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| 8802-3/802.3 REVISION REQUEST 1204 |
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DATE: 12th Jan, 2009
NAME: Piers Dawe
COMPANY/AFFILIATION: Avago Technologies
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REQUESTED REVISION:
STANDARD: 802.3
CLAUSE NUMBER: 1.2
CLAUSE TITLE: New

PROPOSED REVISION TEXT:

New 1.2.5 Accuracy and resolution of numerical quantities
Unless the context requires otherwise, numerical limits in this standard
are to be taken as exact, with the number of significant digits and
trailing zeros having no significance.

RATIONALE FOR REVISION:

There is disagreement on this question:
If 802.3 says the limit for something is 3 (or 3.0, or 3.000), what does
this mean? One interpretation is that the trailing zeros have no
meaning. Another, which is widely taught as good scientific measurement
technique, is that 3 means anywhere between 2.5 and 3.5, while 3.0 means
anywhere between 2.95 and 3.05.

The second interpretation, while seen as correct for reporting
measurements, seems inconvenient for a standard: one party might think
that his measured 3.3 passes while another might say it fails.

In addition to making the situation unambiguous in the standard, guidance
on trailing zeros should be provided to editors for future projects.

Is there another standard that addresses this question?

We could go further and say something like this:

The instruments for measurement are assumed to be exact. Any offset from
these values required to ensure that the limits are met in the presence
of imperfect instrument accuracy, noise, bandwidth and so on is the
responsibility of the implementer.

IMPACT ON EXISTING NETWORKS:

Unknown, probably negligible.

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| Please attach supporting material, if any |
| Submit to:- David Law, Chair IEEE 802.3 |
| E-Mail: David_Law@ieee.org |
| and copy:- Wael William Diab, Vice-Chair IEEE 802.3 |
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+----- For official 802.3 use -----+
| REV REQ NUMBER: 1204 |
| DATE RECEIVED: 12th Jan, 2009 |
| EDITORIAL/TECHNICAL |
| ACCEPTED/DENIED |
| BALLOT REQ'D YES/NO |
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| For information about this Revision Request see - |
| http://www.ieee802.org/3/maint/requests/revision_history.html#REQ1204 |
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