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LLDP-MIB DEFINITIONS ::= BEGIN

IMPORTS
    MODULE-IDENTITY, OBJECT-TYPE, Integer32, Counter32, NOTIFICATION-TYPE
    FROM SNMPv2-SMI
    TEXTUAL-CONVENTION, TimeStamp, TruthValue
    FROM SNMPv2-TC
    SmpAdminString
    FROM SNMP-FRAMEWORK-MIB
    MODULE-COMPLIANCE, OBJECT-GROUP, NOTIFICATION-GROUP
    FROM SNMPv2-CONF
    TimeFilter
    FROM RMON2-MIB
    AddressFamilyNumbers
    FROM IANA-ADDRESS-FAMILY-NUMBERS-MIB;

lldpMIB MODULE-IDENTITY
    LAST-UPDATED "200403290000Z" -- March 29, 2004
    ORGANIZATION "IEEE 802.1AB Working Group"
    CONTACT-INFO
        "WG-URL: http://grouper.ieee.org/groups/802/1/index.html
        WG-EMail: stds-802-1@ieee.org

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              8000 Foothills Blvd.
              Roseville, CA 95747
              USA
        Tel: +1-916-785-5753
        E-mail: paul_congdon@hp.com"
    DESCRIPTION
        "Management Information Base module for LLDP configuration,
        statistics, local system data and remote systems data
        components.

        Copyright (C) IEEE 801.1AB Working Group (March 29, 2004).
        This version of this MIB module is published as Clause 12
        of IEEE Std. 802.1AB-2004; see the standard itself for full
        legal notices."
    REVISION "200403290000Z" -- March 29, 2004
    DESCRIPTION
        "Published as IEEE Std. 802.1AB-2004 initial version."
    ::= { iso std(0) iso8802(8802) ieee802dot1(1) ieee802dot1mibs(1) X }

lldpNotifications OBJECT IDENTIFIER ::= { lldpMIB 0 }
lldpObjects OBJECT IDENTIFIER ::= { lldpMIB 1 }
lldpConformance OBJECT IDENTIFIER ::= { lldpMIB 2 }

--
-- LLDP MIB Objects
--

lldpConfiguration OBJECT IDENTIFIER ::= { lldpObjects 1 }
lldpStatistics OBJECT IDENTIFIER ::= { lldpObjects 2 }
lldpLocalSystemData OBJECT IDENTIFIER ::= { lldpObjects 3 }
lldpRemoteSystemsData OBJECT IDENTIFIER ::= { lldpObjects 4 }
lldpExtensions OBJECT IDENTIFIER ::= { lldpObjects 5 }

-- textual conventions

LldpChassisIdType ::= TEXTUAL-CONVENTION
    STATUS current
    DESCRIPTION
        "This TC describes the source of a chassis identifier.

        The enumeration 'entPhysicalAlias(1)' represents a chassis
        identifier based on the value of entPhysicalAlias object
        (defined in IETF RFC 2737) for a chassis component (i.e.,
        an entPhysicalClass value of 'chassis(3)').

        The enumeration 'ifAlias(2)' represents a chassis identifier
        based on the value of ifAlias object (defined in IETF RFC
        2863) for an interface on the containing chassis.

        The enumeration 'portEntPhysicalAlias(3)' represents a
        chassis identifier based on the value of entPhysicalAlias
        object (defined in IETF RFC 2737) for a port component
        (i.e., entPhysicalClass value of 'port(10)'), within the
        containing chassis.

        The enumeration 'backplaneEntPhysicalAlias(4)' represents a

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LLDP-MIB DEFINITIONS ::= BEGIN

IMPORTS
    MODULE-IDENTITY, OBJECT-TYPE, Integer32, Counter32, NOTIFICATION-TYPE,
    experimental
    FROM SNMPv2-SMI
    TEXTUAL-CONVENTION, TimeStamp
    FROM SNMPv2-TC
    SmpAdminString
    FROM SNMP-FRAMEWORK-MIB
    MODULE-COMPLIANCE, OBJECT-GROUP, NOTIFICATION-GROUP
    FROM SNMPv2-CONF
    TimeFilter
    FROM RMON2-MIB
    AddressFamilyNumbers
    FROM IANA-ADDRESS-FAMILY-NUMBERS-MIB;

lldpMIB MODULE-IDENTITY
    LAST-UPDATED "200403120000Z" -- March 12, 2004
    ORGANIZATION "IEEE 802.1AB Workgroup"
    CONTACT-INFO "The Institute of Electrical and Electronics Engineers, Inc.
        3 Park Avenue,
        New York, NY 10016-5997, USA

        http://grouper.ieee.org/groups/802/1/index.html"
    DESCRIPTION
        "The MIB module for LLDP configuration, statistics, local
        system data and remote systems data components.

        Copyright (C) IEEE 801.1AB Workgroup (March 12, 2004).
        This version of this MIB module is part of IEEE Draft
        802.1AB/D8; see the draft itself for full legal notices."
    -- MIB Ed: change the Copyright information when a new draft becomes
    -- available.
    REVISION "200403120000Z" -- March 12, 2004
    DESCRIPTION
        "Initial Version."
    -- MIB Ed: replace XX and "experimental" with assigned OID and branch
    -- when they become available and remove this note
    ::= { experimental XX }

lldpNotifications OBJECT IDENTIFIER ::= { lldpMIB 0 }
lldpObjects OBJECT IDENTIFIER ::= { lldpMIB 1 }
lldpConformance OBJECT IDENTIFIER ::= { lldpMIB 2 }

--
-- LLDP MIB Objects
--

lldpConfiguration OBJECT IDENTIFIER ::= { lldpObjects 1 }
lldpStatistics OBJECT IDENTIFIER ::= { lldpObjects 2 }
lldpLocalSystemData OBJECT IDENTIFIER ::= { lldpObjects 3 }
lldpRemoteSystemsData OBJECT IDENTIFIER ::= { lldpObjects 4 }
lldpExtentions OBJECT IDENTIFIER ::= { lldpObjects 5 }

-- textual conventions

LldpChassisIdType ::= TEXTUAL-CONVENTION
    STATUS current
    DESCRIPTION
        "This TC describes the source of a chassis identifier.

        The enumeration 'entPhysicalAlias(1)' represents a chassis
        identifier based on the value of entPhysicalAlias for
        a chassis component (i.e., an entPhysicalClass value of
        'chassis(3)').

        The enumeration 'ifAlias(2)' represents a chassis identifier
        based on the value of ifAlias for an interface on the
        containing chassis.

        The enumeration 'portEntPhysicalAlias(3)' represents a
        chassis identifier based on the value of entPhysicalAlias for
        a port component (i.e., entPhysicalClass value of 'port(10)'),
        within the containing chassis.

        The enumeration 'backplaneEntPhysicalAlias(4)' represents a

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85 chassis identifier based on the value of entPhysicalAlias object (defined in IETF RFC 2737) for a for backplane component (i.e., entPhysicalClass value of 'backplane(4)'), within the containing chassis.

90 The enumeration 'macAddress(5)' represents a chassis identifier based on the value of a unicast source MAC address (encoded in network byte order and IEEE 802.3 canonical bit order), of a port on the containing chassis as defined in IEEE Std. 802-2001.

95 The enumeration 'networkAddress(6)' represents a chassis identifier based on a network address, associated with a particular chassis. The encoded address is actually composed of two fields. The first field is a single octet, representing the IANA AddressFamilyNumbers value for the specific address type, and the second field is the network address value.

100 The enumeration 'ifName(7)' represents a chassis identifier based on the value of ifName object (defined in IETF RFC 2863) for an interface on the containing chassis.

105 The enumeration 'local(8)' represents a chassis identifier based on a locally defined value."

SYNTAX

```

110 INTEGER {
    entPhysicalAlias(1),
    ifAlias(2),
    portEntPhysicalAlias(3),
    backplaneEntPhysicalAlias(4),
    macAddress(5),
    networkAddress(6),
    ifName(7),
    local(8)
}

```

LldpChassisId ::= TEXTUAL-CONVENTION

STATUS current

DESCRIPTION

120 "This TC describes the format of a chassis identifier string. Objects of this type are always used with an associated LldpChassisIdType object, which identifies the format of the particular LldpChassisId object instance.

130 If the associated ChassisIdType object has a value of 'entPhysicalAlias(1)', then the octet string identifies a particular instance of the entPhysicalAlias object (defined in IETF RFC 2737) for a chassis component (i.e., an entPhysicalClass value of 'chassis(3)').

135 If the associated LldpChassisIdType object has a value of 'ifAlias(2)', then the octet string identifies a particular instance of the ifAlias object (defined in IETF RFC 2863) for an interface on the containing chassis.

140 If the associated LldpChassisIdType object has a value of 'portEntPhysicalAlias(3)', then the octet string identifies a particular instance of the entPhysicalAlias object (defined in IETF RFC 2737) for a port component within the containing chassis.

145 If the associated LldpChassisIdType object has a value of 'backplaneEntPhysicalAlias(4)', then the octet string identifies a particular instance of the entPhysicalAlias object (defined in IETF RFC 2737) for the backplane component within the containing chassis.

150 If the associated ChassisIdType object has a value of 'macAddress(5)', then this string identifies a particular unicast source MAC address (encoded in network byte order and IEEE 802.3 canonical bit order), of a port on the containing chassis as defined in IEEE Std. 802-2001.

155 If the associated ChassisIdType object has a value of 'networkAddress(6)', then this string identifies a particular network address, encoded in network byte order, associated with one or more ports on the containing chassis. The first octet contains the IANA Address Family Numbers enumeration value for the specific address type, and octets 2 through N contain the network address value in network byte order.

160 If the associated LldpChassisIdType object has a value of

chassis identifier based on the value of entPhysicalAlias for backplane component (i.e., entPhysicalClass value of 'backplane(4)'), within the containing chassis.

The enumeration 'macAddress(5)' represents a chassis identifier based on the value of a unicast source MAC address (encoded in network byte order and IEEE 802.3 canonical bit order), of a port on the containing chassis.

The enumeration 'networkAddress(6)' represents a chassis identifier based on a network address, associated with a particular chassis. The encoded address is actually composed of two fields. The first field is a single octet, representing the IANA AddressFamilyNumbers value for the specific address type, and the second field is the network address value.

The enumeration 'local(7)' represents a chassis identifier

based on a locally defined value."

SYNTAX

```

INTEGER {
    entPhysicalAlias(1),
    ifAlias(2),
    portEntPhysicalAlias(3),
    backplaneEntPhysicalAlias(4),
    macAddress(5),
    networkAddress(6),
    local(7)
}

```

LldpChassisId ::= TEXTUAL-CONVENTION

STATUS current

DESCRIPTION

"This TC describes the format of a chassis identifier string. Objects of this type are always used with an associated LldpChassisIdType object, which identifies the format of the particular LldpChassisId object instance.

If the associated ChassisIdType object has a value of 'entPhysicalAlias(1)', then the octet string identifies a particular instance of the entPhysicalAlias object for a chassis component (i.e., an entPhysicalClass value of 'chassis(3)').

If the associated LldpChassisIdType object has a value of 'ifAlias(2)', then the octet string identifies a particular instance of the ifAlias object for an interface on the containing chassis.

If the associated LldpChassisIdType object has a value of 'portEntPhysicalAlias(3)', then the octet string identifies a particular instance of the entPhysicalAlias object for a port component within the containing chassis.

If the associated LldpChassisIdType object has a value of 'backplaneEntPhysicalAlias(4)', then the octet string identifies a particular instance of the entPhysicalAlias object for the backplane component within the containing chassis.

If the associated ChassisIdType object has a value of 'macAddress(5)', then this string identifies a particular unicast source MAC address (encoded in network byte order and IEEE 802.3 canonical bit order), of a port on the containing chassis.

If the associated ChassisIdType object has a value of 'networkAddress(6)', then this string identifies a particular network address, encoded in network byte order, associated with one or more ports on the containing chassis. The first octet contains the IANA Address Family Numbers enumeration value for the specific address type, and octets 2 through N contain the network address value in network byte order.

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165      'ifName(7)', then the octet string identifies a particular
      instance of the ifName object (defined in IETF RFC 2863)
      for an interface on the containing chassis.
      <
      <
      <
      <
170      If the associated ChassisIdType object has a value of
      'local(8)', then this string identifies a locally assigned
      Chassis ID."
      SYNTAX      OCTET STRING (SIZE (1..255))
      LldpPortIdType ::= TEXTUAL-CONVENTION
175      STATUS      current
      DESCRIPTION
      "This TC describes the source of a particular type of port
      identifier used in the LLDP MIB.
180      The enumeration 'ifAlias(1)' represents a port identifier
      based on the ifAlias MIB object, defined in IETF RFC 2863.
      The enumeration 'portEntPhysicalAlias(2)' represents a port
      identifier based on the value of entPhysicalAlias (defined in
185      IETF RFC 2737) for a port component (i.e., entPhysicalClass
      value of 'port(10)'), within the containing chassis.
      The enumeration 'backplaneEntPhysicalAlias(3)' represents
      a port identifier based on the value of entPhysicalAlias
190      object (defined in IETF RFC 2737) for a backplane component
      (i.e., entPhysicalClass value of 'backplane(4)'), within
      the containing chassis.
      <
195      The enumeration 'macAddress(4)' represents a port identifier
      based on a unicast source MAC address (encoded in network
      byte order and IEEE 802.3 canonical bit order), which has
      been detected by the agent and associated with a particular
      port (IEEE Std. 802-2001).
      <
      <
200      The enumeration 'networkAddress(5)' represents a port
      identifier based on a network address, detected by the agent
      and associated with a particular port.
      The enumeration 'agentCircuitId(6)' represents a port
205      identifier based on the agent-local identifier of the circuit
      (defined in RFC 3046) , detected by the agent and associated
      with a particular port.
      <
      <
      <
      <
210      The enumeration 'ifName(7)' represents a port identifier
      based on the ifName MIB object, defined in IETF RFC 2863.
      The enumeration 'local(8)' represents a port identifier
      based on a value locally assigned."
215      SYNTAX      INTEGER {
      ifAlias(1),
      portEntPhysicalAlias(2),
      backplaneEntPhysicalAlias(3),
      macAddress(4),
220      networkAddress(5),
      agentCircuitId(6),
      ifName(7),
      local(8)
      }
225      LldpPortId ::= TEXTUAL-CONVENTION
      STATUS      current
      DESCRIPTION
230      "This TC describes the format of a port identifier string.
      Objects of this type are always used with an associated
      LldpPortIdType object, which identifies the format of the
      particular LldpPortId object instance.
235      If the associated LldpPortIdType object has a value of
      'ifAlias(1)', then the octet string identifies a particular
      instance of the ifAlias object (defined in IETF RFC 2863).
      If the associated LldpPortIdType object has a value of
240      'portEntPhysicalAlias(2)', then the octet string
      identifies a particular instance of the entPhysicalAlias
      object (defined in IETF RFC 2737) for a port component (i.e.,
      entPhysicalClass value of 'port(10)').
245      If the associated LldpPortIdType object has a value of
      'backplaneEntPhysicalAlias(3)', then the octet string
      identifies a particular instance of the entPhysicalAlias

```

250	<p>object (defined in IETF RFC 2737) for a backplane component (i.e., entPhysicalClass value of 'port(4)').</p> <p>If the associated LldpPortIdType object has a value of 'macAddr(4)', then this string identifies a particular unicast source MAC address (encoded in network byte order and IEEE 802.3 canonical bit order) associated with the port (IEEE Std. 802-2001).</p>	250	<p>entPhysicalAlias object for a backplane component (i.e., entPhysicalClass value of 'port(4)').</p> <p>If the associated LldpPortIdType object has a value of 'macAddr(4)', then this string identifies a particular unicast source MAC address associated with the port.</p>
255	<p>If the associated LldpPortIdType object has a value of 'networkAddress(5)', then this string identifies a network address associated with the port. The first octet contains the IANA AddressFamilyNumbers enumeration value for the specific address type, and octets 2 through N contain the networkAddress address value in network byte order.</p>	255	<p>If the associated LldpPortIdType object has a value of 'networkAddress(5)', then this string identifies a network address associated with the port. The first octet contains the IANA AddressFamilyNumbers enumeration value for the specific address type, and octets 2 through N contain the networkAddress address value in network byte order.</p>
260	<p>If the associated LldpPortIdType object has a value of 'agentCircuitId(6)', then this string identifies a agent-local identifier of the circuit (defined in RFC 3046).</p>	260	<p>If the associated LldpPortIdType object has a value of 'local(6)', then this string identifies a locally</p>
265	<p>If the associated LldpPortIdType object has a value of 'ifName(7)', then the octet string identifies a particular instance of the ifName object (defined in IETF RFC 2863).</p>	265	<p>assigned port ID."</p>
270	<p>If the associated LldpPortIdType object has a value of 'local(8)', then this string identifies a locally assigned port ID."</p>	270	<p>assigned port ID."</p>
275	<p>SYNTAX OCTET STRING (SIZE (1..255))</p>	275	<p>SYNTAX OCTET STRING (SIZE (1..255))</p>
280	<p>LldpManAddrIfSubtype ::= TEXTUAL-CONVENTION STATUS current DESCRIPTION "This TC describes the basis of a particular type of interface associated with the management address.</p> <p>The enumeration 'unknown(1)' represents the case where the interface is not known.</p> <p>The enumeration 'ifIndex(2)' represents interface identifier based on the ifIndex MIB object.</p> <p>The enumeration 'systemPortNumber(3)' represents interface identifier based on the system port numbering convention."</p>	280	<p>LldpManAddrIfSubtype ::= TEXTUAL-CONVENTION STATUS current DESCRIPTION "This TC describes the basis of a particular type of management address interface used in the LLDP MIB.</p> <p>The enumeration 'unknown(1)' represents the case where the interface is not known.</p> <p>The enumeration 'ifIndex(2)' represents interface identifier based on the ifIndex MIB object.</p> <p>The enumeration 'systemPortNumber(3)' represents interface identifier based on the system port numbering convention."</p>
285	<p>REFERENCE "IEEE 802.1AB/D8 section 9.4.9.5"</p>	285	<p>REFERENCE "IEEE 802.1AB/D8 section 9.4.9.5"</p>
290	<p>SYNTAX INTEGER { unknown(1), ifIndex(2), systemPortNumber(3) }</p>	290	<p>SYNTAX INTEGER { unknown(1), ifIndex(2), systemPortNumber(3) }</p>
295	<p>LldpManAddress ::= TEXTUAL-CONVENTION STATUS current DESCRIPTION "The value of a management address associated with the LLDP agent that may be used to reach higher layer entities to assist discovery by network management.</p> <p>It should be noted that appropriate security credentials, such as SNMP engineId, may be required to access the LLDP agent using a management address. These necessary credentials should be known by the network management and the objects associated with the credentials are not included in the LLDP agent."</p>	295	<p>LldpManAddress ::= TEXTUAL-CONVENTION STATUS current DESCRIPTION "The value of a management address."</p>
300	<p>SYNTAX OCTET STRING (SIZE (1..31))</p>	300	<p>SYNTAX OCTET STRING (SIZE (1..31))</p>
305	<p>LldpSystemCapabilitiesMap ::= TEXTUAL-CONVENTION STATUS current DESCRIPTION "This TC describes the system capabilities.</p> <p>The bit 'other(0)' indicates that the system has capabilities other than those listed below.</p> <p>The bit 'repeater(1)' indicates that the system has repeater capability.</p>	305	<p>LldpSystemCapabilitiesMap ::= TEXTUAL-CONVENTION STATUS current DESCRIPTION "This TC describes the system capabilities.</p> <p>The bit 'repeater(0)' indicates that the system has repeater capability.</p>
310	<p>The bit 'bridge(2)' indicates that the system has bridge capability.</p>	310	<p>The bit 'bridge(1)' indicates that the system has bridge capability.</p>
315	<p>The bit 'bridge(2)' indicates that the system has bridge capability.</p>	315	<p>The bit 'bridge(1)' indicates that the system has bridge capability.</p>

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330     The bit 'accessPoint(3)' indicates that the system has access
        point capability.

        The bit 'router(4)' indicates that the system has router
        capability.

335     The bit 'telephone(5)' indicates that the system has telephone
        capability.

        The bit 'wirelessStation(6)' indicates that the system has
        wireless Station capability.

340     The bit 'stationOnly(7)' indicates that the system has only
        station capability and nothing else."
SYNTAX  BITS {
345     other(0),
        repeater(1),
        bridge(2),
        accessPoint(3),
        router(4),
        telephone(5),
350     wirelessStation(6),
        stationOnly(7)
    }

LldpPortNumber ::= TEXTUAL-CONVENTION
355  DISPLAY-HINT "d"
    STATUS      current
    DESCRIPTION
        "Each port contained in the chassis (that is known to the
        LLDP agent) is uniquely identified by a port number.

360     A port number has no mandatory relationship to an
        InterfaceIndex object (of the interfaces MIB, IETF RFC 2683).
        However, if interfaces MIB is present, a port number has the
        same value as the corresponding interface's InterfaceIndex
        object.

365     Port numbers should be in the range of 1 and 4096 since a
        particular port is also represented by the corresponding
        port number bit in LldpPortList."
370  SYNTAX      Integer32(1..4096)

LldpPortList ::= TEXTUAL-CONVENTION
375  STATUS      current
    DESCRIPTION
        "Each octet within this value specifies a set of eight ports,
        with the first octet specifying ports 1 through 8, the second
        octet specifying ports 9 through 16, etc. Within each octet,
        the most significant bit represents the lowest numbered port,
        and the least significant bit represents the highest numbered
        port. Thus, each port of the system is represented by a
        single bit within the value of this object. If that bit has
        a value of '1' then that port is included in the set of ports;
        the port is not included if its bit has a value of '0'."
385  REFERENCE
        "RFC 2674, Section 5"
    SYNTAX      OCTET STRING(SIZE(0..512))

--
-- *****
--
--           L L D P   C O N F I G
--
-- *****
--
395  --

lldpMessageTxInterval OBJECT-TYPE
    SYNTAX      Integer32(5..32768)
    UNITS       "seconds"
400  MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "The interval at which LLDP frames are transmitted on
        behalf of this LLDP agent.

405     The default value for lldpMessageTxInterval object is
        30 seconds.

        The value of this object must be restored from non-volatile
        storage after a re-initialization of the management system."
410

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        The bit 'accessPoint(2)' indicates that the system has access
        point capability.

        The bit 'router(3)' indicates that the system has router
        capability.

        The bit 'telephone(4)' indicates that the system has telephone
        capability.

        The bit 'wirelessStation(5)' indicates that the system has
        wireless Station capability.

        The bit 'stationOnly(6)' indicates that the system has only
        station capability and nothing else."
SYNTAX  BITS {
        repeater(0),
        bridge(1),
        accessPoint(2),
        router(3),
        telephone(4),
        wirelessStation(5),
        stationOnly(6)
    }

LldpPortNumber ::= TEXTUAL-CONVENTION
    DISPLAY-HINT "d"
    STATUS      current
    DESCRIPTION
        "Each port contained in the chassis (that is known to the
        LLDP agent) is uniquely identified by a port number.

        A port number has no mandatory relationship to an
        interface number (of the interfaces MIB.) However, if
        interfaces MIB is present, it is strongly recommended that
        a port number has the same value as the corresponding
        interface's interface number.

        Port numbers are in the range (1..1024) since a particular
        port is also represented by the corresponding port number bit
        in LldpPortList. For more information about the LldpPortList,
        please refer to 'LldpPortList' TC description."
    SYNTAX      Integer32(1..1024)

LldpPortList ::= TEXTUAL-CONVENTION
    STATUS      current
    DESCRIPTION
        "Each octet within this value specifies a set of eight ports,
        with the first octet specifying ports 1 through 8, the second
        octet specifying ports 9 through 16, etc. Within each octet,
        the most significant bit represents the lowest numbered port,
        and the least significant bit represents the highest numbered
        port. Thus, each port of the system is represented by a
        single bit within the value of this object. If that bit has
        a value of '1' then that port is included in the set of ports;
        the port is not included if its bit has a value of '0'."
    REFERENCE
        "description is taken from RFC 2674, Section 5"
    SYNTAX      OCTET STRING

--
-- *****
--
--           L L D P   C O N F I G
--
-- *****
--

lldpMessageTxInterval OBJECT-TYPE
    SYNTAX      Integer32(5..32768)
    UNITS       "seconds"
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "The interval at which LLDP frames are transmitted on
        behalf of this LLDP agent.

        The default value for lldpMessageTxInterval object is
        30 seconds.

        If the agent is capable of storing non-volatile
        configuration, then the value of this object must be restored

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REFERENCE
"IEEE 802.1AB/D8 section 10.5.5.3"
DEFVAL { 30 }
415 ::= { lldpConfiguration 1 }

lldpMessageTxHoldMultiplier OBJECT-TYPE
SYNTAX Integer32(2..10)
MAX-ACCESS read-write
420 STATUS current
DESCRIPTION
"The time-to-live value expressed as a multiple of the
lldpMessageTxInterval object. The actual time-to-live value
used in LLDP frames, transmitted on behalf of this LLDP agent,
425 can be expressed by the following formula: TTL = min(65535,
(lldpMessageTxInterval * lldpMessageTxHoldMultiplier)) For
example, if the value of lldpMessageTxInterval is '30', and
the value of lldpMessageTxHoldMultiplier is '4', then the
value '120' is encoded in the TTL field in the LLDP header.

430 The default value for lldpMessageTxHoldMultiplier object is 4.

The value of this object must be restored from non-volatile
storage after a re-initialization of the management system."
435

REFERENCE
"IEEE 802.1AB/D8 section 10.5.5.3"
DEFVAL { 4 }
440 ::= { lldpConfiguration 2 }

lldpReinitDelay OBJECT-TYPE
SYNTAX Integer32(1..10)
UNITS "seconds"
MAX-ACCESS read-write
445 STATUS current
DESCRIPTION
"The lldpReinitDelay indicates the delay (in units
of seconds) from when adminStatus becomes 'disable' until
re-initialization will be attempted.

450 The default value for lldpReinitDelay object is one second.

The value of this object must be restored from non-volatile
storage after a re-initialization of the management system."
455

REFERENCE
"IEEE 802.1AB/D8 section 10.5.3.3"
DEFVAL { 1 }
460 ::= { lldpConfiguration 3 }

lldpTxDelay OBJECT-TYPE
SYNTAX Integer32(1..8192)
UNITS "seconds"
MAX-ACCESS read-write
465 STATUS current
DESCRIPTION
"The lldpTxDelay indicates the delay (in units
of seconds) between successive LLDP frame transmissions
initiated by value/status changes in the LLDP local systems
MIB. The recommended value for the lldpTxDelay is set by the
following formula:

470 1 <= lldpTxDelay <= (0.25 * lldpMessageTxInterval)

The default value for lldpTxDelay object is 2 seconds.

The value of this object must be restored from non-volatile
storage after a re-initialization of the management system."
480

REFERENCE
"IEEE 802.1AB/D8 section 10.5.3.3"
DEFVAL { 2 }
485 ::= { lldpConfiguration 4 }

lldpNotificationInterval OBJECT-TYPE
SYNTAX Integer32(5..3600)
UNITS "seconds"
MAX-ACCESS read-write
490 STATUS current
DESCRIPTION
"This object controls the transmission of LLDP notifications.

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```

> after a re-initialization of the management system."
REFERENCE
"IEEE 802.1AB/D8 section 10.5.5.3"
DEFVAL { 30 }
415 ::= { lldpConfiguration 1 }

lldpMessageTxHoldMultiplier OBJECT-TYPE
SYNTAX Integer32(2..10)
MAX-ACCESS read-write
420 STATUS current
DESCRIPTION
"The time-to-live value expressed as a multiple of the
lldpMessageTxInterval object. The actual time-to-live value
used in LLDP frames, transmitted on behalf of this LLDP agent,
425 can be expressed by the following formula: TTL = min(65535,
(lldpMessageTxInterval * lldpMessageTxHoldMultiplier)) For
example, if the value of lldpMessageTxInterval is '30', and
the value of lldpMessageTxHoldMultiplier is '4', then the
value '120' is encoded in the TTL field in the LLDP header.

430 The default value for lldpMessageTxHoldMultiplier object is 4.

If the agent is capable of storing non-volatile configuration,
then the value of this object must be restored after a
re-initialization of the management system."
435

REFERENCE
"IEEE 802.1AB/D8 section 10.5.5.3"
DEFVAL { 4 }
440 ::= { lldpConfiguration 2 }

lldpReinitDelay OBJECT-TYPE
SYNTAX Integer32(1..10)
UNITS "seconds"
MAX-ACCESS read-write
445 STATUS current
DESCRIPTION
"The lldpReinitDelay indicates the delay (in units
of seconds) from when adminStatus becomes 'disable' until
re-initialization will be attempted.

450 The default value for lldpReinitDelay object is one second.

If the agent is capable of storing non-volatile configuration,
then the value of this object must be restored after a
re-initialization of the management system."
455

REFERENCE
"IEEE 802.1AB/D8 section 10.5.3.3"
DEFVAL { 1 }
460 ::= { lldpConfiguration 3 }

lldpTxDelay OBJECT-TYPE
SYNTAX Integer32(1..8192)
UNITS "seconds"
MAX-ACCESS read-write
465 STATUS current
DESCRIPTION
"The lldpTxDelay indicates the delay (in units
of seconds) between successive LLDP frame transmissions
initiated by value/status changes in the LLDP local systems
MIB. The recommended value for the lldpTxDelay is set by the
following formula:

470 1 <= lldpTxDelay <= (0.25 * lldpMessageTxInterval)

The default value for lldpTxDelay object is 2 seconds.

If the agent is capable of storing non-volatile configuration,
then the value of this object must be restored after a
re-initialization of the management system."
480

REFERENCE
"IEEE 802.1AB/D8 section 10.5.3.3"
DEFVAL { 2 }
485 ::= { lldpConfiguration 4 }

lldpNotificationInterval OBJECT-TYPE
SYNTAX Integer32 (0 | 5..3600)
UNITS "seconds"
MAX-ACCESS read-write
490 STATUS current
DESCRIPTION
"This object controls the transmission of LLDP notifications.

```

```

495     the agent must not generate more than one lldpRemTablesChange
notification-event in the indicated period, where a
'notification-event' is the transmission of a single
notification PDU type to a list of notification destinations.
If additional changes in lldpRemoteSystemsData object
groups occur within the indicated throttling period,
then these trap- events must be suppressed by the
500     agent. An NMS should periodically check the value of
lldpStatsRemTableLastChangeTime to detect any missed
lldpRemTablesChange notification-events, e.g. due to
>
>
505     throttling or transmission loss.
>
>
>
510     If notification transmission is enabled for particular ports,
the suggested default throttling period is 5 seconds.
>
>
>
515     The value of this object must be restored from non-volatile
storage after a re-initialization of the management system."
DEFVAL { 5 }
>
>
>
::= { lldpConfiguration 5 }
>
520 --
-- lldpPortConfigTable: LLDP configuration on a per port basis
--
|
|
|
lldpPortConfigTable OBJECT-TYPE
525 SYNTAX SEQUENCE OF LldpPortConfigEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
530 "The table that controls LLDP frame transmission on individual
ports."
::= { lldpConfiguration 6 }
|
|
|
lldpPortConfigEntry OBJECT-TYPE
535 SYNTAX LldpPortConfigEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
540 "LLDP configuration information for a particular port.
The port must be contained in the same chassis as the LLDP
agent. This configuration parameter controls the transmission
and the reception of LLDP frames on those ports whose rows
are created in this table."
INDEX { lldpPortConfigPortNum }
545 ::= { lldpPortConfigTable 1 }
|
|
|
LldpPortConfigEntry ::= SEQUENCE {
lldpPortConfigPortNum LldpPortNumber,
lldpPortConfigAdminStatus INTEGER,
lldpPortConfigNotificationEnable TruthValue,
550 lldpPortConfigTLVsTxEnable BITS }
|
|
|
lldpPortConfigPortNum OBJECT-TYPE
555 SYNTAX LldpPortNumber
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
560 "The index value used to identify the port component
(contained in the local chassis with the LLDP agent)
associated with this entry."
The value of this object is used as a port index to the
lldpPortConfigTable."
565 ::= { lldpPortConfigEntry 1 }
|
|
|
lldpPortConfigAdminStatus OBJECT-TYPE
565 SYNTAX INTEGER {
txOnly(1),
rxOnly(2),
txAndRx(3),
570 disabled(4)
}
MAX-ACCESS read-write
STATUS current
DESCRIPTION
|
|
|
If this object has a value of zero, then no
lldpRemTablesChange notifications will be transmitted by
the agent.
|
|
|
If this object has a non-zero value, then the agent must not
generate more than one lldpRemTablesChange notification-event
in the indicated period, where a 'notification-event' is
the transmission of a single notification PDU type to a
list of notification destinations. If additional changes
in lldpRemoteSystemsData object groups occur within the
indicated throttling period, then these trap- events must be
suppressed by the agent. An NMS should periodically check
the value of lldpStatsRemTableLastChangeTime to detect any
missed lldpRemTablesChange notification-events, e.g. due to
throttling or transmission loss.
|
|
|
If notification transmission is enabled, the suggested
default throttling period is 5 seconds, but transmission
should be disabled by default.
|
|
|
If the agent is capable of storing non-volatile
configuration, then the value of this object must be
restored after a re-initialization of the management
system."
DEFVAL { 0 }
575 ::= { lldpConfiguration 5 }
|
|
|
-- lldpPortConfigTable: lldp configuration on a per port basis
--
|
|
|
lldpPortConfigTable OBJECT-TYPE
575 SYNTAX SEQUENCE OF LldpPortConfigEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
580 "The table that controls LLDP frame transmission on individual
ports."
::= { lldpConfiguration 6 }
|
|
|
lldpPortConfigEntry OBJECT-TYPE
585 SYNTAX LldpPortConfigEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
590 "LLDP configuration information for a particular port.
The port must be contained in the same chassis as the LLDP
agent. This configuration parameter controls the transmission
and the reception of LLDP frames on those ports whose rows
are created in this table."
INDEX { lldpPortConfigPortNum }
595 ::= { lldpPortConfigTable 1 }
|
|
|
LldpPortConfigEntry ::= SEQUENCE {
lldpPortConfigPortNum LldpPortNumber,
lldpPortConfigAdminStatus INTEGER,
lldpPortConfigTLVsTxEnable BITS }
|
|
|
lldpPortConfigPortNum OBJECT-TYPE
595 SYNTAX LldpPortNumber
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
600 "The index value used to identify the port component
(contained in the local chassis with the LLDP agent)
associated with this entry."
The value of this object is used as a port index to the
lldpPortConfigTable."
605 ::= { lldpPortConfigEntry 1 }
|
|
|
lldpPortConfigAdminStatus OBJECT-TYPE
605 SYNTAX INTEGER {
txOnly(1),
rxOnly(2),
txAndRx(3),
610 disabled(4)
}
MAX-ACCESS read-write
STATUS current
DESCRIPTION

```

```

575      "The administratively desired status of the local LLDP agent.
      If the associated lldpPortConfigAdminStatus object has a
      value of 'txOnly(1)', then LLDP agent will transmit LLDP
      frames on this port and it will not store any information
580      about the remote systems connected.
      If the associated lldpPortConfigAdminStatus object has a
      value of 'rxOnly(2)', then the LLDP agent will receive,
      but it will not transmit LLDP frames on this port.
585      If the associated lldpPortConfigAdminStatus object has a
      value of 'txAndRx(3)', then the LLDP agent will transmit
      and receive LLDP frames on this port.
590      If the associated lldpPortConfigAdminStatus object has a
      value of 'disabled(4)', then LLDP agent will not transmit or
      receive LLDP frames on this port.  If there is remote systems
      information which is received on this port and stored in
      other tables, before the port's lldpPortConfigAdminStatus
595      becomes disabled, then the information will naturally age out."
      REFERENCE
      "IEEE 802.1AB/D8 section 9.5.1"
      DEFVAL { 3 }
      ::= { lldpPortConfigEntry 2 }
600  lldpPortConfigNotificationEnable OBJECT-TYPE
      SYNTAX      TruthValue
      MAX-ACCESS read-write
      STATUS      current
605      DESCRIPTION
      "The lldpPortConfigNotificationEnable controls, on a per
      port basis, whether or not notifications from the agent
      are enabled. The value true(1) means that notifications are
      enabled; the value false(2) means that they are not."
610      REFERENCE
      "IEEE 802.1AB/D8 section 9.5.1"
      DEFVAL { 2 }
      ::= { lldpPortConfigEntry 3 }
615  lldpPortConfigTLVsTxEnable OBJECT-TYPE
      SYNTAX      BITS {
          portDesc(0),
          sysName(1),
          sysDesc(2),
620      }
      MAX-ACCESS read-write
      STATUS      current
      DESCRIPTION
625      "The lldpPortConfigTLVsTxEnable, defined as a bitmap,
      includes the basic set of LLDP TLVs whose transmission is
      allowed on the local LLDP agent by the network management.
      Each bit in the bitmap corresponds to a TLV type associated
      with a specific optional TLV.
630      It should be noted that the organizationally defined TLVs
      are excluded from the lldpTLVsTxEnable bitmap.
      LLDP Organization Specific Information Extension MIBs should
635      have similar configuration object to control transmission
      of their organizationally defined TLVs.
      The bit 'portDesc(0)' indicates that LLDP agent should
      transmit 'Port Description TLV'.
640      The bit 'sysName(1)' indicates that LLDP agent should transmit
      'System Name TLV'.
      The bit 'sysDesc(2)' indicates that LLDP agent should transmit
645      'System Description TLV'.
      The bit 'sysCap(3)' indicates that LLDP agent should transmit
      'System Capabilities TLV'.
650      There is no bit reserved for the management address TLV type
      since transmission of management address TLVs are controlled
      by another object, lldpConfigManAddrTable.
655      The default value for lldpPortConfigTLVsTxEnable object is
      empty set, which means no enumerated values are set.

```

```

      "The administratively desired status of the local LLDP agent.
      If the associated lldpPortConfigAdminStatus object has a
      value of 'txOnly(1)', then this port will transmit LLDP
      frames only and it will not store any information about the
      remote systems connected.
      If the associated lldpPortConfigAdminStatus object has a value
585      of 'rxOnly(2)', then this port will receive LLDP frames only.
      If the associated lldpPortConfigAdminStatus object has a
      value of 'txAndRx(3)', then this port will transmit and
      receive LLDP frames.
590      If the associated lldpPortConfigAdminStatus object has a
      value of 'disabled(4)', then this port will not transmit or
      receive LLDP frames."
      REFERENCE
      "IEEE 802.1AB/D8 section 9.5.1"
      DEFVAL { 3 }
      ::= { lldpPortConfigEntry 2 }
600  lldpPortConfigTLVsTxEnable OBJECT-TYPE
      SYNTAX      BITS {
          portDesc(0),
          sysName(1),
          sysDesc(2),
605      }
      MAX-ACCESS read-write
      STATUS      current
      DESCRIPTION
610      "The lldpTLVsTxEnable, defined as a bitmap, includes the
      basic set of LLDP TLVs whose transmission is allowed on the
      local LLDP agent by the network management.  Each bit in the
      bitmap corresponds to a TLV type associated with a specific
      optional TLV.
615      It should be noted that the organizationally defined TLVs
      are excluded from the lldpTLVsTxEnable bitmap.
      LLDP Organization Specific Information Extension MIBs should
620      have similar configuration object to control transmission
      of their organizationally defined TLVs.
      The bit 'portDesc(0)' indicates that LLDP agent should
      transmit 'Port Description TLV'.
625      The bit 'sysName(1)' indicates that LLDP agent should transmit
      'System Name TLV'.
      The bit 'sysDesc(2)' indicates that LLDP agent should transmit
630      'System Description TLV'.
      The bit 'sysCap(3)' indicates that LLDP agent should transmit
      'System Capabilities TLV'.
635      There is no bit reserved for the management address TLV type
      since transmission of management address TLVs are controlled
      by another object, lldpConfigManAddrTable.
640      If the agent is capable of storing non-volatile configuration,
      then the value of this object must be restored after a
      re-initialization of the management system."

```



```

        The value of this object must be restored from non-volatile
        storage after a re-initialization of the management system."
REFERENCE
660 "IEEE 802.1AB/D8 section 10.2.1.1"
DEFVAL { {} }
 ::= { lldpPortConfigEntry 4 }

--
-- lldpManAddrConfigTxPortsTable : selection of management addresses
-- to be transmitted on a specified set
-- of ports.
--
670 lldpConfigManAddrTable OBJECT-TYPE
    SYNTAX SEQUENCE OF LldpConfigManAddrEntry
    MAX-ACCESS not-accessible
    STATUS current
675 DESCRIPTION
    "The table that controls selection of LLDP management address
    TLV instances to be transmitted on individual ports."
    ::= { lldpConfiguration 7 }

680 lldpConfigManAddrEntry OBJECT-TYPE
    SYNTAX LldpConfigManAddrEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
685 "LLDP configuration information that specifies the set
    of ports (represented as a PortList) on which the local
    system management address instance will be transmitted.

    This configuration object augments the lldpLocManAddrEntry,
690 therefore it is only present along with the management
    address instance contained in the associated
    lldpLocManAddrEntry entry.

    Each active lldpConfigManAddrEntry must be restored from
695 non-volatile and re-created (along with the corresponding
    lldpLocManAddrEntry) after a re-initialization of the
    management system."
    AUGMENTS { lldpLocManAddrEntry }
    ::= { lldpConfigManAddrTable 1 }

700 LldpConfigManAddrEntry ::= SEQUENCE {
    lldpConfigManAddrPortsTxEnable LldpPortList
}

705 lldpConfigManAddrPortsTxEnable OBJECT-TYPE
    SYNTAX LldpPortList
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
710 "A set of ports that are identified by a PortList, in which
    each port is represented as a bit. The corresponding local
    system management address instance will be transmitted on
    the member ports of the lldpManAddrPortsTxEnable."
    REFERENCE
715 "IEEE 802.1AB/D8 section 10.2.1.1"
    ::= { lldpConfigManAddrEntry 1 }

--
-- *****
--
-- L L D P S T A T S
--
-- *****
725 -- LLDP Stats Group

lldpStatsRemTablesLastChangeTime OBJECT-TYPE
    SYNTAX TimeStamp
730 MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
735 "The value of sysUpTime object (defined in IETF RFC 3418)
    at the time an entry is created, modified, or deleted in the
    in tables associated with the lldpRemoteSystemsData objects
    and all LLDP extension objects associated with remote systems.

    An NMS can use this object to reduce polling of the

```

```

<
<
REFERENCE
    "IEEE 802.1AB/D8 section 10.2.1.1"
DEFVAL { { portDesc, sysName, sysDesc, sysCap } }
 ::= { lldpPortConfigEntry 3 }

--
-- lldpManAddrConfigTxPortsTable : selection of management addresses
-- to be transmitted on a specified set
-- of ports.
--
lldpConfigManAddrTable OBJECT-TYPE
    SYNTAX SEQUENCE OF LldpConfigManAddrEntry
    MAX-ACCESS not-accessible
    STATUS current
DESCRIPTION
    "The table that controls selection of LLDP management address
    TLV instances to be transmitted on individual ports."
    ::= { lldpConfiguration 7 }

lldpConfigManAddrEntry OBJECT-TYPE
    SYNTAX LldpConfigManAddrEntry
    MAX-ACCESS not-accessible
    STATUS current
DESCRIPTION
685 "LLDP configuration information that specifies the set
    of ports (represented as a PortList) on which the local
    system management address instance will be transmitted.

    This configuration object augments the lldpLocManAddrEntry,
690 therefore it is only present along with the management
    address instance contained in the associated
    lldpLocManAddrEntry entry.

    If the agent is capable of storing non-volatile configuration,
695 then each active lldpManAddrConfigTxPortsEntry must be
    re-created (along with the corresponding lldpLocManAddrEntry)
    after a re-initialization of the management system."
    AUGMENTS { lldpLocManAddrEntry }
    ::= { lldpConfigManAddrTable 1 }

700 LldpConfigManAddrEntry ::= SEQUENCE {
    lldpConfigManAddrPortsTxEnable LldpPortList
}

705 lldpConfigManAddrPortsTxEnable OBJECT-TYPE
    SYNTAX LldpPortList
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
710 "A set of ports that are identified by a PortList, in which
    each port is represented as a bit. The corresponding local
    system management address instance will be transmitted on
    the member ports of the lldpManAddrPortsTxEnable."
    REFERENCE
715 "IEEE 802.1AB/D8 section 10.2.1.1"
    ::= { lldpConfigManAddrEntry 1 }

--
-- *****
--
-- L L D P S T A T S
--
-- *****
-- LLDP Stats Group

lldpStatsRemTablesLastChangeTime OBJECT-TYPE
    SYNTAX TimeStamp
730 MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
735 "The value of sysUpTime at the time an entry is created,
    modified, or deleted in the in tables associated with the
    lldpRemoteSystemsData objects and all LLDP extension objects
    associated with remote systems.

    An NMS can use this object to reduce polling of the

```

```

740     ::= { lldpStatistics 1 }
    lldpStatsRemTablesInserts OBJECT-TYPE
        SYNTAX      Counter32
        UNITS       "table entries"
745     MAX-ACCESS   read-only
        STATUS      current
        DESCRIPTION
            "The number of times an entry has been inserted into tables
            associated with the lldpRemoteSystemsData objects and all
750     LLDP extension objects associated with remote systems."
        ::= { lldpStatistics 2 }

    lldpStatsRemTablesDeletes OBJECT-TYPE
        SYNTAX      Counter32
755     UNITS       "table entries"
        MAX-ACCESS   read-only
        STATUS      current

        DESCRIPTION
760     "The number of times an entry has been deleted from tables
            associated with the lldpRemoteSystemsData objects and all
            LLDP extension objects associated with remote systems."
        ::= { lldpStatistics 3 }

765 lldpStatsRemTablesDrops OBJECT-TYPE
        SYNTAX      Counter32
        UNITS       "table entries"
        MAX-ACCESS   read-only

770     STATUS      current
        DESCRIPTION
            "The number of times a new entry could not be created in the
            tables associated with the lldpRemoteSystemsData objects
            and all LLDP extension objects associated with the remote
775     systems because of insufficient resources."
        ::= { lldpStatistics 4 }

    lldpStatsRemTablesAgeouts OBJECT-TYPE
        SYNTAX      Counter32
780     MAX-ACCESS   read-only
        STATUS      current
        DESCRIPTION
            "The number of times an entry has been deleted from tables
            associated with the lldpRemoteSystemsData objects and all
785     LLDP extension objects associated with remote systems because
            the information timeliness interval for those entries have
            expired."
        ::= { lldpStatistics 5 }

790 lldpStatsPortTable OBJECT-TYPE
        SYNTAX      SEQUENCE OF LldpStatsPortEntry
        MAX-ACCESS   not-accessible
        STATUS      current
        DESCRIPTION
795     "A table containing LLDP statistics for individual ports.
            Entries are not required to exist in this table while the
            lldpPortConfigEntry object is equal to 'disabled(4)'."
        ::= { lldpStatistics 6 }

800 lldpStatsPortEntry OBJECT-TYPE
        SYNTAX      LldpStatsPortEntry
        MAX-ACCESS   not-accessible
        STATUS      current
        DESCRIPTION
805     "LLDP frame statistics for a particular port. The port
            must be contained in the same chassis as the LLDP agent.

            All counter values in a particular entry shall be
            maintained on a continuing basis and shall not be deleted
810     upon expiration of rxInfoTTL timing counters in the LLDP
            remote systems MIB of the receipt of a shutdown frame from
            a remote LLDP agent.

            All statistical counters associated with a particular
            port on the local LLDP agent become frozen whenever the
815     adminStatus is disabled for the same port."
        INDEX      { lldpStatsPortNum }
        ::= { lldpStatsPortTable 1 }

820 LldpStatsPortEntry ::= SEQUENCE {
    lldpRemoteSystemsData objects."
    ::= { lldpStatistics 1 }

    lldpStatsRemTablesNumInserts OBJECT-TYPE
        SYNTAX      Counter32
        UNITS       "table entries"
        MAX-ACCESS   read-only
        STATUS      current
        DESCRIPTION
            "The number of times an entry has been inserted into tables
            associated with the lldpRemoteSystemsData objects and all
            LLDP extension objects associated with remote systems."
        ::= { lldpStatistics 2 }

    lldpStatsRemTablesNumDeletes OBJECT-TYPE
        SYNTAX      Counter32
        UNITS       "table entries"
        MAX-ACCESS   read-only
        STATUS      current
        DESCRIPTION
760     "The number of times an entry has been deleted from tables
            associated with the lldpRemoteSystemsData objects and all
            LLDP extension objects associated with remote systems."
        ::= { lldpStatistics 3 }

765 lldpStatsRemTablesNumDrops OBJECT-TYPE
        SYNTAX      Counter32
        UNITS       "table entries"
        MAX-ACCESS   read-only

770     STATUS      current
        DESCRIPTION
            "The number of times a new entry could not be created in the
            tables associated with the lldpRemoteSystemsData objects
            and all LLDP extension objects associated with the remote
775     systems because of insufficient resources."
        ::= { lldpStatistics 4 }

    lldpStatsRemTablesNumAgeouts OBJECT-TYPE
        SYNTAX      Counter32
780     MAX-ACCESS   read-only
        STATUS      current
        DESCRIPTION
            "The number of times an entry has been deleted from tables
            associated with the lldpRemoteSystemsData objects and all
785     LLDP extension objects associated with remote systems because
            the information timeliness interval for those entries have
            expired."
        ::= { lldpStatistics 5 }

790 lldpStatsPortTable OBJECT-TYPE
        SYNTAX      SEQUENCE OF LldpStatsPortEntry
        MAX-ACCESS   not-accessible
        STATUS      current
        DESCRIPTION
795     "A table containing LLDP statistics for individual ports.
            Entries are not required to exist in this table while the
            lldpPortConfigEntry object is equal to 'disabled(4)'."
        ::= { lldpStatistics 6 }

800 lldpStatsPortEntry OBJECT-TYPE
        SYNTAX      LldpStatsPortEntry
        MAX-ACCESS   not-accessible
        STATUS      current
        DESCRIPTION
805     "LLDP frame statistics for a particular port. The port
            must be contained in the same chassis as the LLDP agent.

            All statistical counter values in a particular entry shall
            be maintained on a continuing basis and shall not be deleted
810     upon expiration of rxInfoTTL timing counters in the LLDP
            remote systems MIB of the receipt of a shutdown frame from
            a remote LLDP agent.

            All statistical counters associated with a particular
            port on the local LLDP agent become frozen whenever the
815     adminStatus is disabled for the same port."
        INDEX      { lldpStatsPortNum }
        ::= { lldpStatsPortTable 1 }

820 LldpStatsPortEntry ::= SEQUENCE {

```

```

lldpStatsPortNum          LldpPortNumber,
lldpStatsPortFramesDiscardedTotal Counter32,
lldpStatsPortFramesInErrors Counter32,
lldpStatsPortFramesInTotal Counter32,
lldpStatsPortFramesOutTotal Counter32,
lldpStatsPortTLVsInErrors Counter32,
lldpStatsPortTLVsDiscardedTotal Counter32,
lldpStatsPortTLVsUnrecognizedTotal Counter32,
lldpStatsPortCounterDisconTime TimeStamp,
lldpStatsPortNumAgeouts Counter32
}

lldpStatsPortNum OBJECT-TYPE
SYNTAX      LldpPortNumber
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
    "The index value used to identify the port component
    (contained in the local chassis with the LLDP agent)
    associated with this entry.

    The value of this object is used as a port index to the
    lldpStatsTable."
 ::= { lldpStatsPortEntry 1 }

lldpStatsPortFramesDiscardedTotal OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of LLDP frames received by this LLDP agent on
    the indicated port, and then discarded for any reason.
    This counter can provide an indication that LLDP header
    formatting problems may exist with the local LLDP agent in
    the sending system or that LLDPDU validation problems may
    exist with the local LLDP agent in the receiving system.

    Discontinuities in the value of this counter can occur at
    re-initialization of the management system, and at other times
    as indicated by the value of lldpCounterDiscontinuityTime."
REFERENCE
    "IEEE 802.1AB/D8 section 11.4.2"
 ::= { lldpStatsPortEntry 2 }

lldpStatsPortFramesInErrors OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of invalid LLDP frames received by this LLDP
    agent on the indicated port, while this LLDP agent is enabled.

    Discontinuities in the value of this counter can occur at
    re-initialization of the management system, and at other times
    as indicated by the value of lldpCounterDiscontinuityTime."
REFERENCE
    "IEEE 802.1AB/D8 section 11.4.2"
 ::= { lldpStatsPortEntry 3 }

lldpStatsPortFramesInTotal OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of valid LLDP frames received by this LLDP agent
    on the indicated port, while this LLDP agent is enabled.

    Discontinuities in the value of this counter can occur at
    re-initialization of the management system, and at other times
    as indicated by the value of lldpCounterDiscontinuityTime."
REFERENCE
    "IEEE 802.1AB/D8 section 11.4.2"
 ::= { lldpStatsPortEntry 4 }

lldpStatsPortFramesOutTotal OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of LLDP frames transmitted by this LLDP agent
    on the indicated port.

```

```

lldpStatsPortNum          LldpPortNumber,
lldpStatsPortFramesDiscardedTotal Counter32,
lldpStatsPortFramesInErrors Counter32,
lldpStatsPortFramesInTotal Counter32,
lldpStatsPortFramesOutTotal Counter32,
lldpStatsPortTLVsInErrors Counter32,
lldpStatsPortTLVsDiscardedTotal Counter32,
lldpStatsPortTLVsUnrecognizedTotal Counter32,
lldpStatsPortCounterDisconTime TimeStamp,
lldpStatsPortNumAgeouts Counter32
}

lldpStatsPortNum OBJECT-TYPE
SYNTAX      LldpPortNumber
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
    "The index value used to identify the port component
    (contained in the local chassis with the LLDP agent)
    associated with this entry.

    The value of this object is used as a port index to the
    lldpStatsTable."
 ::= { lldpStatsPortEntry 1 }

lldpStatsPortFramesDiscardedTotal OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of LLDP frames received by this LLDP agent on
    the indicated port, and then discarded for any reason.
    This counter can provide an indication that LLDP header
    formatting problems may exist with the local LLDP agent in
    the sending system or that LLDPDU validation problems may
    exist with the local LLDP agent in the receiving system.

    Discontinuities in the value of this counter can occur at
    re-initialization of the management system, and at other times
    as indicated by the value of lldpCounterDiscontinuityTime."
REFERENCE
    "IEEE 802.1AB/D8 section 11.4.2"
 ::= { lldpStatsPortEntry 2 }

lldpStatsPortFramesInErrors OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of invalid LLDP frames received by this LLDP
    agent on the indicated port, while this LLDP agent is enabled.

    Discontinuities in the value of this counter can occur at
    re-initialization of the management system, and at other times
    as indicated by the value of lldpCounterDiscontinuityTime."
REFERENCE
    "IEEE 802.1AB/D8 section 11.4.2"
 ::= { lldpStatsPortEntry 3 }

lldpStatsPortFramesInTotal OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of valid LLDP frames received by this LLDP agent
    on the indicated port, while this LLDP agent is enabled.

    Discontinuities in the value of this counter can occur at
    re-initialization of the management system, and at other times
    as indicated by the value of lldpCounterDiscontinuityTime."
REFERENCE
    "IEEE 802.1AB/D8 section 11.4.2"
 ::= { lldpStatsPortEntry 4 }

lldpStatsPortFramesOutTotal OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of LLDP frames transmitted by this LLDP agent
    on the indicated port.

```

```

Discontinuities in the value of this counter can occur at
re-initialization of the management system, and at other times
as indicated by the value of lldpCounterDiscontinuityTime."
905 REFERENCE
    "IEEE 802.1AB/D8 section 11.4.2"
    ::= { lldpStatsPortEntry 5 }

910 lldpStatsPortTLVsInErrors OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
915 "The number of erroneous LLDP TLVs received by this LLDP
    agent on the indicated port.

    Discontinuities in the value of this counter can occur at
    re-initialization of the management system, and at other times
    as indicated by the value of lldpCounterDiscontinuityTime."
920 REFERENCE
    "IEEE 802.1AB/D8 section 11.4.2"
    ::= { lldpStatsPortEntry 6 }

925 lldpStatsPortTLVsDiscardedTotal OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
930 "The number of LLDP TLVs discarded for any reason by this LLDP
    agent on the indicated port.

    Discontinuities in the value of this counter can occur at
    re-initialization of the management system, and at other times
    as indicated by the value of lldpCounterDiscontinuityTime."
935 REFERENCE
    "IEEE 802.1AB/D8 section 11.4.2"
    ::= { lldpStatsPortEntry 7 }

940 lldpStatsPortTLVsUnrecognizedTotal OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
945 "The number of LLDP TLVs received on the given port that
    are not recognized by this LLDP agent on the indicated port.

    Discontinuities in the value of this counter can occur at
    re-initialization of the management system, and at other times
    as indicated by the value of lldpCounterDiscontinuityTime."
950 REFERENCE
    "IEEE 802.1AB/D8 section 11.4.2"
    ::= { lldpStatsPortEntry 8 }

955 lldpStatsPortCounterDisconTime OBJECT-TYPE
    SYNTAX TimeStamp
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
960 "This object is defined to record the time of the last
    discontinuity in statistics counters of the indicated port.
    The relevant counters are the specific instances associated
    with this port of any Counter32 objects contained in the
    lldpStatsTable.
965 At the time a discontinuity occurs in one of the statistics
    objects, lldpStatsPortCounterDisconTime contains the
    value of the sysUpTime object (defined in IETF RFC 3418).
    If no such discontinuities have occurred since the last
    re-initialization of the local management subsystem, then
    this object contains a zero value."
970 ::= { lldpStatsPortEntry 9 }

975 lldpStatsPortNumAgeouts OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
980 "The counter that represents the number of age-outs occurred
    on a given port. An age-out is referred to as the number
    of times an entry has been deleted from tables associated
    with the lldpRemoteSystemsData objects and all LLDP extension
    objects associated with remote systems because the information
    timeliness interval for those entries have expired.

```

```

Discontinuities in the value of this counter can occur at
re-initialization of the management system, and at other times
as indicated by the value of lldpCounterDiscontinuityTime."
REFERENCE
    "IEEE 802.1AB/D8 section 11.4.2"
    ::= { lldpStatsPortEntry 5 }

lldpStatsPortTLVsInErrors OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    "The number of erroneous LLDP TLVs received by this LLDP
    agent on the indicated port.

    Discontinuities in the value of this counter can occur at
    re-initialization of the management system, and at other times
    as indicated by the value of lldpCounterDiscontinuityTime."
REFERENCE
    "IEEE 802.1AB/D8 section 11.4.2"
    ::= { lldpStatsPortEntry 6 }

lldpStatsPortTLVsDiscardedTotal OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    "The number of LLDP TLVs discarded for any reason by this LLDP
    agent on the indicated port.

    Discontinuities in the value of this counter can occur at
    re-initialization of the management system, and at other times
    as indicated by the value of lldpCounterDiscontinuityTime."
REFERENCE
    "IEEE 802.1AB/D8 section 11.4.2"
    ::= { lldpStatsPortEntry 7 }

lldpStatsPortTLVsUnrecognizedTotal OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    "The number of LLDP TLVs received on the given port that
    are not recognized by this LLDP agent on the indicated port.

    Discontinuities in the value of this counter can occur at
    re-initialization of the management system, and at other times
    as indicated by the value of lldpCounterDiscontinuityTime."
REFERENCE
    "IEEE 802.1AB/D8 section 11.4.2"
    ::= { lldpStatsPortEntry 8 }

lldpStatsPortCounterDisconTime OBJECT-TYPE
    SYNTAX TimeStamp
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    "This object is defined to record the time of the last
    discontinuity in statistics counters of the indicated port.
    The relevant counters are the specific instances associated
    with this port of any Counter32 objects contained in the
    lldpStatsTable. If no such discontinuities have occurred
    since the last re-initialization of the local management
    subsystem, then this object contains a zero value."
    ::= { lldpStatsPortEntry 9 }

lldpStatsPortNumAgeouts OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
    "The counter that represents the number of age-outs occurred
    on a given port. An age-out is referred to as the number
    of times an entry has been deleted from tables associated
    with the lldpRemoteSystemsData objects and all LLDP extension
    objects associated with remote systems because the information
    timeliness interval for those entries have expired.

```

```

985         This counter is similar to lldpStatsRemTablesNumAgeouts,
           except that the counter is on a per port basis. This enables
           NMS to poll tables associated with the lldpRemoteSystemsData
           objects and all LLDP extension objects associated with remote
           systems on the indicated port only."
990 ::= { lldpStatsPortEntry 10 }

-- *****
-- LOCAL SYSTEM DATA
-- *****

1000 lldpLocChassisType OBJECT-TYPE
    SYNTAX      LldpChassisIdType
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
1005     "The type of encoding used to identify the chassis
        associated with the local system."
    REFERENCE   "IEEE 802.1AB/D8 section 9.4.2.2"
    ::= { lldpLocalSystemData 1 }

1010 lldpLocChassisId OBJECT-TYPE
    SYNTAX      LldpChassisId
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
1015     "The string value used to identify the chassis component
        associated with the local system."
    REFERENCE   "IEEE 802.1AB/D8 section 9.4.2.3"
    ::= { lldpLocalSystemData 2 }

    lldpLocSysName OBJECT-TYPE
    SYNTAX      SnmpAdminString (SIZE(0..255))
    MAX-ACCESS  read-only
1025     STATUS      current
    DESCRIPTION
        "The string value used to identify the system name of the
        local system. If the local agent supports IETF RFC 3418,
        lldpLocSysName object should have the same value of sysName
        object."
1030     REFERENCE   "IEEE 802.1AB/D8 section 9.4.6.2"
    ::= { lldpLocalSystemData 3 }

1035 lldpLocSysDesc OBJECT-TYPE
    SYNTAX      SnmpAdminString (SIZE(0..255))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
1040     "The string value used to identify the system description
        of the local system. If the local agent supports IETF RFC 3418,
        lldpLocSysDesc object should have the same value of sysDesc
        object."
    REFERENCE   "IEEE 802.1AB/D8 section 9.4.7.2"
1045     ::= { lldpLocalSystemData 4 }

    lldpLocSysCapSupported OBJECT-TYPE
    SYNTAX      LldpSystemCapabilitiesMap
1050     MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The bitmap value used to identify which system capabilities
        are supported on the local system."
1055     REFERENCE   "IEEE 802.1AB/D8 section 9.4.8.2"
    ::= { lldpLocalSystemData 5 }

    lldpLocSysCapEnabled OBJECT-TYPE
1060     SYNTAX      LldpSystemCapabilitiesMap
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
1065     "The bitmap value used to identify which system capabilities
        are enabled on the local system."
    REFERENCE

```

```

           This counter is similar to lldpStatsRemTablesNumAgeouts,
           except that the counter is on a per port basis. This enables
           NMS to poll tables associated with the lldpRemoteSystemsData
           objects and all LLDP extension objects associated with remote
           systems on the indicated port only."
           ::= { lldpStatsPortEntry 10 }

           *****
           LOCAL SYSTEM DATA
           *****

           lldpLocChassisType OBJECT-TYPE
           SYNTAX      LldpChassisIdType
           MAX-ACCESS  read-only
           STATUS      current
           DESCRIPTION
           "The type of encoding used to identify the chassis
           associated with the local system."
           REFERENCE   "IEEE 802.1AB/D8 section 9.4.2.2"
           ::= { lldpLocalSystemData 1 }

           lldpLocChassisId OBJECT-TYPE
           SYNTAX      LldpChassisId
           MAX-ACCESS  read-only
           STATUS      current
           DESCRIPTION
           "The string value used to identify the chassis component
           associated with the local system."
           REFERENCE   "IEEE 802.1AB/D8 section 9.4.2.3"
           ::= { lldpLocalSystemData 2 }

           lldpLocSysName OBJECT-TYPE
           SYNTAX      SnmpAdminString (SIZE(0..255))
           MAX-ACCESS  read-only
           STATUS      current
           DESCRIPTION
           "The string value used to identify the system name of the
           local system."
           REFERENCE   "IEEE 802.1AB/D8 section 9.4.6.2"
           ::= { lldpLocalSystemData 3 }

           lldpLocSysDesc OBJECT-TYPE
           SYNTAX      SnmpAdminString (SIZE(0..255))
           MAX-ACCESS  read-only
           STATUS      current
           DESCRIPTION
           "The string value used to identify the system description
           of the local system."
           REFERENCE   "IEEE 802.1AB/D8 section 9.4.7.2"
           ::= { lldpLocalSystemData 4 }

           lldpLocSysCapSupported OBJECT-TYPE
           SYNTAX      LldpSystemCapabilitiesMap
           MAX-ACCESS  read-only
           STATUS      current
           DESCRIPTION
           "The bitmap value used to identify which system capabilities
           are supported on the local system."
           REFERENCE   "IEEE 802.1AB/D8 section 9.4.8.2"
           ::= { lldpLocalSystemData 5 }

           lldpLocSysCapEnabled OBJECT-TYPE
           SYNTAX      LldpSystemCapabilitiesMap
           MAX-ACCESS  read-only
           STATUS      current
           DESCRIPTION
           "The bitmap value used to identify which system capabilities
           are enabled on the local system."
           REFERENCE

```

```

"IEEE 802.1AB/D8 section 9.4.8.3"
 ::= { lldpLocalSystemData 6 }

1070
--
-- lldpLocPortTable : Port specific Local system data
--

1075 lldpLocPortTable OBJECT-TYPE
SYNTAX SEQUENCE OF LldpLocPortEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
1080 "This table contains one or more rows per port information
associated with the local system known to this agent."
 ::= { lldpLocalSystemData 7 }

lldpLocPortEntry OBJECT-TYPE
1085 SYNTAX LldpLocPortEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"Information about a particular port component.
1090
Entries may be created and deleted in this table by the
agent."
INDEX { lldpLocPortNum }
 ::= { lldpLocPortTable 1 }

1095 LldpLocPortEntry ::= SEQUENCE {
lldpLocPortNum LldpPortNumber,
lldpLocPortType LldpPortIdType,
lldpLocPortId LldpPortId,
1100 lldpLocPortDesc SnmpAdminString
}

lldpLocPortNum OBJECT-TYPE
SYNTAX LldpPortNumber
1105 MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"The index value used to identify the port component
1110 (contained in the local chassis with the LLDP agent)
associated with this entry.

The value of this object is used as a port index to the
lldpLocPortTable."
 ::= { lldpLocPortEntry 1 }

1115 lldpLocPortType OBJECT-TYPE
SYNTAX LldpPortIdType
MAX-ACCESS read-only
STATUS current
DESCRIPTION
1120 "The type of port identifier encoding used in the associated
'lldpLocPortId' object."
REFERENCE
1125 "IEEE 802.1AB/D8 section 9.4.3.2"
 ::= { lldpLocPortEntry 2 }

lldpLocPortId OBJECT-TYPE
SYNTAX LldpPortId
1130 MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The string value used to identify the port component
associated with a given port in the local system."
REFERENCE
1135 "IEEE 802.1AB/D8 section 9.4.3.3"
 ::= { lldpLocPortEntry 3 }

lldpLocPortDesc OBJECT-TYPE
SYNTAX SnmpAdminString (SIZE(0..255))
1140 MAX-ACCESS read-only
STATUS current
DESCRIPTION
1145 "The string value used to identify the 802 LAN station's port
description associated with the local system. If the local
agent supports IETF RFC 2863, lldpLocPortDesc object should
have the same value of ifDescr object."
REFERENCE
"IEEE 802.1AB/D8 section 9.4.5.2"

```

```

"IEEE 802.1AB/D8 section 9.4.8.3"
 ::= { lldpLocalSystemData 6 }

--
-- lldpLocPortTable : Port specific Local system data
--

lldpLocPortTable OBJECT-TYPE
SYNTAX SEQUENCE OF LldpLocPortEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
" This table contains one or more rows per port information
associated with the local system known to this agent."
 ::= { lldpLocalSystemData 7 }

lldpLocPortEntry OBJECT-TYPE
SYNTAX LldpLocPortEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"Information about a particular port component.
Entries may be created and deleted in this table by the
agent."
INDEX { lldpLocPortNum }
 ::= { lldpLocPortTable 1 }

LldpLocPortEntry ::= SEQUENCE {
lldpLocPortNum LldpPortNumber,
lldpLocPortType LldpPortIdType,
lldpLocPortId LldpPortId,
lldpLocPortDesc SnmpAdminString
}

lldpLocPortNum OBJECT-TYPE
SYNTAX LldpPortNumber
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"The index value used to identify the port component
(contained in the local chassis with the LLDP agent)
associated with this entry.

The value of this object is used as a port index to the
lldpLocPortTable."
 ::= { lldpLocPortEntry 1 }

lldpLocPortType OBJECT-TYPE
SYNTAX LldpPortIdType
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The type of port identifier encoding used in the associated
'lldpLocPortId' object."
REFERENCE
"IEEE 802.1AB/D8 section 9.4.3.2"
 ::= { lldpLocPortEntry 2 }

lldpLocPortId OBJECT-TYPE
SYNTAX LldpPortId
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The string value used to identify the port component
associated with a given port in the local system."
REFERENCE
"IEEE 802.1AB/D8 section 9.4.3.3"
 ::= { lldpLocPortEntry 3 }

lldpLocPortDesc OBJECT-TYPE
SYNTAX SnmpAdminString (SIZE(0..255))
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The string value used to identify the 802 LAN station's port
description associated with the local system."
REFERENCE
"IEEE 802.1AB/D8 section 9.4.5.2"

```

```

1150 ::= { lldpLocPortEntry 4 }
--
-- lldpLocManAddrTable : Management addresses of the local system
--

1155 lldpLocManAddrTable OBJECT-TYPE
SYNTAX SEQUENCE OF LldpLocManAddrEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
1160 "This table contains management address information on the
local system known to this agent."
::= { lldpLocalSystemData 8 }

lldpLocManAddrEntry OBJECT-TYPE
1165 SYNTAX LldpLocManAddrEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
1170 "Management address information about a particular chassis
component. There may be multiple management addresses
configured on the system identified by a particular
lldpLocChassisId. Each management address should have
distinct 'management address type' (lldpLocManAddrSubtype) and
'management address' (lldpLocManAddr.)
1175
Entries may be created and deleted in this table by the
agent."
INDEX { lldpLocManAddrSubtype,
lldpLocManAddr }
1180 ::= { lldpLocManAddrTable 1 }

LldpLocManAddrEntry ::= SEQUENCE {
lldpLocManAddrSubtype AddressFamilyNumbers,
lldpLocManAddr LldpManAddress,
1185 lldpLocManAddrLen Integer32,
lldpLocManAddrIfSubtype LldpManAddrIfSubtype,
lldpLocManAddrIfId Integer32,
lldpLocManAddrOID OBJECT IDENTIFIER
}

1190 lldpLocManAddrSubtype OBJECT-TYPE
SYNTAX AddressFamilyNumbers
MAX-ACCESS not-accessible
STATUS current
1195 DESCRIPTION
"The type of management address identifier encoding used in
the associated 'lldpLocManagementAddr' object."
REFERENCE
"IEEE 802.1AB/D8 section 9.4.9.3"
1200 ::= { lldpLocManAddrEntry 1 }

lldpLocManAddr OBJECT-TYPE
SYNTAX LldpManAddress
MAX-ACCESS not-accessible
STATUS current
1205 DESCRIPTION
"The string value used to identify the management address
component associated with the local system. The purpose of
this address is to contact the management entity."
1210 REFERENCE
"IEEE 802.1AB/D8 section 9.4.9.4"
::= { lldpLocManAddrEntry 2 }

lldpLocManAddrLen OBJECT-TYPE
1215 SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
1220 "The total length of the management address subtype and the
management address fields in LLDPDUS transmitted by the
local LLDP agent.
The management address length field is needed so that the
receiving systems that do not implement SNMP will not be
1225 required to implement an iana family numbers/address length
equivalency table in order to decode the management address."
REFERENCE
"IEEE 802.1AB/D8 section 9.4.9.2"
1230 ::= { lldpLocManAddrEntry 3 }

```

```

lldpLocManAddrIfSubtype OBJECT-TYPE
SYNTAX      LldpManAddrIfSubtype
MAX-ACCESS  read-only
STATUS      current
1235  DESCRIPTION
        "The enumeration value used to identify the interface numbering
        subtype from which the interface number is derived associated with
        the local system."
1240  REFERENCE
        "IEEE 802.1AB/D8 section 9.4.9.5"
        ::= { lldpLocManAddrEntry 4 }

lldpLocManAddrIfId OBJECT-TYPE
1245  SYNTAX      Integer32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
1250  "The integer value used to identify the interface number
        regarding the management address component associated with
        the local system."
REFERENCE
        "IEEE 802.1AB/D8 section 9.4.9.6"
        ::= { lldpLocManAddrEntry 5 }

1255  lldpLocManAddrOID OBJECT-TYPE
SYNTAX      OBJECT IDENTIFIER
MAX-ACCESS  read-only
STATUS      current
1260  DESCRIPTION
        "The OID value used to identify the type of hardware component
        or protocol entity associated with the management address
        advertised by the local system agent."
1265  REFERENCE
        "IEEE 802.1AB/D8 section 9.4.9.8"
        ::= { lldpLocManAddrEntry 6 }

-- *****
--
--      R E M O T E      S Y S T E M S      D A T A
--
-- *****

1275  lldpRemTable OBJECT-TYPE
SYNTAX      SEQUENCE OF LldpRemEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
1280  "This table contains one or more rows per physical network
        connection known to this agent. The agent may wish to ensure
        that only one lldpRemEntry is present for each local port,
        or it may choose to maintain multiple lldpRemEntries for
        the same local port."
1285  ::= { lldpRemoteSystemsData 1 }

lldpRemEntry OBJECT-TYPE
1290  SYNTAX      LldpRemEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
        "Information about a particular physical network connection.
        Entries may be created and deleted in this table by the agent,
        if a physical topology discovery process is active."
1295  INDEX      {
                lldpRemTimeMark,
                lldpRemLocalPortNum,
                lldpRemIndex
            }
1300  ::= { lldpRemTable 1 }

LldpRemEntry ::= SEQUENCE {
1305  lldpRemTimeMark      TimeFilter,
        lldpRemLocalPortNum  LldpPortNumber,
        lldpRemIndex        Integer32,
        lldpRemRemoteChassisType LldpChassisIdType,
        lldpRemRemoteChassis  LldpChassisId,
        lldpRemRemotePortType LldpPortIdType,
        lldpRemRemotePort     LldpPortId,
1310  lldpRemPortDesc      SnmpAdminString,
        lldpRemSysName      SnmpAdminString,
        lldpRemSysDesc      SnmpAdminString,

```

```

lldpLocManAddrIfSubtype OBJECT-TYPE
SYNTAX      LldpManAddrIfSubtype
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
        "The enumeration value used to identify the interface numbering
        subtype from which the interface number is derived associated with
        the local system."
REFERENCE
        "IEEE 802.1AB/D8 section 9.4.9.5"
        ::= { lldpLocManAddrEntry 4 }

lldpLocManAddrIfId OBJECT-TYPE
SYNTAX      Integer32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
        "The integer value used to identify the interface number
        regarding the management address component associated with
        the local system."
REFERENCE
        "IEEE 802.1AB/D8 section 9.4.9.6"
        ::= { lldpLocManAddrEntry 5 }

lldpLocManAddrOID OBJECT-TYPE
SYNTAX      OBJECT IDENTIFIER
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
        "The OID value used to identify the type of hardware component
        or protocol entity associated with the management address
        advertised by the local system agent."
REFERENCE
        "IEEE 802.1AB/D8 section 9.4.9.8"
        ::= { lldpLocManAddrEntry 6 }

-- *****
--
--      R E M O T E      S Y S T E M S      D A T A
--
-- *****

lldpRemTable OBJECT-TYPE
SYNTAX      SEQUENCE OF LldpRemEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
        "This table contains one or more rows per physical network
        connection known to this agent. The agent may wish to ensure
        that only one lldpRemEntry is present for each local port,
        or it may choose to maintain multiple lldpRemEntries for
        the same local port."
        ::= { lldpRemoteSystemsData 1 }

lldpRemEntry OBJECT-TYPE
SYNTAX      LldpRemEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
        "Information about a particular physical network connection.
        Entries may be created and deleted in this table by the agent,
        if a physical topology discovery process is active."
INDEX      {
        lldpRemTimeMark,
        lldpRemLocalPortNum,
        lldpRemIndex
    }
        ::= { lldpRemTable 1 }

LldpRemEntry ::= SEQUENCE {
        lldpRemTimeMark      TimeFilter,
        lldpRemLocalPortNum  LldpPortNumber,
        lldpRemIndex        Integer32,
        lldpRemRemoteChassisType LldpChassisIdType,
        lldpRemRemoteChassis  LldpChassisId,
        lldpRemRemotePortType LldpPortIdType,
        lldpRemRemotePort     LldpPortId,
        lldpRemPortDesc      SnmpAdminString,
        lldpRemSysName      SnmpAdminString,
        lldpRemSysDesc      SnmpAdminString,

```



```

1315 }
    lldpRemSysCapSupported LldpSystemCapabilitiesMap,
    lldpRemSysCapEnabled  LldpSystemCapabilitiesMap
}

lldpRemTimeMark OBJECT-TYPE
SYNTAX TimeFilter
MAX-ACCESS not-accessible
1320 STATUS current
DESCRIPTION
"A TimeFilter for this entry. See the TimeFilter textual
convention in RFC 2021 to see how this works."
REFERENCE
1325 "RFC 2021 section 6"
 ::= { lldpRemEntry 1 }

lldpRemLocalPortNum OBJECT-TYPE
SYNTAX LldpPortNumber
1330 MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"The index value used to identify the port component
(contained in the local chassis with the LLDP agent)
1335 associated with this entry. The lldpRemLocalPortNum
identifies the port on which the remote system information
is received.

The value of this object is used as a port index to the
1340 lldpRemTable."
 ::= { lldpRemEntry 2 }

lldpRemIndex OBJECT-TYPE
SYNTAX Integer32(1..2147483647)
1345 MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"This object represents an arbitrary local integer value used
1350 by this agent to identify a particular connection instance,
unique only for the indicated remote system.

>
>
>
>
1355 An agent is encouraged to assign monotonically increasing
index values to new entries, starting with one, after each
reboot. It is considered unlikely that the lldpRemIndex
will wrap between reboots."
1360 ::= { lldpRemEntry 3 }

lldpRemRemoteChassisType OBJECT-TYPE
SYNTAX LldpChassisIdType
1365 MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The type of encoding used to identify the chassis associated
with the remote system."
REFERENCE
1370 "IEEE 802.1AB/D8 section 9.4.2.2"
 ::= { lldpRemEntry 4 }

lldpRemRemoteChassis OBJECT-TYPE
SYNTAX LldpChassisId
1375 MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The string value used to identify the chassis component
associated with the remote system."
1380 REFERENCE
"IEEE 802.1AB/D8 section 9.4.2.3"
 ::= { lldpRemEntry 5 }

lldpRemRemotePortType OBJECT-TYPE
1385 SYNTAX LldpPortIdType
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The type of port identifier encoding used in the associated
1390 'lldpRemRemotePort' object."
REFERENCE
"IEEE 802.1AB/D8 section 9.4.3.2"
 ::= { lldpRemEntry 6 }

lldpRemSysCapSupported LldpSystemCapabilitiesMap,
lldpRemSysCapEnabled  LldpSystemCapabilitiesMap
}

lldpRemTimeMark OBJECT-TYPE
SYNTAX TimeFilter
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"A TimeFilter for this entry. See the TimeFilter textual
convention in RFC 2021 to see how this works."
REFERENCE
"RFC 2021 section 6"
 ::= { lldpRemEntry 1 }

lldpRemLocalPortNum OBJECT-TYPE
SYNTAX LldpPortNumber
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"The index value used to identify the port component
(contained in the local chassis with the LLDP agent)
associated with this entry. The lldpRemLocalPortNum
identifies the port on which the remote system information
is received.

The value of this object is used as a port index to the
lldpRemTable."
 ::= { lldpRemEntry 2 }

lldpRemIndex OBJECT-TYPE
SYNTAX Integer32(1..2147483647)
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"This object represents an arbitrary local integer value used
by this agent to identify a particular connection instance,
unique only for the indicated remote system.

A particular lldpRemIndex value may be reused in the event
an entry is aged out and later re-learned with the same
(or different) remote chassis and port identifiers.

An agent is encouraged to assign monotonically increasing
index values to new entries, starting with one, after each
reboot. It is considered unlikely that the lldpRemIndex
will wrap between reboots."
 ::= { lldpRemEntry 3 }

lldpRemRemoteChassisType OBJECT-TYPE
SYNTAX LldpChassisIdType
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The type of encoding used to identify the chassis associated
with the remote system."
REFERENCE
"IEEE 802.1AB/D8 section 9.4.2.2"
 ::= { lldpRemEntry 4 }

lldpRemRemoteChassis OBJECT-TYPE
SYNTAX LldpChassisId
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The string value used to identify the chassis component
associated with the remote system."
REFERENCE
"IEEE 802.1AB/D8 section 9.4.2.3"
 ::= { lldpRemEntry 5 }

lldpRemRemotePortType OBJECT-TYPE
SYNTAX LldpPortIdType
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The type of port identifier encoding used in the associated
'lldpRemRemotePort' object."
REFERENCE
"IEEE 802.1AB/D8 section 9.4.3.2"
 ::= { lldpRemEntry 6 }

```

```

1395 lldpRemRemotePort OBJECT-TYPE
    SYNTAX      LldpPortId
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
1400     "The string value used to identify the port component
        associated with the remote system."
    REFERENCE
        "IEEE 802.1AB/D8 section 9.4.3.3"
    ::= { lldpRemEntry 7 }

1405 lldpRemPortDesc OBJECT-TYPE
    SYNTAX      SnmpAdminString (SIZE(0..255))
    MAX-ACCESS  read-only
    STATUS      current
1410     DESCRIPTION
        "The string value used to identify the description of
        the given port associated with the remote system."
    REFERENCE
        "IEEE 802.1AB/D8 section 9.4.5.2"
1415     ::= { lldpRemEntry 8 }

    lldpRemSysName OBJECT-TYPE
    SYNTAX      SnmpAdminString (SIZE(0..255))
    MAX-ACCESS  read-only
1420     STATUS      current
    DESCRIPTION
        "The string value used to identify the system name of the
        remote system."
    REFERENCE
1425     "IEEE 802.1AB/D8 section 9.4.6.2"
    ::= { lldpRemEntry 9 }

    lldpRemSysDesc OBJECT-TYPE
    SYNTAX      SnmpAdminString (SIZE(0..255))
1430     MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The string value used to identify the system description
        of the remote system."
1435     REFERENCE
        "IEEE 802.1AB/D8 section 9.4.7.2"
    ::= { lldpRemEntry 10 }

    lldpRemSysCapSupported OBJECT-TYPE
1440     SYNTAX      LldpSystemCapabilitiesMap
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
1445     "The bitmap value used to identify which system capabilities
        are supported on the remote system."
    REFERENCE
        "IEEE 802.1AB/D8 section 9.4.8.2"
    ::= { lldpRemEntry 11 }

1450 lldpRemSysCapEnabled OBJECT-TYPE
    SYNTAX      LldpSystemCapabilitiesMap
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
1455     "The bitmap value used to identify which system capabilities
        are enabled on the remote system."
    REFERENCE
        "IEEE 802.1AB/D8 section 9.4.8.3"
    ::= { lldpRemEntry 12 }

1460
--
-- lldpRemManAddrTable : Management addresses of the remote system
--

1465 lldpRemManAddrTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF LldpRemManAddrEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
1470     "This table contains one or more rows per management address
        information on the remote system learned on a particular port
        contained in the local chassis known to this agent."
    ::= { lldpRemoteSystemsData 2 }

1475 lldpRemManAddrEntry OBJECT-TYPE
    SYNTAX      LldpRemManAddrEntry

```

```

MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
1480 "Management address information about a particular chassis
component. There may be multiple management addresses
configured on the remote system identified by a particular
lldpRemIndex whose information is received on
1485 lldpRemLocalPortNum of the local system. Each management
address should have distinct 'management address
type' (lldpRemManAddrSubtype) and 'management address'
(lldpRemManAddr.)

Entries may be created and deleted in this table by the
agent."
1490 INDEX { lldpRemTimeMark,
           lldpRemLocalPortNum,
           lldpRemIndex,
           lldpRemManAddrSubtype,
           lldpRemManAddr
1495 }
 ::= { lldpRemManAddrTable 1 }

LldpRemManAddrEntry ::= SEQUENCE {
1500 lldpRemManAddrSubtype AddressFamilyNumbers,
      lldpRemManAddr      LldpManAddress,
      lldpRemManAddrIfSubtype LldpManAddrIfSubtype,
      lldpRemManAddrIfId   Integer32,
      lldpRemManAddrOID    OBJECT IDENTIFIER
1505 }

lldpRemManAddrSubtype OBJECT-TYPE
SYNTAX AddressFamilyNumbers
MAX-ACCESS not-accessible
1510 STATUS current
DESCRIPTION
"The type of management address identifier encoding used in
the associated 'lldpRemManagementAddr' object."
REFERENCE
1515 "IEEE 802.1AB/D8 section 9.4.9.3"
 ::= { lldpRemManAddrEntry 1 }

lldpRemManAddr OBJECT-TYPE
SYNTAX LldpManAddress
MAX-ACCESS not-accessible
1520 STATUS current
DESCRIPTION
"The string value used to identify the management address
component associated with the remote system. The purpose
1525 of this address is to contact the management entity."
REFERENCE
"IEEE 802.1AB/D8 section 9.4.9.4"
 ::= { lldpRemManAddrEntry 2 }

lldpRemManAddrIfSubtype OBJECT-TYPE
SYNTAX LldpManAddrIfSubtype
MAX-ACCESS read-only
1530 STATUS current
DESCRIPTION
"The enumeration value used to identify the interface numbering
subtype from which the interface number is derived associated with
the remote system."
REFERENCE
1535 "IEEE 802.1AB/D8 section 9.4.9.5"
 ::= { lldpRemManAddrEntry 3 }

lldpRemManAddrIfId OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
1545 STATUS current
DESCRIPTION
"The (four octet) value used to identify the interface number
regarding the management address component associated with
the remote system."
REFERENCE
1550 "IEEE 802.1AB/D8 section 9.4.9.6"
 ::= { lldpRemManAddrEntry 4 }

lldpRemManAddrOID OBJECT-TYPE
SYNTAX OBJECT IDENTIFIER
MAX-ACCESS read-only
1555 STATUS current
DESCRIPTION

```

```

MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"Management address information about a particular chassis
component. There may be multiple management addresses
configured on the remote system identified by a particular
lldpRemIndex whose information is received on
lldpRemLocalPortNum of the local system. Each management
address should have distinct 'management address
type' (lldpRemManAddrSubtype) and 'management address'
(lldpRemManAddr.)

Entries may be created and deleted in this table by the
agent."
INDEX { lldpRemTimeMark,
       lldpRemLocalPortNum,
       lldpRemIndex,
       lldpRemManAddrSubtype,
       lldpRemManAddr
}
 ::= { lldpRemManAddrTable 1 }

LldpRemManAddrEntry ::= SEQUENCE {
lldpRemManAddrSubtype AddressFamilyNumbers,
lldpRemManAddr      LldpManAddress,
lldpRemManAddrIfSubtype LldpManAddrIfSubtype,
lldpRemManAddrIfId   Integer32,
lldpRemManAddrOID    OBJECT IDENTIFIER
}

lldpRemManAddrSubtype OBJECT-TYPE
SYNTAX AddressFamilyNumbers
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"The type of management address identifier encoding used in
the associated 'lldpRemManagementAddr' object."
REFERENCE
"IEEE 802.1AB/D8 section 9.4.9.3"
 ::= { lldpRemManAddrEntry 1 }

lldpRemManAddr OBJECT-TYPE
SYNTAX LldpManAddress
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"The string value used to identify the management address
component associated with the remote system."
REFERENCE
"IEEE 802.1AB/D8 section 9.4.9.4"
 ::= { lldpRemManAddrEntry 2 }

lldpRemManAddrIfSubtype OBJECT-TYPE
SYNTAX LldpManAddrIfSubtype
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The enumeration value used to identify the interface numbering
subtype from which the interface number is derived associated with
the remote system."
REFERENCE
"IEEE 802.1AB/D8 section 9.4.9.5"
 ::= { lldpRemManAddrEntry 3 }

lldpRemManAddrIfId OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The (four octet) value used to identify the interface number
regarding the management address component associated with
the remote system."
REFERENCE
"IEEE 802.1AB/D8 section 9.4.9.6"
 ::= { lldpRemManAddrEntry 4 }

lldpRemManAddrOID OBJECT-TYPE
SYNTAX OBJECT IDENTIFIER
MAX-ACCESS read-only
STATUS current
DESCRIPTION

```

```

1560         "The OID value used to identify the type of hardware component
or protocol entity associated with the management address
advertised by the remote system agent."
REFERENCE
"IEEE 802.1AB/D8 section 9.4.9.8"
 ::= { lldpRemManAddrEntry 5 }
1565
--
-- lldpRemUnknownTLVTable : Unrecognized TLV information
--
lldpRemUnknownTLVTable OBJECT-TYPE
1570 SYNTAX      SEQUENCE OF LldpRemUnknownTLVEntry
MAX-ACCESS   not-accessible
STATUS       current
DESCRIPTION
1575 "This table contains information about an incoming TLV which
is not recognized by the receiving LLDP agent. The TLV may
be from a later version of the basic management set."
|
<
<
1580 This table should only contain TLVs that are found in a
single LLDP frame. Entries of this table, associated
with an MSAP (which is also identified with a particular
lldpRemLocalPortNum, lldpRemIndex pair) are overwritten
with most recently received unrecognized TLV from the same
MSAP, or they will naturally age out when the rxInfoTTL timer
(associated with the MSAP) expires."
<
<
1585 REFERENCE
"IEEE 802.1AB/D8 section 10.3.3"
 ::= { lldpRemoteSystemsData 3 }
<
<
lldpRemUnknownTLVEntry OBJECT-TYPE
1590 SYNTAX      LldpRemUnknownTLVEntry
MAX-ACCESS   not-accessible
STATUS       current
DESCRIPTION
1595 "Information about an unrecognized TLV received from a
physical network connection. Entries may be created and
deleted in this table by the agent, if a physical topology
discovery process is active."
INDEX
1600 {
lldpRemTimeMark,
lldpRemLocalPortNum,
lldpRemIndex,
lldpRemUnknownTLVType
}
 ::= { lldpRemUnknownTLVTable 1 }
1605
LldpRemUnknownTLVEntry ::= SEQUENCE {
lldpRemUnknownTLVType Integer32,
lldpRemUnknownTLVInfo OCTET STRING
}
1610
lldpRemUnknownTLVType OBJECT-TYPE
SYNTAX      Integer32(9..126)
MAX-ACCESS   not-accessible
STATUS       current
1615 DESCRIPTION
"This object represents the value extracted from the type
field of the TLV."
REFERENCE
"IEEE 802.1AB/D8 section 10.3.5"
1620 ::= { lldpRemUnknownTLVEntry 1 }

lldpRemUnknownTLVInfo OBJECT-TYPE
SYNTAX      OCTET STRING (SIZE(0..511))
MAX-ACCESS   read-only
STATUS       current
1625 DESCRIPTION
"This object represents the value extracted from the value
field of the TLV."
REFERENCE
"IEEE 802.1AB/D8 section 10.3.5"
1630 ::= { lldpRemUnknownTLVEntry 2 }

-----
-- Remote Systems Extension Table - Organizationally Defined Information
1635
lldpRemOrgDefInfoTable OBJECT-TYPE
SYNTAX      SEQUENCE OF LldpRemOrgDefInfoEntry
MAX-ACCESS   not-accessible
STATUS       current
1640 DESCRIPTION

```

```

    "This table contains one or more rows per physical network
    connection which advertises the organizationally defined
    information.
1645 Note that this table contains one or more rows of
    organizationally defined information that is not recognized
    by the local agent. The agent may wish to ensure that only
    one lldpRemOrgDefInfoEntry is present for each remote system,
1650 or it may choose to maintain multiple lldpRemOrgDefInfoEntries
    for the same remote system.

    If the local system is capable of recognizing any
    organizationally defined information, appropriate extension
    MIBs from the organization should be used for information
    retrieval."
1655 ::= { lldpRemoteSystemsData 4 }

lldpRemOrgDefInfoEntry OBJECT-TYPE
1660 SYNTAX      LldpRemOrgDefInfoEntry
    MAX-ACCESS not-accessible
    STATUS      current
    DESCRIPTION
        "Information about the unrecognized organizationally
1665 defined information advertised by the remote system.
        The lldpRemTimeMark, lldpRemLocalPortNum, lldpRemIndex,
        lldpRemOrgDefInfoOUI, lldpRemOrgDefInfoSubtype, and
        lldpRemOrgDefInfoIndex are indexes to this table. If there is
        an lldpRemOrgDefInfoEntry associated with a particular remote
1670 system identified by the lldpRemLocalPortNum and lldpRemIndex,
        there must be an lldpRemEntry associated with the same
        instance (i.e, using same indexes.) When the lldpRemEntry
        for the same index is removed from the lldpRemTable, the
        associated lldpRemOrgDefInfoEntry should be removed from
        the lldpRemOrgDefInfoTable.

1675 Entries may be created and deleted in this table by the
        agent."
    INDEX      { lldpRemTimeMark,
1680                 lldpRemLocalPortNum,
                 lldpRemIndex,
                 lldpRemOrgDefInfoOUI,
                 lldpRemOrgDefInfoSubtype,
                 lldpRemOrgDefInfoIndex }
    ::= { lldpRemOrgDefInfoTable 1 }

1685 LldpRemOrgDefInfoEntry ::= SEQUENCE {
    lldpRemOrgDefInfoOUI      OCTET STRING,
    lldpRemOrgDefInfoSubtype  Integer32,
    lldpRemOrgDefInfoIndex    Integer32,
1690 lldpRemOrgDefInfo         OCTET STRING
}

lldpRemOrgDefInfoOUI OBJECT-TYPE
1695 SYNTAX      OCTET STRING (SIZE(3))
    MAX-ACCESS not-accessible
    STATUS      current
    DESCRIPTION
        "The Organizationally Unique Identifier (OUI), as defined
1700 in IEEE std. 802-2001, is a 24 bit (three octets) globally
        unique assigned number referenced by various standards,
        of the information received from the remote system."
    REFERENCE
        "IEEE 802.1AB/D8 section 9.5.1.3"
1705 ::= { lldpRemOrgDefInfoEntry 1 }

lldpRemOrgDefInfoSubtype OBJECT-TYPE
1710 SYNTAX      Integer32(1..255)
    MAX-ACCESS not-accessible
    STATUS      current
    DESCRIPTION
        "The integer value used to identify the subtype of the
        organizationally defined information received from the
        remote system.

1715 The subtype value is required to identify different instances
        of organizationally defined information that could not be
        retrieved without a unique identifier that indicates the
        particular type of information contained in the information
        string."
1720 REFERENCE
        "IEEE 802.1AB/D8 section 9.5.1.4"
    ::= { lldpRemOrgDefInfoEntry 2 }

```

```

    "This table contains one or more rows per physical network
    connection which advertises the organizationally defined
    information.

    Note that this table contains one or more rows of
    organizationally defined information that is not recognized
    by the local agent. The agent may wish to ensure that only
    one lldpRemOrgDefInfoEntry is present for each remote system,
    or it may choose to maintain multiple lldpRemOrgDefInfoEntries
    for the same remote system.

    If the local system is capable of recognizing any
    organizationally defined information, appropriate extension
    MIBs from the organization should be used for information
    retrieval."
    ::= { lldpRemoteSystemsData 4 }

lldpRemOrgDefInfoEntry OBJECT-TYPE
1660 SYNTAX      LldpRemOrgDefInfoEntry
    MAX-ACCESS not-accessible
    STATUS      current
    DESCRIPTION
        "Information about the unrecognized organizationally
1665 defined information advertised by the remote system.
        The lldpRemTimeMark, lldpRemLocalPortNum, lldpRemIndex,
        lldpRemOrgDefInfoOUI, lldpRemOrgDefInfoSubtype, and
        lldpRemOrgDefInfoIndex are indexes to this table. If there is
        an lldpRemOrgDefInfoEntry associated with a particular remote
1670 system identified by the lldpRemLocalPortNum and lldpRemIndex,
        there must be an lldpRemEntry associated with the same
        instance (i.e, using same indexes.) When the lldpRemEntry
        for the same index is removed from the lldpRemTable, the
        associated lldpRemOrgDefInfoEntry should be removed from
        the lldpRemOrgDefInfoTable.

1675 Entries may be created and deleted in this table by the
        agent."
    INDEX      { lldpRemTimeMark,
1680                 lldpRemLocalPortNum,
                 lldpRemIndex,
                 lldpRemOrgDefInfoOUI,
                 lldpRemOrgDefInfoSubtype,
                 lldpRemOrgDefInfoIndex }
    ::= { lldpRemOrgDefInfoTable 1 }

1685 LldpRemOrgDefInfoEntry ::= SEQUENCE {
    lldpRemOrgDefInfoOUI      OCTET STRING,
    lldpRemOrgDefInfoSubtype  Integer32,
    lldpRemOrgDefInfoIndex    Integer32,
1690 lldpRemOrgDefInfo         OCTET STRING
}

lldpRemOrgDefInfoOUI OBJECT-TYPE
1695 SYNTAX      OCTET STRING (SIZE(3))
    MAX-ACCESS not-accessible
    STATUS      current
    DESCRIPTION
        "The Organizationally Unique Identifier (OUI), as defined
1700 in IEEE std. 802-2001, is a 24 bit (three octets) globally
        unique assigned number referenced by various standards,
        of the information received from the remote system."
    REFERENCE
        "IEEE 802.1AB/D8 section 9.5.1.3"
1705 ::= { lldpRemOrgDefInfoEntry 1 }

lldpRemOrgDefInfoSubtype OBJECT-TYPE
1710 SYNTAX      Integer32(1..255)
    MAX-ACCESS not-accessible
    STATUS      current
    DESCRIPTION
        "The integer value used to identify the subype of the
        organizationally defined information received from the
        remote system.

1715 The subtype value is required to identify different instances
        of organizationally defined information that could not be
        retrieved without a unique identifier that indicates the
        particular type of information contained in the information
        string."
1720 REFERENCE
        "IEEE 802.1AB/D8 section 9.5.1.4"
    ::= { lldpRemOrgDefInfoEntry 2 }

```

```

lldpRemOrgDefInfoIndex OBJECT-TYPE
1725 SYNTAX      Integer32(1..2147483647)
      MAX-ACCESS not-accessible
      STATUS      current
      DESCRIPTION
1730      "This object represents an arbitrary local integer value
      used by this agent to identify a particular unrecognized
      organizationally defined information instance, unique only
      for the lldpRemOrgDefInfoOUI and lldpRemOrgDefInfoSubtype
      from the same remote system.

1735      A particular lldpRemOrgDefInfoIndex value may be reused
      in the event an entry is aged out and later re-learned
      with the same (or different) lldpRemOrgDefInfoOUI and
      lldpRemOrgDefInfoSubtype.

1740      An agent is encouraged to assign monotonically increasing
      index values to new entries, starting with one, after each
      reboot. It is considered unlikely that the
      lldpRemOrgDefInfoIndex will wrap between reboots."
      ::= { lldpRemOrgDefInfoEntry 3 }
1745
lldpRemOrgDefInfo OBJECT-TYPE
      SYNTAX      OCTET STRING(SIZE(0..507))
      MAX-ACCESS  read-only
      STATUS      current
1750      DESCRIPTION
      "The string value used to identify the organizationally
      defined information of the remote system. The encoding for
      this object should be as defined for SnmpAdminString TC."
      REFERENCE
1755      "IEEE 802.1AB/D8 section 9.5.1.5"
      ::= { lldpRemOrgDefInfoEntry 4 }

```

```

lldpRemOrgDefInfoIndex OBJECT-TYPE
      SYNTAX      Integer32(1..2147483647)
      MAX-ACCESS  not-accessible
      STATUS      current
      DESCRIPTION
1730      "This object represents an arbitrary local integer value
      used by this agent to identify a particular unrecognized
      organizationally defined information instance, unique only
      for the lldpRemOrgDefInfoOUI and lldpRemOrgDefInfoSubtype
      from the same remote system.

1735      A particular lldpRemOrgDefInfoIndex value may be reused
      in the event an entry is aged out and later re-learned
      with the same (or different) lldpRemOrgDefInfoOUI and
      lldpRemOrgDefInfoSubtype.

1740      An agent is encouraged to assign monotonically increasing
      index values to new entries, starting with one, after each
      reboot. It is considered unlikely that the
      lldpRemOrgDefInfoIndex will wrap between reboots."
      ::= { lldpRemOrgDefInfoEntry 3 }
1745
lldpRemOrgDefInfo OBJECT-TYPE
      SYNTAX      OCTET STRING(SIZE(0..507))
      MAX-ACCESS  read-only
      STATUS      current
1750      DESCRIPTION
      "The string value used to identify the organizationally
      defined information of the remote system. The encoding for
      this object should be as defined for SnmpAdminString TC."
      REFERENCE
1755      "IEEE 802.1AB/D8 section 9.5.1.5"
      ::= { lldpRemOrgDefInfoEntry 4 }

```

```

--
1760 -- *****
--
--          L L D P   M I B   N O T I F I C A T I O N S
--
-- *****
1765 --

```

```

--
-- *****
--
--          L L D P   M I B   N O T I F I C A T I O N S
--
-- *****

```

```

lldpNotificationPrefix OBJECT IDENTIFIER ::= { lldpNotifications 0 }

lldpRemTablesChange NOTIFICATION-TYPE
1770 OBJECTS {
      lldpStatsRemTablesInserts,
      lldpStatsRemTablesDeletes,
      lldpStatsRemTablesDrops,
      lldpStatsRemTablesAgeouts
1775 }
      STATUS      current
      DESCRIPTION
1780      "A lldpRemTablesChange notification is sent when the value
      of lldpStatsRemTableLastChangeTime changes. It can be
      utilized by an NMS to trigger LLDP remote systems table
      maintenance polls.

      Note that transmission of lldpRemTablesChange
      notifications are throttled by the agent, as specified by the
1785 'lldpNotificationInterval' object."
      ::= { lldpNotificationPrefix 1 }

```

```

lldpNotificationPrefix OBJECT IDENTIFIER ::= { lldpNotifications 0 }

lldpRemTablesChange NOTIFICATION-TYPE
      OBJECTS {
1770       lldpStatsRemTablesNumInserts,
       lldpStatsRemTablesNumDeletes,
       lldpStatsRemTablesNumDrops,
       lldpStatsRemTablesNumAgeouts
1775      }
      STATUS      current
      DESCRIPTION
1780      "A lldpRemTablesChange notification is sent when the value
      of lldpStatsRemTableLastChangeTime changes. It can be
      utilized by an NMS to trigger LLDP remote systems table
      maintenance polls.

      Note that transmission of lldpRemTablesChange
      notifications are throttled by the agent, as specified by the
1785 'lldpNotificationInterval' object."
      ::= { lldpNotificationPrefix 1 }

```

```

--
1790 -- *****
--
--          L L D P   M I B   C O N F O R M A N C E
--
-- *****
1795 --

```

```

--
-- *****
--
--          L L D P   M I B   C O N F O R M A N C E
--
-- *****

```

```

lldpCompliances OBJECT IDENTIFIER ::= { lldpConformance 1 }
lldpGroups      OBJECT IDENTIFIER ::= { lldpConformance 2 }

1800 -- compliance statements

lldpCompliance MODULE-COMPLIANCE
      STATUS      current
      DESCRIPTION

```

```

lldpCompliances OBJECT IDENTIFIER ::= { lldpConformance 1 }
lldpGroups      OBJECT IDENTIFIER ::= { lldpConformance 2 }

-- compliance statements

lldpCompliance MODULE-COMPLIANCE
      STATUS      current
      DESCRIPTION

```

```

1805     "The compliance statement for SNMP entities which implement
        the LLDP MIB."
MODULE -- this module
MANDATORY-GROUPS {
1810     lldpConfigGroup,
        lldpStatsGroup,
        lldpLocSysGroup,
        lldpRemSysGroup,
        lldpNotificationsGroup
    }
1815     GROUP lldpOptLocSysGroup
        DESCRIPTION
            "This object represent the information associated with
            the optional TLVs, therefore the agent may not implement
            them."
1820     ::= { lldpCompliances 1 }

-- MIB groupings

lldpConfigGroup OBJECT-GROUP
1825     OBJECTS {
        lldpMessageTxInterval,
        lldpMessageTxHoldMultiplier,
        lldpReinitDelay,
        lldpTxDelay,
1830     lldpNotificationInterval,
        lldpPortConfigAdminStatus,
        lldpPortConfigNotificationEnable,
        lldpPortConfigTLVsTxEnable,
        lldpConfigManAddrPortsTxEnable
1835     }
        STATUS current
        DESCRIPTION
            "The collection of objects which are used to configure the
            LLDP implementation behavior."
1840     This group is mandatory for agents which implement the LLDP."
    ::= { lldpGroups 1 }

lldpStatsGroup OBJECT-GROUP
1845     OBJECTS {
        lldpStatsRemTablesLastChangeTime,
        lldpStatsRemTablesNumInserts,
        lldpStatsRemTablesNumDeletes,
        lldpStatsRemTablesNumDrops,
1850     lldpStatsRemTablesNumAgeouts,
        lldpStatsPortFramesDiscardedTotal,
        lldpStatsPortFramesInErrors,
        lldpStatsPortFramesInTotal,
        lldpStatsPortFramesOutTotal,
1855     lldpStatsPortTLVsInErrors,
        lldpStatsPortTLVsDiscardedTotal,
        lldpStatsPortTLVsUnrecognizedTotal,
        lldpStatsPortCounterDisconTime,
        lldpStatsPortNumAgeouts
1860     }
        STATUS current
        DESCRIPTION
            "The collection of objects which are used to represent LLDP
            statistics."
1865     This group is mandatory for agents which implement the LLDP."
    ::= { lldpGroups 2 }

lldpLocSysGroup OBJECT-GROUP
1870     OBJECTS {
        lldpLocChassisType,
        lldpLocChassisId,
        lldpLocPortType,
        lldpLocPortId
1875     }
        STATUS current
        DESCRIPTION
            "The collection of objects which are used to represent LLDP
            Local System Information. The objects represent the
            information associated with the mandatory TLVs."
1880     This group is mandatory for agents which implement the LLDP."
    ::= { lldpGroups 3 }

1885 lldpOptLocSysGroup OBJECT-GROUP
        OBJECTS {
            "The compliance statement for SNMP entities which implement
            the LLDP MIB."
MODULE -- this module
MANDATORY-GROUPS {
1810     lldpConfigGroup,
        lldpStatsGroup,
        lldpLocSysGroup,
        lldpRemSysGroup,
        lldpNotificationsGroup
    }
1815     GROUP lldpOptLocSysGroup
        DESCRIPTION
            "This object represent the information associated with
            the optional TLVs, therefore the agent may not implement
            them."
1820     ::= { lldpCompliances 1 }

-- MIB groupings

lldpConfigGroup OBJECT-GROUP
1825     OBJECTS {
        lldpMessageTxInterval,
        lldpMessageTxHoldMultiplier,
        lldpReinitDelay,
        lldpTxDelay,
1830     lldpNotificationInterval,
        lldpPortConfigAdminStatus,
        lldpPortConfigTLVsTxEnable,
        lldpConfigManAddrPortsTxEnable
1835     }
        STATUS current
        DESCRIPTION
            "The collection of objects which are used to configure the
            LLDP implementation behavior."
1840     This group is mandatory for agents which implement the LLDP."
    ::= { lldpGroups 1 }

lldpStatsGroup OBJECT-GROUP
1845     OBJECTS {
        lldpStatsRemTablesLastChangeTime,
        lldpStatsRemTablesNumInserts,
        lldpStatsRemTablesNumDeletes,
        lldpStatsRemTablesNumDrops,
1850     lldpStatsRemTablesNumAgeouts,
        lldpStatsPortFramesDiscardedTotal,
        lldpStatsPortFramesInErrors,
        lldpStatsPortFramesInTotal,
        lldpStatsPortFramesOutTotal,
1855     lldpStatsPortTLVsInErrors,
        lldpStatsPortTLVsDiscardedTotal,
        lldpStatsPortTLVsUnrecognizedTotal,
        lldpStatsPortCounterDisconTime,
        lldpStatsPortNumAgeouts
1860     }
        STATUS current
        DESCRIPTION
            "The collection of objects which are used to represent LLDP
            statistics."
1865     This group is mandatory for agents which implement the LLDP."
    ::= { lldpGroups 2 }

lldpLocSysGroup OBJECT-GROUP
1870     OBJECTS {
        lldpLocChassisType,
        lldpLocChassisId,
        lldpLocPortType,
        lldpLocPortId
1875     }
        STATUS current
        DESCRIPTION
            "The collection of objects which are used to represent LLDP
            Local System Information. The objects represent the
            information associated with the mandatory TLVs."
1880     This group is mandatory for agents which implement the LLDP."
    ::= { lldpGroups 3 }

1885 lldpOptLocSysGroup OBJECT-GROUP
        OBJECTS {

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1890     lldpLocPortDesc,
        lldpLocSysDesc,
        lldpLocSysName,
        lldpLocSysCapSupported,
        lldpLocSysCapEnabled,
        lldpLocManAddrLen,
        lldpLocManAddrIfSubtype,
        lldpLocManAddrIfId,
1895     lldpLocManAddrOID
    }
    STATUS current
    DESCRIPTION
1900     "The collection of objects which are used to represent optional
        LLDP Local System Information. The objects represent the
        information associated with the optional TLVs.

        This group is optional for agents which implement the LLDP."
    ::= { lldpGroups 4 }
1905 lldpRemSysGroup OBJECT-GROUP
    OBJECTS {
        lldpRemRemoteChassisType,
        lldpRemRemoteChassis,
1910     lldpRemRemotePortType,
        lldpRemRemotePort,
        lldpRemPortDesc,
        lldpRemSysName,
        lldpRemSysDesc,
1915     lldpRemSysCapSupported,
        lldpRemSysCapEnabled,
        lldpRemManAddrIfSubtype,
        lldpRemManAddrIfId,
        lldpRemManAddrOID,
1920     lldpRemUnknownTLVInfo,
        lldpRemOrgDefInfo
    }
    STATUS current
    DESCRIPTION
1925     "The collection of objects which are used to represent
        LLDP Remote Systems Information. The objects represent the
        information associated with the basic TLV set. Please note
        that even the agent doesn't implement some of the optional
        TLVs, it shall recognize all the optional TLV information
1930     that the remote system may advertise.

        This group is mandatory for agents which implement the LLDP."
    ::= { lldpGroups 5 }
1935 lldpNotificationsGroup NOTIFICATION-GROUP
    NOTIFICATIONS {
        lldpRemTablesChange
    }
    STATUS current
1940     DESCRIPTION
        "The collection of notifications used to indicate LLDP MIB
        data consistency and general status information.

        This group is mandatory for agents which implement the LLDP."
1945     ::= { lldpGroups 6 }
END

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        lldpLocPortDesc,
        lldpLocSysDesc,
        lldpLocSysName,
        lldpLocSysCapSupported,
        lldpLocSysCapEnabled,
        lldpLocManAddrIfSubtype,
        lldpLocManAddrIfId,
        lldpLocManAddrOID
    }
    STATUS current
    DESCRIPTION
1900     "The collection of objects which are used to represent optional
        LLDP Local System Information. The objects represent the
        information associated with the optional TLVs.

        This group is optional for agents which implement the LLDP."
    ::= { lldpGroups 4 }
1905 lldpRemSysGroup OBJECT-GROUP
    OBJECTS {
        lldpRemRemoteChassisType,
        lldpRemRemoteChassis,
1910     lldpRemRemotePortType,
        lldpRemRemotePort,
        lldpRemPortDesc,
        lldpRemSysName,
        lldpRemSysDesc,
1915     lldpRemSysCapSupported,
        lldpRemSysCapEnabled,
        lldpRemManAddrIfSubtype,
        lldpRemManAddrIfId,
        lldpRemManAddrOID,
1920     lldpRemUnknownTLVInfo,
        lldpRemOrgDefInfo
    }
    STATUS current
    DESCRIPTION
1925     "The collection of objects which are used to represent
        LLDP Remote Systems Information. The objects represent the
        information associated with the basic TLV set. Please note
        that even the agent doesn't implement some of the optional
        TLVs, it shall recognize all the optional TLV information
1930     that the remote system may advertise.

        This group is mandatory for agents which implement the LLDP."
    ::= { lldpGroups 5 }
1935 lldpNotificationsGroup NOTIFICATION-GROUP
    NOTIFICATIONS {
        lldpRemTablesChange
    }
    STATUS current
1940     DESCRIPTION
        "The collection of notifications used to indicate LLDP MIB
        data consistency and general status information.

        This group is mandatory for agents which implement the LLDP."
1945     ::= { lldpGroups 6 }
END

```