

# Minutes IEEE 802.3 10SPE SG AdHoc meeting October 10th 2016

Prepared by Peter Jones

## Proposed Agenda:

1. Agenda/Admin Peter Jones

## Presentations posted at:

<http://grouper.ieee.org/groups/802/3/10SPE/public/adhoc/index.html>

## Agenda/Admin Peter Jones:

Meeting began at 9:05am PT.

1. Reviewed the Attendance information related to the ad hoc.
2. Displayed pre-par patent slide deck, Asked if we needed to review patent policy.
  - a. No one requested review.
3. Reminded participants to indicate full names and employer/affiliation correctly for the meeting minutes.
4. Asked for approval of minutes for 26 September and 5 October  
[http://www.ieee802.org/3/10SPE/public/adhoc/10spe\\_SG\\_adhoc\\_minutes\\_00\\_2016\\_09\\_26\\_2.pdf](http://www.ieee802.org/3/10SPE/public/adhoc/10spe_SG_adhoc_minutes_00_2016_09_26_2.pdf)  
[http://www.ieee802.org/3/10SPE/public/adhoc/10spe\\_SG\\_adhoc\\_minutes\\_00\\_2016\\_10\\_05.pdf](http://www.ieee802.org/3/10SPE/public/adhoc/10spe_SG_adhoc_minutes_00_2016_10_05.pdf)
  - a. Approved without objection.
5. Presented the proposed agenda.
  - a. Approved without objection.

## Presentations/Discussion.

### Link startup and recovery timings David D. Brandt Rockwell Automation

- 20ms/40ms are example numbers that apply to a certain set of control loops. Some need to run faster, and some slower, depends on industry and application. Goal is to have defaults that suit a broad set.
- 500ms Link Startup assumes from power on, possibly of a new set of network elements.
- 40ms link loss recovery is a line glitch/failure, but assumes the network topology has not changed.
- Concerns from the call about the 40ms objective driving specific implementation before we understand PHY design. Should this could be covered as part of the TF work. Difficult for PHY to tell the difference between these two cases.
- If this is really a system requirement, but not an objective, then it's hard to get the TF to address this.
- Is this technically feasible? For example, are these conditions detectable in 40ms? Need to see a set of example conditions, and then look at what is possible. We do not want to adopt objectives that unreasonably restrict the choices of the TF.

- Ahmad, Mehmet & David (+others) to work offline to see if they can find consensus for a future adhoc. Discussion on the reflector was encouraged to build broad consensus across multiple groups.
- Relationship between link loss and QoS? Ludwig Winkel volunteers to bring presentation in future (next?) meeting.

### Chair's Comments    George Zimmerman    CME

- Objectives for consideration: (issues to work or confirm consensus are shown in red on slide)
  - 1KM and 10 inline connectors?
  - BER -  $10^{-9}$  up to 1000m and  $10^{-10}$  up to 100m.
    - Can you make the  $10^{-10}$  optional for 100m?
    - Some support for current wording from call.
    - How does this fit into different reaches/link segments definitions?
    - What are the tradeoffs here?
    - Consensus that we need  $10^{-9}$  in some applications, and  $10^{-10}$  in others.
    - Need to work out how to craft the BER objective(s).
  - “Optional operation with run-time...” – request for clarification, objective proposer has to drop from call, asked for presentation next meeting.
  - Power – how important is compatibility with 802.3bu PoDL?
- Other Possibilities Raised (not objectives yet).
  - Work to get done in these areas:
    - Link Quality Diagnostics
    - PHY/MAC interface
    - Link Loss recovery (see previous presentation).
- Objectives relating to Multi-Drop/DC-bus
  - Is this the area of work that could cause us to split into two projects, PtP v multidrop?
  - Lots more work to get done here.
  - Significantly less clarity on requirements and technical feasibility (AutoNeg, plug and play, Media control method/protocol, link segment definition, power distribution, etc.).
  - What are the requirements, impact and solutions for reliability/resiliency and multi-drop (e.g. impact of fault/failure of one node on other nodes).
  - This is an area that the advocates for multipoint/multi-drop (power and/or data) need to work on developing.
- In summary
  - PTP objectives developing nicely, not done, but well on the way.
    - Power levels on what distance? Need some use cases presented.
      - Is this covered in Graber\_10SPE\_04\_1016.pdf? Maybe, but not simply stated in a format easy for power people to consume.
      - Suggest David Brandt/ Chad Jones collaborate to address this in a way that’s clear from both points of view?
  - Multipoint/multi-drop needs work

## Plan for next meeting

Peter Jones/George Zimmerman Cisco/CME

- **Please use reflector between calls to make progress/build consensus.**
- Please flag ahead of time if you intend to make presentations. Next meeting is Wednesday, October 19, 2016 7:00 AM-9:00 AM (UTC-08:00) Pacific Time (US & Canada).
- Multipoint/multi-drop needs work.
- Ask for short presentation from Dieter Schicketanz/ Masood Shariff re single pair work happening in ISO cabling groups.

Meeting closed – ~10:25am PT

## Attendees (from Webex + emails)

Name	Affiliation	attended 10/10
Ahmad Chini	Broadcom	y
Brett McClellan	Marvell	y
Bruce Nordman	Berkeley Lab	y
Chad Jones	Cisco	y
Chen, Li-Chung	Realtek	y
David Brandt	Rockwell Automation	y
David Hoglund	Johnson Controls	y
David Law	HPE	y
Dick Caro	CMC Associates	y
Dieter Schicketanz	Consultant, Reutlingen University	y
George Zimmerman	CME Consulting / Commscope, LTC & Aquantia	y
Helge Zinner	Continental Corp.	y
Jacky Chang	HPE	y
Jeff Marvin	Linear Technology	y
Jens Gottron	Siemens	y
Jim Bauer	Marvell	y
Laura Schweitz	Turck	y
Ludwig Winkel	Siemens	y
Maris Graube	Relcom Inc.	y
Markus Wucher	Endress+Hauser	y
Masood Shariff	CommScope	y
Matthias Jaenecke	Yazaki	y
Mehmet Tazebay	Broadcom	y
Oisín Ó Cuanacháin	Analog Devices	y
Peter Jones	Cisco	y
Peter Wu	Marvell	y
Theo Brillhart	Fluke	y

Yong Kim	Broadcom	y
Attendee count		28