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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  
ISO/IEC/IEEE 8802-1Q:2016/Amd.2:2018(E)

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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**

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**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<sup>®</sup>, IEEE 802.1Q<sup>™</sup>, IEEE 802.1Qcd<sup>™</sup>, 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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# IEEE Standard for Local and metropolitan area networks—

## Bridges and Bridged Networks

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

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

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## 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.

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## 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).

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## 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<sup>2</sup>****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<sup>3</sup>****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.

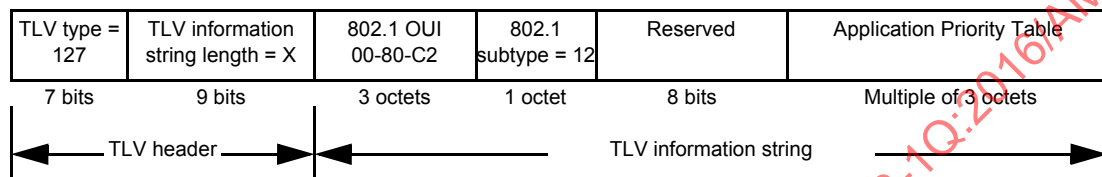


Figure D-12—Application Priority TLV format

#### 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 <u>application</u> priority. For use when <u>application</u> 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         | <u>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. (See IETF RFC 2474 for the definition of the DSCP value.)</u> |
| 56–7      | 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 subclause 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.

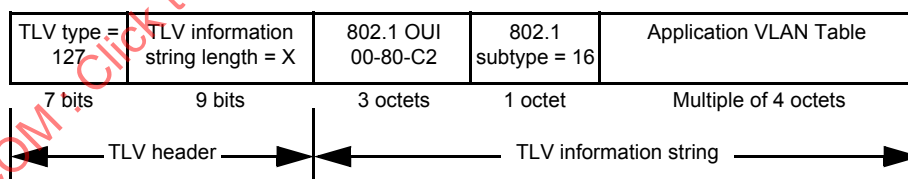


Figure D-15—Application VLAN TLV format

### 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. (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 <input type="checkbox"/>        |
|         | ETS Recommendation TLV                                  | dcbxSet:M        | D.2.10        | Yes <input type="checkbox"/>        |
|         | Priority-based Flow Control Configuration TLV           | dcbxSet:M        | D.2.11        | Yes <input type="checkbox"/>        |
|         | Application Priority TLV                                | dcbxSet:M        | D.2.12        | Yes <input type="checkbox"/>        |
|         | <u>Application VLAN TLV</u>                             | <u>dcbxSet:M</u> | <u>D.2.15</u> | <u>Yes <input type="checkbox"/></u> |

**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    |
|------------------------------------------|---------------|---------------|---------------|
| <u>lldpXdot1dcbxApplicationVlanGroup</u> | <u>DCBX:M</u> | <u>DCBX:M</u> | <u>DCBX:M</u> |

*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 |
|--------------------------------------------------------|----------------------------------------------|----------------|
| <i>lldpXdot1dcbxConfig extension group<sup>a</sup></i> |                                              |                |
|                                                        | 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          |
| <i>lldpXdot1dcbxLocalData extension group<sup>a</sup></i> |                                                       |                 |
| lldpXdot1dcbxLocETSTBasicConfigurationTable               |                                                       |                 |
|                                                           | lldpXdot1dcbxLocETSTConCreditBasedShaperSupport       | D.2.9.4         |
|                                                           | lldpXdot1dcbxLocETSTConMaxTC                          | D.2.9.5         |
|                                                           | lldpXdot1dcbxLocETSTConWilling                        | D.2.9.3         |
|                                                           | lldpXdot1dcbxLocETSTConTrafficClassBandwidthTable     | D.2.9.7         |
|                                                           | lldpXdot1dcbxLocETSTConTrafficSelectionAlgorithmTable | D.2.9.8         |
| lldpXdot1dcbxLocETSTConPriorityAssignmentTable            |                                                       |                 |
|                                                           | lldpXdot1dcbxLocETSTConPriority                       | D.2.9.6         |
|                                                           | lldpXdot1dcbxLocETSTConTrafficClass                   | D.2.9.6         |
| lldpXdot1dcbxLocETSTRecommendationTable                   |                                                       |                 |
|                                                           | lldpXdot1dcbxLocETSTRecoTrafficClassBandwidthTable    | D.2.10.4        |
| lldpXdot1dcbxLocETSTRecoTrafficSelectionAlgorithmTable    |                                                       |                 |
|                                                           | lldpXdot1dcbxLocETSTRecoTSPriority                    | D.2.10.5        |
|                                                           | lldpXdot1dcbxLocETSTRecoTrafficSelectionAlgorithm     | 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        |
| <u>lldpXdot1dcbxLocApplicationVlanAppTable</u>            |                                                       |                 |
|                                                           | <u>lldpXdot1dcbxLocApplicationVlanAESelector</u>      | <u>D.2.15.3</u> |
|                                                           | <u>lldpXdot1dcbxLocApplicationVlanAEProtocol</u>      | <u>D.2.15.3</u> |

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

| MIB table                                                  | MIB object                                             | LLDP reference  |
|------------------------------------------------------------|--------------------------------------------------------|-----------------|
|                                                            | <u>lldpXdot1dcbxLocApplicationVlanAEVlanId</u>         | <u>D.2.15.3</u> |
| <i>lldpXdot1dcbxRemoteData extension group<sup>a</sup></i> |                                                        |                 |
|                                                            | lldpXdot1dcbxRemETSTBasicConfigurationTable            |                 |
|                                                            | lldpXdot1dcbxRemETSTConCreditBasedShaperSupport        | D.2.9.4         |
|                                                            | lldpXdot1dcbxRemETSTConMaxTC                           | D.2.9.5         |
|                                                            | lldpXdot1dcbxRemETSTConWilling                         | D.2.9.3         |
|                                                            | lldpXdot1dcbxRemETSTConTrafficClassBandwidthTable      | D.2.9.7         |
|                                                            | lldpXdot1dcbxRemETSTConTrafficSelectionAlgorithm-Table | D.2.9.8         |
|                                                            | lldpXdot1dcbxRemETSTConPriorityAssignmentTable         |                 |
|                                                            | lldpXdot1dcbxRemETSTConPriority                        | D.2.9.6         |
|                                                            | lldpXdot1dcbxRemETSTConTrafficClass                    | D.2.9.6         |
|                                                            | lldpXdot1dcbxRemETSTRecommendationTable                |                 |
|                                                            | lldpXdot1dcbxRemETSTRecoTrafficClassBandwidthTable     | D.2.10.4        |
|                                                            | lldpXdot1dcbxRemETSTRecoTrafficSelectionAlgorithmTable |                 |
|                                                            | lldpXdot1dcbxRemETSTRecoTSAPriority                    | D.2.10.5        |
|                                                            | lldpXdot1dcbxRemETSTRecoTrafficSelectionAlgorithm      | 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        |
|                                                            | <u>lldpXdot1dcbxRemApplicationVlanAppTable</u>         |                 |
|                                                            | <u>lldpXdot1dcbxRemApplicationVlanAESelector</u>       | <u>D.2.15.3</u> |
|                                                            | <u>lldpXdot1dcbxRemApplicationVlanAEProtocol</u>       | <u>D.2.15.3</u> |
|                                                            | <u>lldpXdot1dcbxRemApplicationVlanAEVlanId</u>         | <u>D.2.15.3</u> |
| <i>lldpXdot1dcbxAdminData extension group<sup>a</sup></i>  |                                                        |                 |

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

| MIB table                                                | MIB object                                               | LLDP reference |
|----------------------------------------------------------|----------------------------------------------------------|----------------|
| lldpXdot1dcbxAdminETSTBasicConfigurationTable            |                                                          |                |
|                                                          | lldpXdot1dcbxAdminETSTConCreditBasedShaperSupport        | D.2.9.4        |
|                                                          | lldpXdot1dcbxAdminETSTConMaxTC                           | D.2.9.5        |
|                                                          | lldpXdot1dcbxAdminETSTConWilling                         | D.2.9.3        |
|                                                          | lldpXdot1dcbxAdminETSTConTrafficClassBandwidthTable      | D.2.9.7        |
|                                                          | lldpXdot1dcbxAdminETSTConTrafficSelectionAlgorithm-Table | D.2.9.8        |
| lldpXdot1dcbxAdminETSTConPriorityAssignmentTable         |                                                          |                |
|                                                          | lldpXdot1dcbxAdminETSTConPriority                        | D.2.9.6        |
|                                                          | lldpXdot1dcbxAdminETSTConTrafficClass                    | D.2.9.6        |
| lldpXdot1dcbxAdminETSTRecommendationTable                |                                                          |                |
|                                                          | lldpXdot1dcbxAdminETSTRecoTrafficClassBandwidth-Table    | D.2.10.4       |
| lldpXdot1dcbxAdminETSTRecoTrafficSelectionAlgorithmTable |                                                          |                |
|                                                          | lldpXdot1dcbxAdminETSTRecoTSAPriority                    | D.2.10.5       |
|                                                          | lldpXdot1dcbxAdminETSTRecoTrafficSelectionAlgorithm      | 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       |

<sup>a</sup>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

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**D.5.5 IEEE 802.1 LLDP extension MIB module—version 2<sup>4,5</sup>**

*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
```

<sup>4</sup>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.

<sup>5</sup>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 {

```

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```

    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

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```

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 {

```

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```

    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."

## AMENDMENT 23: APPLICATION VLAN TLV

IEEE  
Std 802.1Qcd-2015

## 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 }

```

```

-----
--
-- Organizational 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

-----

```

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

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

LldpXdotldcbxAppSelector ::= 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)
    }

LldpXdotldcbxAppProtocol ::= 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
        LldpXdotldcbxAppSelector"
    SYNTAX      Unsigned32 (0..65535)

LldpXdotldcbxSupportedCapacity ::= 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)

```

LldpXdotldcbxTrafficSelectionAlgorithm ::= 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 future standardization

255: Vendor specific"

SYNTAX INTEGER {

tsaStrictPriority(0),

tsaCreditBasedShaper(1),

tsaEnhancedTransmission(2),

tsaVendorSpecific(255)

}

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

--

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

lldpXdotldcbxConfigETSTransmissionTable OBJECT-TYPE

SYNTAX SEQUENCE OF LldpXdotldcbxConfigETSTransmissionEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A table that controls selection of ETS Configuration

TLVs to be transmitted on individual ports."

::= { lldpXdotldcbxConfig 1 }

lldpXdotldcbxConfigETSTransmissionEntry OBJECT-TYPE

SYNTAX LldpXdotldcbxConfigETSTransmissionEntry

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 }

::= { lldpXdotldcbxConfigETSTransmissionTable 1 }

LldpXdotldcbxConfigETSTransmissionEntry ::= SEQUENCE {

lldpXdotldcbxConfigETSTransmissionTxEnable TruthValue

}

lldpXdotldcbxConfigETSTransmissionTxEnable OBJECT-TYPE

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```

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,

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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 }

::= { lldpXdotldcbxConfigPFCEEntry 1 }

--

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

--

lldpXdotldcbxConfigApplicationPriorityTable OBJECT-TYPE

SYNTAX SEQUENCE OF

LldpXdotldcbxConfigApplicationPriorityEntry

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."

::= { lldpXdotldcbxConfig 4 }

lldpXdotldcbxConfigApplicationPriorityEntry OBJECT-TYPE

SYNTAX LldpXdotldcbxConfigApplicationPriorityEntry

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 }

::= { lldpXdotldcbxConfigApplicationPriorityTable 1 }

LldpXdotldcbxConfigApplicationPriorityEntry ::= SEQUENCE {  
lldpXdotldcbxConfigApplicationPriorityTxEnable TruthValue

lldpXdotldcbxConfigApplicationPriorityTxEnable OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-write

STATUS current

## DESCRIPTION

"The lldpXdotldcbxConfigApplicationPriorityTxEnable, 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.

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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 }

::= { lldpXdotldcbxConfigApplicationVlanEntry 1 }

-----

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-----

--

-- lldpXdotldcbxLocETSConfigurationTable - Contains the information

-- for the ETS Configuration TLV.

--

lldpXdotldcbxLocETSConfiguration OBJECT IDENTIFIER  
::= { lldpXdotldcbxLocalData 1 }

lldpXdotldcbxLocETSBasicConfigurationTable OBJECT-TYPE  
SYNTAX SEQUENCE OF LldpXdotldcbxLocETSBasicConfigurationEntry  
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"  
::= { lldpXdotldcbxLocETSConfiguration 1 }

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

LldpXdotldcbxLocETSBasicConfigurationEntry ::= SEQUENCE {  
lldpXdotldcbxLocETSConCreditBasedShaperSupport TruthValue,  
lldpXdotldcbxLocETSConTrafficClassesSupported  
LldpXdotldcbxSupportedCapacity,  
lldpXdotldcbxLocETSConWilling TruthValue  
}

lldpXdotldcbxLocETSConCreditBasedShaperSupport 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"  
::= { lldpXdotldcbxLocETSBasicConfigurationEntry 1 }

lldpXdotldcbxLocETSConTrafficClassesSupported OBJECT-TYPE  
SYNTAX LldpXdotldcbxSupportedCapacity  
MAX-ACCESS read-only

```

STATUS          current
DESCRIPTION
    "Indicates the number of traffic classes supported."
REFERENCE
    "D.2.9.5"
::= { lldpXdot1dcbxLocETSTBasicConfigurationEntry 2 }

lldpXdot1dcbxLocETSTConWilling 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"
::= { lldpXdot1dcbxLocETSTBasicConfigurationEntry 3 }

lldpXdot1dcbxLocETSTConPriorityAssignmentTable OBJECT-TYPE
SYNTAX          SEQUENCE OF
                LldpXdot1dcbxLocETSTConPriorityAssignmentEntry
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."
::= { lldpXdot1dcbxLocETSTConfiguration 2 }

lldpXdot1dcbxLocETSTConPriorityAssignmentEntry OBJECT-TYPE
SYNTAX          LldpXdot1dcbxLocETSTConPriorityAssignmentEntry
MAX-ACCESS      not-accessible
STATUS          current
DESCRIPTION
    "Indicates a priority to traffic class assignment."
INDEX
    {
        lldpV2LocPortIfIndex,
        lldpXdot1dcbxLocETSTConPriority
    }
::= { lldpXdot1dcbxLocETSTConPriorityAssignmentTable 1 }

LldpXdot1dcbxLocETSTConPriorityAssignmentEntry ::= SEQUENCE {
    lldpXdot1dcbxLocETSTConPriority      IEEE8021PriorityValue,
    lldpXdot1dcbxLocETSTConPriTrafficClass
        LldpXdot1dcbxTrafficClassValue
}

lldpXdot1dcbxLocETSTConPriority 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"
::= { lldpXdot1dcbxLocETSTConPriorityAssignmentEntry 1 }

lldpXdot1dcbxLocETSTConPriTrafficClass OBJECT-TYPE

```

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```

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."
::= { lldpXdot1dcbxLocETSConConfiguration 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"

```

```

 ::= { lldpXdot1dcbxLocETSTrafficClassBandwidthEntry 2 }

lldpXdot1dcbxLocETSTrafficSelectionAlgorithmTable OBJECT-TYPE
    SYNTAX          SEQUENCE OF
                    LldpXdot1dcbxLocETSTrafficSelectionAlgorithmEntry
    MAX-ACCESS      not-accessible
    STATUS          current
    DESCRIPTION
        "This table contains one row per traffic class. The entry
        in each row indicates the traffic selection algorithm to be
        used by the traffic class."
    ::= { lldpXdot1dcbxLocETSConfiguration 4 }

lldpXdot1dcbxLocETSTrafficSelectionAlgorithmEntry OBJECT-TYPE
    SYNTAX          LldpXdot1dcbxLocETSTrafficSelectionAlgorithmEntry
    MAX-ACCESS      not-accessible
    STATUS          current
    DESCRIPTION
        "Indicates a traffic class to traffic selection algorithm
        assignment."
    INDEX
        {
            lldpV2LocPortIfIndex,
            lldpXdot1dcbxLocETSTrafficClass
        }
    ::= { lldpXdot1dcbxLocETSTrafficSelectionAlgorithmTable 1 }

LldpXdot1dcbxLocETSTrafficSelectionAlgorithmEntry ::= SEQUENCE {
    lldpXdot1dcbxLocETSTrafficClass
        LldpXdot1dcbxTrafficClassValue,
    lldpXdot1dcbxLocETSTrafficSelectionAlgorithm
        LldpXdot1dcbxTrafficSelectionAlgorithm
}

lldpXdot1dcbxLocETSTrafficClass 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"
    ::= { lldpXdot1dcbxLocETSTrafficSelectionAlgorithmEntry 1 }

lldpXdot1dcbxLocETSTrafficSelectionAlgorithm 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"
    ::= { lldpXdot1dcbxLocETSTrafficSelectionAlgorithmEntry 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 selection 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 corresponding priority"

## INDEX {

lldpV2LocPortIfIndex,

lldpXdot1dcbxLocPFCEnablePriority

}

::= { lldpXdot1dcbxLocPFCEnableTable 1 }

lldpXdot1dcbxLocPFCEnableEntry ::= SEQUENCE {

lldpXdot1dcbxLocPFCEnablePriority IEEE8021PriorityValue,

lldpXdot1dcbxLocPFCEnableEnabled TruthValue

}

lldpXdot1dcbxLocPFCEnablePriority OBJECT-TYPE

SYNTAX IEEE8021PriorityValue

MAX-ACCESS not-accessible

STATUS current

## DESCRIPTION

"Priority 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 priority 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
        }

```

```

    }
    ::= { lldpXdot1dcbxRemETSTBasicConfigurationTable 1 }

lldpXdot1dcbxRemETSTBasicConfigurationEntry ::= SEQUENCE {
    lldpXdot1dcbxRemETSTConCreditBasedShaperSupport      TruthValue,
    lldpXdot1dcbxRemETSTConTrafficClassesSupported
        lldpXdot1dcbxSupportedCapacity,
    lldpXdot1dcbxRemETSTConWilling      TruthValue
}

lldpXdot1dcbxRemETSTConCreditBasedShaperSupport 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"
    ::= { lldpXdot1dcbxRemETSTBasicConfigurationEntry 1 }

lldpXdot1dcbxRemETSTConTrafficClassesSupported OBJECT-TYPE
    SYNTAX      LldpXdot1dcbxSupportedCapacity
    MAX-ACCESS   read-only
    STATUS       current
    DESCRIPTION
        "Indicates the number of traffic classes supported."
    REFERENCE
        "D.2.9.5"
    ::= { lldpXdot1dcbxRemETSTBasicConfigurationEntry 2 }

lldpXdot1dcbxRemETSTConWilling 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"
    ::= { lldpXdot1dcbxRemETSTBasicConfigurationEntry 3 }

lldpXdot1dcbxRemETSTConPriorityAssignmentTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF
        LldpXdot1dcbxRemETSTConPriorityAssignmentEntry
    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."
    ::= { lldpXdot1dcbxRemETSTConfiguration 2 }

lldpXdot1dcbxRemETSTConPriorityAssignmentEntry OBJECT-TYPE
    SYNTAX      LldpXdot1dcbxRemETSTConPriorityAssignmentEntry
    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,
    }

```

```

        lldpXdot1dcbxRemETSTrafficClass
    }
    ::= { lldpXdot1dcbxRemETSTrafficClassBandwidthTable 1 }

LldpXdot1dcbxRemETSTrafficClassBandwidthEntry ::= SEQUENCE {
    lldpXdot1dcbxRemETSTrafficClass
        LldpXdot1dcbxTrafficClassValue,
    lldpXdot1dcbxRemETSTrafficClassBandwidth
        LldpXdot1dcbxTrafficClassBandwidthValue
}

lldpXdot1dcbxRemETSTrafficClass 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"
    ::= { lldpXdot1dcbxRemETSTrafficClassBandwidthEntry 1 }

lldpXdot1dcbxRemETSTrafficClassBandwidth OBJECT-TYPE
    SYNTAX          LldpXdot1dcbxTrafficClassBandwidthValue
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "Indicates the bandwidth assigned to this traffic class."
    REFERENCE
        "D.2.9.7"
    ::= { lldpXdot1dcbxRemETSTrafficClassBandwidthEntry 2 }

lldpXdot1dcbxRemETSTrafficSelectionAlgorithmTable OBJECT-TYPE
    SYNTAX          SEQUENCE OF
        LldpXdot1dcbxRemETSTrafficSelectionAlgorithmEntry
    MAX-ACCESS      not-accessible
    STATUS          current
    DESCRIPTION
        "This table contains one row per traffic class. The
        entry in each row indicates the traffic selection
        algorithm to be used by the traffic class."
    ::= { lldpXdot1dcbxRemETSTrafficConfiguration 4 }

lldpXdot1dcbxRemETSTrafficSelectionAlgorithmEntry OBJECT-TYPE
    SYNTAX          LldpXdot1dcbxRemETSTrafficSelectionAlgorithmEntry
    MAX-ACCESS      not-accessible
    STATUS          current
    DESCRIPTION
        "Indicates a traffic class to traffic selection
        algorithm assignment."
    INDEX
        {
            lldpV2RemTimeMark,
            lldpV2RemLocalIfIndex,
            lldpV2RemLocalDestMACAddress,
            lldpV2RemIndex,
            lldpXdot1dcbxRemETSTrafficClass
        }
    ::= { lldpXdot1dcbxRemETSTrafficSelectionAlgorithmTable 1 }

```