# 802.3at L2 Ad-Hoc
# Chair's Report

February 2008 Boston Meeting

Wael William Diab – Broadcom

# Agenda

- Review patent slides
- Review and approve agenda
- Review incoming communications
- Review decisions to date
- Prioritize work items
  - Necessary vs. nice-to-have for WG ballot
- Review contributions related to work items
- Review and assign actions items to get completed necessary work items to .3at Editor
- Review working draft*

*if time permits. Started 11.00AM Concluded 6.46pm EST

# Reviewed Decisions To-Date

- We have a number of outstanding items
  - Resolved comments on D1.0
  - Motions since comments
  - Open work items
- Goal is to complement decisions we already made. If decisions conflict, propose the following
  - Resolved comments by the TF should take precedence
  - If the ad-hoc decides to reverse any decision, then we ask the Editor to highlight difference with an editor's note

# Review of Informal .1 Communiqué

- Informal communiqué sent to 802.1 after our January interim. 802.1 responded
- Question 1: If a new 802.3 subtype was added, can the subclause reference be in 802.3?
  - Ballot material in 802.3 and format as if 802.1AB
  - Write a SNMP MIB (extension)
  - Ask 802.1 for code-points in 802.1ABREV
  - Ask for further discussion on topic with .1
    - Including a proposed informal communiqué from March meeting
  - Discuss where / how to include it in 802.3at material

# Review of Informal .1 Communiqué

- Question 2: If a new 802.3 subtype was added, do all the previous 802.3 or other subtypes have to be implemented in order to be compatible with the new subtype?
  - Closed by response
- Question 3: Can new TLV definitions be added to the entry labeled 802.3 subtype 2, and if so, can 802.3at request modifications to the existing descriptions of this subtype?
  - Make enabling existing PoE and PoEP (802.3at) mutually exclusive with .3at TLVs having priority

# Review of Informal .1 Communiqué

- Question 4: What is the window of opportunity for 802.3at to request and pursue any of the 3 options above within the current 802.1AB Revision project?
  - Draft an informal communiqué letter by then end of this ad-hoc meeting to show to 802.3at Task Force in March and send to 802.1 durig the plenary week

# Work Items

- Prioritized work items
  - <span style="color:red">Necessary for WG Ballot</span>
  - <span style="color:blue">Desirable by WG Ballot</span>
- Decisions / Actions listed under each <span style="color:red">red</span> item
- <span style="color:blue">Initialization and MIB interaction</span>
  - Refer law_1_0108.pdf
- <span style="color:blue">Shutdown and MIB interaction</span>
  - Refer law_1_0108.pdf
- <span style="color:red">Timeout</span>
  - For PSE we had 2 TBDs per comment #208 resolution on D1.0
  - TBD1 = TTL
  - TBD2 = 2 X TTL

# Work Items

- We have defined what happens when a PSE loses communications – what happens when PD loses communication?
  - Same TBD style as PSE: TTL and 2 X TTL
  - Two proposals entertained after above timeout
    - (a) Stop TXing any frames
    - (b) Send Loss of Communication indication in TLV
    - Both cases increment a local Loss of Communication counter
  - Vote 6 to 3 to go with (b)
  - (b) involves adding another condition to PSE timeout to remove power on reception of Loss of Communication

# Work Items

- Complete Timing TBDs: L2 coming up after L1 complete
  - Necessary to meet the objective of indication / Mutual ID
  - PD and PSE HW state machines for DLL capable devices should be "DLL_Enable"
  - "DLL_Enable" sets a variable
  - Based on above, add section in 3.6 (L2) that "from variable set first PoEP TLV shall be sent by 1.25 seconds"
  - Above applies to PSE and PD
  - In addition add the following editor's note: PD experts to check on feasibility of timing. An enhanced solution would be to allow for a visual indication that power is being received at the PD

# Work Items

- Complete Timing TBDs: Responsiveness of dynamic power allocation
  - Multiple options: Be silent on topic, recommend or mandate
  - Consensus is to mandate a number so that interoperability can be achieved
  - Responsiveness shall be 1 second
- Definitions of state diagram variables
  - Ad-hoc Chair to assign to volunteer(s) per poll
- Conflict resolution (PSE/PD collision)
  - Refer to resolved comment #210 on D1.0
  - In addition to #210 delete existing text with TBDs on page 87
- References to TIA 1057 (if required)
  - Completed by Diab – Sastry motion of Jan 08
- Clean up the TLVs
  - Include crisp definition of fields within TLVs
  - Ad-hoc Chair to assign to volunteer(s) per poll

# Work Items

- Error conditions on L2 coming up
  - OK as is for now
- Indication to user during L2 coming up
  - Resolved by L1 to L2 and editor's note for an enhanced solution if needed
- Complete or delete Additional Status TLV
  - Refer to contribution from Mr. Law that was reviewed
  - Ad-hoc Chair to assign to volunteer(s) per poll
- Indication that 'I'm providing power'
- Test mode
- Initialization and MIB interaction
  - Validity of the L2 interaction w.r.t PSE/PD pair

# Work Items

- Items on this page added to list as a by-product of resolving previous work and/or new requests
- Define a behavior for shutdown message
    - A.K.A when TTL = 0
    - One motivation was to do downloads
        - Consensus that this would be required for both PSE and PD
    - Consensus was based on requirement and previous work items, it is not necessary to change behaviour of TTL = 0
        - Firmware download can be delt with setting TTL to large value. TTL is 16 bits ~18 hours. 2 X TTL would be 36 hours
        - PD sending a PSE TTL = 0 desired feature for PD initiated shutdown
- TLV support for communicating cable length
- Type 1 PSE that implements L2
- Communicate states of L2 machine during error

# Review of Contributions

- 1 Contribution received from Mr. Law
  - Contribution cleaned up TLV sections
  - Contribution formatted according to 802.1AB
  - Contribution reviewed and edited in real-time
  - Consensus on resulting contribution with changes to be included in next draft
- Necessary work items not addressed by contribution were then discussed in real-time
  - Refer previous slides regarding decisions

# Straw Poll

- Recommend that the 802.3at L2 Ad-Hoc Chair work with the 802.3at Editor to implement the decisions made in the 2/29/2008 meeting. Further, allow the Chair to divvy-up and assign the work load to volunteers from the ad-hoc
- Y: 9          N: 0          A: 1
- In Room: 7    On Phone: 3    Total: 10

# Attendance

- In person
  - Diab, Wael – Broadcom
  - Law, David – 3COM
  - Lucia, David – Sifos
  - McCormack, Mike – TI
  - Skinner, John – Sifos
  - Vavilala, Krishna – Cisco
  - Vetteth, Anoop – Cisco
- By phone
  - Barrass, Hugh – Cisco
  - Dove, Dan – HP Procurve
  - Jetz, John – Avaya
  - Sastry, Ramesh – Cisco
  - Thompson, Geoff – Nortel