

# IEEE 802.1 Working Group

## 5-8 September 2017 Interim Meeting

### St John's, Newfoundland, Canada

### Meeting Minutes

The 802.1 Chair, Glenn Parsons, presided.

The 802.1 Recording Secretary, Jessy Rouyer, wrote the minutes in part based on input from 802.1 Task Group Chairs.

## 1 Attendance and affiliation

<i>Last Name</i>	<i>First Name</i>	<i>Affiliation</i>
Assmann	Ralf	Marvell Semiconductor, Inc.
Bao	Shenghua	HUAWEI
Bjornstad	Steinar	TransPacket
Boiger	Christian	b-plus GmbH
Bottorff	Paul	Hewlett-Packard Development Company, L.P.
Chen	David	Nokia
Chen	Feng	Siemens AG
Congdon	Paul	Tallac Networks; Huawei
Cummings	Rodney	National Instruments Corporation
Elbakoury	Hesham	Huawei Technologies Co. Ltd
Ellegaard	Lars	Microsemi Corporation
Fang	Yonggang	ZTE TX Inc
Farkas	Janos	Ericsson
Finn	Norman	Huawei Technologies Co. Ltd
Fontaine	Mickael	TransPacket
Garner	Geoffrey	Broadcom Corporation
Gravel	Mark	Hewlett Packard Enterprise
Gray	Eric W	Ericsson AB
Gunther	Craig	HARMAN INTERNATIONAL INDUSTRIES, INCORPORATED
Gutierrez	Marina	TTTech Computertechnik AG
Haddock	Stephen	Stephen Haddock Consulting, LLC
Hantel	Mark	Rockwell Automation
Holness	Marc	Ciena Corporation
Hotta	Yoshifumi	Mitsubishi Electric Corporation
Itaya	Satoko	National Institute of Information and Communications Technology (NICT)
Kehrer	Stephan	Hirschmann Automation and Control, Inc.
Kojima	Fumihide	National Institute of Information and Communications Technology (NICT)

KOTO	Hajime	National Institute of Information and Communications Technology (NICT)
Mangin	Christophe	Mitsubishi Electric Corporation
Mansfield	Scott	Telefon AB LM Ericsson
Maruhashi	Kenichi	NEC Corporation
Mayer	Michael	Huawei Technologies Co. Canada Ltd
Messenger	John	ADVA Optical Networking Ltd.
Mustala	Tero	Nokia Networks
Nikolich	Paul	SAMSUNG
Ohsawa	Tomoki	NICT
Pannell	Donald R	Marvell Semiconductor, Inc.
Parsons	Glenn	Ericsson AB
Pienciak	Walter	IEEE
QIU	WEI	Huawei Technologies Co., Ltd
Ren	Maohua	CRRC Zhuzhou Institute Co.Ltd
Riegel	Maximilian	Nokia Networks
Rouyer	Jessy	Nokia
Shen	Li	Huawei Technologies Co., Ltd
Specht	Johannes	University of Duisburg-Essen and General Motors Company
Su	Dang	CRRC Zhuzhou Institute Co.Ltd
Thaler	Patricia	Broadcom Limited
Unbehagen	Paul	Avaya Inc.
Wang	Hao	Fujitsu Research & Development Center
Wang	Tongtong	Huawei Technologies Co. Ltd
Wang	Xinyuan	Huawei Technologies Co. Ltd
Winkel	Ludwig	Siemens AG
YU	XIANG	Huawei Technologies Co., Ltd
Zein	Nader	NEC Corporation

## 2 Task Group Meetings

### 2.1 Data Center Bridging

The Data Center Bridging (DCB) Task Group Chair, Patricia Thaler, presided and wrote the minutes.

At the beginning of the meeting on Wednesday, Patricia Thaler presented the IEEE-SA PatCom Patent Slides for Standards Development Meetings, and presented the IEEE 802 Participation slide. At the beginning of the meetings on Wednesday and Thursday, Patricia Thaler made the "Call for Potentially Essential Patents". There were no responses to the calls prior to the end of the week's sessions.

#### **Tuesday 5 September 2017 10:00 AM-12:00 PM**

Call to order: 5 September 2017 10:00 AM

Patricia Thaler presented the following agenda for the meeting:

- New Work presentation on congestion isolation - Paul Congdon
- Review presentation on IEEE 802c - Roger Marks

This agenda was approved.

Paul Congdon presented *Congestion Management – Congestion Isolation*

<http://www.ieee802.org/1/files/public/docs2017/new-dcb-congdon-congestion-isolation-0917-v01.pdf>

**Disposition:** Based on comments, Paul Congdon updated the presentation as

<http://www.ieee802.org/1/files/public/docs2017/new-dcb-congdon-congestion-isolation-0917-v02.pdf> after the meeting. Suggestions were made that this should also be presented to the

IEEE 802.1 TSN TG for broader feedback.

#### **Thursday 7 September 2017 1:30 PM-3:00 PM**

Call to order: 7 September 2017 1:30 PM

Roger Marks presented *IEEE Std 802c: What's New and Useful in the Overview and*

*Architecture* <http://www.ieee802.org/1/files/public/docs2017/802c-Marks-summary-0917-r0.pdf>, slides that he planned to present at the wireless interim the next week.

**Disposition:** Presentation updated as <http://www.ieee802.org/1/files/public/docs2017/802c-Marks-summary-0917-r1.pdf>

### 2.2 Maintenance

The Maintenance Task Group minutes are incorporated in these minutes by reference and are available at <http://ieee802.org/1/files/public/maint/2017-09-maintenance-meeting-v1.pdf>.

### 2.3 OmniRAN

OmniRAN Task Group meeting minutes are incorporated into these minutes by reference and are available at <https://mentor.ieee.org/omniran/dcn/17/omniran-17-0070-00-00TG-september-2017-f2f-meeting-minutes.docx>.

Current status of OmniRAN Task Group 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>.

## 2.4 Time-Sensitive Networking

The Time-Sensitive Networking (TSN) Task Group Chair, János Farkas presided. Craig Gunther wrote the minutes.

At the beginning of the meetings on Tuesday, Wednesday, Thursday and Friday, János Farkas presented the IEEE-SA PatCom Patent Slides for Standards Development Meetings <https://development.standards.ieee.org/myproject/Public/mytools/mob/slideset.pdf>, and made the Call for Potentially Essential Patents. There were no responses to the calls prior to the end of the week's session.

### Tuesday 5 September 2017 8:00 AM-4:00 PM

Call to order: 5 September 2017, 8:00 AM

János Farkas presented the agenda for the TSN Task Group meeting week:

<https://docs.google.com/spreadsheets/d/1dC1LbGGD01vdoElrg-OLpZc13gKR50DV4yzclrs6qE8>

**Disposition:** Administrative

Glenn Parsons presented the St. John's meeting details

<http://www.ieee802.org/1/files/public/docs2017/admin-parsons-nfld-interim-update-0917-v1.pdf>

**Disposition:** Administrative

Hajime Koto presented a proposal for a future interim meeting location

<http://www.ieee802.org/1/files/public/docs2017/admin-koto-proposal-of-IEEE802-1-Interim-meeting-0917.pdf>

**Disposition:** Administrative

János Farkas provided a TSN promotion update on:

- TSN Tutorial at IETF 99 <https://www.ietf.org/proceedings/99/slides/slides-99-edu-sessg-time-sensitive-networking-tutorial-english-language-janos-farkas-norman-finn-patricia-thaler-02.pdf>,
- IEEE Communications Standards Magazine - TSN feature topic <http://www.comsoc.org/comstandardsmag/cfp/time-sensitive-networking-standards>,
- TSN/A Conference - TSN Technology & Applications (Sep 20-21, 2017, Stuttgart) <http://www.tsnaconference.de/home.html>,
- IEEE-SA Ethernet & IP @ Automotive Technology Day (Nov 1-2, 2017) <https://standards.ieee.org/events/automotive/>,
- TSN for Industrial – flyer [http://standards.ieee.org/downloads/TSN\\_for\\_Industrial\\_Networks.pdf](http://standards.ieee.org/downloads/TSN_for_Industrial_Networks.pdf),
- TSN for Automotive – flyer [http://standards.ieee.org/downloads/TSN\\_for\\_Automotive\\_Networks.pdf](http://standards.ieee.org/downloads/TSN_for_Automotive_Networks.pdf).

**Disposition:** TSN promotion update

Geoff Garner, P802.1AS-Rev editor, led the resolution of comments received on <http://www.ieee802.org/1/files/private/as-rev-drafts/d5/802-1AS-rev-d5-0.pdf>, and presented *P802.1AS-Rev/D5.0 Editor's Report* <http://www.ieee802.org/1/files/public/docs2017/as-garner-802-1AS-Rev-d5-0-wg-ballot-editors-report-07-17-v5.pdf> and *Items Related to Several Managed Objects Pertaining to EPON Transport in 802.1AS-Rev* <http://www.ieee802.org/1/files/public/docs2017/as-garner-802-1as-d5-0-comment-epon-managed-objects-0917.pdf>

**Disposition:** Ballot comment resolution recorded in <http://www.ieee802.org/1/files/private/as-rev-drafts/d5/802-1AS-rev-d5-0-dis.pdf>

Rodney Cummings, P802.1Qcc editor, led the resolution of comments received on <http://www.ieee802.org/1/files/private/cc-drafts/d1/802-1Qcc-d1-6.pdf>

**Disposition:** Ballot comment resolution recorded in <http://www.ieee802.org/1/files/private/cc-drafts/d1/802-1Qcc-d1-6-dis-v2.pdf>.

### **Wednesday 6 September 2017 10:00 AM-6:00 PM**

Call to order: 6 September 2017, 10:00 AM

János Farkas presented the incoming liaison letter in

<http://www.ieee802.org/1/files/public/docs2017/liaison-bbf2017.525.01-SOAM YANG-0717.pdf>

**Disposition:** Incoming liaison letter, response covered by

<http://www.ieee802.org/1/files/public/docs2017/liaison-ITUT-SG15-LS43 CFM YANG-0717.pdf>

Marc Holness, P802.1Qcp editor, presented <http://www.ieee802.org/1/files/private/cp-drafts/d1/802-1Qcp-d1-2-dis-v01.pdf>, showed <https://www.ietf.org/id/draft-bjorklund-netmod-rfc7223bis-00.txt>, and added a rogue comment on <http://www.ieee802.org/1/files/private/cp-drafts/d1/802-1Qcp-d1-2.pdf> based on discussion.

**Disposition:** Ballot comment resolution recorded in <http://www.ieee802.org/1/files/private/cp-drafts/d1/802-1Qcp-d1-2-dis-v02.pdf>

Scott Mansfield presented *Draft YANG for P802.1ABcu*

<http://www.ieee802.org/1/files/public/docs2017/cu-mansfield-draft-YANG-0917-v02.pdf>

**Disposition:** Related to new project; more discussion needed

Scott Mansfield presented *Draft YANG for P802.1Qcx*

<http://www.ieee802.org/1/files/public/docs2017/cx-mansfield-draft-YANG-0917-v02.pdf>

**Disposition:** Related to new project; more discussion needed

Norman Finn, P802.1CB editor, provided an update on

<http://www.ieee802.org/1/files/private/cb-drafts/d2/802-1CB-d2-9.pdf>

**Disposition:** Editor's update on ongoing project

János Farkas presented *Rebuttal Comments from 802.11 with responses from 802.1*

<http://www.ieee802.org/1/files/public/docs2017/admin-farkas-11-rebuttal-responses-0717-v1.pdf> regarding the P802.1CBcv PAR and CSD updated as

<http://www.ieee802.org/1/files/public/docs2017/cv-draft-PAR-0917-v01.pdf>, and

<http://www.ieee802.org/1/files/public/docs2017/cv-draft-CSD-0917-v01.pdf>, respectively.

**Disposition:** New project; updated PAR will be precirculated

Norman Finn, P802.1CS editor, led the resolution of comments received on

<http://ieee802.org/1/files/private/cs-drafts/d1/802-1CS-d1-0.pdf>

**Disposition:** Ballot comment resolution recorded in <http://ieee802.org/1/files/private/cs-drafts/d1/802-1CS-d1-0-pdis-v02.pdf>

A joint meeting of the OmniRAN and TSN TGs was held starting at 1:30 PM.

During this joint meeting, Max Riegel presented *Time Sensitive Networking within the scope of P802.1CF* <https://mentor.ieee.org/omniran/dcn/17/omniran-17-0067-02-CF00-tsn-in-the-scope-of-p802-1cf.pptx>. The two TGs met separately following discussion [of this presentation](#).

**Disposition:** Related to ongoing project. Also see page 4 of the [OmniRAN TG minutes](#).

Paul Bottorff presented *Edge Control Transport for LRP*

<http://ieee802.org/1/files/public/docs2017/cs-bottorff-ecp-lrp-0917-v2.pdf>

**Disposition:** Supports ballot comment

Ludwig Winkel presented *Information from IEC TC65 to IEEE 802*

<http://ieee802.org/1/files/public/docs2017/new-winkel-tsn-profile-0917-v00.pdf>

**Disposition:** Proposes new project; more discussion needed

#### **Thursday 07 September 2017 8:00 AM-6:00 PM**

Call to order: 07 September 2017, 8:00 AM

Tero Mustala and Olivier Klein presented *eCPRI Overview*

<http://ieee802.org/1/files/public/docs2017/cm-mustala-eCPRI-Overview-0917.pdf>

**Disposition:** Contribution to ongoing project

Glenn Parsons presented the incoming liaison letter in

<http://www.ieee802.org/1/files/public/docs2017/liaison-3GPP-RAN3-173354-0917.zip>

**Disposition:** Incoming liaison letter, response will be sent from next Plenary

János Farkas presented *Support for eCPRI in 802.1CM*

<http://ieee802.org/1/files/public/docs2017/cm-farkas-eCPRI-support-0917-v01.pdf>,

and *Leveraging ON/OFF Traffic Model – Literature Example*

<http://www.ieee802.org/1/files/public/docs2017/cm-farkas-leveraging-ON-OFF-traffic-model-0917-v01.pdf>

**Disposition:** Contributions to ongoing project

Hajime Koto presented *IEEE 802.1 Interim meeting proposal January, 2019 in Japan*

<http://ieee802.org/1/files/public/docs2017/admin-koto-proposal-of-IEEE802-1-Interim-meeting-0917.pdf>. János Farkas then conducted a straw poll on the desired dates and location of the

January 2019 interim meeting.

**Disposition:** Straw poll results:

- Chicago rules: Kobe 21, Hiroshima 20, Fukuoka 18.
- Single vote: Hiroshima 16, Kobe 12, Fukuoka 5.

Hiroshima, 14-18 January 2019, were chosen as the desired location and dates.

János Farkas presented *DetNet update from IETF 99*

<http://ieee802.org/1/files/public/docs2017/new-farkas-DetNet-update-from-IETF99-0917-v01.pdf>

**Disposition:** Update on ongoing work in related WG

Norman Finn presented *Filling DetNet Needs* <http://ieee802.org/1/files/public/docs2017/new-finn-detnet-needs-0917-v01.pdf>

**Disposition:** New proposals; more discussion needed

Paul Unbehagen, P802.1Qcj editor, led the resolution of comments received on <http://ieee802.org/1/files/private/cj-drafts/d0/802-1Qcj-d0-2.pdf>

**Disposition:** Ballot comment resolution recorded in <http://www.ieee802.org/1/files/private/cj-drafts/d0/802-1Qcj-d0-2-pdis-v00.pdf>

Norman Finn presented *802.1Q Queues for non-bridges*

<http://ieee802.org/1/files/public/docs2017/new-finn-non-bridge-queuing-0917-v01.pdf>

**Disposition:** New proposal; more discussion needed

Stephen Haddock, P802.1AX-Rev editor, presented *802.1AX -- Link Aggregation: Editor's Report: September 2017* <http://ieee802.org/1/files/public/docs2017/ax-rev-haddock-editors-report-0917-v1.pdf> and concluded the resolution of comments received on

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

**Disposition:** Editor's update on ongoing project and ballot comment resolution recorded in <http://www.ieee802.org/1/files/private/ax-rev-drafts/d0/802-1AX-Rev-d0-1-pdis-v02.pdf>

Craig Gunther presented *802.1 Time-Sensitive Networking (TSN) on 802.3cg Multidrop networks* <http://ieee802.org/1/files/public/docs2017/tsn-cgunther-802-3cg-multidrop-0917-v01.pdf>

**Disposition:** Update on ongoing work in related WG

#### **Friday 08 September 2017 8:00 AM-4:00 PM**

Call to order: 08 September 2017, 8:00 AM

Scott Mansfield presented *the incoming liaison letter in*

[http://www.ieee802.org/1/files/public/docs2017/liaison-MEF-L00268\\_MEF\\_10.4\\_AD1\\_0917.pdf](http://www.ieee802.org/1/files/public/docs2017/liaison-MEF-L00268_MEF_10.4_AD1_0917.pdf)

and MEF 10.4-related material posted post-meeting in *MEF 10.4 Notes*

<http://www.ieee802.org/1/files/public/docs2017/yangsters-smansfield-mef-10-4-notes-0917-v01.pptx>

**Disposition:** Incoming liaison letter, response will be sent from next Plenary

Rodney Cummings presented *TSN Configuration Roadmap*

<http://www.ieee802.org/1/files/public/docs2017/new-cummings-tsn-config-roadmap-0717-v0.pdf>

**Disposition:** New proposals; more discussion needed

Feng Shen presented *More details on Resource Allocation Protocol (RAP)*

<http://ieee802.org/1/files/public/docs2017/new-chen-RAP-details-0717-v03.pdf> and posted

<http://ieee802.org/1/files/public/docs2017/tsn-chen-RAP-whitepaper-0917-v01.pdf>

**Disposition:** New proposals; more discussion needed

Christophe Mangin presented *Extension of Stream Identification Functions*

<http://ieee802.org/1/files/public/docs2017/new-mangin-extension-stream-id-0917-v01.pdf>

**Disposition:** New proposals; more discussion needed

Johannes Specht, P802.1Qcr editor, presented *Bridge Timing*  
<http://ieee802.org/1/files/public/docs2017/cr-specht-bridge-timing-0917-v01.pdf>  
**Disposition:** Related to ongoing project; more discussion needed

Michael Mayer presented *Recent work to define asymmetry correction*  
<http://ieee802.org/1/files/public/docs2017/new-mayer-asymmetry-correction-0917-v01.pdf>  
**Disposition:** New proposal; more discussion needed

Wayne Qiu presented *Future Industrial Network Requirement Discussion for TSN*  
<http://ieee802.org/1/files/public/docs2017/new-qiu-future-industrial-network-requirement-0917-v01.pdf>  
**Disposition:** New proposal; more discussion needed

Paul Congdon presented *Congestion Management – Congestion Isolation*  
<http://www.ieee802.org/1/files/public/docs2017/new-dcb-congdon-congestion-isolation-0917-v02.pdf>  
**Disposition:** New proposal; more discussion needed

### 3 Next meeting

6-10 November 2017, Orlando, Florida, U.S.A.