EE P802.3da D0.3 10 Mb/s Single Pair Multidrop Segments Enhancement 1st Task Force review comments

Cl 1  SC 1.4  P 18  L 15  # 1
Jones, Chad
Cisco
Comment Type: E  Comment Status: A  General
"up to 50 m reach". Clearly we have not settled on this length. I know there is a note just
after that says inclusion of reach is TBD. Length should also be TBD.
Suggested Remedy
change "up to 50 m reach" to "up to TBD m reach"
Response  Response Status: C
ACCEPT.

Cl 30  SC 30.2.5  P 20  L  # 10
Beruto, Piergiorgio
Canova Tech S.r.l.
Comment Type: T  Comment Status: A  D-PLCA
Clause 30 Attribute for D-PLCA management "SOFT_AGING_CYCLES" is needed.
Suggested Remedy
Append the following to Table 30-11:
"aDPLCASoftAgingCycles | ATTRIBUTE | GET-SET"
Add new sub-clause of 30.16.1.1 "aDPLCASoftAgingCycles" with content:
ATTRIBUTE
APPROPRIATE SYNTAX:
INTEGER
BEHAVIOUR DEFINED AS:
Controls the aging time in BEACON cycles of D-PLCA SOFT claims as defined by the
SOFT_AGING_CYCLES variable in Clause 148.4.7.2.;
At page 32, in the SOFT_AGING_CYCLES description, substitute "This variable maps on
the TBD attribute in Clause 30.x"
with:
"This variable maps on the aDPLCASoftAgingCycles attribute in Clause [ref to new
subclause in 30.16.1.1]"
Response  Response Status: C
ACCEPT.

Cl 30  SC 30.2.5  P 20  L  # 10
Beruto, Piergiorgio
Canova Tech S.r.l.
Comment Type: T  Comment Status: A  D-PLCA
Clause 30 Attribute for D-PLCA management "HARD_AGING_CYCLES" is needed.
Suggested Remedy
Append the following to Table 30-11:
"aDPLCAHardAgingCycles | ATTRIBUTE | GET-SET"
Add new sub-clause of 30.16.1.1 "aDPLCAHardAgingCycles" with content:
ATTRIBUTE
APPROPRIATE SYNTAX:
INTEGER
BEHAVIOUR DEFINED AS:
Controls the aging time in BEACON cycles of D-PLCA HARD claims as defined by the
HARD_AGING_CYCLES variable in Clause 148.4.7.2.;
At page 32, in the HARD_AGING_CYCLES description, substitute "This variable maps on
the TBD attribute in Clause 30.x"
with:
"This variable maps on the aDPLCAHardAgingCycles attribute in Clause [ref to new
subclause in 30.16.1.1]"
Response  Response Status: C
ACCEPT.
Comment Type: T
Clause 30 Attribute for D-PLCA management "coordinator_role_allowed" is needed.

Suggested Remedy
Append the following to Table 30-11:
"aDPLCACoordinatorRoleAllowed | ATTRIBUTE | GET-SET"

Add new sub-clause of 30.16.1.1 "aDPLCACoordinatorRoleAllowed" with content:
ATTRIBUTE
APPROPRIATE SYNTAX:
An ENUMERATED VALUE that has the following entries:
disabled
enabled
BEHAVIOUR DEFINED AS:
Controls whether the D-PLCA enabled node is allowed to take the coordinator role, mapping to the coordinator_role_allowed variable defined in Clause 148.4.7.2.;

At page 31, in the coordinator_role_allowed description, substitute "This variable maps on the TBD attribute in Clause 30.x" with:
"This variable maps on the aDPLCACoordinatorRoleAllowed attribute in Clause [#ref to new subclause in 30.16.1.1]"

Response:  
Response Status: C
ACCEPT IN PRINCIPLE.

Append the following to Table 30-11:
"aDPLCACoordinatorRoleAllowed | ATTRIBUTE | GET-SET"

Add new sub-clause of 30.16.1.1 "aDPLCACoordinatorRoleAllowed" with content:
ATTRIBUTE
APPROPRIATE SYNTAX:
BOOLEAN
BEHAVIOUR DEFINED AS:
Controls whether the D-PLCA enabled node is allowed to take the coordinator role, mapping to the coordinator_role_allowed variable defined in Clause 148.4.7.2.;

At page 31, in the coordinator_role_allowed description, substitute "This variable maps on the TBD attribute in Clause 30.x" with:
"This variable maps on the aDPLCACoordinatorRoleAllowed attribute in Clause [#ref to new subclause in 30.16.1.1]"

Response:  
Response Status: C
ACCEPT.
Comment Type E  Comment Status A  EZ
We should define what the D-PLCA acronym stands for on its first occurrence

SuggestedRemedy
Replace the first occurrence of "D-PLCA" with "Dynamic PLCA (D-PLCA)"

Response  Response Status C
ACCEPT.

Comment Type E  Comment Status A  D-PLCA
We should specify that when D-PLCA is used, the uniqueness of PLCA node ID is not an issue.

SuggestedRemedy
Change "Proper operation of the Clause 148 functionality assumes that the assigned node ID is unique in the local collision domain."

To:
"When not using D-PLCA, proper operation of the Clause 148 functionality assumes that the assigned node ID is unique in the local collision domain."

Response  Response Status C
ACCEPT.

Comment Type E  Comment Status A  D-PLCA
"Node ID may be allocated by optional D-PLCA control state diagram in 148.4.7.6." missing a 'the' in the sentence but need to reform the sentence to keep it unambiguous.

SuggestedRemedy
change "Node ID may be allocated by optional D-PLCA control state diagram in 148.4.7.6," to "Node ID may be optionally allocated by the D-PLCA control state diagram in 148.4.7.6."

Response  Response Status C
ACCEPT IN PRINCIPLE.
(commenter's suggested remedy altered to also allow the editorial fixing of the line numbers noted in comment)

Fix Frame source to get line numbers on pages 26-38 (Clause 148)

change "Node ID may be allocated by optional D-PLCA control state diagram in 148.4.7.6," to "Node ID may be optionally allocated by the D-PLCA control state diagram in 148.4.7.6."

Comment Type E  Comment Status A  D-PLCA
"Notifies the D-PLCA state diagrams that the transmit opportunity indicated by the dplca_txop_id variable is over." this took me more than one read to parse. "is over" is the problem, has expired better?

SuggestedRemedy
change "Notifies the D-PLCA state diagrams that the transmit opportunity indicated by the dplca_txop_id variable is over." to "Notifies the D-PLCA state diagrams that the transmit opportunity indicated by the dplca_txop_id variable has expired."

Response  Response Status C
ACCEPT IN PRINCIPLE.
(commenter's suggested remedy altered to also fix the hyphenation of the variable name)

Change dplca_txop_id to be non-breaking and review other variables for same.

change "Notifies the D-PLCA state diagrams that the transmit opportunity indicated by the dplca_txop_id variable is over." to "Notifies the D-PLCA state diagrams that the transmit opportunity indicated by the dplca_txop_id variable has expired."
Comment Type: E  Comment Status: A  D-PLCA

Suggested Remedy:
Replace the only Editor's note with the content of the attached file "802d3_TFR_WGB_beruto_dplca_overview.pdf"

Response:
ACCEPT IN PRINCIPLE.

"Implementations supporting the PLCA RS may optionally support D-PLCA as described in this subclause. If the D-PLCA option is implemented, it shall comply with the state diagrams in Figure 148-8 (D-PLCA Control State Diagram) and Figure 148-9 (D-PLCA Aging State Diagram).

D-PLCA allows plug & play operation over statically configured PLCA, trading off some latency and throughput due to an increased number of collisions.

D-PLCA allows nodes to start with a possibly non-unique PLCA node ID and autonomously select a unique node ID at a later time. Additionally, D-PLCA defines a method to designate a single node with ID = 0 (coordinator).

If enabled, D-PLCA constantly adapts the parameters aPLCANodeCount and aPLCALocalNodeID to accommodate the current state of activity (transmit opportunities claims) of the nodes on a mixing segment. When mixing D-PLCA capable nodes with statically configured PLCA nodes, the D-PLCA capable nodes eventually select IDs outside the space of the statically assigned ones. When D-PLCA is used, PHYs may detect collisions until every node eventually selects a unique ID.

D-PLCA keeps track of claimed transmit opportunities, distinguishing between HARD claims (with COMMIT requests), and SOFT claims (without explicit COMMITs). The aging algorithm assigns two different aging times for HARD and SOFT claims to avoid the case where non PLCA-enabled nodes may prevent D-PLCA from converging.

HARD_AGING_CYCLES and SOFT_AGING_CYCLES can be configured to optimize convergence time and stability over time in different situations. It is recommended to keep the value of HARD_AGING_CYCLES much greater than the value of SOFT_AGING_CYCLES. This condition ensures both stability and interoperability with statically configured PLCA nodes."
Comment Type: T

Comment on behalf of Gergely Huszak, Kone: “148.5.3.7 D-PLCA” includes sentences D1 and D2 that say “Conforms to Figure 148-8” and “Conforms to Figure 148-9” (respectively) but these figures do not seem to be part of the draft. Is this intentional (= the yellow highlight is there for this?) or just a simple oversight/export problem?

Detail - (editor)

First, the figures that are intended to be referenced ARE in the draft (D-PLCA Control and D-PLCA Aging) – these are misnumbered where they occur (148-5 and 148-6 should be 148-8 and 148-9). Second, the actual requirement (“conforms to”) is missing from the text (should be in 148.4.7 – which has yet to be filled in – but at least the requirement should be there…) third, the editing instruction for 148.4.7 (top of page 31) mentions Figure 148-7 (the incorrect number as well, should be 148-8), but not the second figure, and finally, the PICS should be a cross-ref.

Suggested Remedy

Number D-PLCA Control State Diagram as Figure 148-8 (page 34), and D-PLCA Aging State Diagram as Figure 148-9 (page 35)

On page 31, add sentence to 148.4.7.1 ”If the D-PLCA option is implemented, it shall comply with the state diagrams in Figure 148-5 (D-PLCA Control State Diagram) and Figure 148-6 (D-PLCA Aging State Diagram).”

On page 29, Change Editing instruction at top of page from ”Insert 148.4.7 following 148.4.6.5 (and Figure 148-7) as follows:” to ”Insert 148.4.7 following 148.4.6.5 (and Figures 148-8 and 148-9) as follows:”

On page 37, In 148.5.3.7, Change text in PICS DP1 and DP2 for Figure 148-8 and Figure 148-9 to cross-references and remove highlighting.

Response

ACCEPT IN PRINCIPLE.

(The missing 'shall' statement was accommodated by comment 6)

Number D-PLCA Control State Diagram as Figure 148-8 (page 34), and D-PLCA Aging State Diagram as Figure 148-9 (page 35)

On page 29, Change Editing instruction at top of page from ”Insert 148.4.7 following 148.4.6.5 (and Figure 148-7) as follows:” to ”Insert 148.4.7 following 148.4.6.5 (and Figures 148-8 and 148-9) as follows:”

On page 37, In 148.5.3.7, Change text in PICS DP1 and DP2 for Figure 148-8 and Figure 148-9 to cross-references and remove highlighting.