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**AMENDMENT 2**
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# Information technology — Telecommunications and information exchange between systems — Local and metropolitan area networks — Specific requirements —

## Part 1Q: Bridges and bridged networks

## AMENDMENT 2: Application virtual local area network (VLAN) type, length, value (TLV)

*Technologies de l'information — Télécommunications et échange d'information entre systèmes — Réseaux locaux et métropolitains — Exigences spécifiques —*
*Partie 1Q: Ponts et réseaux pontés*

*AMENDEMENT 2: Type, longueur, valeur (TLV) pour applications de réseaux locaux virtuels (VLAN)*

Reference number
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**IEEE Std 802.1Qcd™-2015**
(Amendment to
IEEE Std 802.1Q™-2014)

**IEEE Standard for**
**Local and metropolitan area networks—**

# Bridges and Bridged Networks

# Amendment 23: Application Virtual Local Area Network (VLAN) Type, Length, Value (TLV)

Sponsor

**LAN/MAN Standards Committee**
of the
**IEEE Computer Society**

Approved 16 February 2015

**IEEE SA-Standards Board**

**Abstract:** Enhancements to the set of TLVs used by the Data Center Bridging eXchange protocol (DCBX) for the purpose of simplifying the management of networks utilizing Data Center Bridging (DCB) features are defined in this amendment to IEEE Std 802.1Q-2014.

**Keywords:** Bridged Networks, Data Center Bridging (DCB), Data Center Bridging eXchange protocol (DCBX), IEEE 802®, IEEE 802.1Q™, IEEE 802.1Qcd™, local area networks (LANs), MAC Bridges, metropolitan area networks, Virtual Bridged Networks (virtual LANs), VLAN Bridges



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# Introduction

This introduction is not part of IEEE Std 802.1Qcd™-2015, IEEE Standard for Local and metropolitan area networks—Bridges and Bridged Networks—Amendment 23: Application Virtual Local Area Network (VLAN) Type, Length, Value (TLV).

This amendment specifies the protocols, procedures, and management objects for an Application Virtual Local Area Network (VLAN) identifier (ID) Type, Length, Value (TLV) within the Data Center Bridging eXchange protocol (DCBX) defined in IEEE Std 802.1Q. This standard also specifies minor extensions and editorial corrections to the Application Priority TLV.

This standard contains state-of-the-art material. The area covered by this standard is undergoing evolution. Revisions are anticipated within the next few years to clarify existing material, to correct possible errors, and to incorporate new related material. Information on the current revision state of this and other IEEE 802 standards may be obtained from

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# Local and metropolitan area networks—

# Bridges and Bridged Networks

# Amendment 23: Application Virtual Local Area Network (VLAN) Type, Length, Value (TLV)



(This amendment is based on IEEE Std 802.1Q™-2014.)

NOTE—The editing instructions contained in this amendment define how to merge the material contained therein into the existing base standard and its amendments to form the comprehensive standard.[1]

The editing instructions are shown in ***bold italic***. Four editing instructions are used: change, delete, insert, and replace. ***Change*** is used to make corrections in existing text or tables. The editing instruction specifies the location of the change and describes what is being changed by using ~~strikethrough~~ (to remove old material) and underscore (to add new material). ***Delete*** removes existing material. ***Insert*** adds new material without disturbing the existing material. Insertions may require renumbering. If so, renumbering instructions are given in the editing instruction. ***Replace*** is used to make changes in figures or equations by removing the existing figure or equation and replacing it with a new one. Editing instructions, change markings, and this NOTE will not be carried over into future editions because the changes will be incorporated into the base standard.

[1]Notes in text, tables, and figures are given for information only and do not contain requirements needed to implement the standard.

## 2. Normative references

***Insert the following reference after IETF RFC 2205 and before IETF RFC 2578 in the list in Clause 2.***

IETF RFC 2474, Definition of the Differentiated Services Field (DS Field) in the IPv4 and IPv6 Headers, Nichols, K., Blake, S., Baker, F. and Black, D.

# 5. Conformance

### 5.4.1.7 DCBX Bridge requirements

***Insert item g) into the lettered list in 5.4.1.7 as follows:***

A device supporting DCBX shall

a) Support Link Layer Discovery Protocol (LLDP) transmit and receive mode (IEEE Std 802.1AB).
b) Support the DCBX ETS Configuration Type, Length, Value (TLV) (D.2.9).
c) Support the ETS Recommendation TLV (D.2.10).
d) Support the Priority-based Flow Control Configuration TLV (D.2.11).
e) Support the Application Priority TLV (D.2.12).
f) Support the asymmetric and symmetric DCBX state machines (38.4).
g) Support the Application VLAN TLV (D.2.15).

# 38. Data Center Bridging eXchange protocol (DCBX)

***Change items e) and f) and insert a new item g), as follows:***

## 38.1 Overview

This clause details DCBX, which is used by DCB devices to exchange configuration information with directly connected peers. The protocol may also be used for misconfiguration detection and for configuration of the peer.

This standard describes the base protocol, which comprises state machines and TLVs for capability exchange. For each feature that is supported by DCBX, the attributes that are to be exchanged specify

a) The attributes to be exchanged;
b) How the attributes are used for detecting misconfiguration; and
c) What action needs to be taken when a misconfiguration is detected.

The information listed above is specified for the following:

d) ETS;
e) PFC; ~~and~~
f) Application Priority ~~Configuration~~ TLV~~.~~; and
g) Application VLAN TLV.

# Annex A

(normative)

# PICS proforma—Bridge implementations[2]

## A.35 Data Center Bridging eXchange protocol (DCBX)

***Insert the following entry for the Application VLAN TLV at the end of the table in A.35.***

| Item | Feature | Status | References | Support |
|---|---|---|---|---|
| DCBX-8 | Support the Application VLAN TLV | DCBX:M | D.2.15 | Yes [ ] |



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# Annex B

(normative)

# PICS proforma—End station implementations[3]

## B.14 Data Center Bridging eXchange protocol (DCBX)

***Insert the following entry for the Application VLAN TLV at the end of the table in B.14.***

| Item | Feature | Status | References | Support |
|---|---|---|---|---|
| DCBX-8 | Support the Application VLAN TLV | DCBX:M | D.2.15 | Yes [ ] |



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# Annex D

(normative)

# IEEE 802.1 Organizationally Specific TLVs

## D.1 Requirements of the IEEE 802.1 Organizationally Specific TLV sets

The IEEE 802.1 Organizationally Specific TLVs may be supported in conjunction with any of the destination MAC addresses identified in 7.1 of IEEE Std 802.1AB-2009.

If any IEEE 802.1 Organizationally Specific TLV set is supported, all IEEE 802.1 Organizationally Specific TLVs that are identified as members of that TLV set shall be supported. All IEEE 802.1 Organizationally Specific TLVs shall conform to the LLDPDU bit and octet ordering conventions of 8.1 of IEEE Std 802.1AB-2009.

The currently defined IEEE 802.1 Organizationally Specific TLVs specified in this standard are listed in Table D-1. Other standards can also define IEEE 802.1 Organizationally Specific TLVs. The "TLV set name" column identifies the TLV set to which each TLV belongs. Any additions or changes to these TLVs will be included in this annex.

***Insert the following entry for the Application VLAN TLV at the end of Table D-1.***

**Table D-1— IEEE 802.1 Organizationally Specific TLVs specified in this standard**

| IEEE 802.1 subtype | TLV name | TLV set name | TLV reference | Feature clause reference |
|---|---|---|---|---|
| 10 | Application VLAN TLV | dcbxSet | D.2.15 | Clause 38 |

## D.2 Organizationally Specific TLV definitions

***Change D.2.12 as follows:***

### D.2.12 Application Priority TLV

The TLV illustrated in Figure D-12 is encoded into each IEEE Std 802.1AB-2009 LLDP message and may be transmitted by a system in order to indicate the application priority table. This TLV is informational and used to indicate to a peer station the local configuration.

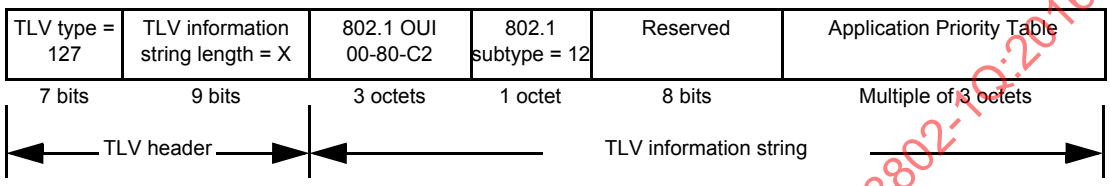


**Figure D-12—Application Priority TLV format**

#### D.2.12.1 TLV type

A 7-bit integer value occupying the most-significant bits of the first octet of the TLV. Always contains the value 127.

#### D.2.12.2 TLV information string length

A 9-bit unsigned integer, occupying the LSB of the first octet of the TLV (the MSB of the TLV information string length) and the entire second octet of the TLV, containing the total number of octets in the TLV information string of the Application Priority TLV. This does not count the TLV type and TLV information string length fields. The length for the Application Priority TLV is variable depending on the number of Application Priorities specified. The length shall be 5 plus a multiple of 3 octets.

#### D.2.12.3 Application Priority Table

Table D-8 shows the layout of a 3 octet entry in the Application Priority Table.

**Table D-8—Application Priority Table Entry format**

| **Octets:** | 1 | | | | | | 2 | | 3 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Priority | | Reserved | | Sel | | Protocol ID | | | |
| **Bits:** | 8 | 6 | 5 | 4 | 3 | 1 | 8 | 1 | 8 | 1 |

The priority field is a 3-bit unsigned integer indicating the priority for which the Protocol ID is being used.

The meaning of the Protocol ID field is determined by the Sel field. Allowed values for the Sel field are shown in Table D-9.

**Table D-9—Sel field values**

| Sel Value | Protocol ID value |
|---|---|
| 0 | Reserved |
| 1 | 0: Default application priority. For use when application priority is not otherwise specified.<br>1–1535: Reserved<br>1536–65535: An EtherType. |
| 2 | Well Known Port number over TCP, or Steam Control Transmission Protocol (SCTP). |
| 3 | Well Known Port number over UDP, or Datagram Congestion Control Protocol (DCCP). |
| 4 | Well Known Port number over TCP, SCTP, UDP, or DCCP. |
| 5 | Differentiated Services Code Point (DSCP) value. The 6-bit DSCP value is stored in bits 1–6 of the low order octet of the Protocol ID field (octet 3 of the Application Priority Table Entry). Bits 7 and 8 and the high order octet of the Protocol ID field are set to zero.<br>(See IETF RFC 2474 for the definition of the DSCP value.) |
| ~~5~~6–7 | Reserved |

NOTE—The port numbers shown are for identification (i.e., as assigned by IANA) instead of the actual port numbers being used in a particular deployment.

***Insert a new sublcause D.2.15 after D.2.14. Renumber subsequent tables and figures appropriately.***

## D.2.15 Application VLAN TLV

The TLV illustrated in Figure D-15 is encoded into each IEEE Std 802.1AB-2009 LLDP message and may be transmitted by a system in order to indicate the application VLAN table. This TLV is informational and used to indicate to a peer station the local configuration.

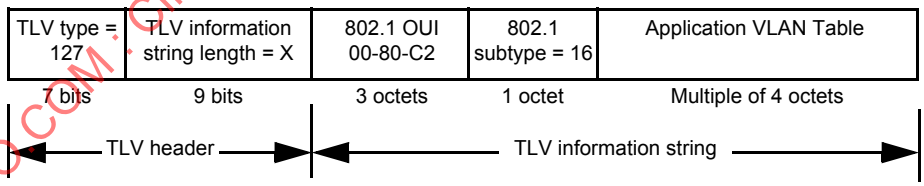


**Figure D-15—Application VLAN TLV format**

### D.2.15.1 TLV type

A 7-bit integer value occupying the most significant bits of the first octet of the TLV. Always contains the value 127.

### D.2.15.2 TLV information string length

A 9-bit unsigned integer, occupying the LSB of the first octet of the TLV (the MSB of the TLV information string length) and the entire second octet of the TLV, containing the total number of octets in the TLV information string of the Application VLAN TLV. This does not count the TLV type and TLV information string length fields. The length for the Application VLAN TLV is variable depending on the number of Application VLANs specified. The length shall be 4 plus a multiple of 4 octets.

### D.2.15.3 Application VLAN Table

Table D-12 shows the layout of a 4 octet entry in the Application VLAN Table.

**Table D-12—Application VLAN Table Entry format**

| **Octets:** | 1 | | 2 | | 3 | | 4 | |
|---|---|---|---|---|---|---|---|---|
| **Field:** | VID | | Reserved | Sel | Protocol ID | | | |
| **Bits:** | 8 | 1 | 8 | 5 | 4 | 3 | 1 | 8 | 1 | 8 | 1 |

The VID field is a 12-bit unsigned integer indicating the VID of the VLAN for which the Protocol ID is being used.

The meaning of the Protocol ID field is determined by the Sel field. Allowed values for the Sel field are shown in Table D-13.

The Application VLAN TLV may be exchanged between EVB station ERs (5.24.1) and EVB Bridges (5.23) with LLDP using the Nearest Customer Bridge address. This allows ERs sharing a LAN using S-channels (40.2) to use different VLANs for the same application.

NOTE 1—The Application VLAN TLV allows multiple VLANs to be associated with an application on a port. Issues involved with using multiple VLANs for an application on a port, such as resolving which IP subnetwork corresponds to which VLAN, are beyond the scope of this standard.

NOTE 2—Selection of different IEEE 802.1 paths may use different VLANs, which could be associated with different quality of service levels. This TLV may not apply to deployment cases where the VID is implied by other attributes of the frame, for example, by the IP subnet of the source IP address.

**Table D-13—Sel field values**

| Sel Value | Protocol ID value |
|---|---|
| 0 | Reserved |
| 1 | 0: PVID. For use when an application VLAN is not otherwise specified.<br>1–1535: Reserved<br>1536–65535: An EtherType. |
| 2 | Well Known Port number over TCP, or SCTP. |
| 3 | Well Known Port number over UDP, or DCCP. |
| 4 | Well Known Port number over TCP, SCTP, UDP, or DCCP. |
| 5 | Differentiated Services Code Point (DSCP) value. The 6-bit DSCP value is stored in bits 1–6 of the low order octet of the Protocol ID field (octet 4 of the Application VLAN Table Entry). Bits 7 and 8 and the high order octet of the Protocol ID field are set to zero.<br>(See IETF RFC 2474 for the definition of the DSCP value.) |
| 6–7 | Reserved |

## D.4 PICS proforma for IEEE 802.1 Organizationally Specific TLV extensions

### D.4.3 Major capabilities and options

***Change the dcbxtlv entry in the table in D.4.3 as follows:***

| Item | Feature | Status | References | Support |
|---|---|---|---|---|
| dcbxtlv | Is each TLV in the IEEE 802.1 DCBX TLV set implemented? | | | |
| | ETS Configuration TLV | dcbxSet:M | D.2.9 | Yes [ ] |
| | ETS Recommendation TLV | dcbxSet:M | D.2.10 | Yes [ ] |
| | Priority-based Flow Control Configuration TLV | dcbxSet:M | D.2.11 | Yes [ ] |
| | Application Priority TLV | dcbxSet:M | D.2.12 | Yes [ ] |
| | Application VLAN TLV | dcbxSet:M | D.2.15 | Yes [ ] |

## D.5 IEEE 802.1/LLDP extension MIB

### D.5.2 Structure of the IEEE 802.1/LLDP extension MIB

***Insert the following entry at the end of Table D-14 (renumbered from Table D-12) for the MIB group lldpXdot1dcbxApplicationVlanGroup.***

**Table D-14—IEEE 802.1 extension MIB object group conformance requirements**

| MIB group | Rx mode | Tx mode | Tx/Rx mode |
|---|---|---|---|
| lldpXdot1dcbxApplicationVlanGroup | DCBX:M | DCBX:M | DCBX:M |

***Change Table D-15 (renumbered from Table D-13) by adding the following entries for the Application VLAN TLV MIB objects at the end of each dcbx extension group section as shown. (Only the dcbx extension group sections of the table are shown here.)***

**Table D-15—IEEE 802.1/LLDP extension MIB object cross reference**

| MIB table | MIB object | LLDP reference |
|---|---|---|
| *lldpXdot1dcbxConfig extension group*[a] | | |
| lldpXdot1dcbxConfigETSConfigurationEntry | | |
| | lldpXdot1dcbxConfigETSConfigurationTxEnable | D.2.9 |
| lldpXdot1dcbxConfigETSRecommendationTable | | |
| | lldpXdot1dcbxConfigETSRecommendationTxEnable | D.2.10 |
| lldpXdot1dcbxConfigPFCTable | | |
| | lldpXdot1dcbxConfigPFCTxEnable | D.2.11 |
| lldpXdot1dcbxConfigApplicationPriorityTable | | |

**Table D-15—IEEE 802.1/LLDP extension MIB object cross reference *(continued)***

| MIB table | MIB object | LLDP reference |
|---|---|---|
| | lldpXdot1dcbxConfigApplicationPriorityTxEnable | |
| lldpXdot1dcbxConfigApplicationVlanTable | | |
| | lldpXdot1dcbxConfigApplicationVlanTxEnable | D.2.15 |
| *lldpXdot1dcbxLocalData extension group*[a] | | |
| lldpXdot1dcbxLocETSBasicConfigurationTable | | |
| | lldpXdot1dcbxLocETSConCreditBasedShaperSupport | D.2.9.4 |
| | lldpXdot1dcbxLocETSConMaxTC | D.2.9.5 |
| | lldpXdot1dcbxLocETSConWilling | D.2.9.3 |
| | lldpXdot1dcbxLocETSConTrafficClassBandwidthTable | D.2.9.7 |
| | lldpXdot1dcbxLocETSConTrafficSelectionAlgorithmTable | D.2.9.8 |
| lldpXdot1dcbxLocETSConPriorityAssignmentTable | | |
| | lldpXdot1dcbxLocETSConPriority | D.2.9.6 |
| | lldpXdot1dcbxLocETSConTrafficClass | D.2.9.6 |
| lldpXdot1dcbxLocETSRecommendationTable | | |
| | lldpXdot1dcbxLocETSRecoTrafficClassBandwidthTable | D.2.10.4 |
| lldpXdot1dcbxLocETSRecoTrafficSelectionAlgorithmTable | | |
| | lldpXdot1dcbxLocETSRecoTSAPriority | D.2.10.5 |
| | lldpXdot1dcbxLocETSRecoTrafficSelectionAlgorithm | D.2.10.5 |
| lldpXdot1dcbxLocPFCBasicTable | | |
| | lldpXdot1dcbxLocPFCWilling | D.2.11.3 |
| | lldpXdot1dcbxLocPFCMBC | D.2.11.4 |
| | lldpXdot1dcbxLocPFCCap | D.2.11.5 |
| lldpXdot1dcbxLocPFCEnableTable | | |
| | lldpXdot1dcbxLocPFCEnablePriority | D.2.11.6 |
| | lldpXdot1dcbxLocPFCEnableEnabled | D.2.11.6 |
| lldpXdot1dcbxLocApplicationPriorityAppTable | | |
| | lldpXdot1dcbxLocApplicationPriorityAESelector | D.2.12.3 |
| | lldpXdot1dcbxLocApplicationPriorityAEProtocol | D.2.12.3 |
| | lldpXdot1dcbxLocApplicationPriorityAEPriority | D.2.12.3 |
| lldpXdot1dcbxLocApplicationVlanAppTable | | |
| | lldpXdot1dcbxLocApplicationVlanAESelector | D.2.15.3 |
| | lldpXdot1dcbxLocApplicationVlanAEProtocol | D.2.15.3 |

**Table D-15—IEEE 802.1/LLDP extension MIB object cross reference *(continued)***

| MIB table | MIB object | LLDP reference |
|---|---|---|
| | lldpXdot1dcbxLocApplicationVlanAEVlanId | D.2.15.3 |
| *lldpXdot1dcbxRemoteData extension group*[a] | | |
| lldpXdot1dcbxRemETSBasicConfigurationTable | | |
| | lldpXdot1dcbxRemETSConCreditBasedShaperSupport | D.2.9.4 |
| | lldpXdot1dcbxRemETSConMaxTC | D.2.9.5 |
| | lldpXdot1dcbxRemETSConWilling | D.2.9.3 |
| | lldpXdot1dcbxRemETSConTrafficClassBandwidthTable | D.2.9.7 |
| | lldpXdot1dcbxRemETSConTrafficSelectionAlgorithm-Table | D.2.9.8 |
| lldpXdot1dcbxRemETSConPriorityAssignmentTable | | |
| | lldpXdot1dcbxRemETSConPriority | D.2.9.6 |
| | lldpXdot1dcbxRemETSConTrafficClass | D.2.9.6 |
| lldpXdot1dcbxRemETSRecommendationTable | | |
| | lldpXdot1dcbxRemETSRecoTrafficClassBandwidthTable | D.2.10.4 |
| lldpXdot1dcbxRemETSRecoTrafficSelectionAlgorithmTable | | |
| | lldpXdot1dcbxRemETSRecoTSAPriority | D.2.10.5 |
| | lldpXdot1dcbxRemETSRecoTrafficSelectionAlgorithm | D.2.10.5 |
| lldpXdot1dcbxRemPFCBasicTable | | |
| | lldpXdot1dcbxRemPFCWilling | D.2.11.3 |
| | lldpXdot1dcbxRemPFCMBC | D.2.11.4 |
| | lldpXdot1dcbxRemPFCCap | D.2.11.5 |
| lldpXdot1dcbxRemPFCEnableTable | | |
| | lldpXdot1dcbxRemPFCEnablePriority | D.2.11.6 |
| | lldpXdot1dcbxRemPFCEnableEnabled | D.2.11.6 |
| lldpXdot1dcbxRemApplicationPriorityAppTable | | |
| | lldpXdot1dcbxRemApplicationPriorityAESelector | D.2.12.3 |
| | lldpXdot1dcbxRemApplicationPriorityAEProtocol | D.2.12.3 |
| | lldpXdot1dcbxRemApplicationPriorityAEPriority | D.2.12.3 |
| lldpXdot1dcbxRemApplicationVlanAppTable | | |
| | lldpXdot1dcbxRemApplicationVlanAESelector | D.2.15.3 |
| | lldpXdot1dcbxRemApplicationVlanAEProtocol | D.2.15.3 |
| | lldpXdot1dcbxRemApplicationVlanAEVlanId | D.2.15.3 |
| *lldpXdot1dcbxAdminData extension group*[a] | | |

**Table D-15—IEEE 802.1/LLDP extension MIB object cross reference *(continued)***

| MIB table | MIB object | LLDP reference |
|---|---|---|
| lldpXdot1dcbxAdminETSBasicConfigurationTable | | |
| | lldpXdot1dcbxAdminETSConCreditBasedShaperSupport | D.2.9.4 |
| | lldpXdot1dcbxAdminETSConMaxTC | D.2.9.5 |
| | lldpXdot1dcbxAdminETSConWilling | D.2.9.3 |
| | lldpXdot1dcbxAdminETSConTrafficClassBandwidthTable | D.2.9.7 |
| | lldpXdot1dcbxAdminETSConTrafficSelectionAlgorithm-Table | D.2.9.8 |
| lldpXdot1dcbxAdminETSConPriorityAssignmentTable | | |
| | lldpXdot1dcbxAdminETSConPriority | D.2.9.6 |
| | lldpXdot1dcbxAdminETSConTrafficClass | D.2.9.6 |
| lldpXdot1dcbxAdminETSRecommendationTable | | |
| | lldpXdot1dcbxAdminETSRecoTrafficClassBandwidth-Table | D.2.10.4 |
| lldpXdot1dcbxAdminETSRecoTrafficSelectionAlgorithmTable | | |
| | lldpXdot1dcbxAdminETSRecoTSAPriority | D.2.10.5 |
| | lldpXdot1dcbxAdminETSRecoTrafficSelectionAlgorithm | D.2.10.5 |
| lldpXdot1dcbxAdminPFCBasicTable | | |
| | lldpXdot1dcbxAdminPFCWilling | D.2.11.3 |
| | lldpXdot1dcbxAdminPFCMBC | D.2.11.4 |
| | lldpXdot1dcbxAdminPFCCap | D.2.11.5 |
| lldpXdot1dcbxAdminPFCEnableTable | | |
| | lldpXdot1dcbxAdminPFCEnablePriority | D.2.11.6 |
| | lldpXdot1dcbxAdminPFCEnableEnabled | D.2.11.6 |
| lldpXdot1dcbxAdminApplicationPriorityAppTable | | |
| | lldpXdot1dcbxAdminApplicationPriorityAESelector | D.2.12.3 |
| | lldpXdot1dcbxAdminApplicationPriorityAEProtocol | D.2.12.3 |
| | lldpXdot1dcbxAdminApplicationPriorityAEPriority | D.2.12.3 |
| lldpXdot1dcbxAdminApplicationVlanAppTable | | |
| | lldpXdot1dcbxAdminApplicationVlanAESelector | D.2.15.3 |
| | lldpXdot1dcbxAdminApplicationVlanAEProtocol | D.2.15.3 |
| | lldpXdot1dcbxAdminApplicationVlanAEVlanId | D.2.15.3 |

[a]The term Extension Group is used here to be consistent with LLDP (see IEEE Std 802.1AB).

### D.5.4 Security considerations for IEEE 802.1 LLDP extension MIB module

***Insert the following objects into the numbered list of objects under item g):***

22) lldpXdot1dcbxLocApplicationPriorityAppTable
23) lldpXdot1dcbxLocApplicationVlanAppTable
24) lldpXdot1dcbxAdminApplicationPriorityAppTable
25) lldpXdot1dcbxAdminApplicationVlanAppTable

***Insert the following objects into the numbered list of objects under item h):***

22) lldpXdot1dcbxRemApplicationPriorityAppTable
23) lldpXdot1dcbxRemApplicationVlanAppTable
24) lldpXdot1dcbxAdminApplicationPriorityAppTable
25) lldpXdot1dcbxAdminApplicationVlanAppTable

### D.5.5 IEEE 802.1 LLDP extension MIB module—version 2 [4,5]

***Change the MIB by adding Application VLAN TLV entries as shown:***

In the following MIB definition, should any discrepancy between the DESCRIPTION text and the corresponding definition in D.2.1 through D.5 occur, the definition in D.2.1 through D.5 shall take precedence.

```
LLDP-EXT-DOT1-V2-MIB DEFINITIONS ::= BEGIN

IMPORTS
    MODULE-IDENTITY,
    OBJECT-TYPE,
    Unsigned32
        FROM SNMPv2-SMI
    TruthValue,
    TEXTUAL-CONVENTION
        FROM SNMPv2-TC
    SnmpAdminString
        FROM SNMP-FRAMEWORK-MIB
    MODULE-COMPLIANCE,
    OBJECT-GROUP
        FROM SNMPv2-CONF
    ifGeneralInformationGroup
        FROM IF-MIB
    lldpV2Extensions,
    lldpV2LocPortIfIndex,
    lldpV2RemTimeMark,
    lldpV2RemLocalIfIndex,
    lldpV2RemLocalDestMACAddress,
    lldpV2RemIndex,
    lldpV2PortConfigEntry
        FROM LLDP-V2-MIB
    VlanId
        FROM Q-BRIDGE-MIB
    LldpV2LinkAggStatusMap
        FROM LLDP-V2-TC-MIB
    IEEE8021PriorityValue
        FROM IEEE8021-TC-MIB;

lldpV2Xdot1MIB MODULE-IDENTITY
    LAST-UPDATED "201502160000Z" -- February 16, 2015
    ORGANIZATION "IEEE 802.1 Working Group"
    CONTACT-INFO
          "WG-URL: http://grouper.ieee.org/groups/802/1/index.html
           WG-EMail: STDS-802-1-L@LISTSERV.IEEE.ORG

         Contact: IEEE 802.1 Working Group Chair
          Postal: C/O IEEE 802.1 Working Group
                  IEEE Standards Association
                  445 Hoes Lane
                  P.O. Box 1331
                  Piscataway
```

[4] *Copyright release for MIBs:* Users of this standard may freely reproduce the MIB contained in this subclause so that it can be used for its intended purpose.

[5] An ASCII version of this MIB module can be obtained by Web browser from the IEEE 802.1 Website at http://www.ieee802.org/1/pages/MIBS.html.

```
                NJ 08855-1331
                USA
        E-mail: STDS-802-1-L@LISTSERV.IEEE.ORG"
    DESCRIPTION
            "The LLDP Management Information Base extension module for
            IEEE 802.1 organizationally defined discovery information.

            In order to ensure the uniqueness of the LLDP-V2-MIB,
            lldpV2Xdot1MIB is branched from lldpV2Extensions using an
            Organizationally Unique Identifier (OUI) value as the node.
            An OUI is a 24 bit globally unique number assigned by the
            IEEE Registration Authority - see:

            http://standards.ieee.org/develop/regauth/oui/index.html

            Unless otherwise indicated, the references in this
            MIB module are to IEEE Std 802.1Q-2014.

            Copyright (C) IEEE (2015).  This version of this MIB module
            is published as D.5.5 of IEEE Std 802.1Q;
            see the standard itself for full legal notices."

    REVISION "201502160000Z" -- February 16, 2015

    DESCRIPTION
            "Published as part of IEEE Std 802.1Qcd revision.
            Adds Application VLAN TLV objects to the DCBX groups of
            the MIB module."

    REVISION "201412150000Z" -- December 15, 2014

    DESCRIPTION
            "Published as part of IEEE Std 802.1Q-2014 revision.
            Cross references updated and corrected.
            New tables lldpV2Xdot1RemVidUsageDigestV2Table
            and lldpV2Xdot1RemManVidV2Table inserted; old
            versions deprecated. New versions add an index for
            lldpV2RemIndex. "

    REVISION "201103250000Z" -- March 25, 2011

    DESCRIPTION
            "Published as part of IEEE Std 802.1Qaz-2011. Adds the DCBX
            objects to the MIB module"

    REVISION "201103230000Z" -- March 23, 2011

    DESCRIPTION
            "Published as part of IEEE Std 802.1Q-2011 revision.
            This revision contains changes associated with
            relocating the extension MIB from IEEE Std 802.1AB to
            IEEE Std 802.1Q, minor tweaks to the text of the
            DESCRIPTION statement above to fix references to
            IEEE Std 802.1Q, updating of references to refer to
            Annex D, and addition of object definitions for
            Congestion Notification TLVs and corresponding
            compliance statements."

    REVISION "200906080000Z" -- June 08, 2009
```

```
    DESCRIPTION
            "Published as part of IEEE Std 802.1AB-2009 revision.
            This revision incorporated changes to the MIB to
            support the use of LLDP with multiple destination MAC
            addresses, and to import the Link Aggregation TLV
            from the 802.3 extension MIB"

-- OUI for IEEE 802.1 is 32962 (00-80-C2)
   ::= { lldpV2Extensions 32962 }

-----------------------------------------------------------------------
-----------------------------------------------------------------------
--
-- Organizationally Defined Information Extension - IEEE 802.1
-- Definitions to support the basicSet TLV set (Table D-1)
--
-----------------------------------------------------------------------
-----------------------------------------------------------------------

lldpV2Xdot1Objects    OBJECT IDENTIFIER ::= { lldpV2Xdot1MIB 1 }

-- LLDP IEEE 802.1 extension MIB groups
lldpV2Xdot1Config     OBJECT IDENTIFIER ::= { lldpV2Xdot1Objects 1 }
lldpV2Xdot1LocalData  OBJECT IDENTIFIER ::= { lldpV2Xdot1Objects 2 }
lldpV2Xdot1RemoteData OBJECT IDENTIFIER ::= { lldpV2Xdot1Objects 3 }

-----------------------------------------------------------------------
-- IEEE 802.1 - Configuration for the basicSet TLV set
-----------------------------------------------------------------------

--
-- lldpV2Xdot1ConfigPortVlanTable : configure the transmission of the
--                                  Port VLAN-ID TLVs on set of ports.
--

lldpV2Xdot1ConfigPortVlanTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF LldpV2Xdot1ConfigPortVlanEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "A table that controls selection of LLDP Port VLAN-ID TLVs
            to be transmitted on individual ports."
    ::= { lldpV2Xdot1Config 1 }

lldpV2Xdot1ConfigPortVlanEntry  OBJECT-TYPE
    SYNTAX      LldpV2Xdot1ConfigPortVlanEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "LLDP configuration information that controls the
            transmission of IEEE 802.1 organizationally defined Port
            VLAN-ID TLV on LLDP transmission capable ports.

            This configuration object augments the
            lldpV2PortConfigEntry of the LLDP-MIB, therefore it is only
            present along with the port configuration defined by the
            associated lldpV2PortConfigEntry entry.
```

```
            Each active lldpConfigEntry is restored from non-volatile
            storage (along with the corresponding
            lldpV2PortConfigEntry) after a re-initialization of the
            management system."
    AUGMENTS { lldpV2PortConfigEntry }
    ::= { lldpV2Xdot1ConfigPortVlanTable 1 }

LldpV2Xdot1ConfigPortVlanEntry ::= SEQUENCE {
      lldpV2Xdot1ConfigPortVlanTxEnable  TruthValue
}

lldpV2Xdot1ConfigPortVlanTxEnable OBJECT-TYPE
    SYNTAX      TruthValue
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
            "The lldpV2Xdot1ConfigPortVlanTxEnable, which is defined
            as a truth value and configured by the network management,
            determines whether the IEEE 802.1 organizationally defined
            port VLAN TLV transmission is allowed on a given LLDP
            transmission capable port.

            The value of this object is restored from non-volatile
            storage after a re-initialization of the management system."
    REFERENCE
            "9.1.2.1 of IEEE Std 802.1AB"
    DEFVAL  { false }
    ::= { lldpV2Xdot1ConfigPortVlanEntry 1 }


--
-- lldpV2Xdot1ConfigVlanNameTable : Configure the transmission of the
--                                  VLAN name instances on set of ports.
--

lldpV2Xdot1ConfigVlanNameTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF LldpV2Xdot1ConfigVlanNameEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "The table that controls selection of LLDP VLAN name TLV
            instances to be transmitted on individual ports."
    ::= { lldpV2Xdot1Config 2 }

lldpV2Xdot1ConfigVlanNameEntry  OBJECT-TYPE
    SYNTAX      LldpV2Xdot1ConfigVlanNameEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "LLDP configuration information that specifies the set of
            ports (represented as a PortList) on which the Local System
            VLAN name instance is transmitted.

            This configuration object augments the lldpV2LocVlanEntry,
            therefore it is only present along with the VLAN Name
            instance contained in the associated lldpV2LocVlanNameEntry
            entry.

            Each active lldpV2Xdot1ConfigVlanNameEntry is restored
```

```
            from non-volatile storage (along with the corresponding
            lldpV2Xdot1LocVlanNameEntry) after a re-initialization of
            the management system."
    AUGMENTS { lldpV2Xdot1LocVlanNameEntry }
    ::= { lldpV2Xdot1ConfigVlanNameTable 1 }



LldpV2Xdot1ConfigVlanNameEntry ::= SEQUENCE {
      lldpV2Xdot1ConfigVlanNameTxEnable  TruthValue
}

lldpV2Xdot1ConfigVlanNameTxEnable  OBJECT-TYPE
    SYNTAX        TruthValue
    MAX-ACCESS    read-write
    STATUS        current
    DESCRIPTION
            "The boolean value that indicates whether the corresponding
            Local System VLAN name instance is transmitted on the
            port defined by the given lldpV2Xdot1LocVlanNameEntry.

            The value of this object is restored from non-volatile
            storage after a re-initialization of the management
            system."
    REFERENCE
            "9.1.2.1 of IEEE Std 802.1AB"
    DEFVAL  { false }
    ::= { lldpV2Xdot1ConfigVlanNameEntry 1 }


--
-- lldpV2Xdot1ConfigProtoVlanTable : Configure the transmission of the
--                                   protocol VLAN instances on set
--                                   of ports.
--

lldpV2Xdot1ConfigProtoVlanTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF LldpV2Xdot1ConfigProtoVlanEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "The table that controls selection of LLDP Port And
            Protocol VLAN ID TLV instances to be transmitted on
            individual ports."
    ::= { lldpV2Xdot1Config 3 }

lldpV2Xdot1ConfigProtoVlanEntry  OBJECT-TYPE
    SYNTAX      LldpV2Xdot1ConfigProtoVlanEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "LLDP configuration information that specifies the set of
            ports (represented as a PortList) on which the Local System
            Protocol VLAN instance is transmitted.

            This configuration object augments the
            lldpV2Xdot1LocVlanEntry, therefore it is only present along
            with the Port and Protocol VLAN ID instance contained in
            the associated lldpV2Xdot1LocVlanEntry entry.
```

```
            Each active lldpV2Xdot1ConfigProtoVlanEntry is restored
            from non-volatile storage (along with the corresponding
            lldpV2Xdot1LocProtoVlanEntry) after a re-initialization of
            the management system."

    AUGMENTS { lldpV2Xdot1LocProtoVlanEntry }
    ::= { lldpV2Xdot1ConfigProtoVlanTable 1 }


LldpV2Xdot1ConfigProtoVlanEntry ::= SEQUENCE {
      lldpV2Xdot1ConfigProtoVlanTxEnable   TruthValue
}

lldpV2Xdot1ConfigProtoVlanTxEnable OBJECT-TYPE
    SYNTAX        TruthValue
    MAX-ACCESS    read-write
    STATUS        current
    DESCRIPTION
            "The boolean value that indicates whether the corresponding
            Local System Port and Protocol VLAN instance is
            transmitted on the port defined by the given
            lldpV2Xdot1LocProtoVlanEntry.

            The value of this object is restored from non-volatile
            storage after a re-initialization of the management system."
    REFERENCE
            "9.1.2.1 of IEEE Std 802.1AB"
    DEFVAL  { false }
    ::= { lldpV2Xdot1ConfigProtoVlanEntry 1 }


--
-- lldpV2Xdot1ConfigProtocolTable : configure the transmission of the
--                                  protocol instances on set
--                                  of ports.
--

lldpV2Xdot1ConfigProtocolTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF LldpV2Xdot1ConfigProtocolEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "The table that controls selection of LLDP Protocol
            TLV instances to be transmitted on individual ports."
    ::= { lldpV2Xdot1Config 4 }

lldpV2Xdot1ConfigProtocolEntry  OBJECT-TYPE
    SYNTAX      LldpV2Xdot1ConfigProtocolEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "LLDP configuration information that specifies the set of
            ports (represented as a PortList) on which the Local System
            Protocol instance is transmitted.

            This configuration object augments the
            lldpV2Xdot1LocProtoEntry, therefore it is only present
            along with the Protocol instance contained in the
```

```
            associated lldpV2Xdot1LocProtoEntry entry.

            Each active lldpV2Xdot1ConfigProtocolEntry is restored
            from non-volatile storage (along with the corresponding
            lldpV2Xdot1LocProtocolEntry) after a re-initialization of
            the management system."
    AUGMENTS { lldpV2Xdot1LocProtocolEntry }
    ::= { lldpV2Xdot1ConfigProtocolTable 1 }


LldpV2Xdot1ConfigProtocolEntry ::= SEQUENCE {
      lldpV2Xdot1ConfigProtocolTxEnable   TruthValue
}

lldpV2Xdot1ConfigProtocolTxEnable  OBJECT-TYPE
    SYNTAX        TruthValue
    MAX-ACCESS    read-write
    STATUS        current
    DESCRIPTION
            "The boolean value that indicates whether the corresponding
            Local System Protocol Identity instance is transmitted
            on the port defined by the given
            lldpV2Xdot1LocProtocolEntry.

            The value of this object is restored from non-volatile
            storage after a re-initialization of the management
            system."
    REFERENCE
            "9.1.2.1 of IEEE Std 802.1AB"
    DEFVAL  { false }
    ::= { lldpV2Xdot1ConfigProtocolEntry 1 }

--
-- lldpV2Xdot1ConfigVidUsageDigestTable: configure the transmission
-- of the VID Usage Digest TLVs on set of ports.
--
lldpV2Xdot1ConfigVidUsageDigestTable OBJECT-TYPE
     SYNTAX SEQUENCE OF LldpV2Xdot1ConfigVidUsageDigestEntry
     MAX-ACCESS not-accessible
     STATUS current
     DESCRIPTION
          "A table that controls selection of LLDP VID Usage Digest
          TLVs to be transmitted on individual ports."
::= { lldpV2Xdot1Config 5 }

lldpV2Xdot1ConfigVidUsageDigestEntry OBJECT-TYPE
     SYNTAX LldpV2Xdot1ConfigVidUsageDigestEntry
     MAX-ACCESS not-accessible
     STATUS current
     DESCRIPTION
          "LLDP configuration information that specifies the set of
          ports (represented as a PortList) on which the local
          system VID Usage Digest instance will be transmitted.
          This configuration object augments the
          lldpLocVidUsageDigestEntry, therefore it is only present
          along with the VID Usage Digest instance
          contained in the associated lldpV2Xdot1LocVidUsageDigestEntry
          entry. Each active lldpConfigVidUsageDigestEntry must be
          restored from non-volatile storage and re-created (along with
```

```
          the corresponding lldpV2Xdot1LocVidUsageDigestEntry) after
          a re-initialization of the management system."
     AUGMENTS { lldpV2Xdot1LocVidUsageDigestEntry }
::= { lldpV2Xdot1ConfigVidUsageDigestTable 1 }

LldpV2Xdot1ConfigVidUsageDigestEntry ::= SEQUENCE {
     lldpV2Xdot1ConfigVidUsageDigestTxEnable TruthValue
     }

lldpV2Xdot1ConfigVidUsageDigestTxEnable OBJECT-TYPE
     SYNTAX TruthValue
     MAX-ACCESS read-write
     STATUS current
     DESCRIPTION
          "The boolean value that indicates whether the corresponding
          Local System VID Usage Digest instance will be transmitted
          on the port defined by the given
          lldpV2Xdot1LocVidUsageDigestEntry. The value of this object
          must be restored from non-volatile storage after a
          reinitialization of the management system."
     REFERENCE
          "9.1.2.1 of IEEE Std 802.1AB"
     DEFVAL { false }
::= { lldpV2Xdot1ConfigVidUsageDigestEntry 1 }


--
-- lldpV2Xdot1ConfigManVidTable : configure the transmission of the
-- Management VID TLVs on set of ports.
--
lldpV2Xdot1ConfigManVidTable OBJECT-TYPE
     SYNTAX SEQUENCE OF LldpV2Xdot1ConfigManVidEntry
     MAX-ACCESS not-accessible
     STATUS current
     DESCRIPTION
          "A table that controls selection of LLDP Management VID
          TLVs to be transmitted on individual ports."
::= { lldpV2Xdot1Config 6 }

lldpV2Xdot1ConfigManVidEntry OBJECT-TYPE
     SYNTAX LldpV2Xdot1ConfigManVidEntry
     MAX-ACCESS not-accessible
     STATUS current
     DESCRIPTION
          "LLDP configuration information that specifies the set of
          port/destination address pairs on which the Local
          System Management VID will be transmitted.
          This configuration object augments the
          lldpV2Xdot1LocManVidEntry, therefore it is
          only present along with the Management VID contained
          in the associated lldpV2Xdot1LocManVidEntry entry.
          Each active lldpV2Xdot1ConfigManVidEntry must be
          restored from non-volatile storage (along with the
          corresponding lldpV2Xdot1LocManVidEntry) after a
          re-initialization of the management system."
     AUGMENTS { lldpV2Xdot1LocManVidEntry }
::= { lldpV2Xdot1ConfigManVidTable 1 }

LldpV2Xdot1ConfigManVidEntry ::= SEQUENCE {
```

```
     lldpV2Xdot1ConfigManVidTxEnable TruthValue
     }

lldpV2Xdot1ConfigManVidTxEnable OBJECT-TYPE
     SYNTAX TruthValue
     MAX-ACCESS read-write
     STATUS current
     DESCRIPTION
          "The lldpV2Xdot1ConfigManVidTxEnable, which is defined as a
          truth value and configured by the network management,
          determines whether the IEEE 802.1 organizationally
          defined Management VID TLV transmission is allowed on a given
          LLDP transmission capable port.
          The value of this object must be restored from
          non-volatile storage after a re-initialization of the
          management system."
     REFERENCE
          "9.1.2.1 of IEEE Std 802.1AB"
     DEFVAL { false }
::= { lldpV2Xdot1ConfigManVidEntry 1 }


--------------------------------------------------------------------
-- IEEE 802.1 - Local System Information
--------------------------------------------------------------------

--
-- lldpV2Xdot1LocTable - indexed by ifIndex.
--

lldpV2Xdot1LocTable  OBJECT-TYPE
    SYNTAX      SEQUENCE OF LldpV2Xdot1LocEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "This table contains one row per port for IEEE 802.1
            organizationally defined LLDP extension on the local system
            known to this agent."
    ::= { lldpV2Xdot1LocalData 1 }

lldpV2Xdot1LocEntry  OBJECT-TYPE
    SYNTAX      LldpV2Xdot1LocEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "Information about IEEE 802.1 organizationally defined
            LLDP extension."
    INDEX   { lldpV2LocPortIfIndex }
    ::= { lldpV2Xdot1LocTable 1 }

LldpV2Xdot1LocEntry ::= SEQUENCE {
        lldpV2Xdot1LocPortVlanId       Unsigned32
}

lldpV2Xdot1LocPortVlanId OBJECT-TYPE
    SYNTAX      Unsigned32(0|1..4094)
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
```

```
            "The integer value used to identify the port's VLAN
            identifier associated with the local system.   A value
            of zero shall be used if the system either does not know
            the PVID or does
            not support Port-based VLAN operation."
    REFERENCE
            "D.2.1.1"
    ::= { lldpV2Xdot1LocEntry 1 }



--
-- lldpV2Xdot1LocProtoVlanTable: Port and Protocol VLAN information
-- re-indexed by ifIndex.
--

lldpV2Xdot1LocProtoVlanTable  OBJECT-TYPE
    SYNTAX      SEQUENCE OF LldpV2Xdot1LocProtoVlanEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "This table contains one or more rows per Port and Protocol
            VLAN information about the local system."
    ::= { lldpV2Xdot1LocalData 2 }

lldpV2Xdot1LocProtoVlanEntry OBJECT-TYPE
    SYNTAX      LldpV2Xdot1LocProtoVlanEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "Port and protocol VLAN ID information about a particular
            port component.  There may be multiple port and protocol
            VLANs, identified by a particular
            lldpV2Xdot1LocProtoVlanId, configured on the given port."
    INDEX   { lldpV2LocPortIfIndex,
              lldpV2Xdot1LocProtoVlanId }
    ::= { lldpV2Xdot1LocProtoVlanTable 1 }

LldpV2Xdot1LocProtoVlanEntry ::= SEQUENCE {
      lldpV2Xdot1LocProtoVlanId        Unsigned32,
      lldpV2Xdot1LocProtoVlanSupported TruthValue,
      lldpV2Xdot1LocProtoVlanEnabled   TruthValue
}

lldpV2Xdot1LocProtoVlanId  OBJECT-TYPE
    SYNTAX      Unsigned32(0|1..4094)
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "The integer value used to identify the port and protocol
            VLANs associated with the given port associated with the
            local system.  A value of zero shall be used if the system
            either does not know the protocol VLAN ID (PPVID) or does
            not support port and protocol VLAN operation."
    REFERENCE
            "D.2.2.2"
    ::= { lldpV2Xdot1LocProtoVlanEntry 1 }

lldpV2Xdot1LocProtoVlanSupported  OBJECT-TYPE
```

```
    SYNTAX      TruthValue
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "The truth value used to indicate whether the given port
            (associated with the local system) supports port and
            protocol VLANs."
    REFERENCE
            "D.2.2.1"
    ::= { lldpV2Xdot1LocProtoVlanEntry 2 }

lldpV2Xdot1LocProtoVlanEnabled  OBJECT-TYPE
    SYNTAX      TruthValue
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "The truth value used to indicate whether the port and
            protocol VLANs are enabled on the given port associated
            with the local system."
    REFERENCE
            "D.2.2.1"
    ::= { lldpV2Xdot1LocProtoVlanEntry 3 }



--
-- lldpV2Xdot1LocVlanNameTable : VLAN name information about the local
-- system indexed by ifIndex.
--

lldpV2Xdot1LocVlanNameTable  OBJECT-TYPE
    SYNTAX      SEQUENCE OF LldpV2Xdot1LocVlanNameEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "This table contains one or more rows per IEEE 802.1Q VLAN
            name information on the local system known to this agent."
    ::= { lldpV2Xdot1LocalData 3 }

lldpV2Xdot1LocVlanNameEntry OBJECT-TYPE
    SYNTAX      LldpV2Xdot1LocVlanNameEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "VLAN name Information about a particular port component.
            There may be multiple VLANs, identified by a particular
            lldpV2Xdot1LocVlanId, configured on the given port."
    INDEX   { lldpV2LocPortIfIndex,
              lldpV2Xdot1LocVlanId }
    ::= { lldpV2Xdot1LocVlanNameTable 1 }

LldpV2Xdot1LocVlanNameEntry ::= SEQUENCE {
      lldpV2Xdot1LocVlanId             VlanId,
      lldpV2Xdot1LocVlanName           SnmpAdminString
}

lldpV2Xdot1LocVlanId  OBJECT-TYPE
    SYNTAX      VlanId
    MAX-ACCESS  not-accessible
```

```
    STATUS      current
    DESCRIPTION
            "The integer value used to identify the IEEE 802.1Q
            VLAN IDs with which the given port is compatible."
    REFERENCE
            "D.2.3.2"
    ::= { lldpV2Xdot1LocVlanNameEntry 1 }

lldpV2Xdot1LocVlanName  OBJECT-TYPE
    SYNTAX      SnmpAdminString (SIZE(1..32))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "The string value used to identify VLAN name identified
            by the Vlan Id associated with the given port on the
            local system.

            This object should contain the value of the
            dot1QVLANStaticName object (defined in IETF RFC 4363)
            identified with the given lldpV2Xdot1LocVlanId."
    REFERENCE
            "D.2.3.4"
    ::= { lldpV2Xdot1LocVlanNameEntry 2 }



--
-- lldpV2Xdot1LocProtocolTable : Protocol Identity information
-- re-indexed by ifIndex and destination address
--

lldpV2Xdot1LocProtocolTable  OBJECT-TYPE
    SYNTAX      SEQUENCE OF LldpV2Xdot1LocProtocolEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "This table contains one or more rows per protocol identity
            information on the local system known to this agent."
    REFERENCE
            "D.2.4"
    ::= { lldpV2Xdot1LocalData 4 }

lldpV2Xdot1LocProtocolEntry  OBJECT-TYPE
    SYNTAX      LldpV2Xdot1LocProtocolEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "Information about particular protocols that are accessible
            through the given port component.

            There may be multiple protocols, identified by particular
            lldpV2Xdot1ProtocolIndex, lldpV2LocPortIfIndex"
    REFERENCE
            "D.2.4"
    INDEX   { lldpV2LocPortIfIndex,
              lldpV2Xdot1LocProtocolIndex }
    ::= { lldpV2Xdot1LocProtocolTable 1 }

LldpV2Xdot1LocProtocolEntry ::= SEQUENCE {
```

```
      lldpV2Xdot1LocProtocolIndex Unsigned32,
      lldpV2Xdot1LocProtocolId    OCTET STRING
}


lldpV2Xdot1LocProtocolIndex  OBJECT-TYPE
    SYNTAX      Unsigned32(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 protocol
            identity."
    ::= { lldpV2Xdot1LocProtocolEntry 1 }

lldpV2Xdot1LocProtocolId  OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE (1..255))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "The octet string value used to identify the protocols
            associated with the given port of the local system."
    REFERENCE
            "D.2.4.3"
    ::= { lldpV2Xdot1LocProtocolEntry 2 }

--
-- lldpV2Xdot1LocVidUsageDigestTable: Table of hash values of
-- system VID Usage Table transmitted
-- via VID Usage Digest TLV.
--


lldpV2Xdot1LocVidUsageDigestTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF LldpV2Xdot1LocVidUsageDigestEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "This table contains one row per ifIndex/
            destination MAC address pair for usage digest
            information on the local system known to this agent."
    REFERENCE
            "D.2.5"
    ::= { lldpV2Xdot1LocalData 5 }

lldpV2Xdot1LocVidUsageDigestEntry  OBJECT-TYPE
    SYNTAX      LldpV2Xdot1LocVidUsageDigestEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "Usage digest information to be transmitted
            through the given port."
    REFERENCE
            "D.2.5"
    INDEX   { lldpV2LocPortIfIndex }
    ::= { lldpV2Xdot1LocVidUsageDigestTable 1 }

LldpV2Xdot1LocVidUsageDigestEntry ::= SEQUENCE {
      lldpV2Xdot1LocVidUsageDigest Unsigned32
```

```
}


lldpV2Xdot1LocVidUsageDigest OBJECT-TYPE
    SYNTAX Unsigned32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The integer value obtained by applying the CRC32 function
        to the 128-octet VID Usage Table. A bit of the VID Usage
        Table contains the value PBB-TE-USAGE (binary 1) if the
        corresponding element of the MST Configuration Table
        (IEEE Std 802.1Q 8.9.1) contains the value PBB-TE MSTID
        (hex FFE) and otherwise contains the value NON-PBB-TE-USAGE
        (binary 0)."
    REFERENCE
        "D.2.5.1"
::= { lldpV2Xdot1LocVidUsageDigestEntry 1 }

--
-- lldpV2Xdot1LocManVidTable: Table of values configured on the Local
-- system for the Management VID, or the value 0 if a Management VID
-- has not been provisioned.
--

lldpV2Xdot1LocManVidTable  OBJECT-TYPE
    SYNTAX      SEQUENCE OF LldpV2Xdot1LocManVidEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "This table contains one row per ifIndex/
            destination MAC address pair for usage digest
            information on the local system known to this agent."
    REFERENCE
            "D.2.6"
    ::= { lldpV2Xdot1LocalData 6 }

lldpV2Xdot1LocManVidEntry  OBJECT-TYPE
    SYNTAX      LldpV2Xdot1LocManVidEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "Usage digest information to be transmitted
            through the given port."
    REFERENCE
            "D.2.6"
    INDEX   { lldpV2LocPortIfIndex }
    ::= { lldpV2Xdot1LocManVidTable 1 }

LldpV2Xdot1LocManVidEntry ::= SEQUENCE {
      lldpV2Xdot1LocManVid Unsigned32
}

lldpV2Xdot1LocManVid OBJECT-TYPE
    SYNTAX Unsigned32 (0|1..4094)
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The integer value configured on the Local system for
```

```
        the Management VID, or
        the value 0 if a Management VID has not been provisioned."
    REFERENCE
        "D.2.6.1"
::= { lldpV2Xdot1LocManVidEntry 1 }


--------------------------------------------------------------------------
-- IEEE 802.1 - Local System Information - Link Aggregation
--------------------------------------------------------------------------

---
---
--- lldpV2Xdot1LocLinkAggTable: Link Aggregation Information Table
---
---
lldpV2Xdot1LocLinkAggTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF LldpV2Xdot1LocLinkAggEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "This table contains one row per port of link aggregation
            information (as a part of the LLDP 802.1 organizational
            extension) on the local system known to this agent."
    ::= { lldpV2Xdot1LocalData 7 }

lldpV2Xdot1LocLinkAggEntry OBJECT-TYPE
    SYNTAX      LldpV2Xdot1LocLinkAggEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "Link Aggregation information about a particular port
            component."
    INDEX   { lldpV2LocPortIfIndex }
    ::= { lldpV2Xdot1LocLinkAggTable 1 }

LldpV2Xdot1LocLinkAggEntry ::= SEQUENCE {
      lldpV2Xdot1LocLinkAggStatus       LldpV2LinkAggStatusMap,
      lldpV2Xdot1LocLinkAggPortId       Unsigned32
}

lldpV2Xdot1LocLinkAggStatus OBJECT-TYPE
    SYNTAX      LldpV2LinkAggStatusMap
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "The bitmap value contains the link aggregation
            capabilities and the current aggregation status of the
            link."
    REFERENCE
            "D.2.7.1"
    ::= { lldpV2Xdot1LocLinkAggEntry 1 }

lldpV2Xdot1LocLinkAggPortId OBJECT-TYPE
    SYNTAX      Unsigned32(0|1..2147483647)
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "This object contains the IEEE 802.1 aggregated port
```

```
            identifier, aAggPortID (IEEE Std 802.1AX, 6.3.2.1.1),
            derived from the ifNumber of the  ifIndex for the port
            component in link aggregation.

            If the port is not in link aggregation state and/or it
            does not support link aggregation, this value should be set
            to zero."
    REFERENCE
            "D.2.7.2"
    ::= { lldpV2Xdot1LocLinkAggEntry 2 }



-- ------------------------------------------------------------------------
-- IEEE 802.1 - Remote System Information
-- ------------------------------------------------------------------------

--
-- lldpV2Xdot1RemTable - re-indexed for ifIndex and destination MAC
-- address

lldpV2Xdot1RemTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF LldpV2Xdot1RemEntry
    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 lldpV2Xdot1RemEntry is present for
            each local port, or it may choose to maintain multiple
            lldpV2Xdot1RemEntries for the same local port."
    ::= { lldpV2Xdot1RemoteData 1 }

lldpV2Xdot1RemEntry OBJECT-TYPE
    SYNTAX      LldpV2Xdot1RemEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "Information about a particular port component."
    INDEX   { lldpV2RemTimeMark,
              lldpV2RemLocalIfIndex,
              lldpV2RemLocalDestMACAddress,
              lldpV2RemIndex }
    ::= { lldpV2Xdot1RemTable 1 }

LldpV2Xdot1RemEntry ::= SEQUENCE {
            lldpV2Xdot1RemPortVlanId           Unsigned32
}

lldpV2Xdot1RemPortVlanId OBJECT-TYPE
    SYNTAX      Unsigned32(0|1..4094)
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "The integer value used to identify the port's VLAN
            identifier associated with the remote system.  if the
            remote system either does not know the PVID or does not
            support Port-based VLAN operation, the value of
            lldpV2Xdot1RemPortVlanId should be zero."
```

```
    REFERENCE
            "D.2.1.1"
    ::= { lldpV2Xdot1RemEntry 1 }



--
-- lldpV2Xdot1RemProtoVlanTable - re-indexed by ifIndex and
-- destination MAC address
--

lldpV2Xdot1RemProtoVlanTable  OBJECT-TYPE
    SYNTAX      SEQUENCE OF LldpV2Xdot1RemProtoVlanEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "This table contains one or more rows per Port and Protocol
            VLAN information about the remote system, received on the
            given port."
    ::= { lldpV2Xdot1RemoteData 2 }

lldpV2Xdot1RemProtoVlanEntry OBJECT-TYPE
    SYNTAX      LldpV2Xdot1RemProtoVlanEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "Port and protocol VLAN name Information about a particular
            port component.  There may be multiple protocol VLANs,
            identified by a particular lldpV2Xdot1RemProtoVlanId,
            configured on the remote system."
    INDEX   { lldpV2RemTimeMark,
              lldpV2RemLocalIfIndex,
              lldpV2RemLocalDestMACAddress,
              lldpV2RemIndex,
              lldpV2Xdot1RemProtoVlanId }
    ::= { lldpV2Xdot1RemProtoVlanTable 1 }

LldpV2Xdot1RemProtoVlanEntry ::= SEQUENCE {
            lldpV2Xdot1RemProtoVlanId          Unsigned32,
            lldpV2Xdot1RemProtoVlanSupported   TruthValue,
            lldpV2Xdot1RemProtoVlanEnabled     TruthValue
}

lldpV2Xdot1RemProtoVlanId  OBJECT-TYPE
    SYNTAX      Unsigned32(0|1..4094)
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "The integer value used to identify the port and protocol
            VLANs associated with the given port associated with the
            remote system.

            If port and protocol VLANs are not supported on the given
            port associated with the remote system, or if the port is
            not enabled with any port and protocol VLAN, the value of
            lldpV2Xdot1RemProtoVlanId should be zero."
    REFERENCE
            "D.2.2.2"
    ::= { lldpV2Xdot1RemProtoVlanEntry 1 }
```

```
lldpV2Xdot1RemProtoVlanSupported  OBJECT-TYPE
    SYNTAX      TruthValue
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "The truth value used to indicate whether the given port
            (associated with the remote system) is capable of
            supporting port and protocol VLANs."
    REFERENCE
            "D.2.2.1"
    ::= { lldpV2Xdot1RemProtoVlanEntry 2 }

lldpV2Xdot1RemProtoVlanEnabled  OBJECT-TYPE
    SYNTAX      TruthValue
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "The truth value used to indicate whether the port and
            protocol VLANs are enabled on the given port associated
            with
            the remote system."
    REFERENCE
            "D.2.2.1"
    ::= { lldpV2Xdot1RemProtoVlanEntry 3 }



--
-- lldpV2Xdot1RemVlanNameTable : VLAN name information of the remote
--                               systems
-- Re-indexed by ifIndex and destination MAC address
--

lldpV2Xdot1RemVlanNameTable  OBJECT-TYPE
    SYNTAX      SEQUENCE OF lldpV2Xdot1RemVlanNameEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "This table contains one or more rows per IEEE 802.1Q VLAN
            name information about the remote system, received on the
            given port."
    REFERENCE
            "D.2.3"
    ::= { lldpV2Xdot1RemoteData 3 }

lldpV2Xdot1RemVlanNameEntry OBJECT-TYPE
    SYNTAX      LldpV2Xdot1RemVlanNameEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "VLAN name Information about a particular port component.
            There may be multiple VLANs, identified by a particular
            lldpV2Xdot1RemVlanId, received on the given port."
    INDEX   { lldpV2RemTimeMark,
              lldpV2RemLocalIfIndex,
              lldpV2RemLocalDestMACAddress,
              lldpV2RemIndex,
              lldpV2Xdot1RemVlanId }
```

```
    ::= { lldpV2Xdot1RemVlanNameTable 1 }

LldpV2Xdot1RemVlanNameEntry ::= SEQUENCE {
            lldpV2Xdot1RemVlanId       VlanId,
            lldpV2Xdot1RemVlanName     SnmpAdminString
}


lldpV2Xdot1RemVlanId  OBJECT-TYPE
    SYNTAX      VlanId
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "The integer value used to identify the IEEE 802.1Q
            VLAN IDs with which the given port of the remote system
            is compatible."
    REFERENCE
            "D.2.3.2"
    ::= { lldpV2Xdot1RemVlanNameEntry 1 }

lldpV2Xdot1RemVlanName  OBJECT-TYPE
    SYNTAX      SnmpAdminString (SIZE(1..32))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "The string value used to identify VLAN name identified
            by the VLAN Id associated with the remote system."
    REFERENCE
            "D.2.3.4"
    ::= { lldpV2Xdot1RemVlanNameEntry 2 }



--
-- lldpV2Xdot1RemProtocolTable : Protocol information of the remote
-- systems Re-indexed by ifIndex and destination MAC address
--

lldpV2Xdot1RemProtocolTable  OBJECT-TYPE
    SYNTAX      SEQUENCE OF LldpV2Xdot1RemProtocolEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "This table contains one or more rows per protocol
            information about the remote system, received on
            the given port."
    ::= { lldpV2Xdot1RemoteData 4 }

lldpV2Xdot1RemProtocolEntry  OBJECT-TYPE
    SYNTAX      LldpV2Xdot1RemProtocolEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "Protocol information about a particular port component.
            There may be multiple protocols, identified by a particular
            lldpV2Xdot1ProtocolIndex, received on the given port."
    INDEX   { lldpV2RemTimeMark,
              lldpV2RemLocalIfIndex,
              lldpV2RemLocalDestMACAddress,
```

```
                lldpV2RemIndex,
                lldpV2Xdot1RemProtocolIndex }
    ::= { lldpV2Xdot1RemProtocolTable 1 }

LldpV2Xdot1RemProtocolEntry ::= SEQUENCE {
            lldpV2Xdot1RemProtocolIndex     Unsigned32,
            lldpV2Xdot1RemProtocolId        OCTET STRING
}

lldpV2Xdot1RemProtocolIndex  OBJECT-TYPE
    SYNTAX      Unsigned32(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 protocol
            identity."
    ::= { lldpV2Xdot1RemProtocolEntry 1 }

lldpV2Xdot1RemProtocolId  OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE (1..255))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "The octet string value used to identify the protocols
            associated with the given port of remote system."
    REFERENCE
            "D.2.4.3"
    ::= { lldpV2Xdot1RemProtocolEntry 2 }



--
-- lldpV2Xdot1RemVidUsageDigestTable: Table of hash values of
-- system VID Usage Table received
-- via VID Usage Digest TLV.
-- This version replaced by a reindexed version (V2).
--


lldpV2Xdot1RemVidUsageDigestTable  OBJECT-TYPE
    SYNTAX      SEQUENCE OF LldpV2Xdot1RemVidUsageDigestEntry
    MAX-ACCESS  not-accessible
    STATUS      deprecated
    DESCRIPTION
            "This table contains one row per ifIndex/
            destination MAC address pair for usage digest
            information received by the local system."
    REFERENCE
            "D.2.5"
    ::= { lldpV2Xdot1RemoteData 5 }

lldpV2Xdot1RemVidUsageDigestEntry  OBJECT-TYPE
    SYNTAX      LldpV2Xdot1RemVidUsageDigestEntry
    MAX-ACCESS  not-accessible
    STATUS      deprecated
    DESCRIPTION
            "Usage digest information received on
            the given port/destination address pair."
```

```
    REFERENCE
            "D.2.5"
    INDEX   { lldpV2RemTimeMark,
              lldpV2RemLocalIfIndex,
              lldpV2RemLocalDestMACAddress }
    ::= { lldpV2Xdot1RemVidUsageDigestTable 1 }

LldpV2Xdot1RemVidUsageDigestEntry ::= SEQUENCE {
      lldpV2Xdot1RemVidUsageDigest  Unsigned32
}


lldpV2Xdot1RemVidUsageDigest OBJECT-TYPE
    SYNTAX Unsigned32
    MAX-ACCESS read-only
    STATUS deprecated
    DESCRIPTION
        "The integer value obtained by applying the CRC32 function
        to the 128-octet VID Usage Table. A bit of the VID Usage
        Table contains the value PBB-TE-USAGE (binary 1) if the
        corresponding element of the MST Configuration Table
        (IEEE Std 802.1Q 8.9.1) contains the value PBB-TE MSTID
        (hex FFE)and otherwise contains the value NON-PBB-TE-USAGE
        (binary 0)."
    REFERENCE
        "D.2.5.1"
::= { lldpV2Xdot1RemVidUsageDigestEntry 1 }

--
-- lldpV2Xdot1RemManVidTable: Table of values configured on remote
-- systems for the Management VID, or the value 0 if a Management
-- VID has not been provisioned.
-- This version replaced by a reindexed version (V2).
--


lldpV2Xdot1RemManVidTable  OBJECT-TYPE
    SYNTAX      SEQUENCE OF LldpV2Xdot1RemManVidEntry
    MAX-ACCESS  not-accessible
    STATUS      deprecated
    DESCRIPTION
            "This table contains one row per ifIndex/
            destination MAC address pair for management VID
            information received from remote systems."
    REFERENCE
            "D.2.6"
    ::= { lldpV2Xdot1RemoteData 6 }

lldpV2Xdot1RemManVidEntry  OBJECT-TYPE
    SYNTAX      LldpV2Xdot1RemManVidEntry
    MAX-ACCESS  not-accessible
    STATUS      deprecated
    DESCRIPTION
            "Management VID information received
            through the given port/destination address pair."
    REFERENCE
            "D.2.6"
    INDEX   { lldpV2RemTimeMark,
              lldpV2RemLocalIfIndex,
```

```
                lldpV2RemLocalDestMACAddress }
    ::= { lldpV2Xdot1RemManVidTable 1 }

LldpV2Xdot1RemManVidEntry ::= SEQUENCE {
      lldpV2Xdot1RemManVid            Unsigned32
}

lldpV2Xdot1RemManVid OBJECT-TYPE
    SYNTAX Unsigned32 (0|1..4094)
    MAX-ACCESS read-only
    STATUS deprecated
    DESCRIPTION
        "The integer value configured on a system for
        the Management VID, or
        the value 0 if a Management VID has not been provisioned."
    REFERENCE
        "D.2.6.1"
::= { lldpV2Xdot1RemManVidEntry 1 }



--
-- lldpV2Xdot1RemVidUsageDigestV2Table: Table of hash values of
-- system VID Usage Table received
-- via VID Usage Digest TLV.
--


lldpV2Xdot1RemVidUsageDigestV2Table  OBJECT-TYPE
    SYNTAX      SEQUENCE OF LldpV2Xdot1RemVidUsageDigestV2Entry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "This table contains one row per ifIndex/
            destination MAC address pair for usage digest
            information received by the local system."
    REFERENCE
            "D.2.5"
    ::= { lldpV2Xdot1RemoteData 8 }

lldpV2Xdot1RemVidUsageDigestV2Entry  OBJECT-TYPE
    SYNTAX      LldpV2Xdot1RemVidUsageDigestV2Entry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "Usage digest information received on
            the given port/destination address pair."
    REFERENCE
            "D.2.5"
    INDEX   { lldpV2RemTimeMark,
              lldpV2RemLocalIfIndex,
              lldpV2RemLocalDestMACAddress,
              lldpV2RemIndex }
    ::= { lldpV2Xdot1RemVidUsageDigestV2Table 1 }

LldpV2Xdot1RemVidUsageDigestV2Entry ::= SEQUENCE {
      lldpV2Xdot1RemVidUsageDigestV2  Unsigned32
}
```

```
lldpV2Xdot1RemVidUsageDigestV2 OBJECT-TYPE
    SYNTAX Unsigned32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The integer value obtained by applying the CRC32 function
        to the 128-octet VID Usage Table. A bit of the VID Usage
        Table contains the value PBB-TE-USAGE (binary 1) if the
        corresponding element of the MST Configuration Table
        (IEEE Std 802.1Q 8.9.1) contains the value PBB-TE MSTID
        (hex FFE)and otherwise contains the value NON-PBB-TE-USAGE
        (binary 0)."
    REFERENCE
        "D.2.5.1"
::= { lldpV2Xdot1RemVidUsageDigestV2Entry 1 }


--
-- lldpV2Xdot1RemManVidV2Table: Table of values configured on remote
-- systems for the Management VID, or the value 0 if a Management
-- VID has not been provisioned.
--

lldpV2Xdot1RemManVidV2Table  OBJECT-TYPE
    SYNTAX      SEQUENCE OF LldpV2Xdot1RemManVidV2Entry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "This table contains one row per ifIndex/
            destination MAC address pair for management VID
            information received from remote systems."
    REFERENCE
            "D.2.6"
    ::= { lldpV2Xdot1RemoteData 9 }

lldpV2Xdot1RemManVidV2Entry  OBJECT-TYPE
    SYNTAX      LldpV2Xdot1RemManVidV2Entry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "Management VID information received
            through the given port/destination address pair."
    REFERENCE
            "D.2.6"
    INDEX   { lldpV2RemTimeMark,
              lldpV2RemLocalIfIndex,
              lldpV2RemLocalDestMACAddress,
              lldpV2RemIndex }
    ::= { lldpV2Xdot1RemManVidV2Table 1 }

LldpV2Xdot1RemManVidV2Entry ::= SEQUENCE {
      lldpV2Xdot1RemManVidV2            Unsigned32
}

lldpV2Xdot1RemManVidV2 OBJECT-TYPE
    SYNTAX Unsigned32 (0|1..4094)
    MAX-ACCESS read-only
    STATUS current
```

```
    DESCRIPTION
        "The integer value configured on a system for
        the Management VID, or
        the value 0 if a Management VID has not been provisioned."
    REFERENCE
        "D.2.6.1"
::= { lldpV2Xdot1RemManVidV2Entry 1 }



--------------------------------------------------------------------------
-- Remote System Information - Link Aggregation
--------------------------------------------------------------------------

---
---
--- lldpV2Xdot1RemLinkAggTable: Link Aggregation Information Table
---
---
lldpV2Xdot1RemLinkAggTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF LldpV2Xdot1RemLinkAggEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "This table contains port link aggregation information
            (as a part of the LLDP IEEE 802.1 organizational extension)
            of the remote system."
    ::= { lldpV2Xdot1RemoteData 7 }

lldpV2Xdot1RemLinkAggEntry OBJECT-TYPE
    SYNTAX      LldpV2Xdot1RemLinkAggEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "Link Aggregation information about remote system's port
            component."
    INDEX   { lldpV2RemTimeMark,
              lldpV2RemLocalIfIndex,
              lldpV2RemLocalDestMACAddress,
              lldpV2RemIndex }
    ::= { lldpV2Xdot1RemLinkAggTable 1 }

LldpV2Xdot1RemLinkAggEntry ::= SEQUENCE {
            lldpV2Xdot1RemLinkAggStatus        LldpV2LinkAggStatusMap,
            lldpV2Xdot1RemLinkAggPortId        Unsigned32
}

lldpV2Xdot1RemLinkAggStatus OBJECT-TYPE
    SYNTAX      LldpV2LinkAggStatusMap
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "The bitmap value contains the link aggregation capabilities
            and the current aggregation status of the link."
    REFERENCE
            "D.2.7.1"
    ::= { lldpV2Xdot1RemLinkAggEntry 1 }

lldpV2Xdot1RemLinkAggPortId OBJECT-TYPE
```

```
    SYNTAX      Unsigned32(0|1..2147483647)
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "This object contains the IEEE 802.1 aggregated port
            identifier, aAggPortID (IEEE Std 802.1AX, 6.3.2.1.1),
            derived from the ifNumber of the  ifIndex for the port
            component associated with the remote system.

            If the remote port is not in link aggregation state and/or
            it does not support link aggregation, this value should be
            zero."
    REFERENCE
            "D.2.7.2"
    ::= { lldpV2Xdot1RemLinkAggEntry 2 }


-- ----------------------------------------------------------------------
-- Conformance Information for the basicSet TLV set
-- ----------------------------------------------------------------------

lldpV2Xdot1Conformance
    OBJECT IDENTIFIER ::= { lldpV2Xdot1MIB 2 }
lldpV2Xdot1Compliances
    OBJECT IDENTIFIER ::= { lldpV2Xdot1Conformance 1 }
lldpV2Xdot1Groups
    OBJECT IDENTIFIER ::= { lldpV2Xdot1Conformance 2 }

-- compliance statements


lldpV2Xdot1TxRxCompliance MODULE-COMPLIANCE
    STATUS  current
    DESCRIPTION
            "A compliance statement for SNMP entities that implement
            the IEEE 802.1 organizationally defined LLDP extension MIB.

            This group is mandatory for all agents that implement the
            LLDP 802.1 organizational extension in TX and/or RX mode
            for the basicSet TLV set.

            This version defines compliance requirements for
            V2 of the LLDP MIB."
    MODULE  -- this module
        MANDATORY-GROUPS { lldpV2Xdot1ConfigGroup,
                           ifGeneralInformationGroup
        }
    ::= { lldpV2Xdot1Compliances 1 }


lldpV2Xdot1TxCompliance MODULE-COMPLIANCE
    STATUS  current
    DESCRIPTION
            "A compliance statement for SNMP entities that implement
            the IEEE 802.1 organizationally defined LLDP extension MIB.

            This group is mandatory for agents that implement the
            LLDP 802.1 organizational extension in the RX mode
            for the basicSet TLV set.
```

```
            This version defines compliance requirements for
            V2 of the LLDP MIB."
    MODULE  -- this module
        MANDATORY-GROUPS { lldpV2Xdot1LocSysGroup }

    ::= { lldpV2Xdot1Compliances 2 }

lldpV2Xdot1RxCompliance MODULE-COMPLIANCE
    STATUS  deprecated
    DESCRIPTION
            "A compliance statement for SNMP entities that implement
            the IEEE 802.1 organizationally defined LLDP extension MIB.

            This group is mandatory for agents that implement the
            LLDP 802.1 organizational extension in the RX mode
            for the basicSet TLV set.

            This version defines compliance requirements for
            V2 of the LLDP MIB."
    MODULE  -- this module
        MANDATORY-GROUPS { lldpV2Xdot1RemSysGroup }

    ::= { lldpV2Xdot1Compliances 3 }

lldpV2Xdot1RxComplianceV2 MODULE-COMPLIANCE
    STATUS    current
    DESCRIPTION
            "A compliance statement for SNMP entities that implement
            the IEEE 802.1 organizationally defined LLDP extension MIB.

            This group is mandatory for agents that implement the
            LLDP 802.1 organizational extension in the RX mode
            for the basicSet TLV set.

            This version defines compliance requirements for
            V2 of the LLDP MIB."
    MODULE  -- this module
        MANDATORY-GROUPS { lldpV2Xdot1RemSysV2Group }

    ::= { lldpV2Xdot1Compliances 4 }


-- MIB groupings for the basicSet TLV set

lldpV2Xdot1ConfigGroup    OBJECT-GROUP
    OBJECTS {
        lldpV2Xdot1ConfigPortVlanTxEnable,
        lldpV2Xdot1ConfigVlanNameTxEnable,
        lldpV2Xdot1ConfigProtoVlanTxEnable,
        lldpV2Xdot1ConfigProtocolTxEnable,
        lldpV2Xdot1ConfigVidUsageDigestTxEnable,
        lldpV2Xdot1ConfigManVidTxEnable
    }
    STATUS  current
    DESCRIPTION
            "The collection of objects which are used to configure the
            IEEE 802.1 organizationally defined LLDP extension
            implementation behavior for the basicSet TLV set."
```

```
    ::= { lldpV2Xdot1Groups 1 }

lldpV2Xdot1LocSysGroup  OBJECT-GROUP
    OBJECTS {
        lldpV2Xdot1LocPortVlanId,
        lldpV2Xdot1LocProtoVlanSupported,
        lldpV2Xdot1LocProtoVlanEnabled,
        lldpV2Xdot1LocVlanName,
        lldpV2Xdot1LocProtocolId,
        lldpV2Xdot1LocVidUsageDigest,
        lldpV2Xdot1LocManVid,
        lldpV2Xdot1LocLinkAggStatus,
        lldpV2Xdot1LocLinkAggPortId
    }
    STATUS  current
    DESCRIPTION
            "The collection of objects which are used to represent
            IEEE 802.1 organizationally defined LLDP extension
            associated with the Local Device Information for the
            basicSet TLV set."
    ::= { lldpV2Xdot1Groups 2 }

lldpV2Xdot1RemSysGroup  OBJECT-GROUP
    OBJECTS {
        lldpV2Xdot1RemPortVlanId,
        lldpV2Xdot1RemProtoVlanSupported,
        lldpV2Xdot1RemProtoVlanEnabled,
        lldpV2Xdot1RemVlanName,
        lldpV2Xdot1RemProtocolId,
        lldpV2Xdot1RemVidUsageDigest,
        lldpV2Xdot1RemManVid,
        lldpV2Xdot1RemLinkAggStatus,
        lldpV2Xdot1RemLinkAggPortId
    }
    STATUS  deprecated
    DESCRIPTION
            "The collection of objects which are used to represent LLDP
            802.1 organizational extension Remote Device Information
            for the basicSet TLV set."
    ::= { lldpV2Xdot1Groups 3 }

lldpV2Xdot1RemSysV2Group  OBJECT-GROUP
    OBJECTS {
        lldpV2Xdot1RemPortVlanId,
        lldpV2Xdot1RemProtoVlanSupported,
        lldpV2Xdot1RemProtoVlanEnabled,
        lldpV2Xdot1RemVlanName,
        lldpV2Xdot1RemProtocolId,
        lldpV2Xdot1RemVidUsageDigestV2,
        lldpV2Xdot1RemManVidV2,
        lldpV2Xdot1RemLinkAggStatus,
        lldpV2Xdot1RemLinkAggPortId
    }
    STATUS  current
    DESCRIPTION
            "The collection of objects which are used to represent LLDP
            802.1 organizational extension Remote Device Information
            for the basicSet TLV set."
    ::= { lldpV2Xdot1Groups 3 }
```

```
-----------------------------------------------------------------------
-----------------------------------------------------------------------
--
-- Organizationally Defined Information Extension - IEEE 802.1
-- Definitions to support the cnSet TLV set (Table D-1)
-- for Congestion Notification
--
-----------------------------------------------------------------------
-----------------------------------------------------------------------

lldpXdot1CnMIB OBJECT IDENTIFIER ::= { lldpV2Xdot1MIB 3 }
lldpXdot1CnObjects OBJECT IDENTIFIER ::= { lldpXdot1CnMIB 1 }

-- CN 802.1 MIB Extension groups

lldpXdot1CnConfig OBJECT IDENTIFIER ::= { lldpXdot1CnObjects 1 }
lldpXdot1CnLocalData OBJECT IDENTIFIER ::= { lldpXdot1CnObjects 2 }
lldpXdot1CnRemoteData OBJECT IDENTIFIER ::= { lldpXdot1CnObjects 3 }

-----------------------------------------------------------------
-- Textual conventions for Congestion Notification
-----------------------------------------------------------------

LldpV2CnBitVector ::= TEXTUAL-CONVENTION
    STATUS      current
    DESCRIPTION
            "This TC describes a bit vector used in the Congestion
            Notification objects. Each bit represents a Boolean status
            associated with a priority code point. A bit value of 0
            represents FALSE, 1 represents TRUE.

            The bit 'pri0status(0)' indicates the status for priority 0
            The bit 'pri1status(1)' indicates the status for priority 1
            The bit 'pri2status(2)' indicates the status for priority 2
            The bit 'pri3status(3)' indicates the status for priority 3
            The bit 'pri4status(4)' indicates the status for priority 4
            The bit 'pri5status(5)' indicates the status for priority 5
            The bit 'pri6status(6)' indicates the status for priority 6
            The bit 'pri7status(7)' indicates the status for priority 7"

    SYNTAX  BITS {
            pri0status(0),
            pri1status(1),
            pri2status(2),
            pri3status(3),
            pri4status(4),
            pri5status(5),
            pri6status(6),
            pri7status(7)
    }

-----------------------------------------------------------------
-- IEEE 802.1 - Congestion Notification Configuration
-----------------------------------------------------------------

--
--  lldpXdot1CnConfigCnTable : configure the
--  transmission of the Congestion Notification TLV on a set of ports
```

```
--

lldpXdot1CnConfigCnTable OBJECT-TYPE
    SYNTAX        SEQUENCE OF LldpXdot1CnConfigCnEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "A table that controls selection of Congestion Notification
         TLVs to be transmitted on individual ports."
    ::= { lldpXdot1CnConfig 1 }

lldpXdot1CnConfigCnEntry OBJECT-TYPE
    SYNTAX        LldpXdot1CnConfigCnEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "LLDP configuration information that controls the
        transmission of IEEE 802.1 organizationally defined
        Congestion Notification TLV on LLDP transmission capable ports.

        This configuration object augments the lldpV2PortConfigEntry of
        the LLDP-MIB, therefore it is only present along with the port
        configuration defined by the associated lldpV2PortConfigEntry
        entry.

        Each active lldpConfigEntry is restored from non-volatile
        storage (along with the corresponding lldpV2PortConfigEntry)
        after a re-initialization of the management system."
    AUGMENTS      { lldpV2PortConfigEntry }
    ::= { lldpXdot1CnConfigCnTable 1 }

LldpXdot1CnConfigCnEntry ::= SEQUENCE {
    lldpXdot1CnConfigCnTxEnable TruthValue
}

lldpXdot1CnConfigCnTxEnable OBJECT-TYPE
    SYNTAX        TruthValue
    MAX-ACCESS    read-write
    STATUS        current
    DESCRIPTION
        "The lldpXdot1CnConfigCnTxEnable, which is
        defined as a truth value and configured by the network
        management, determines whether the IEEE 802.1 organizationally
        defined Congestion Notification TLV transmission is allowed
        on a given LLDP transmission capable port.

        The value of this object is restored from non-volatile
        storage after a re-initialization of the management system."
    REFERENCE
        "D.2.8"
    DEFVAL         { false }
    ::= { lldpXdot1CnConfigCnEntry 1 }

-----------------------------------------------------------------------
-- IEEE 802.1 - Congestion Notification Local System Information
-----------------------------------------------------------------------

---
---
```

```
--- lldpV2Xdot1LocCnTable: Port Extension Information Table
---
---
lldpV2Xdot1LocCnTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF LldpV2Xdot1LocCnEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "This table contains one row per port of Congestion
            Notification information (as a part of the LLDP
            802.1 organizational extension) on the local system
            known to this agent."
    ::= { lldpXdot1CnLocalData 1 }

lldpV2Xdot1LocCnEntry OBJECT-TYPE
    SYNTAX      LldpV2Xdot1LocCnEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "Congestion Notification information about a
            particular port component."
    INDEX   { lldpV2LocPortIfIndex }
    ::= { lldpV2Xdot1LocCnTable 1 }

LldpV2Xdot1LocCnEntry ::= SEQUENCE {
      lldpV2Xdot1LocCNPVIndicators    LldpV2CnBitVector,
      lldpV2Xdot1LocReadyIndicators   LldpV2CnBitVector
}

lldpV2Xdot1LocCNPVIndicators OBJECT-TYPE
    SYNTAX      LldpV2CnBitVector
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "This object contains the CNPV indicators
            for the Port."
    REFERENCE
            "D.2.8.3"
    ::= { lldpV2Xdot1LocCnEntry 1 }

lldpV2Xdot1LocReadyIndicators OBJECT-TYPE
    SYNTAX      LldpV2CnBitVector
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "This object contains the Ready indicators
            for the Port."
    REFERENCE
            "D.2.8.4"
    ::= { lldpV2Xdot1LocCnEntry 2 }

-----------------------------------------------------------------------
-- IEEE 802.1 - Congestion Notification Remote System Information
-----------------------------------------------------------------------

---
---
--- lldpV2Xdot1RemCnTable: Port Extension Information Table
---
```

```
---
lldpV2Xdot1RemCnTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF LldpV2Xdot1RemCnEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "This table contains Congestion Notification information
            (as a part of the LLDP IEEE 802.1 organizational extension)
            of the remote system."
    ::= { lldpXdot1CnRemoteData 1 }

lldpV2Xdot1RemCnEntry OBJECT-TYPE
    SYNTAX      LldpV2Xdot1RemCnEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
            "Port Extension information about remote systems port
            component."
    INDEX   { lldpV2RemTimeMark,
              lldpV2RemLocalIfIndex,
              lldpV2RemLocalDestMACAddress,
              lldpV2RemIndex }
    ::= { lldpV2Xdot1RemCnTable 1 }

LldpV2Xdot1RemCnEntry ::= SEQUENCE {
      lldpV2Xdot1RemCNPVIndicators    LldpV2CnBitVector,
      lldpV2Xdot1RemReadyIndicators   LldpV2CnBitVector
}

lldpV2Xdot1RemCNPVIndicators OBJECT-TYPE
    SYNTAX      LldpV2CnBitVector
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "This object contains the CNPV indicators
            for the Port."
    REFERENCE
            "D.2.8.3"
    ::= { lldpV2Xdot1RemCnEntry 1 }

lldpV2Xdot1RemReadyIndicators OBJECT-TYPE
    SYNTAX      LldpV2CnBitVector
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
            "This object contains the Ready indicators
            for the Port."
    REFERENCE
            "D.2.8.4"
    ::= { lldpV2Xdot1RemCnEntry 2 }

-----------------------------------------------------------------------
-- IEEE 802.1 - Congestion Notification Conformance Information
-----------------------------------------------------------------------

lldpXdot1CnConformance OBJECT IDENTIFIER ::= { lldpV2Xdot1MIB 4 }

lldpXdot1CnCompliances
    OBJECT IDENTIFIER ::= { lldpXdot1CnConformance 1 }
```

```
lldpXdot1CnGroups OBJECT IDENTIFIER ::= { lldpXdot1CnConformance 2 }

--
-- Congestion Notification - Compliance Statements
--

lldpXdot1CnCompliance MODULE-COMPLIANCE
    STATUS        current
    DESCRIPTION
         "A compliance statement for SNMP entities that implement
         the IEEE 802.1 organizationally defined Congestion
         Notification LLDP extension MIB.

         This group is mandatory for agents that implement the
         Congestion Notification cnSet TLV set."
    MODULE        -- this module
        MANDATORY-GROUPS  { lldpXdot1CnGroup,
                            ifGeneralInformationGroup }
    ::= { lldpXdot1CnCompliances 1 }


--
-- Congestion Notification - MIB groupings
--

lldpXdot1CnGroup  OBJECT-GROUP
    OBJECTS {
        lldpXdot1CnConfigCnTxEnable,
        lldpV2Xdot1LocCNPVIndicators,
        lldpV2Xdot1LocReadyIndicators,
        lldpV2Xdot1RemCNPVIndicators,
        lldpV2Xdot1RemReadyIndicators
    }
    STATUS  current
    DESCRIPTION
        "The collection of objects that support the
        Congestion Notification cnSet TLV set."
    ::= { lldpXdot1CnGroups 1 }

-----------------------------------------------------------------------
-----------------------------------------------------------------------
--
-- Organizationally Defined Information Extension - IEEE 802.1
-- Definitions to support the Data Center eXchange Protocol
-- (DCBX) TLV set (Table D-1)
--
-----------------------------------------------------------------------
-----------------------------------------------------------------------
lldpXdot1dcbxMIB OBJECT IDENTIFIER ::= { lldpV2Xdot1MIB 5 }
lldpXdot1dcbxObjects       OBJECT IDENTIFIER ::= { lldpXdot1dcbxMIB 1 }

-- DCBX 802.1 MIB Extension groups

lldpXdot1dcbxConfig     OBJECT IDENTIFIER ::= { lldpXdot1dcbxObjects 1 }
lldpXdot1dcbxLocalData  OBJECT IDENTIFIER ::= { lldpXdot1dcbxObjects 2 }
lldpXdot1dcbxRemoteData OBJECT IDENTIFIER ::= { lldpXdot1dcbxObjects 3 }
lldpXdot1dcbxAdminData  OBJECT IDENTIFIER ::= { lldpXdot1dcbxObjects 4 }

-----------------------------------------------------------------------
```

```
-- IEEE 802.1 - DCBX Textual Conventions
-----------------------------------------------------------------------

LldpXdot1dcbxTrafficClassValue ::= TEXTUAL-CONVENTION
    DISPLAY-HINT "d"
    STATUS    current
    DESCRIPTION
        "Indicates a traffic class.  Values 0-7 correspond to
        traffic classes."
    SYNTAX    Unsigned32 (0..7)

LldpXdot1dcbxTrafficClassBandwidthValue ::= TEXTUAL-CONVENTION
    DISPLAY-HINT "d"
    STATUS    current
    DESCRIPTION
        "Indicates the bandwidth in percent assigned to a
        traffic class."
    SYNTAX    Unsigned32 (0..100)

LldpXdot1dcbxAppSelector ::= TEXTUAL-CONVENTION
    STATUS    current
    DESCRIPTION
        "Indicates the contents of a protocol object
        1: Ethertype
        2: Well Known Port number over TCP, or SCTP
        3: Well Known Port number over UDP, or DCCP
        4: Well Known Port number over TCP, SCTP, UDP, and DCCP
        5: Differentiated Services Code Point (DSCP) value. The
           6 bit DSCP value is stored in the low order 6 bits of the
           protocol object. The higher order bits are set to zero.
           (See IETF RFC 2474 for the definition of the DSCP value.)"
    SYNTAX INTEGER {
        asEthertype(1),
        asTCPPortNumber(2),
        asUDPPortNumber(3),
        asTCPUDPPortNumber(4),
        asDSCPValue(5)
    }

 LldpXdot1dcbxAppProtocol ::= TEXTUAL-CONVENTION
     DISPLAY-HINT "d"
     STATUS       current
     DESCRIPTION
         "Contains the application protocol indicator the
         type of which is specified by an object with
         the syntax of
         LldpXdot1dcbxAppSelector"
     SYNTAX Unsigned32 (0..65535)

LldpXdot1dcbxSupportedCapacity ::= TEXTUAL-CONVENTION
    DISPLAY-HINT "d"
    STATUS    current
    DESCRIPTION
        "Indicates the supported capacity of a given feature,
        for example, the number of traffic classes supported.
        This TC is used for features that have a maximum
        capacity of eight and a minimum of one."
    SYNTAX Unsigned32 (1..8)
```

```
LldpXdot1dcbxTrafficSelectionAlgorithm ::= TEXTUAL-CONVENTION
    STATUS    current
    DESCRIPTION
        "Indicates the Traffic Selection Algorithm
        0: Strict Priority
        1: Credit-based shaper
        2: Enhanced transmission selection
        3-254: Reserved for furture standardization
        255: Vendor specific"
    SYNTAX INTEGER {
        tsaStrictPriority(0),
        tsaCreditBasedShaper(1),
        tsaEnhancedTransmission(2),
        tsaVendorSpecific(255)
    }

-- ------------------------------------------------------------------
-- IEEE 802.1 - DCBX Configuration
-- ------------------------------------------------------------------

--
--  lldpXdot1dcbxConfigETSConfigurationTable : configure the
--  transmission of the ETS Configuration TLV on a set of ports
--

lldpXdot1dcbxConfigETSConfigurationTable OBJECT-TYPE
    SYNTAX        SEQUENCE OF LldpXdot1dcbxConfigETSConfigurationEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "A table that controls selection of ETS Configuration
         TLVs to be transmitted on individual ports."
    ::= { lldpXdot1dcbxConfig 1 }

lldpXdot1dcbxConfigETSConfigurationEntry OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxConfigETSConfigurationEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "LLDP configuration information that controls the
        transmission of IEEE 802.1 organizationally defined
        ETS Configuration TLV on LLDP transmission capable ports.

        This configuration object augments the lldpV2PortConfigEntry of
        the LLDP-MIB, therefore it is only present along with the port
        configuration defined by the associated lldpV2PortConfigEntry
        entry.

        Each active lldpConfigEntry is restored from non-volatile
        storage (along with the corresponding lldpV2PortConfigEntry)
        after a re-initialization of the management system."
    AUGMENTS      { lldpV2PortConfigEntry }
    ::= { lldpXdot1dcbxConfigETSConfigurationTable 1 }

LldpXdot1dcbxConfigETSConfigurationEntry ::= SEQUENCE {
    lldpXdot1dcbxConfigETSConfigurationTxEnable TruthValue
}

lldpXdot1dcbxConfigETSConfigurationTxEnable OBJECT-TYPE
```

```
    SYNTAX        TruthValue
    MAX-ACCESS    read-write
    STATUS        current
    DESCRIPTION
        "The lldpXdot1dcbxConfigETSConfigurationTxEnable, which is
        defined as a truth value and configured by the network
        management, determines whether the IEEE 802.1 organizationally
        defined ETS Configuration TLV transmission is allowed on a
        given LLDP transmission capable port.

        The value of this object is restored from non-volatile
        storage after a re-initialization of the management system."
    REFERENCE
        "D.2.9"
    DEFVAL         { false }
    ::= { lldpXdot1dcbxConfigETSConfigurationEntry 1 }

--
--  lldpXdot1dcbxConfigETSRecommendationTable : configure the
--  transmission of the ETS Recommendation TLV on a set of ports
--

lldpXdot1dcbxConfigETSRecommendationTable OBJECT-TYPE
    SYNTAX        SEQUENCE OF LldpXdot1dcbxConfigETSRecommendationEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "A table that controls selection of ETS Recommendation
        TLVs to be transmitted on individual ports."
    ::= { lldpXdot1dcbxConfig 2 }

lldpXdot1dcbxConfigETSRecommendationEntry OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxConfigETSRecommendationEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "LLDP configuration information that controls the
        transmission of IEEE 802.1 organizationally defined
        ETS Recommendation TLV on LLDP transmission capable ports.

        This configuration object augments the lldpV2PortConfigEntry of
        the LLDP-MIB, therefore it is only present along with the port
        configuration defined by the associated lldpV2PortConfigEntry
        entry.

        Each active lldpConfigEntry is restored from non-volatile
        storage (along with the corresponding lldpV2PortConfigEntry)
        after a re-initialization of the management system."
    AUGMENTS     { lldpV2PortConfigEntry }
    ::= { lldpXdot1dcbxConfigETSRecommendationTable 1 }

LldpXdot1dcbxConfigETSRecommendationEntry ::= SEQUENCE {
    lldpXdot1dcbxConfigETSRecommendationTxEnable TruthValue
}

lldpXdot1dcbxConfigETSRecommendationTxEnable OBJECT-TYPE
    SYNTAX        TruthValue
    MAX-ACCESS    read-write
    STATUS        current
```

```
    DESCRIPTION
        "The lldpXdot1dcbxConfigETSRecommendationTxEnable, which is
        defined as a truth value and configured by the network
        management, determines whether the IEEE 802.1 organizationally
        defined ETS Recommendation TLV transmission is allowed on a
        given LLDP transmission capable port.

        The value of this object is restored from non-volatile
        storage after a re-initialization of the management system."
    REFERENCE
        "D.2.10"
    DEFVAL         { false }
    ::= { lldpXdot1dcbxConfigETSRecommendationEntry 1 }
--
--  lldpXdot1dcbxConfigPFCTable : configure the transmission of the
--  Priority-based Flow Control Configuration TLV on a set of ports
--

lldpXdot1dcbxConfigPFCTable OBJECT-TYPE
    SYNTAX        SEQUENCE OF LldpXdot1dcbxConfigPFCEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "A table that controls selection of Priority-based
        Flow Control Configuration TLVs to be transmitted on individual ports."
    ::= { lldpXdot1dcbxConfig 3 }

lldpXdot1dcbxConfigPFCEntry OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxConfigPFCEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "LLDP configuration information that controls the
        transmission of IEEE 802.1 organizationally defined
        Priority-based Flow Control Configuration TLV on LLDP transmission
        capable ports.

        This configuration object augments the lldpV2PortConfigEntry of
        the LLDP-MIB, therefore it is only present along with the port
        configuration defined by the associated lldpV2PortConfigEntry
        entry.

        Each active lldpConfigEntry is restored from non-volatile
        storage (along with the corresponding lldpV2PortConfigEntry)
        after a re-initialization of the management system."
    AUGMENTS     { lldpV2PortConfigEntry }
    ::= { lldpXdot1dcbxConfigPFCTable 1 }

LldpXdot1dcbxConfigPFCEntry ::= SEQUENCE {
    lldpXdot1dcbxConfigPFCTxEnable TruthValue
}

lldpXdot1dcbxConfigPFCTxEnable OBJECT-TYPE
    SYNTAX        TruthValue
    MAX-ACCESS    read-write
    STATUS        current
    DESCRIPTION
        "The lldpXdot1dcbxConfigPFCTxEnable, which is defined
        as a truth value and configured by the network management,
```

```
        determines whether the IEEE 802.1 organizationally defined
        Priority-based Flow Control Configuration TLV transmission is allowed on
        a given LLDP transmission capable port.

        The value of this object is restored from non-volatile
        storage after a re-initialization of the management system."
    REFERENCE
        "D.2.11"
    DEFVAL          { false }
    ::= { lldpXdot1dcbxConfigPFCEntry 1 }

--
--  lldpXdot1dcbxConfigApplicationPriorityTable : configure the
--  transmission of the Application Priority TLV on a set of ports
--

lldpXdot1dcbxConfigApplicationPriorityTable OBJECT-TYPE
    SYNTAX        SEQUENCE OF
        LldpXdot1dcbxConfigApplicationPriorityEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "A table that controls selection of Priority-based
        Flow Control Configuration TLVs to be transmitted on individual ports."
    ::= { lldpXdot1dcbxConfig 4 }

lldpXdot1dcbxConfigApplicationPriorityEntry OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxConfigApplicationPriorityEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "LLDP configuration information that controls the
        transmission of IEEE 802.1 organizationally defined
        Application Priority TLV on LLDP transmission capable ports.

        This configuration object augments the lldpV2PortConfigEntry of
        the LLDP-MIB, therefore it is only present along with the port
        configuration defined by the associated lldpV2PortConfigEntry
        entry.

        Each active lldpConfigEntry is restored from non-volatile
        storage (along with the corresponding lldpV2PortConfigEntry)
        after a re-initialization of the management system."
    AUGMENTS      { lldpV2PortConfigEntry }
    ::= { lldpXdot1dcbxConfigApplicationPriorityTable 1 }

LldpXdot1dcbxConfigApplicationPriorityEntry ::= SEQUENCE {
    lldpXdot1dcbxConfigApplicationPriorityTxEnable TruthValue
}

lldpXdot1dcbxConfigApplicationPriorityTxEnable OBJECT-TYPE
    SYNTAX        TruthValue
    MAX-ACCESS    read-write
    STATUS        current
    DESCRIPTION
        "The lldpXdot1dcbxConfigApplicationPriorityTxEnable, which
        is defined as a truth value and configured by the network
        management, determines whether the IEEE 802.1 organizationally
        defined Application Priority TLV transmission is allowed on
```

```
        a given LLDP transmission capable port.

        The value of this object is restored from non-volatile
        storage after a re-initialization of the management system."
    REFERENCE
        "D.2.12"
    DEFVAL          { false }
    ::= { lldpXdot1dcbxConfigApplicationPriorityEntry 1 }

--
--  lldpXdot1dcbxConfigApplicationVlanTable : configure the
--  transmission of the Application VLAN TLV on a set of ports
--

lldpXdot1dcbxConfigApplicationVlanTable OBJECT-TYPE
    SYNTAX        SEQUENCE OF
        LldpXdot1dcbxConfigApplicationVlanEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "A table that controls selection of Application VLAN
        TLVs to be transmitted on individual ports."
    ::= { lldpXdot1dcbxConfig 5 }

lldpXdot1dcbxConfigApplicationVlanEntry OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxConfigApplicationVlanEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "LLDP configuration information that controls the
        transmission of IEEE 802.1 organizationally defined
        Application VLAN TLV on LLDP transmission capable ports.

        This configuration object augments the lldpV2PortConfigEntry of
        the LLDP-MIB, therefore it is only present along with the port
        configuration defined by the associated lldpV2PortConfigEntry
        entry.

        Each active lldpConfigEntry is restored from non-volatile
        storage (along with the corresponding lldpV2PortConfigEntry)
        after a re-initialization of the management system."
    AUGMENTS      { lldpV2PortConfigEntry }
    ::= { lldpXdot1dcbxConfigApplicationVlanTable 1 }

LldpXdot1dcbxConfigApplicationVlanEntry ::= SEQUENCE {
    lldpXdot1dcbxConfigApplicationVlanTxEnable TruthValue
}

lldpXdot1dcbxConfigApplicationVlanTxEnable OBJECT-TYPE
    SYNTAX        TruthValue
    MAX-ACCESS    read-write
    STATUS        current
    DESCRIPTION
        "The lldpXdot1dcbxConfigApplicationVlanTxEnable, which
        is defined as a truth value and configured by the network
        management, determines whether the IEEE 802.1 organizationally
        defined Application VLAN TLV transmission is allowed on
        a given LLDP transmission capable port.
```

```
        The value of this object is restored from non-volatile
        storage after a re-initialization of the management system."
    REFERENCE
        "D.2.15"
    DEFVAL          { false }
    ::= { lldpXdot1dcbxConfigApplicationVlanEntry 1 }

-- ------------------------------------------------------------------------
-- IEEE 802.1 - DCBX Local System Information
-- ------------------------------------------------------------------------

--
-- lldpXdot1dcbxLocETSConfigurationTable - Contains the information
-- for the ETS Configuration TLV.
--
lldpXdot1dcbxLocETSConfiguration OBJECT IDENTIFIER
    ::= { lldpXdot1dcbxLocalData 1 }

lldpXdot1dcbxLocETSBasicConfigurationTable OBJECT-TYPE
    SYNTAX        SEQUENCE OF LldpXdot1dcbxLocETSBasicConfigurationEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "This table contains one row per port for the IEEE 802.1
        organizationally defined LLDP ETS Configuration TLV on
        the local system known to this agent"
    ::= { lldpXdot1dcbxLocETSConfiguration 1 }

lldpXdot1dcbxLocETSBasicConfigurationEntry OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxLocETSBasicConfigurationEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "Information about the IEEE 802.1 organizational defined
        ETS Configuration TLV LLDP extension."
    INDEX         { lldpV2LocPortIfIndex }
    ::= { lldpXdot1dcbxLocETSBasicConfigurationTable 1 }

LldpXdot1dcbxLocETSBasicConfigurationEntry ::= SEQUENCE {
    lldpXdot1dcbxLocETSConCreditBasedShaperSupport TruthValue,
    lldpXdot1dcbxLocETSConTrafficClassesSupported
        LldpXdot1dcbxSupportedCapacity,
    lldpXdot1dcbxLocETSConWilling    TruthValue
}

lldpXdot1dcbxLocETSConCreditBasedShaperSupport OBJECT-TYPE
    SYNTAX        TruthValue
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION
        "Indicates if the credit-based shaper Traffic Selection
        Algorithm is supported on the local system."
    REFERENCE
        "D.2.9.4"
    ::= { lldpXdot1dcbxLocETSBasicConfigurationEntry 1 }

lldpXdot1dcbxLocETSConTrafficClassesSupported OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxSupportedCapacity
    MAX-ACCESS    read-only
```

```
    STATUS        current
    DESCRIPTION
        "Indicates the number of traffic classes supported."
    REFERENCE
        "D.2.9.5"
    ::= { lldpXdot1dcbxLocETSBasicConfigurationEntry 2 }

lldpXdot1dcbxLocETSConWilling OBJECT-TYPE
    SYNTAX        TruthValue
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION
        "Indicates if the local system is willing to accept the
        ETS configuration recommended by the remote system."
    REFERENCE
        "D.2.9.3"
    ::= { lldpXdot1dcbxLocETSBasicConfigurationEntry 3 }

lldpXdot1dcbxLocETSConPriorityAssignmentTable OBJECT-TYPE
    SYNTAX        SEQUENCE OF
        LldpXdot1dcbxLocETSConPriorityAssignmentEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "This table contains one row per priority. The entry in each
        row indicates the traffic class to which the priority is
        assigned."
    ::= { lldpXdot1dcbxLocETSConfiguration 2 }

lldpXdot1dcbxLocETSConPriorityAssignmentEntry OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxLocETSConPriorityAssignmentEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "Indicates a priority to traffic class assignment."
    INDEX        {
                 lldpV2LocPortIfIndex,
                 lldpXdot1dcbxLocETSConPriority
    }
    ::= { lldpXdot1dcbxLocETSConPriorityAssignmentTable 1 }

LldpXdot1dcbxLocETSConPriorityAssignmentEntry ::= SEQUENCE {
    lldpXdot1dcbxLocETSConPriority      IEEE8021PriorityValue,
    lldpXdot1dcbxLocETSConPriTrafficClass
        LldpXdot1dcbxTrafficClassValue
}

lldpXdot1dcbxLocETSConPriority OBJECT-TYPE
    SYNTAX        IEEE8021PriorityValue
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "Indicates the priority that is assigned to a traffic
        class."
    REFERENCE
        "D.2.9.6"
    ::= { lldpXdot1dcbxLocETSConPriorityAssignmentEntry 1 }

lldpXdot1dcbxLocETSConPriTrafficClass OBJECT-TYPE
```

```
    SYNTAX        LldpXdot1dcbxTrafficClassValue
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION
        "Indicates the traffic class to which this priority is
        to be assigned."
    REFERENCE
        "D.2.9.6"
    ::= { lldpXdot1dcbxLocETSConPriorityAssignmentEntry 2 }

lldpXdot1dcbxLocETSConTrafficClassBandwidthTable OBJECT-TYPE
    SYNTAX        SEQUENCE OF
        LldpXdot1dcbxLocETSConTrafficClassBandwidthEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "This table contains one row per traffic class.  The
        entry in each row indicates the traffic class to
        which the bandwidth is assigned."
    ::= { lldpXdot1dcbxLocETSConfiguration 3 }

lldpXdot1dcbxLocETSConTrafficClassBandwidthEntry OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxLocETSConTrafficClassBandwidthEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "Indicates a traffic class to Bandwidth assignment."
    INDEX        {
                 lldpV2LocPortIfIndex,
                 lldpXdot1dcbxLocETSConTrafficClass
    }
    ::= { lldpXdot1dcbxLocETSConTrafficClassBandwidthTable 1 }

LldpXdot1dcbxLocETSConTrafficClassBandwidthEntry ::= SEQUENCE {
    lldpXdot1dcbxLocETSConTrafficClass
        LldpXdot1dcbxTrafficClassValue,
    lldpXdot1dcbxLocETSConTrafficClassBandwidth
        LldpXdot1dcbxTrafficClassBandwidthValue
}

lldpXdot1dcbxLocETSConTrafficClass OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxTrafficClassValue
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "Indicates the traffic class to
        which this bandwidth applies"
    REFERENCE
        "D.2.9.7"
    ::= { lldpXdot1dcbxLocETSConTrafficClassBandwidthEntry 1 }

lldpXdot1dcbxLocETSConTrafficClassBandwidth OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxTrafficClassBandwidthValue
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION
        "Indicates the bandwidth assigned to this traffic class."
    REFERENCE
        "D.2.9.7"
```

```
    ::= { lldpXdot1dcbxLocETSConTrafficClassBandwidthEntry 2 }


lldpXdot1dcbxLocETSConTrafficSelectionAlgorithmTable OBJECT-TYPE
    SYNTAX        SEQUENCE OF
        LldpXdot1dcbxLocETSConTrafficSelectionAlgorithmEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "This table contains one row per traffic class.  The entry
        in each row indicates the traffic selction algorithm to be
        used by the traffic class."
    ::= { lldpXdot1dcbxLocETSConfiguration 4 }

lldpXdot1dcbxLocETSConTrafficSelectionAlgorithmEntry OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxLocETSConTrafficSelectionAlgorithmEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "Indicates a traffic class to traffic selection algorithm
         assignment."
    INDEX        {
                 lldpV2LocPortIfIndex,
                 lldpXdot1dcbxLocETSConTSATrafficClass
    }
    ::= { lldpXdot1dcbxLocETSConTrafficSelectionAlgorithmTable 1 }

LldpXdot1dcbxLocETSConTrafficSelectionAlgorithmEntry ::= SEQUENCE {
    lldpXdot1dcbxLocETSConTSATrafficClass
        LldpXdot1dcbxTrafficClassValue,
    lldpXdot1dcbxLocETSConTrafficSelectionAlgorithm
        LldpXdot1dcbxTrafficSelectionAlgorithm
}

lldpXdot1dcbxLocETSConTSATrafficClass OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxTrafficClassValue
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "Indicates the traffic class that is assigned to a traffic
        selection algorithm."
    REFERENCE
        "D.2.9.8"
    ::= { lldpXdot1dcbxLocETSConTrafficSelectionAlgorithmEntry 1 }

lldpXdot1dcbxLocETSConTrafficSelectionAlgorithm OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxTrafficSelectionAlgorithm
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION
        "Indicates the Traffic Selection Algorithm to which this
        traffic class is to be assigned."
    REFERENCE
        "D.2.9.8"
    ::= { lldpXdot1dcbxLocETSConTrafficSelectionAlgorithmEntry 2 }

--
-- lldpXdot1dcbxLocETSRecommendationTable - Contains the information for
-- the ETS Recommendation TLV.
```

```
--
lldpXdot1dcbxLocETSReco OBJECT IDENTIFIER ::=
  { lldpXdot1dcbxLocalData 2 }

lldpXdot1dcbxLocETSRecoTrafficClassBandwidthTable OBJECT-TYPE
    SYNTAX        SEQUENCE OF
        LldpXdot1dcbxLocETSRecoTrafficClassBandwidthEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "This table contains one row per traffic class.  The
        entry in each row indicates the traffic class to
        which the bandwidth is assigned."
    ::= { lldpXdot1dcbxLocETSReco 1 }

lldpXdot1dcbxLocETSRecoTrafficClassBandwidthEntry OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxLocETSRecoTrafficClassBandwidthEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "Indicates a traffic class to Bandwidth assignment."
    INDEX        {
                 lldpV2LocPortIfIndex,
                 lldpXdot1dcbxLocETSRecoTrafficClass
    }
    ::= { lldpXdot1dcbxLocETSRecoTrafficClassBandwidthTable 1 }

LldpXdot1dcbxLocETSRecoTrafficClassBandwidthEntry ::= SEQUENCE {
    lldpXdot1dcbxLocETSRecoTrafficClass
        LldpXdot1dcbxTrafficClassValue,
    lldpXdot1dcbxLocETSRecoTrafficClassBandwidth
        LldpXdot1dcbxTrafficClassBandwidthValue
}

lldpXdot1dcbxLocETSRecoTrafficClass OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxTrafficClassValue
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "Indicates the traffic class to
        which this bandwidth applies"
    REFERENCE
        "D.2.10.3"
    ::= { lldpXdot1dcbxLocETSRecoTrafficClassBandwidthEntry 1 }

lldpXdot1dcbxLocETSRecoTrafficClassBandwidth OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxTrafficClassBandwidthValue
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION
        "Indicates the bandwidth assigned to this traffic class."
    REFERENCE
        "D.2.10.4"
    ::= { lldpXdot1dcbxLocETSRecoTrafficClassBandwidthEntry 2 }

lldpXdot1dcbxLocETSRecoTrafficSelectionAlgorithmTable OBJECT-TYPE
    SYNTAX        SEQUENCE OF
        LldpXdot1dcbxLocETSRecoTrafficSelectionAlgorithmEntry
    MAX-ACCESS    not-accessible
```

```
    STATUS        current
    DESCRIPTION
        "This table contains one row per priority.  The entry in each
        row indicates the traffic selction algorithm to be used
        by the traffic class."
    ::= { lldpXdot1dcbxLocETSReco 2 }

lldpXdot1dcbxLocETSRecoTrafficSelectionAlgorithmEntry OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxLocETSRecoTrafficSelectionAlgorithmEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "Indicates a priority to traffic selection algorithm
         assignment."
    INDEX        {
                 lldpV2LocPortIfIndex,
                 lldpXdot1dcbxLocETSRecoTSATrafficClass
    }
    ::= { lldpXdot1dcbxLocETSRecoTrafficSelectionAlgorithmTable 1 }

LldpXdot1dcbxLocETSRecoTrafficSelectionAlgorithmEntry ::= SEQUENCE {
    lldpXdot1dcbxLocETSRecoTSATrafficClass
        LldpXdot1dcbxTrafficClassValue,
    lldpXdot1dcbxLocETSRecoTrafficSelectionAlgorithm
        LldpXdot1dcbxTrafficSelectionAlgorithm
}

lldpXdot1dcbxLocETSRecoTSATrafficClass OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxTrafficClassValue
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "Indicates the traffic class that is assigned to a traffic
        selection algorithm."
    REFERENCE
        "D.2.10.5"
    ::= { lldpXdot1dcbxLocETSRecoTrafficSelectionAlgorithmEntry 1 }

lldpXdot1dcbxLocETSRecoTrafficSelectionAlgorithm OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxTrafficSelectionAlgorithm
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION
        "Indicates the Traffic Selection Algorithm to which this
        traffic class is to be assigned."
    REFERENCE
        "D.2.10.5"
    ::= { lldpXdot1dcbxLocETSRecoTrafficSelectionAlgorithmEntry 2 }

--
-- lldpXdot1dcbxLocPFCTable - Contains the information for the PFC
-- Configuration TLV.
--
lldpXdot1dcbxLocPFC OBJECT IDENTIFIER ::= { lldpXdot1dcbxLocalData 3 }

lldpXdot1dcbxLocPFCBasicTable OBJECT-TYPE
    SYNTAX        SEQUENCE OF LldpXdot1dcbxLocPFCBasicEntry
    MAX-ACCESS    not-accessible
    STATUS        current
```

```
    DESCRIPTION
        "This table contains one row per port for the IEEE 802.1
        organizationally defined LLDP PFC TLV on the local
        system known to this agent"
    ::= { lldpXdot1dcbxLocPFC 1 }

lldpXdot1dcbxLocPFCBasicEntry OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxLocPFCBasicEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "Information about the IEEE 802.1 organizational defined
        PFC TLV LLDP extension."
    INDEX         { lldpV2LocPortIfIndex }
    ::= { lldpXdot1dcbxLocPFCBasicTable 1 }

LldpXdot1dcbxLocPFCBasicEntry ::= SEQUENCE {
    lldpXdot1dcbxLocPFCWilling    TruthValue,
    lldpXdot1dcbxLocPFCMBC           TruthValue,
    lldpXdot1dcbxLocPFCCap        LldpXdot1dcbxSupportedCapacity
}

lldpXdot1dcbxLocPFCWilling OBJECT-TYPE
    SYNTAX        TruthValue
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION
        "Indicates if the local system is willing to accept the
        PFC configuration of the remote system."
    REFERENCE
        "D.2.11.3"
    ::= { lldpXdot1dcbxLocPFCBasicEntry 1}

lldpXdot1dcbxLocPFCMBC OBJECT-TYPE
    SYNTAX        TruthValue
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION
        "Indicates if the local system is capable of bypassing
        MACsec processing when MACsec is disabled."
    REFERENCE
        "D.2.11.4"
    ::= { lldpXdot1dcbxLocPFCBasicEntry 2}

lldpXdot1dcbxLocPFCCap OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxSupportedCapacity
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION
        "Indicates the number of traffic classes on the local device
        that may simultaneously have PFC enabled."
    REFERENCE
        "D.2.11.5"
    ::= { lldpXdot1dcbxLocPFCBasicEntry 3}

lldpXdot1dcbxLocPFCEnableTable OBJECT-TYPE
    SYNTAX        SEQUENCE OF LldpXdot1dcbxLocPFCEnableEntry
    MAX-ACCESS    not-accessible
    STATUS        current
```

```
    DESCRIPTION
        "This table contains eight entries, one entry per priority,
        indicating if PFC is enabled on the corresponding priority."
    ::= { lldpXdot1dcbxLocPFC 2 }

lldpXdot1dcbxLocPFCEnableEntry OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxLocPFCEnableEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "Each entry indicates if PFC is enabled on the
        correponding priority"
    INDEX {
        lldpV2LocPortIfIndex,
        lldpXdot1dcbxLocPFCEnablePriority
    }
    ::= { lldpXdot1dcbxLocPFCEnableTable 1 }

LldpXdot1dcbxLocPFCEnableEntry ::= SEQUENCE {
    lldpXdot1dcbxLocPFCEnablePriority   IEEE8021PriorityValue,
    lldpXdot1dcbxLocPFCEnableEnabled    TruthValue
}

lldpXdot1dcbxLocPFCEnablePriority OBJECT-TYPE
    SYNTAX        IEEE8021PriorityValue
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "Prioity for which PFC is enabled / disabled"
    ::= { lldpXdot1dcbxLocPFCEnableEntry 1 }

lldpXdot1dcbxLocPFCEnableEnabled OBJECT-TYPE
    SYNTAX        TruthValue
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION
        "Indicates if PFC is enabled on the corresponding priority"
    REFERENCE
        "D.2.11.6"
    ::= { lldpXdot1dcbxLocPFCEnableEntry 2 }
--
-- lldpXdot1dcbxLocApplicationPriorityTable - Contains the information
-- for the Application Priority TLV.
--

lldpXdot1dcbxLocApplicationPriorityAppTable OBJECT-TYPE
    SYNTAX        SEQUENCE OF
        LldpXdot1dcbxLocApplicationPriorityAppEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "Table containing entries indicating the priorty to be used
        for a given application"
    ::= { lldpXdot1dcbxLocalData 4 }

lldpXdot1dcbxLocApplicationPriorityAppEntry OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxLocApplicationPriorityAppEntry
    MAX-ACCESS    not-accessible
    STATUS        current
```

```
    DESCRIPTION
        "Entry that indicates the priority to be used for a
        given application."
    INDEX         {
                  lldpV2LocPortIfIndex,
                  lldpXdot1dcbxLocApplicationPriorityAESelector,
                  lldpXdot1dcbxLocApplicationPriorityAEProtocol
    }
    ::= { lldpXdot1dcbxLocApplicationPriorityAppTable 1 }

LldpXdot1dcbxLocApplicationPriorityAppEntry ::= SEQUENCE {
    lldpXdot1dcbxLocApplicationPriorityAESelector
        LldpXdot1dcbxAppSelector,
    lldpXdot1dcbxLocApplicationPriorityAEProtocol
        LldpXdot1dcbxAppProtocol,
    lldpXdot1dcbxLocApplicationPriorityAEPriority
        IEEE8021PriorityValue
}

lldpXdot1dcbxLocApplicationPriorityAESelector OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxAppSelector
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "Indicates the contents of the protocol object
        (lldpXdot1dcbxLocApplicationPriorityAEProtocol)
        1: Ethertype
        2: Well Known Port number over TCP, or SCTP
        3: Well Known Port number over UDP or DCCP
        4: Well Known Port number over TCP, SCTP, UDP, and DCCP
        5: Differentiated Services Code Point (DSCP) value. The
           6 bit DSCP value is stored in the low order 6 bits of the
           protocol object. The higher order bits are set to zero.
           (See IETF RFC 2474 for the definition of the DSCP value.)"
    REFERENCE
        "D.2.12.3"
    ::= { lldpXdot1dcbxLocApplicationPriorityAppEntry 1 }

lldpXdot1dcbxLocApplicationPriorityAEProtocol OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxAppProtocol
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "The protocol indicator of the type indicated by
        lldpXdot1dcbxLocApplicationPriorityAESelector."
    REFERENCE
        "D.2.12.3"
    ::= { lldpXdot1dcbxLocApplicationPriorityAppEntry 2 }

lldpXdot1dcbxLocApplicationPriorityAEPriority OBJECT-TYPE
    SYNTAX        IEEE8021PriorityValue
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION
        "The priority code point that should be used in
        frames transporting the protocol indicated by
        lldpXdot1dcbxLocApplicationPriorityAESelector and
        lldpXdot1dcbxLocApplicationPriorityAEProtocol"
    REFERENCE
```

```
            "D.2.12.3"
        ::= { lldpXdot1dcbxLocApplicationPriorityAppEntry 3 }

    --
    -- lldpXdot1dcbxLocApplicationVlanAppTable - Contains the information
    -- for the Application VLAN TLV.
    --

    lldpXdot1dcbxLocApplicationVlanAppTable OBJECT-TYPE
        SYNTAX        SEQUENCE OF
            LldpXdot1dcbxLocApplicationVlanAppEntry
        MAX-ACCESS    not-accessible
        STATUS        current
        DESCRIPTION
            "Table containing entries indicating the VLAN to be used
            for a given application"
        ::= { lldpXdot1dcbxLocalData 5 }

    lldpXdot1dcbxLocApplicationVlanAppEntry OBJECT-TYPE
        SYNTAX        LldpXdot1dcbxLocApplicationVlanAppEntry
        MAX-ACCESS    not-accessible
        STATUS        current
        DESCRIPTION
            "Entry that indicates the VLAN to be used for a
            given application."
        INDEX         {
                      lldpV2LocPortIfIndex,
                      lldpXdot1dcbxLocApplicationVlanAESelector,
                      lldpXdot1dcbxLocApplicationVlanAEProtocol
        }
        ::= { lldpXdot1dcbxLocApplicationVlanAppTable 1 }

    LldpXdot1dcbxLocApplicationVlanAppEntry ::= SEQUENCE {
        lldpXdot1dcbxLocApplicationVlanAESelector
            LldpXdot1dcbxAppSelector,
        lldpXdot1dcbxLocApplicationVlanAEProtocol
            LldpXdot1dcbxAppProtocol,
        lldpXdot1dcbxLocApplicationVlanAEVlanId
            VlanId
    }

    lldpXdot1dcbxLocApplicationVlanAESelector OBJECT-TYPE
        SYNTAX        LldpXdot1dcbxAppSelector
        MAX-ACCESS    not-accessible
        STATUS        current
        DESCRIPTION
            "Indicates the contents of the protocol object
            (lldpXdot1dcbxLocApplicationVlanAEProtocol)
            1: Ethertype
            2: Well Known Port number over TCP, or SCTP
            3: Well Known Port number over UDP, or DCCP
            4: Well Known Port number over TCP, SCTP, UDP, and DCCP
            5: Differentiated Services Code Point (DSCP) value. The
               6 bit DSCP value is stored in the low order 6 bits of the
               protocol object. The higher order bits are set to zero.
               (See IETF RFC 2474 for the definition of the DSCP value.)"
        REFERENCE
            "D.2.12.3"
        ::= { lldpXdot1dcbxLocApplicationVlanAppEntry 1 }
```

```
lldpXdot1dcbxLocApplicationVlanAEProtocol OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxAppProtocol
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "The protocol indicator of the type indicated by
        lldpXdot1dcbxLocApplicationVlanAESelector."
    REFERENCE
        "D.2.12.3"
    ::= { lldpXdot1dcbxLocApplicationVlanAppEntry 2 }

lldpXdot1dcbxLocApplicationVlanAEVlanId OBJECT-TYPE
    SYNTAX        VlanId
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION
        "The VLAN Identifier that should be used in
        frames transporting the protocol indicated by
        lldpXdot1dcbxLocApplicationVlanAESelector and
        lldpXdot1dcbxLocApplicationVlanAEProtocol"
    REFERENCE
        "D.2.15.3"
    ::= { lldpXdot1dcbxLocApplicationVlanAppEntry 3 }


-- ----------------------------------------------------------------------
-- IEEE 802.1 - DCBX Remote System Information
-- ----------------------------------------------------------------------

--
-- lldpXdot1dcbxRemETSConfigurationTable - Contains the information
-- for the remote system ETS Configuration TLV.
--
lldpXdot1dcbxRemETSConfiguration OBJECT IDENTIFIER
    ::= { lldpXdot1dcbxRemoteData 1 }

lldpXdot1dcbxRemETSBasicConfigurationTable OBJECT-TYPE
    SYNTAX        SEQUENCE OF LldpXdot1dcbxRemETSBasicConfigurationEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "This table contains one row per port for the IEEE 802.1
        organizationally defined LLDP ETS Configuration TLV on
        the local system known to this agent"
    ::= { lldpXdot1dcbxRemETSConfiguration 1 }

lldpXdot1dcbxRemETSBasicConfigurationEntry OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxRemETSBasicConfigurationEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "Information about the IEEE 802.1 organizational defined
        ETS Configuration TLV LLDP extension."
    INDEX         {
                  lldpV2RemTimeMark,
                  lldpV2RemLocalIfIndex,
                  lldpV2RemLocalDestMACAddress,
                  lldpV2RemIndex
```

```
    }
    ::= { lldpXdot1dcbxRemETSBasicConfigurationTable 1 }

LldpXdot1dcbxRemETSBasicConfigurationEntry ::= SEQUENCE {
    lldpXdot1dcbxRemETSConCreditBasedShaperSupport     TruthValue,
    lldpXdot1dcbxRemETSConTrafficClassesSupported
        LldpXdot1dcbxSupportedCapacity,
    lldpXdot1dcbxRemETSConWilling    TruthValue
}

lldpXdot1dcbxRemETSConCreditBasedShaperSupport OBJECT-TYPE
    SYNTAX        TruthValue
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION
        "Indicates if the credit-based shaper Traffic Selection
        algorithm is supported on the remote system."
    REFERENCE
        "D.2.9.4"
    ::= { lldpXdot1dcbxRemETSBasicConfigurationEntry 1 }

lldpXdot1dcbxRemETSConTrafficClassesSupported OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxSupportedCapacity
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION
        "Indicates the number of traffic classes supported."
    REFERENCE
        "D.2.9.5"
    ::= { lldpXdot1dcbxRemETSBasicConfigurationEntry 2 }

lldpXdot1dcbxRemETSConWilling OBJECT-TYPE
    SYNTAX        TruthValue
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION
        "Indicates if the remote system is willing to accept the
        ETS configuration recommended by the remote system."
    REFERENCE
        "D.2.9.3"
    ::= { lldpXdot1dcbxRemETSBasicConfigurationEntry 3 }

lldpXdot1dcbxRemETSConPriorityAssignmentTable OBJECT-TYPE
    SYNTAX        SEQUENCE OF
        LldpXdot1dcbxRemETSConPriorityAssignmentEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "This table contains one row per priority.  The entry in
        each row indicates the traffic class to which the
        priority is assigned."
    ::= { lldpXdot1dcbxRemETSConfiguration 2 }

lldpXdot1dcbxRemETSConPriorityAssignmentEntry OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxRemETSConPriorityAssignmentEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "Indicates a priority to traffic class assignment."
```

```
    INDEX        {
                 lldpV2RemTimeMark,
                 lldpV2RemLocalIfIndex,
                 lldpV2RemLocalDestMACAddress,
                 lldpV2RemIndex,
                 lldpXdot1dcbxRemETSConPriority
    }
    ::= { lldpXdot1dcbxRemETSConPriorityAssignmentTable 1 }

LldpXdot1dcbxRemETSConPriorityAssignmentEntry ::= SEQUENCE {
    lldpXdot1dcbxRemETSConPriority      IEEE8021PriorityValue,
    lldpXdot1dcbxRemETSConPriTrafficClass
        LldpXdot1dcbxTrafficClassValue
}

lldpXdot1dcbxRemETSConPriority OBJECT-TYPE
    SYNTAX        IEEE8021PriorityValue
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "Indicates the priority that is assigned to a traffic
        class."
    REFERENCE
        "D.2.9.6"
    ::= { lldpXdot1dcbxRemETSConPriorityAssignmentEntry 1 }

lldpXdot1dcbxRemETSConPriTrafficClass OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxTrafficClassValue
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION
        "Indicates the traffic class to which this priority is
        to be assigned."
    REFERENCE
        "D.2.9.6"
    ::= { lldpXdot1dcbxRemETSConPriorityAssignmentEntry 2 }

lldpXdot1dcbxRemETSConTrafficClassBandwidthTable OBJECT-TYPE
    SYNTAX        SEQUENCE OF
        LldpXdot1dcbxRemETSConTrafficClassBandwidthEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "This table contains one row per traffic class.  The
        entry in each row indicates the traffic class to
        which the bandwidth is assigned."
    ::= { lldpXdot1dcbxRemETSConfiguration 3 }

lldpXdot1dcbxRemETSConTrafficClassBandwidthEntry OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxRemETSConTrafficClassBandwidthEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "Indicates a traffic class to Bandwidth assignment."
    INDEX        {
                 lldpV2RemTimeMark,
                 lldpV2RemLocalIfIndex,
                 lldpV2RemLocalDestMACAddress,
                 lldpV2RemIndex,
```

```
                lldpXdot1dcbxRemETSConTrafficClass
    }
    ::= { lldpXdot1dcbxRemETSConTrafficClassBandwidthTable 1 }

LldpXdot1dcbxRemETSConTrafficClassBandwidthEntry ::= SEQUENCE {
    lldpXdot1dcbxRemETSConTrafficClass
        LldpXdot1dcbxTrafficClassValue,
    lldpXdot1dcbxRemETSConTrafficClassBandwidth
        LldpXdot1dcbxTrafficClassBandwidthValue
}

lldpXdot1dcbxRemETSConTrafficClass OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxTrafficClassValue
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "Indicates the traffic class to
        which this bandwidth applies"
    REFERENCE
        "D.2.9.7"
    ::= { lldpXdot1dcbxRemETSConTrafficClassBandwidthEntry 1 }

lldpXdot1dcbxRemETSConTrafficClassBandwidth OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxTrafficClassBandwidthValue
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION
        "Indicates the bandwidth assigned to this traffic class."
    REFERENCE
        "D.2.9.7"
    ::= { lldpXdot1dcbxRemETSConTrafficClassBandwidthEntry 2 }


lldpXdot1dcbxRemETSConTrafficSelectionAlgorithmTable OBJECT-TYPE
    SYNTAX        SEQUENCE OF
        LldpXdot1dcbxRemETSConTrafficSelectionAlgorithmEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "This table contains one row per traffic class.  The
        entry in each row indicates the traffic selction
        algorithm to be used by the traffic class."
    ::= { lldpXdot1dcbxRemETSConfiguration 4 }

lldpXdot1dcbxRemETSConTrafficSelectionAlgorithmEntry OBJECT-TYPE
    SYNTAX        LldpXdot1dcbxRemETSConTrafficSelectionAlgorithmEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "Indicates a traffic class to traffic selection
        algorithm assignment."
    INDEX       {
                lldpV2RemTimeMark,
                lldpV2RemLocalIfIndex,
                lldpV2RemLocalDestMACAddress,
                lldpV2RemIndex,
                lldpXdot1dcbxRemETSConTSATrafficClass
    }
    ::= { lldpXdot1dcbxRemETSConTrafficSelectionAlgorithmTable 1 }
```