

# IEEE 802 Plenary Meeting

March 2015, Berlin, DE

## 802.1 Meeting Minutes, 9-12 March 2015

### Attendees

<i>Last Name</i>	<i>First Name</i>	<i>Middle Name</i>	<i>Affiliation</i>
Belopolsky	Yakov		Bel Fuse
Bjornstad	Steinar		TransPacket AS
Boiger	Christian		b-plus GmbH
Bragg	Nigel		ciena
Brandt	David		Rockwell Automation
Chen	David		NSN, Inc.
Chen	Feng		Siemens AG
Cockburn	Duncan		Xilinx
Cummings	Rodney		National Instruments Corporation
DeLaOlivaDelgado	Antonio		Universidad Carlos III Madrid
Doerr	Laurin		Deggendorf University of Applied Sciences
Ellegaard	Lars		Vitesse Semiconductor Corporation
Fang	Yonggang		ZTE Corporation
Farkas	Janos		Ericsson
Finn	Norman		Cisco Systems, Inc. Broadcom corporation, Marvell semiconductor, Siemens
Garner	Geoffrey		ag, Hirschmann
Gray	Eric W		Ericsson AB
Gunther	Craig		Harman International Industries, Incorporated
Haddock	Stephen		Stephen Haddock Consulting, LLC
Hantel	Mark		Rockwell Automation
Harkins	Daniel		Aruba Networks, Inc.
Heise	Peter		Airbus Group
Holness	Marc		Ciena Corporation
Hsieh	Ching-T		Industrial Technology Research Institute (ITRI)
Huang	Lu		802
Jeffree	Anthony		HP, Broadcom
Jethanandani	Mahesh		Ciena Corporation
Johas Teener	Michael		Broadcom Corporation
Kehrer	Stephan		Hirschmann Automation and Control, Inc.
Kim	Yongbum		Broadcom Corporation

Klein	Philippe	Broadcom Corporation
Korhonen	Jouni	Broadcom Corporation
Krieger	Olaf	Volkswagen AG
Kumari	Warren	Google
Li	Yizhou	Huawei Technologies Co. Ltd
Lohmeyer	Joachim	Siemens AG
Mangin	Christophe	Mitsubishi Electric R&D Centre Europe (MERCE)
Mardmoeller	Christian	Renesas Electronics Corporation
Marks	Roger	EthAirNet Associates
McIntosh	James	Vitesse Semiconductor Corporation
Messenger	John	ADVA Optical Networking Ltd.
Moldovansky	Anatoly	Rockwell Automation
Nakano	Hiroki	Kyoto University
Oren	Amit	Broadcom Corporation
Pannell	Donald R	Marvell Semiconductor, Inc.
Parsons	Glenn	Ericsson AB
Pienciak	Walter	IEEE Standards Association (IEEE-SA)
Randall	Karen	NSA/IAD
Riegel	Maximilian	Nokia Networks
Romascanu	Dan	Avaya Inc.
Rouyer	Jessy	Alcatel-Lucent
Ruppert	Markus	ABB Corporate Research Center Germany
Ryytty	Eero	Nokia
Sato	Atsushi	Yokogawa Electric Corporation
Seaman	Michael	Individual
Smith	Graham	DSP Group
Specht	Johannes	University of Duisburg-Essen and General Motors Company
Steiner	Wilfried	TTTech Computertechnik AG
Tabatabaee	Vahid	Broadcom Corporation
Thaler	Patricia	Broadcom Corporation
Thornburg	David	Cisco Systems, Inc.
Tretter	Albert	Siemens AG
Unbehagen	Paul	Avaya Inc.
Varga	Balazs	Ericsson AB
Venkatesan	Ganesh	Intel Corporation
Walter	Todd	National Instruments Corporation
Weber	Karl	Beckhoff, ZHAW
Weis	Brian	Cisco Systems, Inc.
Woods	Jordon	Innovasic
Zebralla	Daniel	Continental Automotive GmbH
Zinner	Helge	Robert Bosch GmbH

## Opening Plenary (Monday, 9 March, 2015)

The Chair (Glenn Parsons) presented the opening agenda slides. See the opening plenary slides at:

<http://www.ieee802.org/1/files/public/minutes/2015-03-opening-plenary-slides.pdf>

General information is here:

<http://www.ieee802.org/1/files/public/minutes/802-1-general-info-v3.pdf>

The Chair reviewed general administrative information, including meeting “decorum” (or rules - including the policy on recording and/or reporting of meetings), general 802.1 information (see link provided above), a reminder that contributions are expected to be uploaded before presentation, how to report meeting session attendance, hotel and meeting room security, and meeting logistics.

See slides for details.

The Chair covered slides on IEEE-SA recommended policy statements to be reviewed at least once a day during meetings this week. These slides included:

- Instructions to WG (and TG) Chairs
- Participants, Patents and Duty to Inform
- Patent Related Links
- Call for Potentially Essential Patents
- Compliance with applicable laws, including anti-trust/competition
- TG Chairs were reminded of the need to review patent policy information daily

The Chair asked if there was anyone who was prepared to make any statement(s) with respect to any potentially essential patents.

There was no response to the call for potentially essential patents.

The Chair further reviewed additional general administrative information, including 802.1 officers, a reminder of the duties of voting members, eligible voters, etc.

The Chair reviewed the schedule for future Interim meetings, which included:

- May 19-22, 2015: Pittsburgh, PA – John D’Ambrosia (Ethernet Alliance)
  - Corrected dates were explicitly pointed out
  - See slides for details

<http://ieee802.org/1/files/public/docs2014/admin-dambrosia-may15-meeting-1014-v1.pdf>
- September 8-11, 2015: Santa Cruz, CA – Michael Johas Teener (Broadcom)

- See slides for details  
<http://www.ieee802.org/1/files/public/docs2014/admin-mjt-2015-09-interim-1114.pdf>
- Dream Inn – US \$215
- Early registration – US \$500
- January 8-21, 2016 – Atlanta, GA (802 sponsored Interim)
  - Hyatt Regency, Atlanta – US \$179
  - Early registration – US \$ 500
- Spring 2016 – Hosts?
- Fall 2016 – Hosts?

#### Join Me

- IEEE-SA provided conference tool
- Each IEEE 802 WG has one account (ask Chair for password)
  - <http://join.me/802.1>

#### EC Report - See opening plenary slides for additional information and details.

- Public Review – July implementation
- WG P&P Proposals (EC-14-87)
  - Alignment with baseline
  - Potential issues: fiduciary duty, roster (member vs. participant), electronic + live meetings, 3/4 → 2/3 approval, no roll call votes, maximum abstention rate
- Get 802 Proposal
  - Asked from last plenary – all standards work in progress have free access
  - 6 year implementation plan proposed by IEEE-SA
  - New proposal(s) (for discussion during 802 TF)
- EC Standing Committees
  - Wireless Chairs standing committee (EC-15-15)
  - JTC1 standaing committee (11-15-315): Andrew Myles as chair
  - ITU standing committee (EC-15-17): Glenn Parsons as chair
  - IETF standing committee: Pat Thaler as chair
- Patent Policy
  - New revision will be in-force on March 15, 2015
- Future plenaries Report:
  - 2018 → 2020 venues in evaluation
- Treasurer's report (details on slide 21)

#### E-Mail ballots (see slide 22)

#### PARs:

- 802.1 PARs (3)
  - 802c, Amendment: Local Media Access Control (MAC) Addressing
  - 802.1Qci, Amendment: Per-Stream Filtering and Policing
  - 802.1Qcj, Amendment: Automatic Attachment to Provider Backbone Bridging (PBB) services
- Other WG PARS (5)

- Privacy Recommendation EC Study Group – Privacy Considerations for IEEE 802 Technologies
- 802.3bq, Amendment, PAR modification request
- 802.3bz, Amendment: 2.5 Gb/s and 5 Gb/s
- 802.11ay, Amendment: Enhancements for Ultra High Throughput in and around the 60 GHz Band
- 802.15.3e, Amendment for High-rate Close Proximity Point-to-Point Communications
- Details available via <http://grouper.ieee.org/groups/802/PARs.shtml>

#### 802.24 TAG

- IEEE 802.24 approved a scope document for a new IEEE 802.24 TAG Task Group focused on Internet of things (IoT) vertical applications.
- The document was approved 7/0/0 by IEEE 802.24 and can be found at: <https://mentor.ieee.org/802.24/dcn/15/24-15-0003-00-0000-iot-scope-form.docx>
  - Comments accepted similar to PAR process by Tuesday
- Members of IEEE 802.24 will be seeking votes of support from IEEE 802 WGs during the week.
  - The 802.24 subgroup gets a motion in a minimum of 2 IEEE 802 WGs that expresses support for adding this application category.

#### Privacy EC SG

- Report from Juan-Carlos Zuniga (see link on slide 25)
- MAC address randomization trial (see link on slide 25)

#### Tutorials – Monday (ECC room 1)

- Tutorial #1 (6:00–7:30 pm): Real-time Ethernet on IEEE 802.3 Networks
  - Ludwig Winkel, Siemens
  - Michael J. Teener, Broadcom
  - Albert Tretter, Siemens
  - Stephan Kehrer, Hirschmann (Belden)
  - Christian Boiger, HDU
  - Pat Thaler, Broadcom
  - Norm Finn, Cisco
  - David Brandt, Rockwell Automation
  - Helge Zinner, Bosch
- Tutorial #2 (7:30–9:00 pm): Introduction to P802.3bn EPON Protocol over Coax (EPoC)
  - Mark Laubach, Broadcom
  - Duane Remein, Huawei
- Tutorial #3 (9:00–10:30 pm): IEEE802.15.7r1 – Expanding User Experiences
  - Richard Roberts , Intel Corporation
  - Zhengyuan (Daniel) Xu , University of Science and Technology of China
  - Harald Burchardt, PureLiFi Ltd.
  - Gang Chen, University of California - Riverside

- Volker Jungnickel , Fraunhofer Heinrich Hertz Institute (as part of COST 1101 OPTICWISE)
- Yeong Ming Jang, Kookmin University
- Stefan Mangold, Disney Research

#### Liaisons within 802

- Joint meetings
  - Tues 9:00 – 18:00 – Interworking/TSN (includes YANG in PM1)
  - Wed 10 – CPRI cooperation
  - Thurs 8-10 802.1 -802.11ak – Bridging issues
  - Thurs 10-12 802.1 -802.3br – IET
- Privacy EC SG
  - Tuesday PM & Thursday AM
- IEEE 802 JTC1 standing committee meetings
  - Tuesday & Thursday – PM1
- IEEE 802 ITU standing committee meeting
  - Wednesday, 7 AM
- IETF Standing Committee
  - Wednesday, 8 AM
- IEEE 802 task force – Get 802
  - Thursday, 10:30 AM

#### Incoming Liaisons

- Maintenance:
  - LS105 from ITU-T SG15 to IEEE 802.1 on ITU-T SG15 OTNT standardization work plan
  - [http://www.ieee802.org/1/files/public/docs2014/liaison-ITUTSG15-LS105\\_229P-AnnA-0414.zip](http://www.ieee802.org/1/files/public/docs2014/liaison-ITUTSG15-LS105_229P-AnnA-0414.zip)
- Interworking:
  - MEF has sent a liaison to requesting comment on its “All Active UNI” project:  
[http://www.ieee802.org/1/files/public/docs2015/liaison-MEF-L00226\\_AA-UNI-0215.docx](http://www.ieee802.org/1/files/public/docs2015/liaison-MEF-L00226_AA-UNI-0215.docx)
  - CEF has sent a liaison introducing its reference architecture for cloud services:  
<http://www.ieee802.org/1/files/public/docs2015/liaison-cef-01-liaison-0315.docx>
  - ITU-T Q13/15 has sought further clarification on PTP over LAG:  
[http://www.ieee802.org/1/files/public/docs2015/liaison-SG15-LS224\\_PTPoLAG-0315.docx](http://www.ieee802.org/1/files/public/docs2015/liaison-SG15-LS224_PTPoLAG-0315.docx)
- TSN:
  - CPRI has replied to our liaison, and has agreed to present to us on Wednesday morning:  
[http://www.ieee802.org/1/files/public/docs2015/liaison-CPRI\\_answer\\_to\\_IEEE\\_LS-0215.pdf](http://www.ieee802.org/1/files/public/docs2015/liaison-CPRI_answer_to_IEEE_LS-0215.pdf)
  - 1904.3 is notifying us of the start of their work:  
[http://www.ieee802.org/1/files/public/docs2015/liaison-anwg\\_ols\\_1904\\_3\\_roe-0215.pdf](http://www.ieee802.org/1/files/public/docs2015/liaison-anwg_ols_1904_3_roe-0215.pdf)

Pat Thaler gave a short presentation on IETF-IEEE Coordination (see slide 29)

The Chair then announced that Dan Romascanu has been appointed as the CEF liaison

The Chair reviewed the current Working Group's work load (Sanity Check slide 31)

The Chair then talked about the need to promote the work that we are doing in IEEE 802.1 (slide 32)

Task Group agendas:

- Mick Seaman discussed the Security TG status and meeting plans (see slide 34)
- Steve Haddock presented the preliminary Interworking TG Agenda and project status (see slide 35)
- Michael Johas-Teener discussed the TSN TG agenda (see slide 36 – at between 400 and 800 % zoom)
- Max Reigel provided the status and agenda for the OmniRAN TG (see slide 37)
- John Messenger provided the maintenance agenda for the week (see slide 38)
- Pat Thaler presented the DCB TG Agenda for Wednesday

There was no other business to discuss and the meeting was adjourned.

# Task Group Minutes

## Security minutes

### Agenda

- 1) P802.1AEcg – anticipate TG ballot after this meeting
- 2) P802.1ARce
- 3) YANG model for 802.1X, 2pm Monday
- 4) YANG model for AE discussion
- 5) 802.1AE XPN Cipher suites FIPS 140 discussion
- 6) P802.1AEcg and preemption
- 7) P802.15.9 ongoing participation and liaison
- 8) SC6 ballots on 802.1AEbn,bw responses
- 9) Privacy related issues

The Security TG met between Monday March 9 1:30pm through Thursday March 12 at 12:30pm. TG members attended liaison meetings as necessary and the time that the TG would reconvene was posted in the meeting room.

The chair showed the Patent Policy slides and issued a call for patents at the beginning of each day's session. There were no responses to the call at this time.

### ***P802.1AEcg:***

a new draft 0.4 was distributed prior to the meeting. The changes and TBDs were reviewed by the editor. Expect task group ballot after this meeting, to close before the May 2015 interim meeting.

### ***P802.1ARce:***

reviewed unresolved issues in draft 0.7 including references, PKI hierarchy requirements, certificate fields, validation and CRL issues, and conformance.

### ***YANG model for 802.1X, 2pm Monday:***

A proposed PAR for a YANG model for IEEE 802.1X was discussed. Ciena prepared a draft PAR/CSD. Further discussion is anticipated at the IEEE 802.1 interim in May 2015,

with a goal of preparing a PAR/CSD that it is ready for pre-circulation before the July 2015 Plenary.

### ***YANG model for AE discussion***

It was noted that another amendment would require a revision project for IEEE 802.1AE. It was decided to focus effort on the YANG model for IEEE 802.1X at this time.

### ***802.1AE XPN Ciphersuites FIPS 140 discussion: Discussion with Lily***

Chen (NIST) occurred on Monday and Tuesday afternoon to clarify IV generation for the XPN ciphersuites defined in IEEE 802.1AEbw. It was asserted that the IV generation here is a variant of the deterministic option with a SALT XORed. In this way, the XPN IV generation should be conformant to FIPS 140-2.

### ***P802.1AEcg and preemption***

This was covered in the detailed discussion of the new draft of IEEE 802.1AEcg (see item 1 above).

### ***P802.15.9 ongoing participation and liaison:***

Brian attended the Ballot resolution sessions for the IEEE 802.1 security task group. Those meetings are minuted separately.

### ***SC6 ballots on 802.1AEbn,bw responses:***

draft responses to the comments received on the JTC1 PSDO ballots of IEEE 802.1AEbn and IEEE 802.1AEbw were agreed with some minor editorial tweaks. IEEE 802.1 voted to approve and forward the final responses at closing plenary. IEEE 802.1Xbx is currently in the 60 day pre-ballot in JTC1, closing 19 March 2015. Responses to any comments received will need to be generated and approved at a future meeting

### ***Privacy related issues:***

There was some discussion between members of the Privacy ECSG and IEEE 802.1 security TG on Tuesday March 10. Concerns from the TG included the scope and purpose, the deliverable (what is an activity?), what is meant by a privacy threat, etc. Given the significant comments and concerns received on the proposed PAR from across IEEE 802, it was agreed that the PAR would be withdrawn for EC approval at this time; it is planned to revise in time to resubmit (pre-circulate) before the next Plenary meeting in July 2015. The Privacy EC SG meetings are minuted separately.

Future teleconferences and meetings: teleconferences were scheduled for April 28, May 12, and June 23. The task group will meet at the May 2015 interim in Pittsburgh.

## Interworking minutes

### Monday, 9 March

Meeting was called to order at 2:00 PM.

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

#### 802.1Qca PCR:

Janos Farkas reviewed the status of the working group recirculation ballot of 802.Qca-d1.4 Path Control and Reservation. There were three comments received from one commenter. All were out-of-scope of the recirculation and the commenter agreed to have them addressed during sponsor ballot.

<http://www.ieee802.org/1/files/private/ca-drafts/d1/802-1Qca-d1-4-pdis-v01.pdf>

#### Liaisons:

Stephen Haddock reviewed the new liaisons received. The ensuing discussion concluded that there was no response necessary for the MEF All-Active UNI and CEF architecture liaisons. Volunteers were solicited to draft a response to the PTPoLAG liaison.

- From MEF regarding All-Active UNI (UNI Resiliency)  
[http://www.ieee802.org/1/files/public/docs2015/liaison-MEF-L00226\\_AA-UNI-0215.docx](http://www.ieee802.org/1/files/public/docs2015/liaison-MEF-L00226_AA-UNI-0215.docx)
- From MEF indicating the initiation of its work on YANG models:  
[http://www.ieee802.org/1/files/public/docs2015/liaison-MEF-L00227\\_001\\_YANGproject-0215.docx](http://www.ieee802.org/1/files/public/docs2015/liaison-MEF-L00227_001_YANGproject-0215.docx)
- From CEF introducing its reference architecture for cloud services:  
<http://www.ieee802.org/1/files/public/docs2015/liaison-cef-01-liaison-0315.docx>
- ITU-T Q13/15 has sought further clarification on PTP over LAG:  
[http://www.ieee802.org/1/files/public/docs2015/liaison-SG15-LS224\\_PTPoLAG-0315.docx](http://www.ieee802.org/1/files/public/docs2015/liaison-SG15-LS224_PTPoLAG-0315.docx)

Adjourn at 3:30 PM.

### Tuesday, 10 March

Note: There are no recorded minutes from the Joint meeting of Interworking and TSN for this day. The following is constructed from the TSN Agenda for Tuesday, 10 March.

Michael Johas Teener reminded meeting attendees of the IEEE SA patent policy and asked if there was anyone who wished to make a statement about any potentially essential patents. There was no response.

**802.1Qca status:**

János Farkas presented

<http://www.ieee802.org/1/files/private/ca-drafts/d1/802-1Qca-d1-4-pdis-v01.pdf>

**Stream Filtering and Policing for Industrial Control Applications:**

Feng Chen presented

<http://www.ieee802.org/1/files/public/docs2015/tsn-chen-goetz-stream-filtering-policing-0315-v01.pdf>

**Qcc Specs for Cut-Through**

Rodney Cummings presented

<http://www.ieee802.org/1/files/public/docs2015/cc-cummings-cut-through-specs-v1.pdf>

**Local Addresses (802c and proposed LAAP) - allocated 90 minutes 802c PAR status**

Stephen Haddock presented

<http://www.ieee802.org/1/files/public/docs2015/lasg-mjt-802c-CSD-0115-v02.pdf>

<http://www.ieee802.org/1/files/public/docs2015/lasg-marks-p802c-csd-comments.pdf>

**LAAP PAR comments**

Roger Marks presented

<http://www.ieee802.org/1/files/public/docs2015/lasg-marks-protocol-par-comments.pdf>

**Local Address Management in IoT environments** (repeat from Sept 2014) Pat Thaler

<http://www.ieee802.org/1/files/public/docs2014/new-addresses-thaler-local-address-acquisition-0914-v1.pdf>

**Wednesday, 11 March**

Interworking Task Group held a joint meeting with 802.11 for discussion of 802.11arc from 8:00 to 10:00 AM. No meeting minutes were provided for this meeting.

Interworking Task Group held a joint meeting with the Local Address Study Group (LASG) from 1:30 to 3:45 PM. The meeting notes for this joint meeting are included in the LASG Minutes below.

The Interworking meeting was called to order at 3:45 PM.

**802.1Qcj PAR and CSD:**

Dan Romascanu led the discussion of the comments received on the 802.1Qcj PAR and CSD that was pre-circulated, and made appropriate modifications to the PAR and CSD:

<http://www.ieee802.org/1/files/public/docs2015/new-autoattach-romascanu-par-0315-v01.pdf>

<http://www.ieee802.org/1/files/public/docs2015/new-autoattach-romascanu-csd-0315-v01.pptx>

<http://www.ieee802.org/1/files/public/docs2015/cj-haddock-consolidated-par-csd-comments-0315-v01.pptx>

Interworking adjourned at 4:15 PM.

**Thursday, 12 March**

Joint meeting of 802.1 and 802.11 called to order at 8:00 AM.

Donald Eastlake presented patent policy slides. There was no response to the call for patents.

Donald Eastlake will minute the joint meeting (no minutes received).

The joint meeting concluded at 10:00 AM, and the Interworking Task Group meeting resumed at 10:30 AM.

**Liaisons:**

Stephen Haddock led a session to draft responses to the liaisons from SG15 and MEF. These will be considered at the closing plenary.

Adjourn at 11:20AM.

## **LASG Meeting Minutes**

### **Monday, 9 March**

Local Address Study Group called to order at 9:10 AM.

Stephen Haddock gave introductory remarks including presenting the patent policy. No response to the call for patents.

There were no presentations or proposals ready to be discussed, so the session was adjourned.

Adjourn at 9:30 AM.

### **Tuesday, 10 March**

Local Address Study Group was allocated a block of time from 10:30 to 12:00 in the joint 802.1 IWK/TSN session.

Stephen Haddock gave introductory remarks on the status of the PAR that was pre-circulated for consideration at the Executive Committee meeting at the end of the week. Comments from other “dot groups” are due by 6:30 on Tuesday and will be reviewed at 1:30pm on Wednesday in the room assigned for the 802.1 Interworking Task Group.

Roger Marks presented comments on the draft PAR for a Local Address Assignment Protocol that was presented by Michael Teener at the January interim:

<http://ieee802.org/1/files/public/docs2015/lasg-marks-protocol-par-comments.pdf>

Pat Thaler reviewed her proposal for a Local Address Acquisition Protocol presented during the September 2014 802.1 interim meeting:

<http://www.ieee802.org/1/files/public/docs2014/new-addresses-thaler-local-address-acquisition-0914-v1.pdf>

Discussion of LASG topics concluded at 12:00 Noon.

## **Wednesday, 11 March**

Local Address Study Group called to order at 1:30pm.

Stephen Haddock gave introductory remarks including presenting the patent policy. No response to the call for patents.

Pat Thaler led the discussion of the comments received on the 802c PAR and CSD that was pre-circulated, and made appropriate modifications to the PAR and CSD:

<http://iee802.org/1/files/public/docs2015/lasg-haddock-consolidated-par-csd-comments-0315-v1.pdf>

<http://iee802.org/1/files/public/docs2015/new-addresses-thaler-local-address-par-v02.pdf>

<http://iee802.org/1/files/public/docs2015/lasg-mjt-802c-CSD-0315-v02.pdf>

LASG adjourned at 3:45 PM.

## **TSN Meeting Minutes**

Note: There were no meeting minutes for TSN in the Berlin TSN meeting. The following is constructed from the TSN Agenda posted at:

[https://docs.google.com/spreadsheets/d/1G94ebbyKsBNPVFu\\_OITRAMmjcVfdelU0Dtx\\_BZnC24Q/](https://docs.google.com/spreadsheets/d/1G94ebbyKsBNPVFu_OITRAMmjcVfdelU0Dtx_BZnC24Q/)

The Task Group Chair (Michael Johas Teener) has verified that attendees were reminded daily of the IEEE SA patent policy and asked if they would like to respond. In each case, there was no response. This includes joint TSN/Interworking meetings on Tuesday..

## **Monday, 9 March**

### **0830-1100, TSN Pre-meeting**

TSN meeting (time sync - AS-Rev/Corr2)

Administrivia (patent policy, agenda bashing, etc)

The TG Chair reminded meeting attendees of the IEEE SA patent policy and asked if there was anyone who wished to make a statement about any potentially essential patents. There was no response.

**Proposed 802.1AS-REV weekly calls** Michael Johas Teener

**802.1AS-Rev/D0.9** Geoff Garner

<http://www.ieee802.org/1/files/private/as-rev-drafts/d0/802-1AS-rev-d0-9.pdf>

**1100-1300 IEEE 802.1 opening plenary** (see Opening Plenary meeting minutes above).

**1400-1700 TSN meeting** (time sync - ASRev/Corr2)

**FTM Addition to 802.1AS** Carlos Aldana

<http://www.ieee802.org/1/files/public/docs2015/as-kbstanton-caldana-ftm-addition-to-1as-guiding-principles-and-proposal-0315-v10.pdf>

**Requirements on forwarding of Sync Messages and on diagnostic for redundant sync**  
Feng Chen

<http://www.ieee802.org/1/files/public/docs2015/as-chen-goetz-industrial-reqirements-sync-forward-0315-v01.pdf>

**To 1-Step or not to 1-Step** Don Pannell

<http://www.ieee802.org/1/files/public/docs2015/ASRev-pannell-To-1-step-or-not-0315-v1.pdf>

**More thoughts on one-step and "TC"s** Michael Johas Teener

<http://www.ieee802.org/1/files/public/docs2015/asrev-mjt-one-step-and-TCs-0315-v01.pdf>

"sense of the room" vote, do we include one-step in 802.1AS draft 1.0?    yes:13, no:0

**IETF Detnet Architecture** Norm Finn

<https://datatracker.ietf.org/doc/draft-finn-detnet-architecture/>

## Tuesday, 10 March

8:00 → 10:30 AM - **Joint meeting of Interworking/TSN** – See Interworking minutes above.

10:30 AM → 12:00 Noon – **Joint TSN/LASG/Interworking meeting** – See LASG minutes above.

1:00 → 3:00 PM - **Joint meeting 802.1/802.3 YANG Discussion**

**Possible PAR and Criteria for Standards Development for P802.1Qxx – IEEE 802.1 YANG Data Model**

<http://www.ieee802.org/1/files/public/docs2015/new-802-mahesh-yang-0315-v02.pdf>

3:00 → 6:00 PM – **Joint Interworking/TSN** (Path Reservations, Time Sensitive Forwarding and Filtering)

**Thoughts on Security for TSN** Philippe Klein

<http://www.ieee802.org/1/files/public/docs2015/tsn-phkl-sec-0315-v01.pdf>

**Queuing Mechanism Interactions** Norm Finn

<http://www.ieee802.org/1/files/public/docs2015/bv-nfinn-queue-interactions-0315-v2.pdf>

**802.1Qcc D0.3 ballot comments** Rodney Cummings

<http://www.ieee802.org/1/files/public/docs2015/cc-cummings-clause-99-in-MSRP-0315-v1.pdf>

<http://www.ieee802.org/1/files/private/cc-drafts/d0/802-1Qcc-d0-3-pdis-v2.pdf>

## Wednesday, 11 March

**8:00-11:00 AM, TSN** (CPRI / radio-over-ethernet requirements)

The TG Chair reminded meeting attendees of the IEEE SA patent policy and asked if there was anyone who wished to make a statement about any potentially essential patents. There was no response.

**Zero packet-jitter priority and aggregation mechanisms** Steinar Bjørnstad

<http://www.ieee802.org/1/files/public/docs2015/tsn-SBjornstad-zero-packet-jitter-priority-and-aggregation-0315-v1.pdf>

**CPRI Tutorial** Oliver Klein / Alcatel-Lucent

[http://www.ieee802.org/1/files/public/docs2015/liaison-CPRI\\_Tdoc\\_1124\\_presentation-0315.pdf](http://www.ieee802.org/1/files/public/docs2015/liaison-CPRI_Tdoc_1124_presentation-0315.pdf)

**IEEE1904.3 update** Jouni Korhonen

<http://www.ieee802.org/1/files/public/docs2015/new-roe-jik-ieee1904dot3-0315-v00.pptx>

**TSN for Fronthaul** János Farkas

<http://www.ieee802.org/1/files/public/docs2015/new-farkas-tsn-for-fronthaul-0315-v01.pdf>

**TSN Fronthaul Considerations** David Chen

[http://www.ieee802.org/1/files/public/docs2015/TSN-chen-Fronthaul\\_Considerations-0315.pdf](http://www.ieee802.org/1/files/public/docs2015/TSN-chen-Fronthaul_Considerations-0315.pdf)

**11:00 AM → 6:00 PM, TSN** (shapers, SRP improvements, more time sync)

**802.1Qcc D0.3 ballot comments** (cont) Rodney Cummings

<http://www.ieee802.org/1/files/public/docs2015/cc-cummings-clause-99-in-MSRP-0315-v1.pdf>

<http://www.ieee802.org/1/files/private/cc-drafts/d0/802-1Qcc-d0-3-pdis-v2.pdf>

**Dynamic Stream Reservation on BLCE's (.1Qcc)** Franz Goetz

<http://www.ieee802.org/1/files/public/docs2015/new-goetz-schmitt-dyn-registration-on-ISIS-PCR-0309-v01.pdf>

**P802.1Qbv ballot review** Tony Jeffree

<http://www.ieee802.org/1/files/private/bv-drafts/d2/802-1Qbv-d2-2.pdf>

<http://www.ieee802.org/1/files/private/bv-drafts/d2/802-1Qbv-D2-1-dis.pdf>

**Qci PAR update** Glenn Parsons, Norm Finn

<http://www.ieee802.org/1/files/public/docs2015/new-nfinn-input-gates-csd-0115-v03.pdf>  
<http://www.ieee802.org/1/files/public/docs2015/new-nfinn-input-gates-par-0115-v05.pdf>

**P802.1Qbu ballot review** Tony Jeffree

<http://www.ieee802.org/1/files/private/bu-drafts/d1/802-1Qbu-d1-1.pdf>  
<http://www.ieee802.org/1/files/private/bu-drafts/d2/802-1Qbu-D2-1-pdis-v2.pdf>

**Thursday, 12 March**

**0800-1000, Joint 802.1/802.11**

The TG Chair reminded meeting attendees of the IEEE SA patent policy and asked if there was anyone who wished to make a statement about any potentially essential patents. There was no response.

**1000-1100, TSN**

Update on IET (802.3br) Ludwig Winkle / Siemens 30

**P802.1Qbu ballot review** (cont) Tony Jeffree

<http://www.ieee802.org/1/files/private/bu-drafts/d1/802-1Qbu-d1-1.pdf>  
<http://www.ieee802.org/1/files/private/bu-drafts/d2/802-1Qbu-D2-1-pdis-v2.pdf>

**Update on 1588 Upkeep Item 89** (4 Octet Reserved) Rodney Cummings

<http://www.ieee802.org/1/files/public/docs2015/as-cummings-1588-upkeep-work-item-89-0315-v1.pdf>

**802.1CB D1.0 introduction**

Norm Finn

<http://www.ieee802.org/1/files/public/docs2015/cb-nfinn-Draft-1-0-changes-0315-v01.pdf>

**1:00 → 5:00 PM, 802.1 Closing Plenary Meeting.** (see Closing Plenary Meeting minutes below)

## **OmniRAN Meeting Minutes**

OmniRAN March meeting minutes are incorporated into these minutes by reference and are available at:

<https://mentor.ieee.org/omniran/dcn/15/omniran-15-0022-00-00TG-mar-2015-ftf-minutes.docx>

In addition, an amended meeting presentation is available at:

<https://mentor.ieee.org/omniran/dcn/15/omniran-15-0011-03-00TG-mar-2015-f2f-meeting-slides.pptx>

Current status of OmniRAN activities – including future meeting announcements, past meeting and conference call minutes – is available via a wiki located at:

<https://mentor.ieee.org/omniran/bp/StartPage>

## **DCB Meeting Minutes**

### **Wednesday, 11 March**

Meeting started at 9:00 AM.

Pat Thaler (DCB Chair) reviewed the patent policy as presented at the opening plenary on Monday. There was no response to the call for potentially essential patents.

There were three people in attendance.

Yizhou Li presented her slides on possible VDP extensions to address requirements originating in the IETF NVo3 working group (see WG charters at <http://www.ietf.org>). The presentation is available at:

<http://www.ieee802.org/1/files/public/docs2015/new-yizhou-vdp-extension-0315-v02.pdf>

Suggestions were made as to what next steps might be. As all of the people at the DCB meeting will be in Dallas for the IETF meeting week after next, we decided to discuss options further there.

## **Maintenance Meeting Minutes**

There are no Maintenance meeting minutes for the March IEEE 802 Plenary meeting.

# Closing Plenary (Thursday, 12 March, 2015)

Closing Plenary slides are available at:

<http://www.ieee802.org/1/files/public/minutes/2015-03-closing-plenary-slides.pdf>

The Chair (Glenn Parsons) led discussion of the following items:

- Material already covered in the opening plenary
  - Policy presentation and call for potentially essential patents
    - **no response**
  - Upload information:
    - <http://ieee802.org/1/filenaming.html>
    - Please upload before your presentation
  - Staff Introduction
    - Kathryn Bennett – Program Manager for 802.1
    - Michelle Turner – Managing Editor
  - Officers (no change)
  - Website and password (no change)
  - Voter status (see slides)
    - New voters out of this week (see slide 11)
- Future Interim meetings – no change from opening plenary
- Project status Sanity check – current workload review
  - 23 current projects (including in-progress PARs)
  - See slide 14 for details
- 802 reports
  - EC Privacy SG
  - IETF SC
  - JTC1 SC
  - ITU SC
  - 802 TF
- 802 Task Force
  - Indemnification of officers
  - Public Review
    - Parallel to sponsor ballot – opportunity to comment
    - July 6<sup>th</sup> implementation

- New System
      - Test bed for myBallot replacement
      - Staff will move comments between systems during transition
  - Get 802 Program
  - myProject replacement
    - requirements in 2015
      - Voting – epoll
      - Documents - mentor
- Task Group reports were given for the following areas (see individual task group minutes and/or status from above for details):
  - Local Address Study Group
  - Interworking
  - TSN
  - OmniRAN
  - Security
  - DCB
  - Maintenance
- Pat Thaler gave a detailed presentation on activities in DCB for this meeting (see slides 18-22 of the closing plenary slides)
- The chair then opened the topic of Outgoing Liaisons
  - MEF
    - All active UNI
    - YANG
  - ITU-T Q13/15
  - CPRI
  - IEEE 1904.3

## ***Motions***

## **Administrative**

802.1 approves the November 2014 and January 2015 minutes:

<http://ieee802.org/1/files/public/minutes/2014-11-minutes.pdf>

<http://ieee802.org/1/files/public/minutes/2015-01-minutes.pdf>

Proposed: Gray                      Seconded: Messenger

**Approved by Acclamation**

802.1 resolves to hold pre-meeting(s) on the Monday morning of the July 2015 plenary session for TSN and LASG

Proposed: Teener                      Second: Gray

**Approved: by acclamation**

### **Local Address SG**

802.1 requests EC approval to extend the 802.1 Local Address Study Group to

- Develop a PAR and CSD for a recommendation on Local Address usage
- Develop one or more PARs on protocols for local address acquisition

Proposed: Haddock                      Second: Thaler

For   29   Against   0   Abstain   1  

**Approved**

EC proposed:                      Second:

For        Against        Abstain       

Authorize the May 802.1 interim to draft a PAR and CSD (including 5-Criteria), for precirculation to the EC, for an IEEE 802.1 project on protocols for local address acquisition

Proposed: Haddock                      Second: Thaler

For   29   Against   0   Abstain   2  

**Approved**

802.1 approves the CSD and requests EC approval to submit the P802c PAR to NesCom.

–

- <http://ieee802.org/1/files/public/docs2015/new-addresses-thaler-local-address-par-v02.pdf>
- <http://ieee802.org/1/files/public/docs2015/lasg-mjt-802c-CSD-0315-v02.pdf>

Proposed: Steve Haddock            Second: Pat Thaler

For \_\_28\_\_ Against \_\_0\_\_ Abstain \_\_1\_\_

**Approved**

EC proposed:                            Second:

For\_\_\_\_Against\_\_\_\_Abstain\_\_\_\_

## **Interworking**

Authorize 1-hour teleconferences for 802.1Qbz/802.11ak coordination on 4/6, 4/27 and 5/4, at 11:00 am Eastern US time. Teleconference access details to be announced on the 802.1 reflector.

Proposed: Haddock            Second: Finn

**Approved by acclamation**

802.1 approves the CSD and requests EC approval to submit the P802.1Qcj Automatic Attachment to PBB Services PAR to NesCom.

- <http://ieee802.org/1/files/public/docs2015/new-autoattach-romascanu-par-0315-v01.pdf>
- <http://ieee802.org/1/files/public/docs2015/new-autoattach-romascanu-csd-0315-v01.pptx>

Proposed: Steve Haddock            Second: Dan Romascanu

For \_\_27\_\_ Against \_\_0\_\_ Abstain \_\_2\_\_

**Approved**

EC proposed:                            Second:

For\_\_\_\_Against\_\_\_\_Abstain\_\_\_\_

802.1 confirms the 5C

- <http://www.ieee802.org/1/files/public/docs2012/new-p802-1Qca-draft-5c-0912-v03.pdf>

And requests EC approval to submit P802.1Qca Path Control & Reservation for Sponsor ballot.

Proposed: Haddock          Second: Farkas

For\_\_27\_\_Against\_\_0\_\_Abstain\_\_1\_\_

**Approved**

EC proposed: Second:

For\_\_\_\_Against\_\_Abstain\_\_\_\_

802.1 confirms the CSD:

- <http://www.ieee802.org/1/files/public/docs2012/new-p802-1Qbz-draft-5c-0912.pdf>

And requests EC conditional approval to forward P802.1Qbz Enhancements to Bridging of 802.11 Media to sponsor ballot.

Proposed: Messenger      Second: Finn

For\_\_26\_\_Against\_\_0\_\_Abstain\_\_1\_\_

**Approved**

EC proposed: Parsons      Second: Thaler

For\_\_\_\_Against\_\_Abstain\_\_\_\_

802.1 authorizes the editor of P802.1AC-REV MAC Service Specification (John Messenger) to prepare a draft for further Working Group balloting. The ballot will also be issued to 802.16 and 802.11.

Proposed: Haddock          Second: Messenger

For\_\_30\_\_Against\_\_0\_\_Abstain\_\_0\_\_

**Approved**

802.1 authorizes the editor of P802.1CB Seamless Redundancy (Norm Finn) to prepare a draft for Task Group balloting.

Proposed: Haddock          Second: Finn

For\_\_31\_\_Against\_0\_\_Abstain\_0\_\_

**Approved**

802.1 approves the liaison response to ITU-T SG15 liaison LS224 on PTP over LAG.

- <http://www.ieee802.org/1/files/public/docs2015/liaison-response-SG15-L224-PTPoLAG-0315.docx>

Proposed: Haddock          Second: Garner

For\_\_28\_\_Against\_0\_\_Abstain\_0\_\_

**Approved**

802.1 approves the liaison response to MEF on 802.1AX and all active UNI

- <http://www.ieee802.org/1/files/public/docs2015/liaison-response-MEF-L00226-AA-UNI-0315-v1.docx>

Proposed: Haddock          Second: Gray

For\_\_29\_\_Against\_0\_\_Abstain\_0\_\_

**Approved**

802.1 approves the liaison response to MEF on YANG

- <http://www.ieee802.org/1/files/public/docs2015/liaison-response-MEF-L00227-YANG-0315-v1.docx>

Proposed: Haddock          Second: Romascanu

For\_\_30\_\_Against\_0\_\_Abstain\_0\_\_

**Approved**

802.1 authorizes the May 2015 interim to generate a PAR and CSD for pre-circulation to the EC for an amendment 802.1Qcl that will specify YANG modules.

Proposed: Michael Johas Teener          Second: Steve Haddock

For\_\_31\_\_Against\_0\_\_Abstain\_0\_\_

**Approved**

802.1 authorizes virtual conferences for discussions on the proposed YANG module development including the PAR and CSD. Announcements on the time and connection details will be made at least 30 days in advance.

Proposed: Michael Johas Teener Second: Haddock

**Approved by acclamation**

## **TSN**

The TSN TG will have virtual conferences weekly at a to-be-determined time for 802.1AS-related topics. Access information will be announced via email at least 30 days in advance.

Proposed: Johas Teener Second: Garner

**Approved by acclamation**

The TSN TG will continue to have virtual conferences weekly at 9am US Pacific time on Wednesdays for general topics. Access information is available on the TSN web page.

Proposed: Johas Teener Second: Gunther

**Approved by acclamation**

802.1 approves the CSD and requests EC approval to submit the P802.1Qci Per-Stream Filtering and Policing PAR to NesCom.

- <http://www.ieee802.org/1/files/public/docs2015/new-nfinn-input-gates-par-0115-v05.pdf>
- <http://www.ieee802.org/1/files/public/docs2015/new-nfinn-input-gates-csd-0115-v03.pdf>

Proposed: Tony Jeffree Second: Norm Finn

For   30   Against   0   Abstain   0  

**Approved**

EC proposed: Second:

For        Against        Abstain       

802.1 authorizes the editor of P802.1AS-REV (Geoff Garner) to prepare a draft for Task Group balloting.

Proposed: Michael Johas Teener                      Second: Geoff Garner

For\_31\_\_\_Against\_\_0\_\_\_Abstain\_\_0\_\_\_

**Approved**

802.1 confirms the 5C:

- <http://www.ieee802.org/1/files/public/docs2012/Qbv-pannell-draft-5C-0112-v03.pdf>

And requests EC conditional approval to forward P802.1Qbv Scheduled Traffic to sponsor ballot.

Proposed: Messenger                                      Second: Jeffree

For\_\_33\_\_\_Against\_0\_\_\_Abstain\_0\_\_\_

**Approved**

EC proposed: Parsons                                      Second: Thaler

For\_\_\_\_Against\_\_\_\_Abstain\_\_\_\_\_

802.1 authorizes the May 2015 interim to generate a PAR and CSD, for pre-circulation to the EC, for an 802.1CM project for a profile for Time-Sensitive Networking for Fronthaul.

Proposed: Michael Johas Teener                      Second: Janos Farkas

For\_\_25\_\_\_Against\_\_0\_\_\_Abstain\_\_6\_\_\_

**Approved**

802.1 approves the liaison response to CPRI, 1904.3, MEF, ITU-R WP5, ITU-T Q13/15 on fronthaul.

—

<http://www.ieee802.org/1/files/public/docs2015/liaison-fronthaul-0315-v4.pdf>

Proposed: Messenger                                      Second: Gray

For\_\_33\_\_\_Against\_0\_\_\_Abstain\_\_0\_\_\_

**Approved**

802.1 approves the liaison response to IEEE 1904.3.

- <http://www.ieee802.org/1/files/public/docs2015/liaison-response-ieee1904dot3-0315-v00.docx>

Proposed: Korhonen Second: Gray

For \_\_25\_\_ Against \_\_0\_\_ Abstain \_\_0\_\_

**Approved**

## **Security**

As required to request/ authorize:

802.1 approval to develop a PAR for P802.1Xck – Port-based Access Control: YANG data model, based on the existing UML description of management operations and including MIB maintenance items, and approval to pre-circulate the proposed PAR prior to, and for 802.1 and 802.0 approval at, the July 2015 802 Plenary.

802.1 authorization to call Security Task group teleconferences to progress P802.1ARce, P802.1AEcg, PAR development and other task group matters arising.

Note: Motions for P802.1ARce and P802.1AEcg draft preparation and task group balloting have been passed previously.

802.1 authorizes the Security Task Group prepare a PAR for an amendment to IEEE Std 802.1X, P802.1Xck – Port-based Access Control: YANG data model.

The 802.1 Chair is authorized to pre-circulate the proposed PAR1 for consideration at the July 2015 meeting.

An initial draft is at:

<http://www.ieee802.org/1/files/public/docs2015/new-8021x-mahesh-yang-0315-v01.pdf>

Proposed: Seaman Second: Randall

For \_\_27\_\_ Against \_\_0\_\_ Abstain \_\_0\_\_

**Approved**



## **Maintenance**

Authorize Maintenance TG to hold teleconferences on 13th May and 7th July 2015 at 11am ET if necessary. Access information will be posted to the 802.1 reflector in advance.

Proposed: Messenger                      Second: Gray

**Approved by acclamation**

802.1 authorizes the editor of P802.1Q-Cor1 (Tony Jeffree) to prepare an initial draft and submit it for working group ballot

Proposed: Messenger                      Second: Gray

For\_\_28\_\_Against\_0\_\_Abstain\_\_0\_\_

**Approved**

802.1 authorizes the editor of P802.1AB-rev (Tony Jeffree) to prepare an initial draft and submit it for task group balloting

Proposed: Messenger                      Second: Gray

For\_\_23\_\_Against\_0\_\_Abstain\_\_0\_\_

**Approved**

802.1 requests EC approval to forward 802.1AS-Cor2 to sponsor ballot.

Proposed: Messenger                      Second: Gray

For\_\_26\_\_Against\_0\_\_Abstain\_0\_\_

**Approved**

EC proposed: Parsons                      Second: Thaler

For\_\_\_\_Against\_\_\_\_Abstain\_\_\_\_

Note: There are no CSD for this maintenance project.

802.1 requests EC approval to withdraw the PAR for P802.1ASbt.

- Note: This project has been replaced by the recently approved 802.1AS-Rev PAR.

Proposed: Messenger                      Second: Gray

For\_\_27\_\_Against\_0\_\_Abstain\_0\_\_

**Approved**

EC proposed: Parsons                      Second: Thaler

For\_\_\_\_Against\_\_\_\_Abstain\_\_\_\_

802.1 requests EC approval to forward Std 802.1AX-2014 to ISO/IEC JTC1 SC6, for ballot under the PSDO agreement.

Proposed: Messenger                      Second: Gray

For\_\_27\_\_Against\_0\_\_Abstain\_0\_\_

**Approved**

EC proposed: Parsons                      Second:

For\_\_\_\_Against\_\_\_\_Abstain\_\_\_\_

802.1 requests EC approval to forward Std 802.1BA-2011 to ISO/IEC JTC1 SC6, for information under the PSDO agreement.

Proposed: Messenger                      Second: Gray

For\_\_27\_\_Against\_0\_\_Abstain\_0\_\_

**Approved**

EC proposed: Parsons                      Second: Thaler

For\_\_\_\_Against\_\_\_\_Abstain\_\_\_\_

802.1 requests EC approval to forward Std 802.1BR-2012 to ISO/IEC JTC1 SC6, for information under the PSDO.

Proposed: Messenger                      Second: Gray

For\_26\_\_Against\_0\_\_Abstain\_0\_\_

**Approved**

EC proposed: Parsons Second:

For\_\_\_\_Against\_\_\_\_Abstain\_\_\_\_

802.1 requests EC approval to forward the comment responses contained on slides 8 and 9 of <http://www.ieee802.org/1/files/public/docs2015/liaison-randall-SC6response-AEbnAEbw-0315-v01.pptx> to JTC1 SC6, under the PSDO agreement. These are responses to the comments received on recent FDIS ballots of 802.1AEbn and 802.1AEbw.

Proposed: Messenger                      Second: Gray

For\_25\_\_Against\_0\_\_Abstain\_1\_\_

**Approved**

EC proposed: Parsons                      Second:

For\_\_\_\_Against\_\_\_\_Abstain\_\_\_\_

**Closing Plenary adjourned**