IEEE 802.3da SPMD TF:
LLDP baseline text proposal

Peter Jones – Cisco

July 2023 – Berlin

What's changed since May 2023- San Antonio?

- Changed to July 2023 – Berlin
- Fixed typos
- Assigned 9 as the PLCA TLV subtype
- Assigned 3 & 14 for aPLCASupported and aDPLCASupported
- Changed bit naming from "PLCA/DPLCA Status" to "PLCA/DPLCA Admin State" for consistency.
- Fix mistake in cross references in aPLCANodeCount and aPLCALocalNodeID
- Fix reserved TLV subtype range definition (from 9-255 to 10-255)
- Removed backup material

clause 30 changes

Modified

oPLCA managed object class (30.16.1)			
aPLCAAdminState	ATTRIBUTE	GET	PLCA capability (optional)
aPLCAStatus	ATTRIBUTE	GET	X
aPLCABurstTimer	ATTRIBUTE	GET-SET	X
aPLCALocalNodeID	ATTRIBUTE	GET-SET	X
aPLCAMaxBurstCount	ATTRIBUTE	GET-SET	X
aPLCANodeCount	ATTRIBUTE	GET-SET	X
aPLCATransmitOpportunityTimer	ATTRIBUTE	GET-SET	X
acPLCAAdminControl	ACTION	GET-SET	X
acPLCAReset	ACTION	GET-SET	X
aDPLCASoftAgingCycles	ATTRIBUTE	GET-SET	X
aDPLCAHardAgingCyclesStatus	ATTRIBUTE	GET-SET	X
aDPLCACoordinatorRoleAllowed	ATTRIBUTE	GET-SET	X
aDPLCAWaitBeaconTimer	ATTRIBUTE	GET-SET	X
aDPLCAAdminState	ATTRIBUTE	GET	X
acDPLCAAdminControl	ACTION		X
aPLCASupported	***ATTRIBUTE***	***GET***	***X***
aDPLCASupported	***ATTRIBUTE***	***GET***	***X***

Table 30–11—PLCA capabilities

30.16.1.1.3 aPLCANodeCount
ATTRIBUTE
APPROPRIATE SYNTAX:
INTEGER
BEHAVIOUR DEFINED AS:
This value is assigned to define the number of nodes getting a transmit opportunity before a new BEACON is generated. Valid range is 0 to 255, inclusive. The default value is 8.; ***This parameter maps to the plca_node_count variable in 148.4.4.2[12].;***

30.16.1.1.4 aPLCALocalNodeID
ATTRIBUTE
APPROPRIATE SYNTAX:
INTEGER
BEHAVIOUR DEFINED AS:
This value is assigned to define the ID of the local node on the PLCA network. The default value is 255. Value range is 0 to 255, inclusive. ***This parameter maps to the local_nodeID variable in 148.4.4.2..;***

Insert after 30.16.1.1.12 aDPLCAWaitBeaconTimer

30.16.1.1.13 aPLCASupported
ATTRIBUTE
APPROPRIATE SYNTAX:
An ENUMERATED VALUE that has the following entries:
TRUE
FALSE
BEHAVIOUR DEFINED AS:
A read-only value that indicates whether PLCA is supported by this station.

[1] Note – all cross references are to 802.3-2022 as amended by 8023da_D0p7.pdf
[2] Added/modified text is marked in ***yellow bold italics***.

30.16.1.1.14 aDPLCASupported
ATTRIBUTE
APPROPRIATE SYNTAX:
An ENUMERATED VALUE that has the following entries:
TRUE
FALSE
BEHAVIOUR DEFINED AS:
A read-only value that indicates whether D-PLCA is supported by this station.

clause 79 changes

Modified, new row inserted after "Power Via MDI Measurements".

Table 79–1—IEEE 802.3 Organizationally Specific TLVs

IEEE 802.3 subtype	TLV name	Subclause reference
1	MAC/PHY Configuration/Status	79.3.1
2	Power Via Medium Dependent Interface (MDI)	79.3.2
3	Link Aggregation (deprecated)	79.3.3
4	Maximum Frame Size	79.3.4
5	Energy-Efficient Ethernet	79.3.5
6	EEE fast wake	79.3.6
7	Additional Ethernet Capabilities	79.3.7
8	Power Via MDI Measurements	79.3.8
9	***PLCA***	***79.3.9***
10-255	***Reserved***	

Added

79.3.9 PLCA TLV

The PLCA TLV is an optional TLV that indicates capabilities and status of Clause 148 PLCA.

Figure 79–10 shows the format of this TLV.

TLV type = 127	TLV information string string length = 9	802.3 OUI 00-12-0F	802.3 subtype = 9	PLCA support/ status	PLCA nodeId
7 bits	9 bits	3 octets	1 octet	2 octets	one octet
TLV Header		TLV information string			

Figure 79–10 PLCA TLV format

79.3. 9.1 PLCA support/status

The PLCA support/status field shall contain a bitmap that identifies the PLCA and DPLCA support and status of the local IEEE 802.3 LAN station as defined in Table 79-21 PLCA TLV Contents.

Table 79-21 PLCA support/status

Field	Length (Octets)	Format	Field definitions	Value/Values	Notes
PLCA support/status	2	Bitmap	Bit 0 – PLCA Supported	1 = supported 0 = not supported	30.16.1.1.x aPLCASupported
			Bit 1 – PLCA Admin state	1 = enabled 0 = not enabled	30.16.1.1.1 aPLCAAdminState
			Bit 2 – D-PLCA Supported	1 = supported 0 = not supported	30.16.1.1.x aDPLCASupported
			Bit 3 – D-PLCA Admin state	1 = enabled 0 = not enabled	30.16.1.1.11 aDPLCAAdminState
			Bits 4-15	Reserved	
PLCA nodeId	1	Unsigned Integer	0-255	0-255	30.16.1.1.4 aPLCALocalNodeID

79.3. 9.2 PLCA nodeId

The PLCA nodeId field contains an integer value indicating the PLCA nodeId of the local IEEE 802.3 LAN.

79.3. 9.3 PLCA TLV usage rules

An LLDPDU should contain no more than one PLCA TLV. Since this TLV is intended to inform a link partner of capabilities, the PLCA TLV should be sent in an LLDPDU addressed to the Nearest Bridge group address (see IEEE Std 802.1Q). If PLCA is not enabled, this field reports 255.