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|                    8802-3/802.3 REVISION REQUEST                    |
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DATE: February 18, 2022
NAME: George Zimmerman
COMPANY/AFFILIATION: CME Consulting, Inc.
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REQUESTED REVISION:
  STANDARD: IEEE Std 802.3-202x
  CLAUSE NUMBER: 98.2.1
  CLAUSE TITLE: Auto-Negotiation for single differential-pair media
PROPOSED REVISION TEXT:
Change the fourth sentence of the second paragraph of 98.2.1 from:
"If Auto-Negotiation is implemented, 1000BASE-T1, 100BASE-T1, and 10BASE-
T1S PHYs shall support HSM and may optionally support LSM."
to:
"If Auto-Negotiation is implemented, 1000BASE-T1, 100BASE-T1, 10BASE-T1S,
and all single-pair Ethernet PHYs faster than 1 Gb/s shall support HSM
and may optionally support LSM."

RATIONALE FOR REVISION: IEEE Std 802.3cg-2019 instituted the lower speed
mode (LSM) intending that all the shorter reach PHYs would  use the
higher speed (HSM) and longer reach would use the lower (LSM). When it
did this it listed the existing PHY speeds, thinking new PHYs would be
added as they came available.  802.3ch-2020 already failed to add itself.
Making this general change will fix the problem that clause 149
(2.5G/5G/10GBASE-T1) are not included, as well as smooth the path for
IEEE P802.3cy, without impacting existing networks, or closing
possibilities for 100BASE-T1L and any possible future 1000BASE-T1L.
Additionally, contributions in the Greater than 10 Mb/s long-reach SPE
study group have shown that long-reach 1 Gb/s is challenging, leaving
greater than 1 Gb/s unlikely - hence 1 Gb/s is a good threshold to pass
autonegotiation off to the shorter-reach HSM.

IMPACT ON EXISTING NETWORKS: None.


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|Please attach supporting material, if any                            |
|Submit to:-   David Law, Chair IEEE 802.3                            |
|and copy:-    Adam Healey, Vice-Chair IEEE 802.3                     |
|                                                                     |
|At:-          E-Mail: stds-802-3-maint-req@ieee.org                  |
|                                                                     |
|                 +------- For official 802.3 use -----------+        |
|                 | REV REQ NUMBER: 1394                      |        |
|                 | DATE RECEIVED: 18 February, 2022          |        |
|                 | EDITORIAL/TECHNICAL                       |        |
|                 | ACCEPTED/DENIED                           |        |
|                 | BALLOT REQ'D    YES/NO                    |        |
|                 | COMMENTS:                                 |        |
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| For information about this Revision Request see -                   |
|http://www.ieee802.org/3/maint/requests/revision_history.html#REQ1394 |
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