCdpWanDnsServerEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "This table contains the IP addresses of cable network and
        Internet DNS servers, in the order of preference in which
        the PS's CNP will query them, when it cannot resolve a DNS
        query using local information. Entries in this table are
        updated with the information contained in DHCP Option 6,
        received during both the WAN-Man and WAN-Data IP acquisition
        processes."
    ::= { cabhCdpAddr 3 }

cabhCdpWanDnsServerEntry OBJECT-TYPE
    SYNTAX CabhCdpWanDnsServerEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "List of cable network and Internet DNS servers."
    INDEX { cabhCdpWanDnsServerOrder }
    ::= { cabhCdpWanDnsServerTable 1 }

CabhCdpWanDnsServerEntry ::= SEQUENCE {
    cabhCdpWanDnsServerOrder INTEGER,

```

```

    cabhCdpWanDnsServerIpType InetAddressType,
    cabhCdpWanDnsServerIp InetAddress
}

cabhCdpWanDnsServerOrder OBJECT-TYPE
    SYNTAX INTEGER {
        primary(1),
        secondary(2),
        tertiary(3)
    }
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "The order of preference for cable network and Internet DNS
        servers, as listed in DHCP option 6 (Domain Server). Any
        time the CDC receives valid IP address information within
        DHCP Option 6, as part of lease acquisition or renewal of
        a WAN-Man or WAN-Data IP, it must update this information
        into this table. As entries in DHCP Option 6 are listed in
        order of preference the highest priority entry in DHCP
        Option 6 must correspond to the row with a
        cabhCdpWanDnsServerOrder with a value of 1. If DHCP
        Option 6 contains 2 valid IP addresses, the PS must update
        the rows with cabhCdpWanDnsServerOrder values of 1 and 2.
        If DHCP Option 6 contains 3 valid IP addresses, the PS must
        update rows with cabhCdpWanDnsServerOrder values of 1, 2,
        and 3. Any DNS server information included in DHCP Option 6
        beyond primary, secondary and tertiary will not be
        represented in this table."
    ::= { cabhCdpWanDnsServerEntry 1 }

cabhCdpWanDnsServerIpType OBJECT-TYPE
    SYNTAX InetAddressType
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "This parameter indicates the IP address type of a WAN DNS
        server."
    DEFVAL { ipv4 }
    ::= { cabhCdpWanDnsServerEntry 2 }

cabhCdpWanDnsServerIp OBJECT-TYPE
    SYNTAX InetAddress
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "This parameter indicates the IP address of a WAN DNS server.
        The type of this address is specified by
        cabhCdpWanDnsServerIpType."
    ::= { cabhCdpWanDnsServerEntry 3 }

--
-- DHCP Server Side (CDS) Option Values for the LAN-Trans realm
--

cabhCdpLanPoolStartType OBJECT-TYPE
    SYNTAX InetAddressType
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "The Address type of the start of range LAN Trans IP Addresses."
    DEFVAL { ipv4 }
    ::= { cabhCdpServer 1 }

```

```
cabhCdpLanPoolStart OBJECT-TYPE
    SYNTAX      InetAddress
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "The start of range LAN Trans IP Addresses."
        DEFVAL { 'c0a8000a'h }      -- 192.168.0.10
        -- 192.168.0.0 is the network number
        -- 192.168.0.255 is broadcast
        -- address and 192.168.0.1
        -- is reserved for the router
    ::= { cabhCdpServer 2 }

cabhCdpLanPoolEndType OBJECT-TYPE
    SYNTAX      InetAddressType
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "The Address type of the end of range LAN Trans IP Addresses."
        DEFVAL { ipv4 }
    ::= { cabhCdpServer 3 }

cabhCdpLanPoolEnd OBJECT-TYPE
    SYNTAX      InetAddress
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "The end of range for LAN-Trans IP Addresses."
        DEFVAL { 'c0a800fe'h }      -- 192.168.0.254
    ::= { cabhCdpServer 4 }

cabhCdpServerNetworkNumberType OBJECT-TYPE
    SYNTAX      InetAddressType
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "The IP address type of the LAN-Trans network number."
        DEFVAL { ipv4 }
    ::= { cabhCdpServer 5 }

cabhCdpServerNetworkNumber OBJECT-TYPE
    SYNTAX      InetAddress
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "The LAN-Trans network number."
        DEFVAL { 'c0a80000'h }
    ::= { cabhCdpServer 6 }

cabhCdpServerSubnetMaskType OBJECT-TYPE
    SYNTAX      InetAddressType
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Type of LAN-Trans Subnet Mask."
        DEFVAL { ipv4 }
    ::= { cabhCdpServer 7 }

cabhCdpServerSubnetMask OBJECT-TYPE
    SYNTAX      InetAddress
    MAX-ACCESS  read-write
```

```

STATUS      current
DESCRIPTION
  "Option value 1 - Value of LAN-Trans Subnet Mask."
  DEFVAL { 'ffffff00'h } -- 255.255.255.0
 ::= { cabhCdpServer 8 }

cabhCdpServerTimeOffset OBJECT-TYPE
SYNTAX      Integer32 (-86400..86400) -- 0 to 24 hours (in seconds)
UNITS       "seconds"
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
  "Option value 2 - Value of LAN-Trans Time Offset from
  Coordinated Universal Time (UTC)."
```

```

  DEFVAL { 0 } -- UTC
 ::= { cabhCdpServer 9 }

cabhCdpServerRouterType OBJECT-TYPE
SYNTAX      InetAddressType
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
  "Type of Address, Router for the LAN-Trans
  address realm."
  DEFVAL { ipv4 }
 ::= { cabhCdpServer 10 }

cabhCdpServerRouter OBJECT-TYPE
SYNTAX      InetAddress
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
  "Option value 3 - Router for the LAN-Trans
  address realm."
  DEFVAL { 'c0a80001'h } -- 192.168.0.1
 ::= { cabhCdpServer 11 }

cabhCdpServerDnsAddressType OBJECT-TYPE
SYNTAX      InetAddressType
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
  "The Type of IP Addresses of the LAN-Trans address realm
  DNS servers."
  DEFVAL { ipv4 }
 ::= { cabhCdpServer 12 }

cabhCdpServerDnsAddress OBJECT-TYPE
SYNTAX      InetAddress
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
  "The IP Addresses of the LAN-Trans address realm
  DNS servers. As a default there is only one DNS
  server and it is the address specified in Option
  Value 3 - cabhCdpServerRouter. Only one address
  is specified."
  DEFVAL { 'c0a80001'h } -- 192.168.0.1
 ::= { cabhCdpServer 13 }

cabhCdpServerSyslogAddressType OBJECT-TYPE
SYNTAX      InetAddressType
MAX-ACCESS  read-write
```

```

STATUS      current
DESCRIPTION
  "The Type of IP Address of the LAN-Trans SYSLOG servers."
  DEFVAL { ipv4 }
 ::= { cabhCdpServer 14 }

cabhCdpServerSyslogAddress OBJECT-TYPE
SYNTAX      InetAddress
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
  "The IP Addresses of the LAN-Trans SYSLOG servers.
  As a default there are no SYSLOG Servers.
  The factory defaults contains the indication of
  no Syslog Server value equals (0.0.0.0)."
  DEFVAL { '00000000'h } -- 0.0.0.0
 ::= { cabhCdpServer 15 }

cabhCdpServerDomainName OBJECT-TYPE
SYNTAX      SnmpAdminString(SIZE(0..128))
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
  "Option value 15 - Domain name of LAN-Trans address realm."
  DEFVAL { "" }
 ::= { cabhCdpServer 16 }

cabhCdpServerTTL OBJECT-TYPE
SYNTAX      INTEGER (0..255)
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
  "Option value 23 - LAN-Trans Time to Live."
  DEFVAL { 64 }
 ::= { cabhCdpServer 17 }

cabhCdpServerInterfaceMTU OBJECT-TYPE
SYNTAX      Integer32 (0 | 68..4096)
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
  "Option value 26 - LAN-Trans Interface MTU. If the value
  of this object is 0, the PS must not include this option in
  its DHCP Offer or DHCP Ack messages to LAN IP Devices."
  DEFVAL { 0 }
 ::= { cabhCdpServer 18 }

cabhCdpServerVendorSpecific OBJECT-TYPE
SYNTAX      OCTET STRING (SIZE(0..255))
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
  "Option value 43 - Vendor Specific Options."
  DEFVAL { 'h' }
 ::= { cabhCdpServer 19 }

cabhCdpServerLeaseTime OBJECT-TYPE
SYNTAX      Unsigned32
UNITS       "seconds"
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
  "Option value 51 -Lease Time for LAN IP Devices in the LAN-Trans realm

```

```
(seconds)."
```

```
DEFVAL { 3600 }
```

```
 ::= { cabhCdpServer 20 }
```

```
cabhCdpServerDhcpAddressType OBJECT-TYPE
    SYNTAX      InetAddressType
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Option value 54 - Type of LAN-Trans DHCP server IP address."
    DEFVAL { ipv4 }
    ::= { cabhCdpServer 21 }
```

```
cabhCdpServerDhcpAddress OBJECT-TYPE
    SYNTAX      InetAddress
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Option value 54 - LAN-Trans DHCP server IP
        address. It defaults to the router address as
        specified in cabhCdpServerRouter. Alternatively
        a vendor may want to separate CDS address from
        router address."
    DEFVAL { 'c0a80001'h }          --      192.168.0.1
    ::= { cabhCdpServer 22 }
```

```
cabhCdpServerControl OBJECT-TYPE
    SYNTAX      INTEGER {
        restoreConfig(1)
        commitConfig (2),
    }
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
```

"The control for the CDS (DHCP Server) configuration. All changes to the cabhCdpServer mib objects are reflected when reading the value of the mib objects; however, those changes are NOT applied to the running configuration of the CDS until they are successfully committed via use of the cabhCdpServerControl object.

If changes are made to the cabhCdpServer mib objects which are not yet successfully committed to the CDS, the cabhCdpServerControl object can be used to rollback all changes to the last valid CDS configuration and discard all intermediate changes.

restoreConfig - Setting cabhCdpServerControl to this value will cause any changes to the cabhCdpServer objects not yet committed be reset to the values from the current running configuration of the CDS.

commitConfig - Setting cabhCdpServerControl to this value will cause the CDS to validate and apply the valid cabhCdpServer mib settings to its running configuration. The cabhCdpServerCommitStatus object will detail the status of this operation."

```
DEFVAL { restoreConfig }
 ::= { cabhCdpServer 23 }
```

```
cabhCdpServerCommitStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        commitSucceeded (1),
        commitNeeded (2),
```

```

        commitFailed (3)
    }
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION
"Indicates the status of committing the current cabhCdpServer mib object
values to the running configuration of the CDS (DHCP Server).

commitSucceeded - indicates the current cabhCdpServer mib object
values are valid and have been successfully committed to the running
configuration of the CDS.

commitNeeded - indicates that the value of one or more objects in
cabhCdpServer mib group have been changed but not yet committed to the
running configuration of the CDS.

commitFailed - indicates the PS was unable to commit the cabhCdpServer
mib object values to the running configuration of the CDS due to
conflicts in those values."

    DEFVAL { commitSucceeded }
    ::= { cabhCdpServer 24 }

--
-- notification group is for future extension.
--

cabhCdpNotification OBJECT IDENTIFIER ::= { cabhCdpMib 2 0 }
cabhCdpConformance OBJECT IDENTIFIER ::= { cabhCdpMib 3 }
cabhCdpCompliances OBJECT IDENTIFIER ::= { cabhCdpConformance 1 }
cabhCdpGroups      OBJECT IDENTIFIER ::= { cabhCdpConformance 2 }

--
-- Notification Group
--

-- compliance statements

cabhCdpBasicCompliance MODULE-COMPLIANCE
    STATUS        current
    DESCRIPTION
        "The compliance statement for devices that implement
        MTA feature."
    MODULE        --cabhCdpMib

-- unconditionally mandatory groups

    MANDATORY-GROUPS {
        cabhCdpGroup
    }

::= { cabhCdpCompliances 3 }

cabhCdpGroup OBJECT-GROUP

    OBJECTS {

```

```

cabhCdpSetToFactory,
cabhCdpLanTransCurCount,
cabhCdpLanTransThreshold,
cabhCdpLanTransAction,
cabhCdpWanDataIpAddrCount,

cabhCdpLanAddrClientID,
cabhCdpLanAddrLeaseCreateTime,
cabhCdpLanAddrLeaseExpireTime,
cabhCdpLanAddrMethod,
cabhCdpLanAddrHostName,
cabhCdpLanAddrRowStatus,

cabhCdpWanDataAddrClientId,
cabhCdpWanDataAddrIpType,
cabhCdpWanDataAddrIp,
cabhCdpWanDataAddrRenewalTime,
cabhCdpWanDataAddrRowStatus,

cabhCdpWanDnsServerIpType,
cabhCdpWanDnsServerIp,

cabhCdpLanPoolStartType,
cabhCdpLanPoolStart,
cabhCdpLanPoolEndType,
cabhCdpLanPoolEnd,
cabhCdpServerNetworkNumberType,
cabhCdpServerNetworkNumber,
cabhCdpServerSubnetMaskType,
cabhCdpServerSubnetMask,
cabhCdpServerTimeOffset,
cabhCdpServerRouterType,
cabhCdpServerRouter,
cabhCdpServerDnsAddressType,
cabhCdpServerDnsAddress,
cabhCdpServerSyslogAddressType,
cabhCdpServerSyslogAddress,
cabhCdpServerDomainName,
cabhCdpServerTTL,
cabhCdpServerInterfaceMTU,
cabhCdpServerVendorSpecific,
cabhCdpServerLeaseTime,
cabhCdpServerDhcpAddressType,
cabhCdpServerDhcpAddress,
cabhCdpServerControl,
cabhCdpServerCommitStatus
}
STATUS current
DESCRIPTION
"Group of objects for CableHome CDP MIB."
::= { cabhCdpGroups 1 }

END

```

Appendix I Revision History

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

ECN Number	ECN Date	Summary
CH1-N-02005	8/15/02	No events defined for the exhaustion of the CDS IP address pool. Other clarifications and typo corrections.
CH1-N-02009	6/20/02	Specify default value of IPv4 for all IP address types Move the description for CDP LAN Address Type to CDP LAN Address Correct the reference to cabhCdpWanDataAddrRowStatus in the description for cabhCdpLanAddrClientID Change the default value of the CDP Server (CDS) lease time from 60 seconds to 3600 seconds Correct the specified range for the WAN Data IP Address Count Change the default value for LAN Trans Threshold to be consistent with the default LAN address pool start and end values. Add Network Number as another CDP Server object Replace each instance of DisplayString with SnmpAdminString Correct MIB description: remove reference to CAP. Correct description for object cabhCdpSetToFactory
CH1-N-02013	8/15/02	Change CDC parameters from read-create to read-only

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

ECN Number	ECN Date	Summary
CH1-N-02038	1/23/03	Include text clarifying that upon setting CDP mib cabhCdpSetToFactory object to (1) true that all entries in the CDP LAN Address Table MUST also be set to factory defaults.
CH1-N-02060	1/23/03	Create a CDP MIB mechanism to reload the CDS server after making changes to cabhCdpServer mib settings.
CH1-N-02055	2/27/03	Provide more descriptive text in the CDP MIB for various tables and for Row Status of various tables. Clean up Imports statement, group membership, overhaul the cabhCdpWanDataAddrServerTable, update lease create and expire time formats, and enhance the cabhCdpLanAddrMethod object to indicate which leases are active.