2006 Jan 10 IEEE PoEPlus Task Force Minutes

Start at 09:00.

Agenda:

- Wireless
- Appoint Recording Secretary
- Discussion of order
- Intros
- Background stuff
- Presentations
- Review of Objective, timeline
- Approve Minutes / other motions

Meeting Order

- Tue – 8:30-17:00 .3at
- Wed – 8:30-12:00 .3au / 13:00-17:00 .3at
- Thu – 8:30-12:00 .3at / 13:00-18:00 working group

Motion to approve schedule by Derek Koonce, seconded by Geoff Thompson

Approve – unanimous

Ground Rules – mutual respect and consideration

- No cost, product pitches, etc
- All may speak and vote
- No restrictions on presentations or materials
- No prices in any currency
- 802.3 rules apply

IEEE Structure reviewed

Patent Policy read by Mike McCormack

- Links provided
- No questions or patent applications issues brought up

Rules – web sites presented for bylaws, operating rules, etc presented. Also Roberts Rules – in general… behave

Electronic information

- Web address – www.ieee802.org/3/at/index.html
- eMail reflector – stds-802-3-poep@ieee.org
- Next meeting – watch www.ieee802.org/meeting/index.html

Presentations

Vport static and transient response – Fred Schindler (schindler_01_2006.pdf)

- Show wide variation in Vport
  - Major voltage drop sources
- Transient conditions to be considered
  - Suggest higher voltages, but allow for transient time (250 us) to go below Vmin.
- Propose that the Task Force add the following objective:
  - Define a static and a transient Vport for the PSE and guidance for the PD.
  - P: Fred Schindler S: Geoff Thompson
  - All – Yea: 32 Nay: 0 Abstain: 0
  - 802.3 voters - Yea: 14 Nay: 0 Abstain: 0
  - Motion passed

David Law – Working Group Ballot results

- 95% approval rate
- 30 comments received
  - Some comments tend to be out of scope of this ballot

IEEE 802.3at Voltage Limits – Keith Hopwood (hopwood_01_2006.pdf)

- 51V as minimum PSE output voltage
- Final determination still needs to have cabling current results

High Power-over-Ethernet over Two Pair – Jean Picard (picard_01_2006.pdf)

- Shows no data loss with up to 14.5mA (more than current spec)
- Request to perform test by increasing current balance until data loss is seen.

Power Feeding Method – What is the best system decision? – Yair Darshan (darshan_01_2006.pdf

- Provide pros and cons why a 4P PSE only is the right approach
- Heavy discussion on why or why not a medium power (MP) 2P PSE should be included in the PoEP spec

PSE Choice – David Law (law_01_2006.pdf)

- Charted powering capabilities between various PSEs and PDs

IEEE 802.3at 2 Pair vs 4 Pair Cost Comparison – Keith Hopwood (hopwood_02_2006.pdf)

- Cost comparison between 2P 30W and 4P 30W

Silicon Implementation Issues – Taufique Ahmed (sajol_01_2006.pdf)

- Presents that 2P to 30W, and below, will provide up to 80% customer usage. The >30W 4P would increase another 20%

2 Pair or 4 Pair Power Transmission? – Ron Nordin (nordin_02_2006.pdf)

- Presented basic comparison from system manufacturer perspective

Meeting adjourned @ 17:00.

2006 Jan 11 IEEE PoEPlus Task Force Minutes

Start at 13:30.

Presentations

Future Proofing 802.3at - Clay Stanford (Stanford_1_0106.pdf)

- Provide guideline to allow for expansion of maximum power on a global scale and adjust by evaluation of current implementation
    - Environmental temperature
    - Cabling type
    - Different cable wire size
- Recommend classification up to 100W – keeping below UL requirements

Extended Classification Using Ping-Pong Scheme – Martin Patoka (Patoka_1_2006.pdf)

- Review of past proposed classification schemes.
- Request to know which have potential IP
- Martin tasks
    - Identify IP methods
    - Identify where clocks are required – PD or PSE side
    - # pins extra for PD
    - Thermal / classes capabilities

More presentations will be done, but people are not currently available since in other meetings. Re-convene at 0830.

Adjourned at 1610 hrs

2006 Jan 11 IEEE PoEPlus Task Force Minutes

Start at 08:30.

Presentations

Classification and Management of PoE / PoEplus – Hugh Barrass (barras_01_0106.pdf)

- Discuss potential method of having PSE communicate a dynamic power level
- Request group to
  - define new MIB objects
  - Optional .3ah OAM for complex devices
- Mike McCormack presented email to the fact that IEEE MIB group is not accepting new work. There was a work-around proposed in the email
- Propose that the Task Force add the following objective:
  - Define MIB objects covering extended management functions for PSE and PD.
    - P: Hugh Barrass S: David Law
    - (All present) Y: 31 N: 0 A: 5
    - (802.3 voters) Y: 16 N: 1 A: 5
  - Motion passes

DC Modeling for Cabling Balance – Ron Nordin (nordin_01_2006.pdf)

- Specify a model to determine balance within a pair and between pairs
- Presented a model and results of imbalance based on current and cable length

2 Pair Power – Wiel Diab (diab_1_0106.pdf)

- The IEEE 802.3at Task Force affirms a 2-Pair Power
- Geoff Thompson listed 4 possibilities
  - Do not change
  - 2P & or 4P
  - 4P only
  - 2P only
  - This motion only said that it will add 2P options
- Move that:
  - The IEEE 802.3at Task Force affirms a 2-Pair Power solution at the PSE and PD contingent on meeting the project objectives.
  - Call the question
    - Y: 38 N: 6 A: 4
  - The motion
    - M: Wiel Diab S: David Law
    - (All present) Y: 41 N: 6 A: 3
    - (802.3 voters) Y: 21 N: 3 A: 1
    - Motion passed

DC Cabling Balance - Chris Di Minico (diminico_01_0106.pdf?)

- Current source model is best approach for balancing model

Taking Classification to a Higher Level – Steve Robbins (robbins_1_0106.pdf)

- Information to communicate and usefulness of information for power management
    - Peak & average information has problems
    - Min & max information has advantages – presented

4P vs 2P Cost Analysis – Yair Darshan (darshan_2_0106.pdf)

- Comparison in a 1G solution at 30W
- Show current balance function is not required
- Presented cost comparisons, ratios, between 2P and 4P
- Noted that there is a patent application on 4P power transmission on Ethernet cable. Yair remarked there is a Letter of Assurance on file.

Motion on classification ad-hoc

- The IEEE 802.3at Task Force requests the chair of 802.3at to form a classification ad-hoc. The ad-hoc will meet between February and the March 802 plenary and report back to the 802.3at Task Force in March
    - P: Wael Diab S: Clay Stanford
    - All – Yea: 38 Nay: 0 Abstain: 1
    - 802.3 – Yea: 16 Nay: 0 Abstain: 1
    - Motion pass
- Nominate Clay Stanford to head ad-hoc

Motion to adjourn by Hugh Barass

Pass without opposition.

Summary of Motions

- From schindler_01_2006 presentation: Propose that the Task Force add the following objective:
    - Define a static and a transient Vport for the PSE and guidance for the PD.
        - P: Fred Schindler S: Geoff Thompson
        - All – Yea: 32 Nay: 0 Abstain: 0
        - 802.3 voters - Yea: 14 Nay: 0 Abstain: 0
    - Motion passed
- From barass_01_0106 presentation: propose that the Task Force add the following objective:
    - Define MIB objects covering extended management functions for PSE and PD.
        - P: Hugh Barrass S: David Law
        - (All present) Y: 31 N: 0 A: 5

        - (802.3 voters) Y: 16 N: 1 A: 5
    - Motion passes
- From diab_1_0106.pdf presentation: move that…
    - The IEEE 802.3at Task Force affirms a 2-Pair Power solution at the PSE and PD contingent on meeting the project objectives.
    - The motion
        - M: Wiel Diab S: David Law
        - (All present) Y: 41 N: 6 A: 3
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        - Motion passed
- Motion on classification ad-hoc
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        - P: Wael Diab S: Clay Stanford
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        - 802.3 – Yea: 16 Nay: 0 Abstain: 1
        - Motion pass
    - Nominate Clay Stanford to head ad-hoc

Adjourned for the day at 14:50.

Submitted by Derek Koonce, acting secretary