IEEE 802.3 Maintenance Task Force 9th March 2009, Vancouver, BC, Canada

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Agenda

- Report on January Maintenance Interim
- Maintenance Request Status
- 802.3ay Maintenance #9 (Revision)
- 802.3bb
- 802.3bc
- Plans for the week
- IEEE 802.3 maintenance web site

Substantive Motions

- Move:
  - Submit draft D1.0 with comments captured in diab_1_0109.pdf for Working Group preview at the March 2009 plenary
  - Request that the 802.3 Working Group conduct a ballot on the draft
  - Motion Passes
- Move
  - to adopt the document structure presented in frazier_1_0109.pdf
  - Motion Passes
  - Will be covered in 802.3.1

January New Requests

Req	Standard	Subclause	Subject
1200	802.3ap-2007	72.7.1	10GBASE-KR Electrical Characteristics
1201	802.3-2008	28A, 30	INCITS Selector Field
1202	802.3-2008	14.3.1.2.5	10BASE-T CM Output Voltage Frequency Test Range
1203	802.3-2008	40.8.3.3	1000BASE-T CM Output Voltage Frequency Test Range
1204	802.3-2008	1.2	Accuracy and resolution of numerical quantities

Maintenance Request 1200

- Requested revision
  - Standard: 802.3ap-2007 / 72.7.1 (10GBASE-KR)
- Proposed revision text
  - In Table 72-6 "Transmitter characteristics for 10GBASE-KR", change "Transition time (20%-80%)" to 24-47 ps.
- Rationale for revision
  - In Table 72-6, "Transition time (20%-80%)" is specified to be 2-47 ps.
  - In 72.7.1.7, transition time is specified to be 24-47 ps.
- Impact to existing networks

Request 1200 – Notes

- Notes from discussion
  - It appears that the issue has been fixed in 802.3ay which was published as IEEE 802.3-2008 in December 2008
  - There was no objection to rejecting the request
- State of request
  - Changed from “Received” to “Reject”
  - Intend to ask for a WG motion on Thursday

Maintenance Request 1201

- Requested revision
  - Standard: 802.3-2008 / 28A, 30 (Selector field INCITS)
- Proposed revision text
  - See maint_1201.pdf.
- Rationale for revision
  - To update IEEE Std 802.3 with the Auto-Negotiation Selector field allocated to INCITS on 10th October 2006.
- Impact to existing networks
  - None, this is an additional network type supported by Auto-Negotiation. In addition the value has been available on the IEEE 802.3 selector field web page, referenced in IEEE Std 802.3 as the up-to-date source for these values, since its allocation.

Request 1201 – Notes

- Notes from discussion
  - Proposed request and change look complete
  - No objection in progressing the comment to "Ready for Ballot"
- State of request
  - Changed from "Received" to "Ready for Ballot"

Maintenance Request 1202

- Requested revision
  - Standard: 802.3-2008 / 14.3.1.2.5 (Common-mode output voltage)
- Proposed revision text
  - Existing Text: The magnitude of the total common-mode output voltage of the transmitter, Ecm, measured as shown in Figure 14-14, shall be less than 50 mV peak.
  - Change to: The magnitude of the total common-mode output voltage of the transmitter, Ecm, measured as shown in Figure 14-14, shall be less than 50 mV peak. <u>The frequency of the measurement shall be from 1 MHz to 100 MHz.</u>
- Rationale for revision
  - The IEEE 802.3-2008 specification is not consistent with its common mode noise measurement requirements. Clause 33 specifies a range of 1 MHz to 100 MHz for a power souring equipment intended to provide 10BASE-T, 100BASE-TX, or 1000BASE-T interoperability. Other clauses have no concept of a measurement bandwidth. Reducing the measurement bandwidth of common mode measurements will not reduce the compliance of legacy systems. Requiring a PSE to meet unnecessary common mode noise requirements below 1 MHz places an unnecessary cost burden on the system.
- Impact to existing networks: None

Maintenance Request 1203

- Requested revision
  - Standard: 802.3-2008 / 40.8.3.3 (Common-mode output voltage)
- Proposed revision text
  - Existing Text: The magnitude of the total common-mode output voltage, Ecm_out, on any transmit circuit, when measured as shown in Figure 40-32, shall be less than 50 mV peak-to-peak when transmitting data.
  - Change to: The magnitude of the total common-mode output voltage, Ecm_out, on any transmit circuit, when measured as shown in Figure 40-32, shall be less than 50 mV peak-to-peak when transmitting data. <u>The frequency of the measurement shall be from 1 MHz to 100 MHz.</u>
- Rationale for revision
  - The IEEE 802.3-2008 specification is not consistent with its common mode noise measurement requirements. Clause 33 specifies a range of 1 MHz to 100 MHz for a power souring equipment intended to provide 10BASE-T, 100BASE-TX, or 1000BASE-T interoperability. Other clauses have no concept of a measurement bandwidth. Reducing the measurement bandwidth of common mode measurements will not reduce the compliance of legacy systems. Requiring a PSE to meet unnecessary common mode noise requirements below 1 MHz places an unnecessary cost burden on the system.
- Impact to existing networks: None

Requests 1202 and 1203 – Notes

- Notes from discussion
  - After discussion, the suggested text was changed to say The frequency of the measurement shall be above 1 MHz.
  - Lower frequency may be discussed during ballot if there are any objections
  - Poll
    - In favour of proposed change: 4
    - Against: 0
- State of requests
  - 1202: Changed from “Received” to “Ready for Ballot”
  - 1203: Changed from “Received” to “Ready for Ballot”

Maintenance Request 1204

- Requested revision
  - Standard: 802.3-2008 / 1.2.5 (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.
- Impact on existing networks
  - Unknown, probably negligible.

Maintenance Request 1204

- 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.

Maintenance Request 1204

- Rationale for revision

  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.

Request 1204 – Notes

- Notes from discussion
  - There was no consensus on proceeding with the request
  - Request stays as “Received”
- State of request
  - Remains “Received”

802.3bb Draft Review

- Requested Changes
  - Change:
    - At operating speeds of 10 Gb/s, a station with a 10GBASE-T or a 10GBASE-KR with FEC PHY
    - To: At operating speeds of 10 Gb/s, a station with a 10GBASE-T PHY or a 10GBASE-KR with FEC PHY
  - There was no objection to the above requested change
- D1.1 prepared with the above and submitted for preview

802.3bc Draft Review

- Containment
  - 802.3at: Draft is currently silent on whether unmanaged PSEs and PDs can implement LLDP. Discuss with 802.3at
  - Current containment used in 802.3at requires that the parent management is implemented. 802.1 containment does not require any other management MIB object to be implement to support LLDP
  - Resolve above 2 issues during ballot
- No other comments were received

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Maintenance Request Status

- 24 Open Maintenance requests
- 4 new request since January
  - Related to CARRIER_STATUS transition editorial issue, 100BASE-TX objectives and 10GBASE-T objectives
- Current status of open requests:

Balloting	10
Ready for ballot	7
Awaiting clarification	0
To be categorised	7

Notes: Some ‘Balloting’ assigned to IEEE P802.3at

New requests

Request	Standard	Subclause	Subject
1205	**802.3-2008**	**22.2.1.3.3**	**CARRIER_STATUS transition editorial error**
1206	**802.3-2008**	**24.1.2**	**100BASE-TX Media grade objective**
1207	**802.3-2008**	**24.1.2**	**100BASE-TX Media reference objective**
1208	**802.3-2008**	**55.1.1**	**10GBASE-T Media reference objective**

802.3ay Final Update

- 802.3ay published as IEEE 802.3-2008 on December 26th 2008!!!!!!
- Project directory moved to archived projects
- All new maintenance requests against 802.3-2008

802.3bb

- Draft D1.1 is available for WG Preview
- Plan is to
  - Ask for approval to go to WG Ballot on Thursday
  - Ask for conditional approval to conduct Sponsor Ballot on Thursday

802.3bc

- Statistics as of Monday 9th March

RespRate	**45.08%**
AppRate	**92.78%**
AbsRate	**11.82%**

- Initial working group still open as it has yet to meet the return rate
  - **Please cast your ballot!**
- Plan is to
  - Resolve all comments
  - Ask for conditional approval to conduct Sponsor Ballot on Thursday

Plans for week

- Meet Wednesday afternoon
  - Please note 1:00PM start
- Maintenance
  - Review new maintenance request
- IEEE P802.3bb
  - Prepare to request Working Group ballot
- IEEE P802.3bc
  - Resolve comments from initial WG ballot
  - Discuss containment structure
- **Please cast your P802.3bc WG ballot!**
- **LLDP Containment, requests #1206, #1207 and #1208 to be discussed at 3PM Wed**

Maintenance Web Information

- IEEE 802.3 Maintenance web site:
  http://www.ieee802.org/3/maint/index.html
- IEEE 802.3 Maintenance request form is available at:
  http://www.ieee802.org/3/private/maint/revision_request.html
- Access information

  Username: ********

  Password: ********

  (Password **is** case sensitive)
- IEEE 802.3 Maintenance reflector

  stds-802-3-maint@ieee.org