

## **IEEE 802.1 Minutes, Denver, July 2008**

### **AVB pre-meeting**

Monday, July 14, 2008

Kevin Gross, Secretary

7/14/2008 9:00 AM

802.1 AVB task group meeting convened by Craig Gunther standing in for Michael Johas Teener - <http://www.ieee802.org/1/files/public/docs2008/avb-cag-agenda-0708-v2.pdf>

7/14/2008 9:10 AM

Patent slides presented by chair

7/14/2008 9:13 AM

802.1at comment resolution begins - <http://www.ieee802.org/1/files/private/at-drafts/d1/802-1qat-d1-3-proposed-dis.pdf>

7/14/2008 9:30 AM

Norm's previous presentation on 802.1ak suggested as a leg up - <http://www.ieee802.org/1/files/public/docs2007/avb-nfinn-mrp-based-reservation-0807-v1.pdf>

7/14/2008 10:49 AM

802.1at comments resolved through 2.4m

Meeting adjourned

Reconvene for 802.1at comment resolution at item 2.4n 9a Tuesday, 15 July

### **Opening Plenary, Monday, July 14, 2008**

Admin stuff – Tony Jeffree

Website – new upload area

Access at <http://ieee802.org/1/filenaming.html>

No login or passwords are required

Membership

Affiliation

Patent

Call for patents

None

The required slides were presented to the committee

All TG must do a call for patents at the beginning of each morning meeting

Presentation materials

No copyright statements or statements that restrict distribution

Interim meeting

September 08 Seoul, 15<sup>th</sup> through 18<sup>th</sup> with 802.3  
Jan 09 Bangalore, India?  
May 09 - ???  
September 09 Tunisia Sept 21-24 sponsored by ITU/T??  
Presentation on September Interim – Glenn Parsons  
Presentation on attendance system – Christina Sahr  
[c.sahr@ieee.org](mailto:c.sahr@ieee.org)  
<http://murphy.events.ieee.org/imat/>  
Back to interim meetings  
Bangalore  
Comments?  
Presentation on Bangalore Venue  
Tejas Network  
Jan 12-15, 2009  
Golden Palms Hotel  
Room \$220  
Meeting fee \$295  
Presentation for May 2009 Interim  
Pittsburgh, PA  
May 10-15 Station Square Sheraton \$170  
May 17-22 Renaissance \$195  
Will need to vote on Pittsburgh and Bangalore Thursday  
Exec Report  
802.20 returned to normal operations  
EC recommend to the SB that they withdraw the 802.5 standards  
ISO/IEEE  
IEEE now recognized by IEO and JTC1  
Since ISO can now reference IEEE standards .1 will ignore fast track  
P&P Update  
802.11 dominance allegation  
Investigated but no evidence  
Extension PAR for 802.1AC and AB PAR modification  
802.1AX Status Report – Pat Thaler  
Ready to go to sponsor ballot  
LoA issue – changing the standard breaks the link so new LoA is needed  
Discussion about what happens if LoA can not be obtained  
.1ax may be withdrawn and Link Agg left in .3  
The LoA issue will also affect moving .1D into .1Q  
When we do this type of thing in the future we need to be aware of this issue  
Liaisons  
ITU Transition from the NGN Management Focus Group to the Joint  
Coordination Group  
Steve will work on this one this week  
802.1ak Cor-1  
Recirc and 100% approval  
Forward to RevCom

CFI bit

Use as drop precedence per .1AD

AVB needs this functionality

Potential issues with old equipment

It would be nice to have this sorted out this week

A bit of discussion about should we wait a bit before finalizing a decision

It could be done as part of Q Rev so we don't need a decision right now

There have been discussion in AVB about using it but no firm proposal has been offered

802.1ag interpretation request

What is its status? Need a response this week

802.1AB Nearest Customer Bridge address

00 or 0F

Need to resolve this for the AB-Rev ballot

Some equipment sends 00 to the CPU right away thinking the packet is a BPDU but now 00 will have other uses that do not need the priority bump therefore we should use 0F for these new semantics

The only "real" equipment folks would prefer 00

Straw poll now but Tony would like a formal motion in the closing plenary

Who favors using 00? 6

Who favors using 0F? 5

Don't care got it redo

Who favors using 00 given decision must be made? 18

Who favors using 0F given decision must be made? 5

Minutes

The purposes are NOT intended to be a blow by blow account

ARE intended to record presentations, discussion topics, and what was decided

Motions are the only thing that records decisions

TG agendas

Security – Mick

.1X-Rev and .1AR ballot comment resolution

Internetworking – Steve

Data Center Bridging – Pat

Congestion Notification

AVB – Craig

802.1H Editor's plans – Kevin Nolish

**Tuesday AM, July 15, 2008**

**Interworking Task Group**

Meeting called to order at 9:00.

Presented patent policy slides. No response to the call for patents.

Tony Jeffree led comment resolution on the 802.1AB-REV-d3.0 LLDP Working Group ballot.

A comment disposition document will be posted.

Glenn Parsons led comment resolution on the 802.1ap-d3.4 MIB Working Group ballot.

Ballot results:

Yes:	31	(100%)
No:	0	(0%)
Abstain:	26	(46%)
Did not vote:	39	(40%)

Only editorial comments received. A comment disposition document will be posted.

Break for lunch at 11:30.

## Security Task Group

Reminder for new sign up

The required patent slides were shown to the task group

Call for Patents

Certicom LoA

No information from them at this time

A bit of discussion about what is allowed and not allowed vis a vis patents

Discussion of style guide and draft format

Discussion of CP state machine

A bit of background discussion since there were several comments on this state machine so we need to make sure things are sorted out

Need a idle state after retire to clear some of the confusion

EAP and PACP State machine

## AVB Minutes

Tuesday, July 15, 2008

Kevin Gross, Secretary

7/15/2008 9:01 AM

Meeting of 803.1 AVB task group convened by Kevin Stanton standing in for Michael Johas Teener as chair

Agenda review - <http://www.ieee802.org/1/files/public/docs2008/avb-cag-agenda-0708-v2.pdf>

7/15/2008 9:04 AM

Patent slides presented by chair

7/15/2008 9:07 AM

Introductions

7/15/2008 9:08 AM

P802.1at Delay and Bandwidth Parameterization presentation by Norm Finn -

<http://ieee802.org/1/files/public/docs2008/at-nfynn-delay-bw-parameters-0508-v04.pdf>

(updated presentation with minor corrections uploaded after presentation - <http://www.ieee802.org/1/files/public/docs2008/at-nfinn-delay-bw-parameters-0508-v05.pdf>)

7/15/2008 10:31 AM  
Break

7/15/2008 10:43 AM  
Reconvened  
Don Pannell assumptions presentation - <http://www.ieee802.org/1/files/public/docs2008/avb-pannell-assumptions-0508-v15.pdf>

7/15/2008 12:26 PM  
Proposal: items should be removed from assumptions document once they've been incorporated into standards document.

7/15/2008 12:30 PM  
Proposed post-lunch agenda from chair: 802.1Qat then 802.1Qav  
Adjourned for lunch

## Minutes for DCB

(Meeting notes captured for Tuesday by Asif Hazarika.)

Tuesday 7/15:

1. WG Chair Opening – remarks :
  - a. <http://www.ieee802.org/1/files/public/docs2008/admin-thaler-dcb-agenda-0708.pdf>
  - b. Badges, and Attendance (New System)
  - c. WG Chair Patents:
    - i. Reading of the Patent WG- chair Instruction
    - ii. Showing & Reading of the slides
    - iii. Slide#1 (Participants, Patents, and Duty to Inform)
    - iv. Slide#2 (Patent Related Links)-
    - v. Slide#3 (call for Potentially Essential Patents
    - vi. Pat asked the floor if anybody has patents no response
  - d. Reading of Other Guidelines for IEEE WG meetings
  - e. Agenda was discussed
  - f. Discussion on Agenda – Added a few more items
    - i. Pat related a concern from the opening plenary regarding Virtual Ethernet Bridging folks
    - ii. That this project belongs to the other Bridging folks
    - iii. 802.1x has some material on Virtual ports , needs to be looked at as a homework item.

2. Schedule Discussed
  - a. Qau Task Group Ballot April 2008
    - i. Last Feature addition July 2008
    1. Features include discovery, mgmt, message format
    - ii. Complete draft November 2008
    - iii. WG Ballot March 2009
    - iv. Sponsor Ballot November 2009
    - v. Forward to Revcom March 2010
    - vi. Mike Ko – Simulations revealed bugs what will happen
      1. Yes we will change if something dramatic happens
  - b. Qaz & Qbb
    - i. Protocol Mechanism - July 2008
    - ii. First TG Ballot - Aug 2008
    - iii. Complete Draft - Sept 2008
    - iv. Task force review, complete, initiate WG Ballot - Nov 2008
      - v. Sponsor Ballot - July 2009
      - vi. Any concerns?
      1. Are Qbb & Qaz together, yes the schedules are merged for convenience
3. Balaji Prabhakar - : Theoretical Model for QCN
  - a. <http://www.ieee802.org/1/files/public/docs2008/au-prabhakar-qcn-model-07-15.pdf>
  - b. Methods of analysis of congestion controls – Modeling, Equations,
  - c. BUT QCN/BIC style is harder to model or create equations – equations were obtained – check using simulations
  - d. He discussed equations for Window, and emphasized that we need two variables to solve the problem – Target Rate is the new variable
  - e. Explained the set of equations that he has derived – It was break time!!!
4. Logistics for future meeting
  - a. July 2011 and 2012 Israel (Telaviv) meeting, Geneva meeting survey was discussed
5. Balaji – 2nd Presentation : Discussed simulations –
  - a. <http://www.ieee802.org/1/files/public/docs2008/au-prabhakar-qcn-tcp-07-15.pdf>
  - b. Model - Si ..... Sn inputs to Switch 1 (delay Tau in Switch) – with 10Gbe link to Switch 2 – outputs D1 ... Dn output
  - c. TCP only: Victim Flow Causing Congestion , innocent flow is not impacted
  - d. TCP only with Pause: Innocent flow also gets impacted during Congestion at Victim flow
  - e. TCP , QCN and Pause: Innocent flow gets impacted
    - i. L2 congestion can be handled
    - ii. L2 Cannot distinguish flows then L3 can do the job
  - f. Proposed Solution
    - i. If victim flow TCP was aware of the congestion it could adjust its rate and innocent flow need not be affected.
    - ii. RL is aware of congestion, and will notify TCP flow – Drop packet of victim flow
    - iii. Simulations for TCP and QCN
    - iv. Discussion whether UDP – with QCN and TCP flows were considered in one simulations

## **Tuesday PM, July 15, 2008**

### **Interworking Task Group**

Panos Saltisidis led comment resolution on the 802.1Qay-d3.5 PBB-TE Task Group Ballot. During the course of comment resolution some presentations were given.

Presentation by Linda Dunbar: <http://ieee802.org/1/files/public/docs2008/ay-dunbar-TESI-connectivity-testing-0708.pdf>. After some discussion took the following straw poll:

Straw Poll: Who in the room feels it is worth pursuing a DDCFM derived mechanism for segment testing for PBB-TE? Yes 6 No 21

Presentation by David Martin:

<http://www.ieee802.org/1/files/public/docs2008/liaison-martin-SG15-G.8031-informal-update-0708-v00.pdf>.

A comment disposition document will be posted.

Adjourn at 6:00pm.

### **Security Task Group**

Interim meeting in Portland

Downtown or suburbs

September 9-11

Something downtown with minimal services

Will do motion Thursday

P802.1X-Rev Discussion

Discussed byte ordering and the RFC number

Waiting on RFC number but draft is ready

Presentation by Paul on IETF 802 attributes draft

Additional comments will be sent to Paul so he can incorporate into his ballot comments to IETF

P802.1X-Rev Comment Review

P802.1AR Comment Review

### **AVB Minutes**

Tuesday, July 15, 2008

Kevin Gross, Secretary

7/15/2008 1:35 PM

Reconvened

802.1Qat comment resolution Craig Gunther - <http://ieee802.org/1/files/private/at-drafts/d1/802-1qat-d1-3-proposed-dis.pdf>

7/15/2008 2:38 PM

Adjourned for 15 minute break

7/15/2008 3:00 PM

Reconvened

802.1Qav draft-in-progress review by Tony Jeffree - <http://ieee802.org/1/files/private/av-drafts/d3/802-1qav-d3-0.pdf>

7/15/2008 5:03 PM

Presentation by Philippe Klein: MSRP Handling on CSN Networks –  
<http://ieee802.org/1/files/public/docs2008/at-phkl-msrp-csn-handling-0708-v10.pdf>

7/15/2008 5:27 PM

Meeting adjourned

Reconvene for joint session with 802.3 8-10a Wednesday, 16 July in Centennial C

## **DCB minutes**

6. Norm Finn: Draft discussion:
  - a. Removed the notion of Classes but use the notion of priority instead.
  - b. Discussion on the protocol and how it works in a consistent cloud.
  - c. Should CP emit frames if neighbors is non-congestion aware
  - d. Discussion on CNP - Congestion Notif. Priority
  - e. Frame Format. Why was Q Delta removed? – Method for computing Fb is bad because it gives same weight to half-full big buffer vs half-full small buffer
7. Norm Finn –
  - a. Problems we have in CN - Link Aggregated past the switch or from the NIC.
  - b. Concept of assign RPIDs to tackling the problem.
  - c. Alternate proposal from the floor – Associate Flow-ID to RPs
  - d. Mentioned LinkTrace – explore the network can used to associate to the same RP.
8. Bruce Kwan
  - a. <http://www.ieee802.org/1/files/public/docs2008/au-bkwan-rpid-issues-0708.pdf>
  - b. Discussion regarding Multipathing from Multiple or single Reaction points hooked up with Bridge as a link-aggregated – or the multiple switches are interconnected through Link Aggregation.
  - c. Discussed Fate Sharing issue.
  - d. QCN and Fast Delivery of Mice Flow –suggestion – Send out the mice first , a link worth and then Rate Limit the rest ?
  - e. Load Balancing Degradations – LB based on RPID
  - f. Link Aggregated NICs – same as previous presentation – CNM delivery issue (cost to the bridge? , it could be a table or some other intelligence)
  - g. Which is worse – Fate Sharing vs. restriction to Bridge
9. Caitlin Bestler - End Station Issues
  - a. <http://www.ieee802.org/1/files/public/docs2008/au-bestler-endstationrps-0708-05.pdf>
  - b. Ethernet Backplane – will have a bridge to connect the NICs through Ethernet Backplane
  - c. PCI Backplane – NIC is on the I/O blade and shared
  - d. MR-IOV (Multiroot IOV), MR-NIC – Multiroot NIC
  - e. Discussed Endstation behavior vs Switches.
  - f. Flow Context Awareness
  - g. End Station Host Stack Participation

**Wednesday AM, July 16, 2008**



## **Interworking Task Group**

Meeting called to order at 10:15 (following joint 802.1 and 802.3 meeting).

Presented patent policy slides. No response to the call for patents.

Presentation by Don Fedyk on 802.1aq Shortest Path Bridging (SPB) project status:

<http://www.ieee802.org/1/files/public/docs2008/aq-fedyk-SPB-Recap-Status-0708-v01.pdf>

Mick Seaman presented a paper on SPB:

<http://www.ieee802.org/1/files/public/docs2008/aq-seaman-link-state-bridging-0508.pdf>

and called attention to a second paper:

<http://www.ieee802.org/1/files/public/docs2008/aq-seaman-link-state-bridging-part2-0708.pdf>

Presentation by Don Fedyk on loop prevention in SPB:

<http://www.ieee802.org/1/files/public/docs2008/aq-fedyk-Loop-Prevention-0708-v01.pdf>

Break for lunch at 12:10.

## **Security Task Group**

The required patent slides were shown to the task group

Call for Patents

P802.1AR Ballot Comment Review

## **AVB Minutes**

Wednesday, July 16, 2008

Kevin Gross, Secretary

7/16/2008 8:00 AM

Joint meeting of 802.3 and 802.1 convened by Tony Jeffrey and David Law

7/16/2008 8:01 AM

Patent slides presented.

Call for patents. None declared.

7/16/2008 8:02 AM

Proposed agenda presented by David Law

7/16/2008 8:04 AM

AVB status presentation by Michael Johas Teener -

<http://www.ieee802.org/1/files/public/docs2008/avb-mjt-standards-status-0708.pdf>

7/16/2008 8:17 AM

Sync PDUs and the MAC Stack presentation by Norm Finn -

<http://www.ieee802.org/1/files/public/docs2008/as-nfinn-sync-and-mac-stack-0108-v1.pdf>

7/16/2008 8:43 AM

Motion to defer timestamp problem solving for ad-hoc during Seoul interim.

July 2008

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7/16/2008 8:45 AM

Call for volunteer by Geoff Garner for 802.1AS EPON clause editor.

7/16/2008 8:48 AM

Energy Efficient Ethernet presentation by Mike Bennett -

<http://iee802.org/1/files/public/docs2008/liaison-802-3-eee-bennett-01-0708.pdf>

7/16/2008 9:01 AM

Wael William Diab presentation LLDP use by 802.3at (POE+) and 802.3az (Energy Efficient Ethernet) - <http://iee802.org/1/files/public/docs2008/liaisons-diab-lldp-slides-from-joint-meeting-0708.pdf>

7/16/2008 9:46 AM

Secretary leaves meeting in progress

7/16/2008 10:14 AM

802.1 AVB task group meeting convened by Michael Johas Teener  
Group's familiarity with patent slides verified

7/16/2008 10:16 AM

802.1AS comment resolution by Geoff Garner - <http://iee802.org/1/files/private/as-drafts/d3/802-1AS-d3-0-proposed-dis.pdf>

7/16/2008 11:51 AM

Completed resolution of wireless comments (section 2.1)

7/16/2008 12:01 PM

Break for lunch

Reconvene at 1p

## **DCB minutes**

(AM and PM)

1. Anoop Ghanwani:
  - a. <http://www.iee802.org/1/files/public/docs2008/az-ghanwani-ets-proposal-0708-v1.pdf>
  - b. Discussion about AVB streams: Can be mapped into PGID=15 – so ETS will not be applied to those priorities
  - c. TC is a queue: if PG is group of queues. If it is TC group – then it won't be possible to misconfigure.
    - i. There is open question whether multiple TCs should be allowed in single PG or not
    - ii. Will be covered in later presentation
  - d. Norm: Would like to get proposal to include other projects for queue management
    - i. Rather than getting two different projects to work on same section of draft
    - ii. Pat: will need 802.1 to buy in into this.

2. Joe Pelissier: Convergence of 802.1Q, PFC, and ETS
  - a. <http://www.ieee802.org/1/files/public/docs2008/az-pelissier-convergence-proposal-0708.pdf>
  - b. Foil 8: Should use SR (Stream Reservation) instead of AVB
  - c. Concern is that proposed solution does not allow IPC to use PFC – recorded as an issue that needs to be addressed
  - d. Proposal is to limit Priority Group to single TC.
  - e. Need to have at least 3 TC
  - f. If this proposal is approved then will it impact PGID=15 as defined in ETS currently
    - i. Possibly yes. Maybe capability will remain.
  - g. Will need to impact MIBs for Priority mapping
  - h. Also need to review Priority Regeneration Table currently defined in 802.1
  - i. IPC traffic – is limited to EP or nn in this proposal
    - i. So one cant use PFC for IPC traffic – need to be addressed in future version
    - ii. Possibly 4<sup>th</sup> traffic type
  - j. Does this apply only to DCB devices?
    - i. Needs to be discussed.
    - ii. AVB is definitely first group that can benefit from immediate interaction
  - k. Discussion: Can TCs do more/different than ETS specification?
    - i. No – proposal is to limit how unspecified behavior is achieved
3. Joe Pelissier: PFC Proposal discussion
  - a. <http://www.ieee802.org/1/files/public/docs2008/bb-pelissier-pfc-mac-control-0708.pdf>
  - b. Should “all 0” be allowed in PFC packet?
    - i. That will be easier way rather than defining what happens when “all 0” is defined as illegal and is received from wire.
  - c. Discussion whether there needs to be agreement between link peers about PFC capability.
  - d. Timing considerations will get appropriately worded as we go along.
4. Pat Thaler: Qbb Issues
  - c. <http://www.ieee802.org/1/files/public/docs2008/bb-thaler-frame-issues.pdf>
  - d. Should PFC frame be stopped at “Nearest” or “Nearest non-TPMR”?
    - i. Should not passed through TPMP
    - ii. It needs to be “Nearest”
5. Joe Pelissier:
  - a. PFC applies only to point-to-point full-duplex links
  - b. 802.3 seems to be only relevant work – so solution could be optimized for 802.3
    - i. For other networks – provide annex in 802.1
    - ii. 802.3 related work can be taken to .3 as work request
      1. Theoretically 802.3ar can be used as it has first objective “Specify a mechanism to support the communication of congestion information”
      2. However, one could create a separate project for that specific project based on proposed division of work between .3 and .1
  - c. Need to talk to 802.3
    - i. Pat will try to make liaison report to 802.3 about this potential work
6. Manoj Wadekar:
  - a. <http://www.ieee802.org/1/files/public/docs2008/az-wadekar-dcbx-capability-exchange-discovery-protocol-0608-v1.0.pdf> tra

- b. <http://www.ieee802.org/1/files/public/docs2008/az-wadekar-dcbcxp-overview-rev0.2.pdf>
  - c. Discussion about Goals:
    - i. It is acceptable to have need for “configuring peer” – precedence provided by VOIP phones
    - ii. However constrain be specified that this applies to Bridge-Station interface – not bridge-bridge interface
  - d. PFC/CN:
    - i. Till device can trust peer - CM traffic goes to BE
    - ii. once trusted - CM traffic goes in CP Priority
  - e. Synchronization:
    - i. There is potential area where one side gets active before peer and run into issues
  - f. Willing:
    - i. Need to specify "goal" to allow this configuration for ES and not for bridge
7. Mike Ko:
- a. MIB Proposal and Discussion
  - b. Discussion on PauseCumulDuration
  - c. Great to see MIB work so early in the project
8. Diego Crupnicoff:
- a. <http://www.ieee802.org/1/files/public/docs2008/au-crupnicoff-AFID-0708-v1.pdf>
9. Mitch Gusat: Feedback about DCB for HPC and Business Analytics
- a. <http://www.ieee802.org/1/files/public/docs2008/au-gusat-feedback-request-0708.pdf>
  - b. Lossless is required
    - i. But do not want to impact latency
  - c. More information would be good to bubble up to apps
  - d. Fb\_Rq could be achieved with Solicit bit in RPID (of FlowId etc) – equivalent of Solicit bit in BCN
    - i. Need sequence number as well
  - e. Q: have these customers examined AVB functionality? If BW can be defined and limited – system will guarantee that it will never exceed certain value and it will not be dropped. Timestamps are provided as well
    - i. Some finance people have expressed interest – which is alarming – because AVB is defined for streams – financial apps are bursts
  - f. What is the requirement: Min latency or equal latency? – Answer is both.

## **Wednesday PM, July 16, 2008**

### **Interworking Task Group**

Linda Dunbar led comment resolution on the 802.1Qaw-d3.0 DDCFM Working Group ballot. The ballot results were 11 Approve (62%) and 7 Disapprove (38%). A comment disposition document will be posted.  
Adjourn at 5:00pm.

July 2008

Denver, CO

## **Security Task Group**

P802.1X Rev Ballot Comment Review

Discussion of 6.2.1 and creating a generalized KDF

Discussion of Virtual Ports

## **AVB Minutes**

Wednesday, July 16, 2008

Kevin Gross, Secretary

7/16/2008 1:16 PM

Reconvened

802.1AS comment resolution continues

7/16/2008 2:54 PM

Break

Reconvene at 315p

7/16/2008 3:25 PM

Reconvened

802.1AS comment resolution continues

7/16/2008 6:10 PM

Adjourned

Reconvene at 830a Thursday

## **Thursday AM, July 17, 2008**

### **Interworking Task Group**

Meeting called to order at 9:00.

Presented patent policy slides. No response to the call for patents.

Stephen Haddock led a discussion on a response to an interpretation request received on IEEE Std 802.1ag-2007 regarding priority-tagged CFM frames. Following the discussion, a formal response will be generated and presented as a motion at the closing plenary meeting.

Panos Saltsidis led a discussion of a liaison letter to ITU-T SG15 regarding PBB-TE protection switching. This will also be the subject of a motion at the closing plenary meeting.

Panos then led further comment resolution on 802.1Qay-d3.5 PBB-TE Task Group Ballot.

Bob Sultan gave a presentation on Fast Reroute for a Traffic Engineered network:

<http://iee802.org/1/files/public/docs2008/new-sultan-fast-reroute-te-0708-v01.pdf>

Adjourn at 11:50am.

July 2008

Denver, CO

## **Security Task Group**

The required patent slides were shown to the task group  
Call for Patents  
P802.1AR Ballot comment review  
P802.1X-Rev Ballot comment review

## **AVB Minutes**

Thursday, July 17, 2008  
Kevin Gross, Secretary

7/17/2008 8:35 AM

802.1 task group meeting convened by Michael Johas Teener

7/17/2008 8:35 AM

Discussion of future of Assumptions document led by Don Pannell (no presentation materials)

7/17/2008 8:48 AM

802.1AS comment resolution by Geoff Garner -

<http://www.ieee802.org/1/files/private/as-drafts/d3/802-1AS-d3-0-proposed-dis.pdf>

7/17/2008 10:02 AM

Adjourned.

Reconvene for joint 802.11aa (Robust Audio Video Transport Streaming) meeting  
Capitol 6 (level 4) at 1030a

7/17/2008 10:31 AM

Joint meeting of 802.11aa and 802.1 convened by Ganesh Venkatesan -

<https://mentor.ieee.org/802.11/file/08/11-08-0758-02-00aa-denver-opening-report-and-agenda.ppt>

7/17/2008 10:31 AM

Call for familiarity with patent policy and slides

7/17/2008 10:33 AM

Discussion of meeting agenda

7/17/2008 10:34 AM

802.1 AVB status update by Michael Johas Teener -

<http://iee802.org/1/files/public/docs2008/avb-mjt-standards-status-0708.pdf>

7/17/2008 10:45 AM

802.11aa status update presentation by Ganesh Venkatesan -

[http://www.ieee802.org/11/Reports/802.11\\_Timelines.htm](http://www.ieee802.org/11/Reports/802.11_Timelines.htm)

7/17/2008 10:48 AM

Using Packet Drop Precedence for Graceful Degradation presentation by Alex Ashley - <https://mentor.ieee.org/802.11/file/08/11-08-0764-00-00aa-using-packet-drop-precedence-for-graceful-degradation.ppt>

7/17/2008 11:10 AM

Requirements and Implementations for Intra-flow/Intra-AC DiffServ presentation by Jun Li - <https://mentor.ieee.org/802.11/file/08/11-08-0857-00-00aa-requirements-and-implementations-for-intra-flow-intra-ac-diffserv.ppt>

7/17/2008 11:36 AM

General discussion

7/17/2008 11:50 AM

802.1Qat/802.11e TSpec mapping discussion

7/17/2008 12:00 PM

Adjourned

## DCB minutes

### 10. Joe Pelissier: Thoughts on Network IO Virtualization

- a. <http://www.ieee802.org/1/files/public/docs2008/new-dcb-pelissier-NIC-Virtualization-0708.pdf>
- b. Challenge of server virtualization – moving trust complexity to servers from bridges
- c. Can it be simplified by sharing work between bridges and NICs?
- d. Additional Tag can be defined for separating out virtual machine identification

### 11. Mike Ko: Thoughts on Virtual Ethernet Bridging (VEB)

- a. <http://www.ieee802.org/1/files/public/docs2008/new-dcb-ko-VEB-0708.pdf>
- b. SR-IOV devices have standardized interfaces “north” side of PCI
- c. But no standardization exists for functionality “south” side of PCI
  - i. Forwarding, ACL etc.
- d. Next step: discuss more whether 802.1 is interested in taking up work in this area. Take this up in next Interim meeting.
- e. Need presentations about problem statements, solutions, challenges etc.

### 12. Manoj Wadekar: Simulation Ad-hoc report

- d. 5 meetings since last Interim
- e. Most focused on overall CN proposals – 2 meetings with TCP/IP workload simulations
- f. Proposal to change name of Ad-hoc to “CN Adhoc” to reflect focus of discussions in these meetings.

### 13. Discussion:

Editor has published 1.1 spec – need group to review and comment

- a. QCN Parameter discussion:
  - i. Should parameters be specified for 1G and 10G or 100G should be considered?
    1. Should discuss after mixed speed simulations.
    2. Can simulate with all 10G links changed to 1G in benchmark scenarios

1. Is 5% realistic limit for OG congestion?
    - ii. RP Parameters – can they be “almost” constants?
      1. Link Speed dependency
      2. CP dependency
      3. Can parameters be made dependent upon CP link speed?
        1. Probably not. How does one resolve multiple CP associated with single RL?
        2. Do parameters scale per RP link speed?
        3. Foil 9 in following presentation gives good framework for this discussion:
          1. [http://www.ieee802.org/1/files/public/docs2007/a\\_u-wadekar-cm-nic-perspective-rev-1.0.pdf](http://www.ieee802.org/1/files/public/docs2007/a_u-wadekar-cm-nic-perspective-rev-1.0.pdf)
14. Norm Finn: RPID discussion
  - a. RP number at RP and ES receives RPID base (through DCBX)
  - b.  $RPID = RPID\ Base + RP\ Number$
  - c. “m—way” Load balancing decision (RPs get distributed better):
    - i.  $Path = remainder((RPID + const) / m)$
    - ii. RP’s get loaded better does not guarantee that load is distributed evenly – which is similar constraint as today’s solutions for distribution
  - d. Between Bridge and ES – one can manipulate const so that RPs are assigned symmetrically on links with Bridge
  - e. Transmission can begin after RPD-Base exchange is completed
  - f. No LACP changes required
  - g. Flowid may allow extending information to upper protocol flows – however it is too early for discussion
15. Norm Finn: Ballot comments and draft discussion
  - d. Flow Queue: should it be represented the way it is in current draft or more flexible representation (alloca/free RL)?
    - i. Contribution requested
  - b. (12.17) The editors should determine how to split this into 802.1Qau and 802.1Qaz pieces along the lines of Pelissier’s contribution. Accept
    - i. Pending discussion is about traffic types.
  - c. (12.17) Per port config of which priorities are CNPs should be removed (Ports can still be configured as edge or interior for each CNP). - Accept
  - d. (32.1.2) An Edge Congestion Port does not allow frames with CN priority to be transmitted. (Blocking can be done by stopping output from the queue). – Reject
    - i. Will provide idea in Annex Z
  - e. (32.1.2) An Edge Congestion Port does allow CNMs to be transmitted (there shouldn’t be any, and they are hard to stop because they are not on the CNP). – Accept
  - f. (32.4.4) The editor will consult with those who have been running the simulations to revise how to convert the cpFb variable into the 6 bit value carried in the CN Message – Accept, plus an annex Z note requesting a definition and justification.
  - g. Add an FQID/RPID tag to data frames and remove the encapsulated frame portion from the CNM? - Accept
  - h. Add a feedback request/response feature: [Reject, bit add note in Annex Z]

## **Closing Plenary, Thursday, July 17, 2008**

Administrative Stuff

Membership

Affiliation



Patent Review

The required slides were shown to the committee

Call for Essential Patents

No one spoke up

Interim meetings

September 2008 – Seoul, South Korea

January 2009 – Bangalore, India 12 – 15th – need a decision today

Straw Poll about who can or will attend – 39

There was a proposal for Santa Cruz, CA

Straw Poll for Santa Cruz – 50

Discussion

If Bangalore is a no go then Santa Cruz will be on the table

May 2009 – Pittsburgh, PA 10 – 15<sup>th</sup> or 17 – 22<sup>nd</sup>

Straw Poll - 86

September 2009 – Tunisia but will not be decided today

CFI bit

.11 would like to see this bit used as drop precedence in the C-tag

Discussion

Can we leave the current definition for now?

If current definition is kept then the results in a dropped frame

We should reassign the bit based upon a standards draft rather than a standalone motion

It appears there is no clarity/consensus so we should wait until a draft is out and folks can comment on the draft

It can not be changed by a motion here because the bit is defined in a standard and only by changing the standard will the definition of the bit change

802.1ag Interpretation

Discussion

Should we do it now or with the motions?

Do with the motion

P802-Rev O & A progression

Initial “merge” draft has been produced

802a and 802b incorporated

Needs long term editor

P802.1AB-Rev

Editor needs guidance on what the fate of Clause F should be following the joint meeting on Wednesday

The consensus was to turn Clause F over to .3

Liaisons from .1 will have voting rights for what becomes clause F

Task Group Reports

Internetworking – Steve

Security – Mick

AV – Michael

DCB – Pat

Moving AB-Rev Annex F to 802.3 – Pat

Make PatCom aware and explain why this is different from .3ax/.1AX  
Amendment to 802.3 scope limited to moving the Annex

Proposed 802.3 structure

New clause for TLVs and Sub-types

Restore Clause 30C for SNMP MIBs

Protocol agnostic work in Clause 30

.3at and .3az to add their TLVs and corresponding MIB objects in their projects

(IN)Sanity Check

First time in a long time the list has shrunk

Motions

802.1 approves the March 2008 and May 2008 minutes.

Proposed: Wright Second: Fuller

For 53 Against 0 Abstain 2

802.1 resolves to hold pre-meeting(s) on the Monday morning of the November 2008 plenary session.

Proposed: haddock

Second: Wright

For: 52 Against: 0 Abstain: 3

802.1 resolves to hold an interim meeting in Seoul, South Korea, 15th through 18th September (co-located with 802.3).

Proposed: Teener

Second: Thaler

For: 42 Against: 1 Abstain: 12

802.1 resolves to hold an interim meeting in Pittsburgh Pen 18-21st May 2009.

Proposed: Nolish

Second: Finn

Discussion about Monday through Thursday or Tuesday through Friday

Consensus was for Monday through Thursday

For: 37 Against: 0 Abstain: 9

802.1 resolves to hold an interim meeting in Bangalore, India, 12 Through 15 January 2009.

802.1 Proposed: Karandikar

Second: Teener

For: 18 Against: 16 Abstain: 26

Discussion

Who will go? 32

Who will not go? 11

The question is given recent history can we hold a successful interim?

The observation was made that holding meetings in "distance" places will be painful in the beginning but eventually more folks will show up

Need policy about how interims are distributed throughout the world

This would help meeting planning and logistics  
The chair decided that this would not be a good location so the chair requested other venues

The AVB TG will continue to have teleconferences weekly at 9AM (US Pacific) Wednesdays for AVB general topics and 10AM (US Pacific) Mondays for 802.1AS specific topics. Access information will be sent to the 802.1 reflector immediately after the plenary.

Proposed: Teener

Second: Fuller

For: 17 Against: 0 Abstain: 24

802.1 instructs the editor of P802.1AS (Geoff Garner) to prepare a further draft. The Chair is authorized to submit the project for Working Group balloting.

Proposed: Teener

Second: Garner

For: 36 Against: 0 Abstain: 6

802.1 instructs the editor of P802.1Qat (Craig Gunther) to prepare a further draft. The Chair is authorized to submit the project for Task Group balloting.

Proposed: Teener

Second: Gunther

For: 40 Against: 0 Abstain: 8

802.1 instructs the editor of P802.1Qav (Tony Jeffree) to prepare a further draft. The Chair is authorized to submit the project for Task Group balloting.

Proposed: Teener

Second: Wright

For: 44 Against: 0 Abstain: 8

Authorize CN ad hoc teleconferences weekly at 9AM (US Pacific) Thursdays. Access information will be sent to the 802.1 reflector immediately after the plenary.

Proposed: Thaler

Second: Ghanwani

Discussion

Name change to CN from simulation to reflect what is going on

For: 27 Against: 0 Abstain: 23

The editor of P802.1Qau (Norm Finn) is instructed to prepare a draft for task group ballot based on comments received. The Chair is authorized to submit the draft for task group balloting.

Proposed: Thaler

Second: Finn

Discussion

Change to include comments during this meeting

Make it based upon comments received

For: 38 Against: 0 Abstain: 4

The editor of P802.1Qaz (Craig Carlson) is instructed to prepare an initial draft for task group ballot based on:

az-ghawani-ets-proposal-0708-v1.pdf except for the table structures  
plus consensus reached at the September interim

The Chair is authorized to submit the draft for task group balloting.

Proposed: Thaler

Second: Asif Hazarika

For: 37 Against: 0 Abstain: 8

The editor of P802.1Qbb (Claudio DeSanti) is instructed to prepare an initial draft for task group ballot based on:

bb-pelissier-pfc-proposal-0508.pdf and inputs from the September interim

The Chair is authorized to submit the draft for task group balloting.

Proposed: Thaler

Second: Guenter Roeck

For: 41 Against: 1 Abstain: 4

802.1 resolves to hold an interim meeting of the Security TG 9th, 10th, 11<sup>th</sup> September in Portland, Oregon.

Proposed: Seaman

Second: Wright

For: 10 Against: 1 Abstain: 35

802.1 instructs the editor of P802.1-X-REV (Mick Seaman) to prepare a further draft.

The Chair is authorized to submit the project for Working Group balloting.

Proposed: Seaman

Second: Wright

For: 32 Against: 0 Abstain: 8

802.1 instructs the editor of P802.1AR (Max Pritikin) to prepare a further draft. The

Chair is authorized to submit the project for Working Group balloting.

Proposed: Seaman

Second: Wright

For: 34 Against: 0 Abstain: 12

802.1 requests approval of the EC to submit 802.1ap for Sponsor ballot.

Proposed: Haddock

Second: Parsons

Discussion

Remove parenthetical

Remove draft number

For: 48 Against: 0 Abstain: 2

The editors of P802.1H-REV (Kevin Nolish and Michael Wright) are instructed to prepare a draft for task group ballot based on:

<http://iee802.org/1/files/public/docs2008/H-Rev-NolishWright-EditorPlan-0708-v01.ppt>

Proposed: Wright

Second: Haddock

Discussion

What is .1H?

Should this remain recommended practice?

Yes

For: 40 Against: 0 Abstain: 6

802.1 instructs the editor of P802.1Qaw (Linda Dunbar) to prepare a further draft. The Chair is authorized to submit the project for Working Group recirculation balloting.

Proposed: Haddock

Second: Dunbar

For: 45 Against: 0 Abstain: 0

802.1 instructs the editor of P802.1Qay (PanosSaltsidis) to prepare a further draft. The Chair is authorized to submit the project for Working Group balloting.

Proposed: Haddock

Second: Saltsidis

For: 47 Against: 0 Abstain: 2

802.1 requests approval of the EC to forward P802.1ak-Cor-1 to RevCom.

Proposed: Haddock

Second: Thaler

For: 52 Against: 0 Abstain: 0

802.1 requests approval of the EC to forward P802.1ak-Cor-1 to RevCom.

Proposed: Haddock

Second: Thaler

Discussion

Is there an editor? Not at this time

Project held up waiting for completion of .1ah

For: 52 Against: 0 Abstain: 0

P802.1AB PAR modification:<http://iee802.org/1/files/public/docs2008/ab-par-modification-request-0708.pdf>

802.1 requests EC approval to forward the draft PAR modification for 802.1AB-REV to NesCom.

Proposed: Haddock

Second: Wright

For: 33 Against: 0 Abstain: 7

802.1 instructs the editor of P802.1aj (John Messenger) to prepare a further draft based on the resolution of ballot comments received. The Chair is authorized to submit the project for Working Group recircballoting.

Proposed: Haddock

Second: Messenger

For: 36 Against: 0 Abstain: 5

802.1 instructs the editor of P802.1AB-REV (Tony Jeffree) to prepare a further draft. The Chair is authorized to submit the project for Working Group recircballoting.

Proposed: Haddock

Second: Patton

For: 37 Against: 0 Abstain: 1

802.1 resolves to use the 01-80-C2-00-00-00 address as the “nearest customer bridge” address in P802.1AB-REV.

Proposed: Haddock

Second: Seaman

For: 33 Against: 0 Abstain: 7

802.1 approves the 802.1ag interpretation request documented here:

<http://iee802.org/1/files/public/docs2008/admin-ag-interpretation-request-0708-v01.doc>

Proposed: Haddock

Second: Finn

For: 29 Against: 0 Abstain: 10

802.1 approves the liaison letter to ITU\_T SG15 regarding PBB-TE protection:

<http://iee802.org/1/files/public/docs2008/liaison-saltsidis-ITUTProtectionSwitching-0708-v01.doc>

Proposed: Haddock

Second: Saltsidis

For: 34 Against: 0 Abstain: 8

802.1 authorizes use of a phone in bridge for the sponsor ballot comment resolution on P802.1ap in the September meeting.

Proposed: Haddock

Second: Parsons

For: 30 Against: 0 Abstain: 9

Motion to adjourn

Proposed: Wright

Second: Fuller

Unanimous

**ATTENDEES**

<b><u>SURNAME</u></b>	<b><u>First Name</u></b>	<b><u>Affiliation</u></b>
About-Magd	Osama	Nortel Networks
Agarwal	Puneet	Broadcom Corporation
Alon	Zehavit	Nokia Siemens Networks
Beaudoin	Denis	Texas Instruments
Bestler	Caitlin	Neterion, Inc.
Bialkowski	Jan	Infinera Corporation
Bjorkman	Bill	Verizon HARMAN INTERNATIONAL INDUSTRIES, INC
Boatright	Rob	
Bonnamy	Jean-Michel	France-Telecom
Bottorff	Paul	Nortel Networks
Brandner	Rudolf	Nokia Siemens Networks
Carlson	Craig	QLogic Corporation
Chang	Amy	Xilinx
Cheng	Weiyang	Tellabs
Cherukuri	Rao	Juniper Networks, Inc.
Congdon	Paul	Hewlett Packard
Crupnicoff	Diego	Mellanox Technologies
Desanti	Claudio	Cisco Systems, Inc.
Devarajan	Venkatavaradhan	Procurve Networking by HP
Ding	Zheming	Ericsson
Dunbar	Linda	Huawei Technologies Co., Ltd.
duvvuri	srinivasa	Atheros Communications
Elbakoury	Hesham	Nortel Networks
Elie-Dit-Cosaque	David	ALCATEL-LUCENT
Farkas	Janos	Ericsson
Fedyk	Donald	Nortel Networks
Finn	Norman	Cisco Systems, Inc.
Foulkes	Philip	Rhodes University
Frazier	Robert	Ericsson
Fuller	John	John Nels Fuller
Garden	Katherine	Xilinx
Garner	Geoffrey	Harman International, self
Ghanwani	Anoop	Brocade
Godbole	Avanindra	Juniper Networks Inc
GOFF	YANNICK	France Telecom
Gravel	Mark	Hewlett-Packard
Gray	Eric	Ericsson
Grewal	Karanvir	Intel
Gross	Kevin	AVA Networks HARMAN INTERNATIONAL INDUSTRIES, INC
Gunther	Craig	
Gusat	Mitch	IBM
Haddock	Stephen	Self
Hasegawa	Takashi	Hitachi Cable, Ltd.
Hazarika	Asif	Fujitsu
Insler	Romain	France Telecom
Jeffree	Anthony	Cisco, HP, Broadcom, Adva
Jones	Nevin	LSI Corporation
Jost	Thomas	Vitesse
Karandikar	Abhay	Tejas Networks India Ltd/IIT Bombay
Kato	Shuzo	NICT
Kilcrease	Keti	Cisco Systems, Inc.

Kim	Doyeon	ETRI
Kim	Yongbum	Broadcom Corporation
Kishimoto	Takayuki	Hitachi Cable America Inc.
Klein	Philippe	Broadcom Corporation
Ko	Mike	IBM
KOLLI	Yacine	Canon
Kondapalli	Raghu	Marvell
		HARMAN INTERNATIONAL INDUSTRIES, INC
Kreifeldt	Rick	
Kumar	Vinod	Tejas Networks Ltd
Laihonen	Kari	Teliasonera
Lemon	John	ADTRAN Inc.
Lerer	Michael	Soapstone Networks
Livshitz	Michael	MetaLINK Technologies, Inc.
Loewen	Jonathan	PMC-Sierra, Inc.
Loh	Zhi-Hern	Fulcrum Microsystems
Mack-Crane	Ben	Huawei Technologies Co., Ltd.
Magee	Anthony	ADVA Optical Networking Ltd.
Martin	David	Nortel Networks
Martinotti	Riccardo	Ericsson
Masters	Jeffery	Axxcelera Broadband Wireless
Mayhew	David	Advanced Micro Devices - AMD
McGuire	Alan	British Telecommunications PLC
McIntosh	James	Vitesse Semiconductor
Menuchery	Menucher	Marvell Semiconductors
Messenger	John	Adva Optical Networking Ltd
Mora	Matthew	Apple Computer, Inc.
Multanen	Eric	Intel
Nadeau	Gerard	University of New Hampshire
Nolish	Kevin	Ericsson
Noseworthy	Bob	University of New Hampshire
O'Connor	Don	Fujitsu Network Communications
Ohta	Hiroshi	NTT
Oliva	Stephen	Sprint Corporation
		HARMAN INTERNATIONAL INDUSTRIES, INC
Olsen	David	
Pannell	Don	Marvell
Parsons	Glenn	Nortel Networks
Patro	Ranjeet	Samsung Electronics
Patton	Ken	Cisco Systems, Inc.
Pavlovsky	Alex	Finisar Corp
Pearson	Mark	Hewlett-Packard
Pelissier	Joseph	Cisco Systems, Inc.
Peterson	David	Brocade Communications
Porat	Hayim	Ethos Networks
Pritikin	Max	Cisco Systems, Inc.
Rajagopal	Ananda	Foundry Networks, Inc.
Ramanathan	Ramasamy	Juniper Networks, Inc.
Randall	Karen	NSA/IAD
Reddy	Pasula	Fujitsu
Roden	Robert	Lightstorm Networks
Roeck	Guenter	Teak Technologies
Roese	Josef	Deutsche Telekom AG
Rohde	Derek	Qlogic
Roney	Gregory	University of New Hampshire - IOL
Roth	Moran	Corrigent Systems
Rouyer	Jessy	Alcatel-Lucent



Ryoo	Jeong	ETRI
Ryu	Hyunsurk	Samsung Electronics
Sahr	Christina	IEEE
Sajassi	Ali	Cisco Systems, Inc.
Salowey	Joseph	Cisco Systems, Inc.
Saltsidis	Panagiotis	Ericsson
Sathe	Satish	Brocade Communications
Sauer	John	Tellabs
Seaman	Michael	CONSULTANT
Shah	Himanshu	Ciena Corp
Sharma	Suman	Intel
Siva	Meera	Infinera Corporation
Stanton	Kevin	Intel
Sultan	Robert	Huawei Technologies Co., Ltd.
Suzuki	Muneyoshi	NTT
Swallow	George	Cisco Systems, Inc.
Takacs	Attila	Ericsson
Teener	Michael	Broadcom
Thaler	Patricia	Broadcom Corporation
Thorp	Oliver	Fujitsu
Wadekar	Manoj	QLogic Corporation
Warren	Niel	Apple Computer, Inc.
Weibel	Hans	Zurich University of Applied Sciences
Weis	Brian	Cisco Systems, Inc.
Winkel	Ludwig	Siemens AG Global
Wright	Michael D.	Panoptic Security, Inc.
Wu	Chien-Hsien	Broadcom Corporation
Young	Ken	GridPoint, Inc.
Zadler	Elizabeth	Xilinx
Zorn	Glen	NetCube Technologies