IEEE 802.3da SPMD TF AdHoc meeting
26 August 2020

Prepared by Peter Jones

Presentations posted at:

https://www.ieee802.org/3/da/public/index.html

Agenda/Admin Peter Jones:

Meeting began at 7:05am PT.

1. Reviewed the Attendance information related to the ad hoc(s).
   a. Reminded participants to indicate full names and employer/affiliation correctly for the meeting minutes.
2. Displayed TF slide deck, reviewed participation conditions including patent policy http://www.ieee802.org/3/WG_tools/templates/Task_Force_agenda_V3p8.pptx

Presentations/Discussion.

SPMD Power Up Procedure Chad Jones Cisco

- 1W budget to do negotiation, looking for contributions to support or not support this number
- Discussion of the negotiation steps, needs more work to figure out the semantics and exchange
- Discussion of reserved power budget for new/sleeping devices
- Discussion of oversubscribed power supplies
- Sleeping devices are likely to come back, so needs reserved power and protocol support
- Cost of reservation vs what can be allocated to active devices
- Graceful degrade when PSE oversubscribed
- Clarify that PD can't draw more than one watt before a grant of power from the PSE
- PSE allocation algorithm is out of scope, may need to put limits/requirements on implementations
- Can we use power over 100W for a short-term during PD negotiation? Bound the PD/PSE negotiation to fit within the electrical rules (less than 5 seconds in "overpower" state
- Tradeoffs between max power for a small number of nodes vs support for power max nodes
- Need a little more detail for the "wakeup"
- Can sleeping PD monitor messages to work out when it's allowed to wake up for negotiation
- Limit max number of PD's negotiating at once, set minimum sleep time.
- LLDP negotiation time scale vs eternal limits for device response
- Addressing for wakeup?
- Addressing the reservation overhead – allow for a PSE to be configured with a max node count which influences reservation
- Time bounds on PD/PSE negotiation to fit within the electrical rules.

- Frequent changes for powering levels impacts on PHY data transfer
- PDs to provide preferred sleep times, PSE to poll PDs to wake up
    - Does PD need full list of addresses?
    - PD to message PSE to request permission to negotiate?

Thoughts on 802.3da Draft Contents — George Zimmerman — CME Consulting, Inc

- Chair announces George Zimmerman and Valerie Maguire as initial editorial team.
- Based on today's power discussion, suggested approach is to create a new clause for powering as opposed to modifying clause 104
- Strong desire to write overview descriptive text AFTER we have the technical detail down
- Ask for contributions state diagrams as figures, text as "close to ready to insert".
- If possible, point to similar text elsewhere in 802.3 to use as a reference
- Don't ask/rely on the editors to invent technical content
- PSE/PD negation – allocate power or current?
- A large set of options for structure? Can I ask for the editors recommended structure? Maybe an update of this deck with highlights for the "recommended" options.
    - "recommended" depends on other technical decisions
- Autonegotiation – this is a big chunk of work, need to review needs, depends on some other choices.
- PLCA nodeId allocation – PLCA Client "beside the MAC"?
- Do we need a "powering" client?
- New PHY vs no new PHY, what class of choices? For example, FEC would suggest new PHY.
    - Mixing segment definition is key?
- Amend clause 147 vs new clause – new PHY would suggest new clause.

MACsec & SPMD — Peter Jones — Cisco

- Deferred to next meeting

Progressing the study group — Chad Jones — Cisco

- Need contributions/discussions
- Look at list of work items
- No face to face meetings for a long time
- Use the reflector – chair will post presentations on request (avoids presentations getting lost in email)
- Editor happy to comment on "draft readiness"

Meeting closed – 9:00 PT

Attendees (from Webex + emails)

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