# Minutes of the 802.1 Interim meeting held in Volterra, Italy, 8-11 September 2009

## **Attendees**

Attendees						
SURNAME	First Name	<u>Affiliation</u>				
Alon	Zehavit	Nokia Siemens Networks				
Ao	Ting	ZTE Corporation				
Arad	Carmi	Marvell				
Carlson	Craig	QLogic Corporation				
Congdon	Paul	Hewlett Packard				
Crupnicoff	Diego	Mellanox Technologies				
Desanti	Claudio	Cisco Systems, Inc.				
Ding	Zhemin	Ericsson				
Effenberger	Frank	Huawei Technologies Co., Ltd.				
Eiriksson	Asgeir	WG802.1				
Elzur	Uri	Broadcom Corporation				
Farkas	Janos	Ericsson				
Fedyk	Donald	ALCATEL-LUCENT				
Finn	Norman	Cisco Systems, Inc.				
Garner	Geoffrey	Samsung Electronics				
Ghanwani	Anoop	Brocade				
Goetz	Franz	Siemens				
Gray	Eric	Ericsson HARMAN INTERNATIONAL INDUSTRIES,				
Gunther	Craig	INC				
Haddock	Stephen	Stephen Haddock				
Hagen	Mikkel	University of New Hampshire - IOL				
Jeffree	Anthony	Broadcom & HP				
Jiang	Joy	JDS Uniphase Corporation				
Kicherer	Max	BMW Group				
Kim	Yongbum	Broadcom Corporation				
Klein	Philippe	Broadcom Corporation				
Kumar	Vinod	Tejas Networks Ltd				
Lakshmikantha	Ashvin	Broadcom Corporation				
Lapuh	Roger	Nortel Networks				
LEcuyer	Brian	WG802.1				
Lemon	John	ADTRAN Inc.				
Lipshteyn	Marina	Voltaire				
Mack-Crane	Ben	Huawei Technologies Co., Ltd.				
Messenger	John	Adva Optical Networking Ltd				
Mora	Matthew	Apple Computer, Inc.				
Noseworthy	Bob	University of New Hampshire				
Olsen	David	HARMAN INTERNATIONAL INDUSTRIES, INC				
Pannell	Donald	Marvell				
Parsons	Glenn	Nortel Networks				
Pelissier	Joseph	Cisco Systems, Inc.				
Roese	Josef	Deutsche Telekom AG				
Rouyer	Jessy	Alcatel-Lucent				
Sajassi	Ali	Cisco Systems, Inc.				
Saltsidis	Panagiotis	Ericsson				
Seaman	Michael	Mick Seaman				
Seto	Koichiro	Hitachi Ltd.				
Sprecher	Nurit	Nokia Siemens Networks				

Stanton Kevin Intel Corporation

SultanRobertHuawei Technologies Co., Ltd.TeenerMichaelBroadcom CorporationThalerPatriciaBroadcom CorporationUnbehagenPaulALCATEL-LUCENTWeiYuehuaZTE Corporation

### **Interworking Task Group Minutes**

September 8, 2009 Interworking Task Group IEEE Interim, Volterra

Meeting called to order at 9:00.

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

**802.1aj TPMR**: John Messenger conducted comment resolution of 802.1aj-d4.0 Two Port MAC Relay sponsor ballot. The following links reflect the conclusion of the discussions, and a snapshot of stack diagrams sketched during the course of the discussion.

http://ieee802.org/1/files/private/aj-drafts/d4//802-1aj-d4-0-dis-v01.pdf

http://ieee802.org/1/files/public/docs2009/aj-messenger-stack-diagrams-0909-v01.jpg

**802.1aq SPB**: Don Fedyk conducted comment resolution of 802.1aq-d2.1 Shortest Path Bridging task group ballot.

 $\frac{\text{http://ieee802.org/1/files/public/docs2009/aq-fedyk-SPB-Update-summary-0909-v1.pdf}{\text{v1.pdf}}$ 

http://ieee802.org/1/files/private/aq-drafts/d2//802-1aq-d2-1-pdis-v2.pdf

**802.1Qbf SegProt:** Bob Sultan led a discussion of the first draft of PBB-TE Infrastructure Protection:

http://www.ieee802.org/1/files/public/docs2009/bf-sultan-initial-draft-discussion-0909-v01.pdf

**New Work:** Guillermo Ibaniez presented some ideas on determining source rooted trees based on the data path, rather than a control plane routing protocol as in SPB.

http://ieee802.org/1/files/public/docs2009/fyi-ibanez-fastpath-0909.pdf.pdf

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September 9, 2009 Interworking Task Group

IEEE Interim, Volterra

Meeting called to order at 9:00.

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

**EVB:** A joint meeting with the DCB and Interworking Task Groups to discuss the draft PARs related to Edge Virtual Bridging.

http://www.ieee802.org/1/files/public/docs2009/new-congdon-evb-PAR5c-0909-v1.pdf

http://www.ieee802.org/1/files/public/docs2009/new-congdon-evb-PAR-discussion-0909-v1.pdf

http://www.ieee802.org/1/files/public/docs2009/new-pelissier-portextension-par5c-0909.pdf

Marina Lipshteyn gave a presentation on Active Fabric Management:

http://www.ieee802.org/1/files/public/docs2009/new-lipshteyn-evb-0909-v01.ppt

**MIRP**: Norm Finn conducted comment resolution on the task group ballot of 802.1Qbe-d0.1:

<See link following the conclusion of comment resolution on Sep 10>

September 10, 2009 Interworking Task Group

IEEE Interim, Volterra

Meeting called to order at 9:00.

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

MIRP: Norm Finn concluded comment resolution on the task group ballot of 802.1Qbe-d0.1:

http://ieee802.org/1/files/private/be-drafts/d0//802-1be-d0-1-dis.pdf

**New Work:** Zehavit Alon gave a presentation on a protocol for protected redundant interconnect at a UNI or ENNI.

http://ieee802.org/1/files/public/docs2009/new-alon-UNI-ENNI-protection-09-09-v01.ppt

Adjourn at 12:30 pm.

Resume at 2:00 pm.

**802.1Qbc RCSI:** Ben Mack-Crane led a discussion of the concepts that will be incorporated into the first draft of Provider Bridging -- Remote Customer Service Interface:

http://ieee802.org/1/files/public/docs2009/bc-mackcrane-RCSI-details-discussion-0909.pdf

**802.1aq SPB**: Mick Seaman continued resolution of comments on clause 27 of the 802.1aq-d2.1 task group ballot.

Adjourn at 5:25pm.

September 11, 2009 Interworking Task Group

IEEE Interim, Volterra

Meeting called to order at 9:10.

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

**802.1aj TPMR**: John Messenger concluded comment resolution of 802.1aj-d4.0 Two Port MAC Relay sponsor ballot.

http://ieee802.org/1/files/private/aj-drafts/d4//802-1aj-d4-0-dis-v02.pdf

**802.1aq SPB**: Mick Seaman and Don Fedyk continued resolution of comments on the 802.1aq-d2.1 task group ballot.

Adjourn at 2:50pm.

## **AVB Task Group Minutes**

802.1 Audio Video Bridging Task Group Agenda Presenter Length
- Magic decoder ring
 Presenter: CG/Craig Gunther, GG/Geoff Garner, MJT/Michael Johas
 Teener, TJ/Tony Jeffree, ??/everyone
- Tue AM 09:00-12:00
 administrivia MJT 10
 802.1Qat working group ballot review CG 170

-	Tue	PM 13:00-17:00		
	-	802.1Qat working group ballot review (cont.)	CG	240
-	Wed	AM 09:00-12:00		
	-	802.1Qav sponsor ballot review	TJ	180
-	Wed	PM 13:00-17:00		
	-	802.1Qav sponsor ballot review	TJ	120
	-	802.1BA presentations (if any)	??	120
-	Thu	AM 09:00-12:00		
	-	802.1AS working group ballot review	GG	180
-	Thu	PM 13:00-17:00		
	_	802.1AS working group ballot review (cont.)	GG	240

# **Security Task Group Minutes**

The Security TG did not meet in Volterra.

# **DCB Task Group Minutes**

#### Tuesday, 8 September

Pat went over the slides on patent and anti-competition policies.

During the discussion of the IEEE patent policy, Pat asked if there was anyone who wanted to make any IPR statements. There were none.

The slide-set used is from:

http://standards.ieee.org/board/pat/pat-slideset.pdf

The meeting secretary was asked to record this for the minutes. There was no response to the call for patents

Pat then told Norm Finn he could start the comment resolution for the 802.1Qau/D2.2.

Broke for lunch slightly after 12:30.

We continued comment resolution on 802.1Qau/D2.2. Norm completed the comment resolution at 2:15.

Marina Lipshtein presented some preliminary simulation results for "QCFN."

Pat asked Craig Carlson to talk briefly about comments on 802.1Qaz. As a result, Pat decided that we needed to invite Mick Seaman to talk about his comments.

Mick talked about his comments.

Pat concluded the day's meeting and reminded everyone of the evening's agenda.

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#### Wednesday, 9 September

Joint meeting of Interworking and DCB

Pat reviewed the patent and anti-competition policy.

Pat then asked about agenda items.

Pat asked Norm about the status of 802.1Qau/D2.2 comment resolution and reminded people in the room that 802.1Qaz now has a MIB section that needs review.

Paul Congdon gave a presentation on virtual bridge ports, including different approaches, discovery methods, applications, etc. Paul then moved on to the actual PAR draft text.

Joe Pelissier walked through the Port Extender PAR draft text. We spent much of the remainder of the morning editing the "need" section.

Claudio made an announcement about the departure time for the bus to town later today.

Pat then spent a few minutes talking about future plans.

Background Data Centers & virtualization

Need/Business case NIC SRIOV, Data Center size

(broad market #Switches, VMs, Mgmt.

potential))

**EVB Outline** 

Port Extender Outline

Q&A

Paul, Joe, Anoop and Pat

Pat announced that the joint meeting would again continue after lunch for long enough to complete Marina's presentation - as well as any other discussions that still need to be cleared up in the joint meeting after lunch - and then we will break up into our separate meetings.

We broke for lunch slightly after 12:30.

After lunch, Marina Lipshteyn (Voltaire) presented on the topic of Fabric management issues with virtual edge ports. The presentation covered current techniques and went on to describe issues that are not dealt with very well with this (these) approach(es).

The conclusion seemed to be that this is not the proper forum for the work associated with the issues identified in this presentation.

Norm then talked about comments that had been made - at least in part - during this meeting about the potential need to support the Q-in-Q case (Provider Bridging) for congestion aware bridges. The question was not whether or not this can be done, but rather whether or not people want to do it.

There seemed to be a consensus from the floor that this is needed for some network applications.

Pat then stated that this concludes the work of the Joint meeting and suggested that people head off to individual meetings so that the DCB group could continue with their own agenda.

End of Joint Meeting of 802.1 Interworking and Data Center Bridging.

Claudio gave a presentation on PFC State diagrams.

We spent quite a bit of the time talking about how to fix a delay diagram that looked too much like a stack diagram. We also spent some time talking about a potential issue with interactions between Link Aggregation and PFC

- i.e. - where in the stack the PFC function is in relation to LAG, and what might be the consequences for any implementation if PFC is used to gate all links in the group based on the congestion experienced on any link.

Craig Carlson did comment resolution for 802.1Qaz/D0.4, starting at about 4:30 and ending at 6 PM.

Pat said it was time to call it a day.

#### Thursday, 10 September, 2009

Pat reminded everyone of the IEEE patent and anti-competition policy and asked if anyone wanted to make a statement at this time. Nobody spoke up.

Craig Carlson continued with the comment resolution for 802.1Qaz/D0.4.

We broke for lunch at 12:30.

Craig continued comment resolution after lunch, finishing at about 2 PM.

Pat mentioned that a PAR change is needed. Pat presented the required changes to the PAR scope.

Joe Pelissier ran through a high-level description of the DCBX MIB and asked that people have their company "MIB experts" review this MIB and provide comments and input.

Pat ran through a few "public service announcements" (evening bus schedule and a reminder to record attendance).

Claudio continued his earlier presentation on state machines for PFC. We concluded we are ready to add these state machines to the draft document. Claudio then went on to go through comment resolution specific to PFC in 802.1Qbb.

Coffee break at 3:45.

After the break, Pat summarized the issues with LAG.

Transmission selection in the 802.1 model is above LAG, but in there are limitations on the ability to build real implementations this way. This is most externally apparent with PFC. When a LAG extends across NICs on multiple cards or switch ports on multiple line cards, the reaction time constraint of PFC is impractical.

For PFC, we may need to state that the pause is only guaranteed to stop the traffic on the physical link on which it was sent and should be duplicated to all links in the aggregation in order to stop the whole aggregation.

#### Friday, 11 September, 2009

Pat reminded everyone of the IEEE patent and anti-competition policy and asked if anyone wanted to make a statement at this time. Nobody spoke up.

Claudio continued to go through comment resolution for 802.1Qbb.

Coffee break at 11 AM.

We completed comment resolutions immediately after the break.

We plan to have documents for 802.3bd and 802.1Qbb ready for Working Group ballot submission by approximately 16 October.

Norm Finn continued comment resolution work for 802.1Qau. Essentially he just wants to verify that we will have turned enough votes around to go to the next recirculation ballot.

Norm completed comment resolution at 11:45.

Pat announced that she had sent out an announcement of a meeting to deal with 802.1Qau recirculation ballot comments on 12 October. She also gave a status report on PARs and other business.

Pat adjourned the meeting.