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2 | REVISION REQUEST |
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5 DATE: 30 May 2024
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10 REQUESTED REVISION:
11 STANDARD: IEEE Std 802.3-2022
12 CLAUSE NUMBER: 6
13 CLAUSE TITLE: Physical Signaling (PLS) service specifications
14 PROPOSED REVISION TEXT:
15

16 Update Clause 6 to reflect that it specifies the services provided by
17 both the PLS sublayer and the reconciliation sublayer (RS) to the MAC
18 sublayer (see attached Clause 6 maintenance 0524.pdf).
19

20 RATIONALE FOR REVISION:
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22 Subclause 6.1 says 'This clause specifies the services provided by the
23 PLS sublayer to the MAC sublayer for 1 Mb/s and 10 Mb/s implementations
24 of this standard (see Figure 6-1).' and figure 6-1 shows 1 Mb/s and 10
25 Mb/s sublayer 'stacks'. This is not correct. Instead, Clause 6 defines
26 the service interface at the 'bottom' of the MAC, and therefore
27 specifies the services provided by both the PLS sublayer and the
28 Reconciliation sublayer to the MAC sublayer and is used at all data
29 rates.
30

31 This is acknowledged in:
32

33 Subclause 22.2.1 'Mapping of MII signals to PLS service primitives and
34 Station Management' where it says, 'The Reconciliation sublayer maps
35 the signals provided at the MII to the PLS service primitives defined
36 in Clause 6.'
37

38 Subclause 35.2.1 'Mapping of GMII signals to PLS service primitives and
39 Station Management' where it says, 'The Reconciliation sublayer maps
40 the signals provided at the GMII to the PLS service primitives defined
41 in Clause 6.'
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43 Subclause 46.1.7 'Mapping of XGMII signals to PLS service primitives'
44 where it says, 'The Reconciliation Sublayer (RS) shall map the signals
45 provided at the XGMII to the PLS service primitives defined in
46 Clause 6.'
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48 Subclause 81.1.7 'Mapping of XLGMII/CGMII signals to PLS service
49 primitives' where it says, 'The Reconciliation Sublayer (RS) shall map
50 the signals provided at the XLGMII/CGMII to the PLS service primitives
51 defined in Clause 6.'
52

53 Subclause 106.1.7 'Mapping of 25GMII signals to PLS service primitives'
54 where it says, 'The Reconciliation Sublayer (RS) shall map the signals
55 provided at the 25GMII to the PLS service primitives defined in
56 Clause 6.'
57

1 Subclause 117.1.7 'Mapping of 200GMII/400GMII signals to PLS service
2 primitives' where it says, 'The Reconciliation Sublayer (RS) shall map
3 the signals provided at the 200GMII/400GMII to the PLS service
4 primitives defined in Clause 6.'

5
6 Subclause 148.4.2 'Mapping of MII signals to PLS service primitives
7 and PLCA functions' where it says, 'The RS maps the signals provided
8 at the MII to the PLS service primitives defined in Clause 6 via the
9 PLCA state diagrams, variables, and functions (see 148.4.4 and
10 148.4.5).'

11
12 In addition, since Clause 6 is only the PLS service interface
13 specifications, not the PLS sublayer specification (which is Clause 7),
14 the shading of the whole of the PLS sublayer in Figure 6-1 is not
15 correct. Instead, only the interface between the PLS and MAC sublayers
16 should be shaded as it was in Figure 6-1 in IEEE Std 802.3-1985 and
17 IEEE Std 802.3-1998. In IEEE Std 802.3-2000 and IEEE Std 802.3-2002,
18 Figure 6-1 incorrectly shows the whole of the PLS sublayer shaded,
19 although the shading is labelled 'Clause 6 applies to this interface
20 only'. From IEEE Std 802.3-2005 onwards the label was removed.

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22 IMPACT ON EXISTING NETWORKS:

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24 None. This is just a correction to Clause 6 to reflect how is it is
25 used elsewhere in IEEE Std 802.3-2022.

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28 |Please attach supporting material, if any|
29 |Submit to:- David Law, Chair IEEE 802.3|
30 |and copy:- Adam Healey, Vice-Chair IEEE 802.3|
31 |
32 |At:- E-Mail: stds-802-3-maint-req@ieee.org|
33 |

34 | +----- For official use -----+ |
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36 | | DATE RECEIVED: 30 May 2024 | |
37 | | EDITORIAL/TECHNICAL | |
38 | | ACCEPTED/DENIED | |
39 | | BALLOT REQ'D YES/NO | |
40 | | COMMENTS: | |

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42 | For information about this Revision Request see - |
43 |http://www.ieee802.org/3/maint/requests/revision_history.html#REQ1434 |
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