IEEE 802.1 Interim Meeting

Norfolk, VA, US

802.1 Meeting Minutes – 13-16 May 2014

Attendees

Last Name	First Name	Middle Name	Affiliation
Bottorff	Paul		Hewlett-Packard Development Company, L.P.
Bragg	Nigel		Ciena
Chen	David		NSN, Inc.
Chen	Feng		Siemens AG
Cummings	Rodney		National Instruments Corporation
Diamond	Patrick		Individual
Diarra	Aboubacar Kader		Robert Bosch GmbH
Edge	Bob		Consultant
Estes	David		Spirent Communications
Farkas	Janos		Ericsson
Finn	Norman		Cisco Systems, Inc.
Gale	Benjamin		Broadcom Corporation
Garner	Geoffrey		broadcom corporation, marvell semiconductor, siemens ag, hirschmann
Ghanwani	Anoop		Dell
Gorshe	Steven		PMC-Sierra, Inc.

Gravel	Mark	Hewlett-Packard Development Company, L.P.
Gunther	Craig	Harman International
Haddock	Stephen	Stephen Haddock Consulting, LLC
Hitt	Jeremy	Dell
Jeffree	Anthony	HP, Broadcom
Johas Teener	Michael	Broadcom Corporation
Jones	Peter	Cisco Systems, Inc.
Kamble	Keshav	IBM
Kiessling	Marcel	Siemens AG
Kim	Yongbum	Broadcom Corporation
Klein	Philippe	Broadcom Corporation
Korhonen	Jouni	Broadcom Corporation
Mack-Crane	Thomas	Huawei Technologies Co. Ltd
Mangin	Christophe	Mitsubishi Electric R&D Centre Europe (MERCE)
Mason	Ralph	Microchip Technology, Inc.
Mclendon	Jonathon	Spirent Communications
Messenger	John	ADVA Optical Networking Ltd.
Noseworthy	Bob	University of New Hampshire InterOperability Laboratory (UNH-IOL)
Pannell	Donald R	Marvell Semiconductor, Inc.
Parsons	Glenn	Ericsson AB
Regev	Alon	ixia
Riegel	Maximilian	NSN

Rodrigues	Silvana	Integrated Device Technology, Inc.
Rouyer	Jessy	Alcatel-Lucent
Saltsidis	Panagiotis	Ericsson AB
Sarikaya	Behcet	Huawei
Seaman	Michael	Individual
Sexton	Daniel	General Electric Company (GE)
Specht	Johannes	University of Duisburg-Essen and General Motors Company
Steiner	Wilfried	TTTech Computertechnik AG
Thaler	Patricia	Broadcom Corporation
Touve	Jeremy	Alcatel-Lucent
Unbehagen	Paul	Avaya Inc.
Waldo	Michael	ADVA Optical Networking
Walter	Todd	National Instruments Corporation
Weber	Karl	Beckhoff, ZHAW
Woods	Jordon	Innovasic
Zuniga	Juan	InterDigital, Inc.

Task Group Minutes

Interworking minutes

Tuesday, 13 May

Interworking Task Group meeting called to order at 9:05 AM.

Stephen Haddock presented the preliminary agenda for the week and reviewed the new liaisons from the ITU (LS116 and LS119) and MEF (re: Latching Loopback). It does not appear that any of the liaisons received require a response.

Stephen Haddock presented patent policy slides. No response to the call for patents.

802.1Qca PCR: Janos Farkas gave an editor's report and began comment resolution on the Task Group ballot of 802.Qca-d0.7 Path Control and Reservation:

- http://www.ieee802.org/1/files/private/ca-drafts/d0/802-1Qca-d0-7.pdf

- http://ieee802.org/1/files/public/docs2014/ca-farkas-d0-7-editor-report-0514-v02.pdf

- http://www.ieee802.org/1/files/private/ca-drafts/d0/802-1Qca-d0-7-pdis-v01.pdf

Adjourn at 11:30 AM.

No afternoon session since the 802.1AX-REV editor was stuck in Chicago.

Wednesday, 14 May

[802.1 Maintenance meeting from 8:00 to 8:40 AM]

Joint meeting of Interworking and Time Sensitive Networking Task Groups

Note: These minutes are the merged notes from Stephen Haddock and Rodney Cummings.

Stephen Haddock called the joint Interworking/Time-Sensitive-Networking meeting to order at 9:00 AM.

Stephen Haddock presented patent policy slides. No response to the call for patents.

802.1Qca PCR: Janos Farkas gave an editor's report and continued comment resolution on the Task Group ballot of 802.Qca-d0.7 Path Control and Reservation.

- http://www.ieee802.org/1/files/public/docs2014/ca-farkas-d0-7-editor-report-0514-v02.pdf

Nigel Bragg gave a presentation in support of one of his comments

- http://www.ieee802.org/1/files/public/docs2014/ca-bragg-ordered-tree-representation-0514.pdf

802.1CF OmniRAN: Max Riegel gave a presentation introducing the 802.1CF project and scope:

- http://www.ieee802.org/1/files/public/docs2014/cf-maxriegel-cooperation-on-802-1cf-0514-v1.pptx

Break at 12:05 PM.

Resume at 1:10 PM.

802.1CB SR: Norm Finn walked through the initial draft of 802.1CB-d0.1 Seamless Redundancy

- http://ieee802.org/1/files/private/cb-drafts/d0/802-1CB-d0-1.pdf

Marcel Kiessling gave presentations on CB details and industrial networks:

- http://www.ieee802.org/1/files/public/docs2014/cb-kiessling-Details-0514-v01.pdf

- http://www.ieee802.org/1/files/public/docs2014/cb-kiessling-Industrial-networks-0514-v01.pdf

New Work: Peter Jones gave a presentation on YANG models with the idea that it is time for 802.1 consider using YANG:

- http://www.ieee802.org/1/files/public/docs2014/new-tsn-pjones-object-model-yang-0514-v1.pdf

802.1AC-REV MAC Service: Philippe Klein and Norm Finn gave presentations regarding 802.1AC-REV:

- http://www.ieee802.org/1/files/public/docs2014/tsn-phk-802-3-11-11GLK-Bridged-LAN-Exp-5-14-v02.pdf

- http://ieee802.org/1/files/public/docs2014/acrev-nfinn-new-802-11-text-0813-v03.pdf

802.1Qca PCR: Janos Farkas gave a presentation on Qca for small networks:

- http://ieee802.org/1/files/public/docs2014/ca-farkas-small-nets-0514-v02.pdf

Adjourn at 5:00 PM.

Thursday, 15 May

Interworking Task Group meeting called to order at 9:00 AM.

Stephen Haddock presented patent policy slides. No response to the call for patents.

802.1AX-Rev DRNI: Panagiotis Saltsidis conducted comment resolution on the sponsor ballot of 802.1AX-REV-d4.0 Link Aggregation with Distributed Resilient Network Interconnect.

- http://www.ieee802.org/1/files/private/ax-rev-drafts/d4/802-1AX-REV-d4-0.pdf

- http://www.ieee802.org/1/files/private/ax-rev-drafts/d4/802-1AX-REV-d4-0-pdis-v2.pdf

Break at 12:00 PM.

Resume at 1:30 PM.

802.1AX-Rev DRNI: Panagiotis Saltsidis continued comment resolution on the sponsor ballot of 802.1AX-REV-d4.0 Link Aggregation with Distributed Resilient Network Interconnect.

Adjourn at 4:00 PM.

Friday, 16 May

Interworking Task Group meeting called to order at 9:00 AM.

Stephen Haddock presented patent policy slides. No response to the call for patents.

802.1AX-Rev DRNI: Panagiotis Saltsidis continued comment resolution on the sponsor ballot of 802.1AX-REV-d4.0 Link Aggregation with Distributed Resilient Network Interconnect.

New Work: Anoop Ghanwani and Vahid Tabatabaee gave presentations regarding a new work proposal for credit based flow control:

- http://www.ieee802.org/1/files/public/docs2014/new-dcb-kamble-problem-intro-0514-v01.pdf

- http://www.ieee802.org/1/files/public/docs2014/new-ghanwani-llfc-01-14-v01.pdf

- http://www.ieee802.org/1/files/public/docs2014/new-dcb-tabatabaee-CBFC-issues-0514.pdf

Adjourn at 12:50 PM.

Minutes of the June 17 802.1 AX-REV conference call

Panagiotis Saltsidis (Panos) hosted the conference call using the IEEE account on JoinMe at 8:00 am PDT.

Attendence included Panos, Steve Haddock, Mick Seaman, Janos Farkas, Jessy Rouyer, Glenn Parsons, Max Riegel, Michael Waldo, Ting Ao.

Stephen Haddock did the call for patents. There was no response to the call for patents.

Panos had previously uploaded a presentation file describing the two unresolved comments from the AX-REV-d4.0 sponsor ballot, and uploaded a draft with the proposed changes to resolve these comments:

- http://ieee802.org/1/files/public/docs2014/axrev-saltsidis-Sponsor-Ballot-comment-resolution-0614-v01.pdf

- http://www.ieee802.org/1/files/private/ax-rev-drafts/d4/802-1AX-REV-d4-0a.pdf

Panos reviewed comment i-24 which requested a gateway availability bit per conversation ID rather than a single availability bit per gateway. Panos walked through the details of the proposed resolution including the creation of a vector of gateway availability bits, and the exchange of this vector and an associated sequence number for the vector in DRCPDUs.

Mick asked questions about getting availability information following a restart or in-service upgrade.

Panos highlighted a couple other changes that resulted from sponsor ballot comments but were not recognized during the comment resolution discussions at the Norfolk meeting.

Panos reviewed comment i-26 which requested the addition of a non-revertive mode and a Wait-to-Restore Timer in the algorithm distributing conversations to Aggregation Ports.

Jessy commented that historically the ITU set the range of a WTR timer from 5 to 12 minutes. But G.8032 is one place where the range was changed to 1 to 12 minutes. We could follow either precedent. Panos prefers following the historical precedent, and Jessy agrees that 5 to 12 would be the most comment expectation.

Steve, as the commenter for i-24 and i-26, thanked Panos for the detailed resolutions and affirmed that this is sufficient to resolve these comments.

Panos and Glenn will initiate a sponsor recirculation including these changes.

Conference call concluded at 9:25am PDT.

TSN Minutes

Tuesday, 13 May

Michael Johas Teener presented Administration, Patent Policy, and Agenda. There was no response to the call for patents.

Michael Johas Teener presented Administration, Patent Policy, and Agenda. There was no response to the call for patents.

Geoff Garner presented Changes/Additions Needed After 802.1ASbt/D0.4 (Part 1)
http://www.ieee802.org/1/files/public/docs2014/as-garner-items-for-802-1ASbt-D0-5.pdf

Feng Chen presented Further Discussion on Domain and Redundancy
http://www.ieee802.org/1/files/public/docs2014/as-chen-domain-redundancy-0514-v01.pdf

Karl Weber presented Timeout Issues
http://www.ieee802.org/1/files/public/docs2014/AS-KWeber-TimeoutProblem-0514-v00.pdf

Wednesday, 14 May

Joint meeting with 802.1 TSN and 802.1 Interworking task group – See Interworking minutes above.

Thursday, 15 May
Called to order at 9:00 AM.

Michael Johas Teener presented Patent Policy. There was no response to the call for patents.

Tony Jeffree presented 802.1Qbv Ballot Review
http://www.ieee802.org/1/files/private/bv-drafts/d1/802-1Qbv-D1-2-pdis-v2.pdf

Wilfried Steiner presented Avoiding Utilization Inefficiency in .1Qbv
http://www.ieee802.org/1/files/public/docs2014/new-tsn-wsteiner-8021Qbv-avoiding-inefficiency-0514-v01.pdf

Norman Finn presented Specifying P802.1Qbv Gate Schedules
http://www.ieee802.org/1/files/public/docs2014/bv-nfinn-specifying-gate-schedules-0514-v01.pdf

Johannes Specht presented UBS update
http://www.ieee802.org/1/files/public/docs2014/new-tsn-specht-ubs-status-update-0514-v01.pdf

Break at 4:00 PM for Joint TSN/802.3br.

Joint TSN and 802.3br

Meeting convened at 4:00 PM.

Ludwig Winkel discussed 802.3br (IET) status

Norman Finn presented IEEE P802.1Qbu Status
http://www.ieee802.org/1/files/public/docs2014/bu-nfinn-status-for-802-3-0514-v01.pdf

Adjourned at 6:00 PM

Friday, 16 May

Meeting started at 9:00 AM.

János Farkas presented 802.1Qca Editor's Report

- http://www.ieee802.org/1/files/public/docs2014/ca-farkas-editor-report-0114-v01.pdf

Marcel Kießling presented Sequence Number Relationship

- http://www.ieee802.org/1/files/public/docs2014/cb-kiessling-Sequence-number-relationship-0113-v01.pdf

Marcel Kießling presented ISIS PCR and TSN

- http://www.ieee802.org/1/files/public/docs2014/ca-kiessling-ISIS-PCR-and-TSN-0114-v01.pdf

Tony Jeffree continued with Qbv Status and Comment Review

- http://www.ieee802.org/1/files/private/bv-drafts/d1/802-1Qbv-D1-0-pdis-v1.pdf

Meeting adjourned at 1:00 PM.

Security Minutes

There was no Security Task Group Meeting at this Interim

DCB Minutes

Wednesday, 14 May

Pat Thaler presents patent policy slides. No response to call for patents.

Pat Thaler presents other guidelines for IEEE working group meetings.

Vahid Tabatabaee, Broadcom affiliate, presents analysis of PFC vs. Credit based flow control buffer requirements – http://www.ieee802.org/1/files/public/docs2014/new-dcb-tabatabaee-CBFC-issues-0514.pdf

Break at 9:46AM

Resume at 10:30AM

Pat Thaler proposes to communicate CBFC at joint interworking and TSN meeting on Friday, May 16.

Pat Thaler communicates there is an inconsistency in the QCN standard. (Maintenance Item 0137) 802.1Q-2011 clause 32, 33: Encoding of congestion notification PDUs polarity of cnmQOffset defined differently in different places causing interoperability issues.

Adjourned 11:29AM

Maintenance

The maintenance interim meeting minutes are incorporated in these minutes by reference and are available at:

- http://www.ieee802.org/1/files/public/maint/2014-05-maintenance.pdf

OmniRAN

Wednesday, 14 May

Meeting called to order on Wednesday May 14, 2014 by Max Riegel at 2 PM.

The meeting agenda is available at:

- https://mentor.ieee.org/omniran/dcn/14/omniran-14-0036-01-00TG-may-2014-f2f-meeting-slides.pptx

Minutes of the April teleconference were approved without objection and are available at:

- https://mentor.ieee.org/omniran/dcn/14/omniran-14-0035-00-00TG-apr-29th-meeting-minutes.docx

Max discussed a few administrative issues summarized as follows:

- 802.1 Membership Rights
  - 802.1 membership rights provided to OmniRAN TG participants, when
    - Attending initial OmniRAN TG meeting in Norfolk, VA
    - Gaining attendence credit for the 802.1 interim meeting in Norfolk, VA
    - Sending email to the 802.1 chair applying for membership rights
  - 802.1 membership rights are not required for active participation in OmniRAN TG
  - Everybody can participate in technical conclusions; straw polls instead of voting to document the agreement in the TG.
- OmniRAN TG wiki
  - https://mentor.ieee.org/omniran/bp/StartPage
  - One-stop place for latest status and announcements
  - Announcements will be distributed as well on the STDS-802-1-L@LISTSERV.IEEE.ORG mailing list.
- Likely a combination of mentor and 802.1 file space will be used
  - Mentor for contributions to the OmniRAN discussions, 802.1 file space for the agreed material going into 802.1CF
  - Further thinking after introduction into the 802.1 web environment on grouper

Max Riegel presented the following slides:

- https://mentor.ieee.org/omniran/dcn/14/omniran-14-0038-00-CF00-802-1cf-r3-considerations.pptx

Break at 3:16 PM.

Resume at 3:42 PM.

Paul Bottorff presented the following slides:

- https://mentor.ieee.org/omniran/dcn/14/omniran-14-0040-00-CF00-ethernet-connection-service.pdf

Glenn Parsons presented the Liaison Letter from SG15 and explained the work on SDN/Ethernet taking place in the group

As a response is not urgent, the provided G.80xx references will be reviewed in the next conference call and a response to the liaison letter will be drafted in the July plenary meeting for approval in the IEEE 802.1 closing plenary

Adjourned at 5:16 PM.

Thursday, 15 May

Meeting called to order at 9:25 AM.

Outline of the intended specification

- **SDN Use Cases and Requirements**
    - Juan Carlos Zuniga presented the text
    - https://mentor.ieee.org/omniran/dcn/14/omniran-14-0041-00-CF00-sdn-use-cases-and-requirements.docx
    - Group discussion
    - Max: This text would be needed to introduce the SDN topic in the draft specification
    - Paul/Max: Should not make a difference between control and management, as the differenciation is getting blurred.

Break at 10:45 AM.

Resume at 11:05 AM.

- **Backhaul in 802.1CF**
    - Max Riegel presented the slides
    - https://mentor.ieee.org/omniran/dcn/14/omniran-14-0030-00-0000-backhaul-in-omniran.pptx
    - Group discussion
    - Agreement that 'backhaul' is not a separate specification object howevere a kind of application of the generic solution in P802.1CF. The topic should be addressed by a kind of application note in the specification.
- **ToC Refinements**
    - Max Riegel entertained the discussion by bringing up a couple of slides:
    - https://mentor.ieee.org/omniran/dcn/14/omniran-14-0039-00-CF00-802-1cf-toc-refinements.pptx
    - Group discussion led to a new revision of the working ToC of P802.1CF:
    - P802.1CF ToC:
        - Introduction and Scope
        - Abbreviations, Acronyms, Definitions, and Conventions
        - References
        - Identifiers
        - Network Reference Model
            - Overview
            - Reference Points

- Access Network Control Architecture
  - Multiple deployment scenarios including backhaul
- Functional Design and Decomposition
  - Dynamic Spectrum Access
  - Network Discovery and Selection
  - Association and Disassociaiton
  - Authentication and Trust Establishment
  - Datapath establishment, relocation and teardown
  - Authorization, QoS and policy control
  - Accounting and monitoring
- *SDN Abstraction*
  - *Terminal*
  - *Access Network*
- Annex:
  - Tenets (Informative)

Break at 12:25 AM.

Resume at 14:00 AM.

Organization of the work

- **Alignment within IEEE 802.1**
  - Mentor to be linked with 802.1 document site
    - Mentor will be the entry point for contributions to the OmniRAN TG discussions
    - Agreed material will be uploaded to the 802.1 file space to build the foundation for the specification work
    - Material on the 802.1 file space will mainly be provided by pdf files, while pptx and docx are the prefered file formats on mentor to allow for reuse of the material by others contributors
  - OmniRAN SG mailinglist to be shut down and the IEEE 802.1 mailing list will be used instead for announcements.
    - By experience from the ECSG there is no need for a dedicated mailing list for technical discussions.
  - Cooperation within IEEE 802.1 will continue in July
    - Particular topics: t.b.d.

- **Cooperation with the other IEEE 802 WGs at July plenary**
  - Continuation of data path discussions in July
  - First draft text on NDS
  - Multiple IEEE 802 interfaces on the same link – what are the issues?
  - Potential meeting/discussion with IEEE 802.15 at July's plenary to identify relevant interfaces for 802.1CF
- **Other topics for July**
  - Revision of SDN contribution

- o Update from ONF on W&M WG studies
- o Contributions to other areas mentioned in the ToC
- o Contribution template for text contributions

Conference call before July 14-18 in San Diego, CA session

- o Teleconference schedule: July 2nd, 2014, 10:00 AM ET
- o Agenda:
  - ITU-T liaison (review G.80xx specifications)
  - Preparation of July f2f meeting in SD

Status report to IEEE 802 WGs

- Report created by Max Riegel and reviewed by the OmniRAN TG to report activities to other 802 WGs
  - o https://mentor.ieee.org/omniran/dcn/14/omniran-14-0042-00-00TG-may-2014-status-report-to-802-wgs.pptx
  - o Content and format of status report accepted by TG without objections.

AOB

- Max Riegel consulted with Glenn Parsons about availability of ITU-T specifications referenced in the liaison letter received from SG15
  - o Specifications are public and have free access
  - o Chair to distribute links to specifications on the mailing list
- Latest version of 802.1CF PAR available at
  - o https://development.standards.ieee.org/get-file/P802.1CF.pdf?t=81644900003
- Editors in IEEE 802.1 have to create the document in FrameMaker. Usually all figures are re-drawn by the editor to achieve consistency with the IEEE SA style guide.
  - o There is no necessity that the Word-Template for text contribution exactly follows IEEE SA style guide as editor has to produce correct formatting in FrameMaker anyhow. Furthermore there is no need to mandate e.g. Visio for creating figures, as Visio import into FrameMaker usually not provides the required result.
  - o The 802.1 chair appoints the editor when sufficient material is available to start with the formal editing process.

Meeting adjourned at 4:35 PM.