

# IEEE 802.1 Interim Meeting

York, UK

## 802.1 Meeting Minutes – 3-6 September 2013

### Attendees

<i>Last Name</i>	<i>First Name</i>	<i>Middle Name</i>	<i>Affiliation</i>
Cummings	Rodney		National Instruments Corporation
Diamond	Patrick		Semtech Ltd
Farkas	Janos		Ericsson
Finn	Norman		Cisco Systems, Inc.
Garner	Geoffrey		broadcom corporation, marvell semiconductor, siemens ag, hirschmann
Ghanwani	Anoop		Dell
Gillum	Kirt		Dell
Goetz	Franz		Siemens AG
Gray	Eric		Ericsson AB
Gunther	Craig		Harman International
Haddock	Stephen		Stephen Haddock Consulting, LLC
Iwacka	Mitsuru		Yokogawa Electric Corporation
Jakovljevic	Mirko		TTTech Computertechnik AG
Jeffrey	Anthony		HP, Broadcom
Johas Teener	Michael		Broadcom Corporation
Kiessling	Marcel		Siemens AG
Kim	Yongbum		Broadcom Corporation
Mack-Crane	Thomas		Huawei Technologies Co. Ltd
Magee	Anthony		ADVA Optical Networking Ltd.
McIntosh	James		Vitesse Semiconductor Corporation
Messenger	John		ADVA Optical Networking Ltd.
Moldovansky	Anatoly		Rockwell Automation
Multanen	Eric		Intel Corporation
Pannell	Donald		Marvell Semiconductor, Inc.
Parsons	Glenn		Ericsson AB
Powell	Clinton		Powell Wireless Consulting, LLC
Randall	Karen		NSA/IAD
Riegel	Maximilian		Nokia Siemens Networks
Rouyer	Jessy		Alcatel-Lucent
Saltsidis	Panagiotis		Ericsson AB
Seaman	Michael		Individual
Steiner	Wilfried		TTTech Computertechnik AG

Thaler	Patricia	Broadcom Corporation
Ting	Ao	ZTE Corporation
Unbehagen	Paul	Avaya Inc.
Walter	Todd	National Instruments Corporation
Weber	Karl	Beckhoff, ZHAW
Wei	Yuehua	ZTE Corporation
Weis	Brian	Cisco Systems, Inc.

# Task Group Minutes

## *Interworking minutes*

**Tuesday, 3 September**

Meeting called to order at 9:00 AM.

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

Stephen Haddock presented the preliminary agenda for the week.

Stephen Haddock reviewed the pending and new received liaisons. No new liaisons have been received since the July plenary. There was discussion following the ITU/IEEE workshop in July of initiating a liaison regarding MDSP. If anyone proposes a draft liaison at this meeting we could conduct an email working group ballot to send it to the ITU. Nigel Bragg noted that there is a Scalable ARP proposal that may affect bridging and suggested 802.1 participants review the proposal.

**802.1Q-Rev:** Tony Jeffree conducted comment resolution on the Working Group ballot of 802.1Q-REV-d1.2.

<http://www.ieee802.org/1/files/private/q-rev-drafts/d1/IEEE802-1Q-REV-2013-d1-2.pdf>

<http://ieee802.org/1/files/private/q-rev-drafts/d1/802-1Q-REV-2013-d1-2-dis.pdf>

**802.1Qbp ECMP:** Ben Mack-Crane conducted comment resolution on the Sponsor ballot of 802.1Qbp-d1.6 SPBM Equal Cost MultiPath. Stephen Haddock gave a presentation in support of one of the comments:

<http://ieee802.org/1/files/private/bp-drafts/d1/802-1bp-d1-6.pdf>

<http://ieee802.org/1/files/private/bp-drafts/d1/802-1bp-d1-6-dis.pdf>

<http://ieee802.org/1/files/public/docs2013/bp-haddock-CCM-and-ECMP-path-variation-0913-v1.pdf>

**802.1AC-Rev:** John Messenger conducted comment resolution on the Task Group ballot of 802.1AC-REV-d0.1:

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

<http://ieee802.org/1/files/private/ac-rev-drafts/d0/802-1ac-rev-d0-1-dis-v1.pdf>

Break at 12:30 PM.

Resume at 1:45 PM.

**802.1AC-Rev:** John Messenger completed comment resolution on the Task Group ballot of 802.1AC-REV-d0.1.

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

<http://www.ieee802.org/1/files/private/ac-rev-drafts/d0/802-1ac-rev-d0-1-dis-v1.pdf>

**802.1Qbz Wireless Bridging:** Norm Finn conducted comment resolution on the task group ballot of 802.1Qbz-d1.2 Wired and Wireless Bridging. Norm subsequently posted the revised draft (1.3):

<http://ieee802.org/1/files/private/bz-drafts/d1/802-1Qbz-d1-2.pdf>

<http://ieee802.org/1/files/private/bz-drafts/d1/802-1Qbz-d1-2-dis.pdf>

<http://ieee802.org/1/files/private/bz-drafts/d1/802-1Qbz-d1-3.pdf>

Adjourn at 6:15 PM.

### **Wednesday, 4 September**

Joint meeting of Interworking and Time Sensitive Networking (TSN) Task Groups called to order at 9:00 AM.

Michael Teener presented the preliminary agenda for the day.

Michael Teener gave the call for patents. No response to the call for patents.

**802.1Qcc SRP:** Rodney Cummings gave an introduction to the initial draft and led discussions regarding pruning talker advertisements by VLAN and ways to have SRP use VLAN 1 instead of 2 without recreating the issue raised by sponsor ballot comment #26 on 802.1at-d5.0. Rodney also gave a presentation on behalf of Philippe Klein regarding establishment of redundant reservations:

<http://ieee802.org/1/files/private/cc-drafts/d0/802-1cc-d0-0.pdf>

<http://www.ieee802.org/1/files/public/docs2013/cc-cummings-editors-notes-d00-0913-v1.pdf>

<http://ieee802.org/1/files/public/docs2013/tsn-phk-redundant-stream-rrv-0813-v4.pdf>

The meeting participants discussed MSRP and the default VLAN.

**802.1Qca PCR:** Janos Farkas conducted comment resolution on the Task Group ballot of 802.Qca-d0.3 Path Control and Reservation:

<http://www.ieee802.org/1/files/private/ca-drafts/d0/802-1ca-d0-3.pdf>

<http://ieee802.org/1/files/public/docs2013/ca-farkas-editor-report-0913-v01.pdf>

Break at 12:30 PM

Resume at 1:30 PM.

**802.1Qca PCR:** Janos Farkas continued comment resolution on the Task Group ballot of 802.Qca-d0.3 Path Control and Reservation.

**New Work:** Pat Kinney presented an overview of Mesh Networking over 802.15.4 and Clint Powell gave a presentation regarding layer 2 routing on 802.15:

<http://ieee802.org/1/files/public/docs2013/liaison-15-13-0493-01-0000-examples-of-mesh-networking-over-ieee-802-15-4-0913.pptx>

<http://ieee802.org/1/files/public/docs2013/liaison-15-13-0495-00-0010-why-l2r-on-802-15-0913.pptx>

The meeting participants discussed 802.15 high speed point-to-point links.

Adjourn at 6:00 PM.

## **Thursday, 5 September**

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 task group ballot of 802.1AX-REV-d2.2 Link Aggregation with Distributed Resilient Network Interconnect. Corona Wei gave a presentation on the construction of Port Identifiers:  
<http://www.ieee802.org/1/files/private/ax-rev-drafts/d2/802-1AX-REV-d2-2.pdf>  
<http://www.ieee802.org/1/files/private/ax-rev-drafts/d2/802-1AX-REV-d2-2-pdis-v1.pdf>  
<http://www.ieee802.org/1/files/public/docs2013/AXrev-weiyh-PortID-issues-0913v0.pptx>

Adjourn at 12:15 PM.

Resume at 1:15 PM.

**New Work:** Mick Seaman presented an overview of Ethernet Data Encryptors (EDEs):  
<http://www.ieee802.org/1/files/public/docs2013/ae-seaman-edp-ppt-0913-v01.pdf>

**802.1AX-Rev DRNI:** Panagiotis Saltsidis concluded comment resolution on the task group ballot of 802.1AX-REV-d2.2 Link Aggregation with Distributed Resilient Network Interconnect.

**802.1AC-Rev:** John Messenger and Norm Finn led a discussion to clarify some comments made on text Norm is contributing to 802.1AC-REV regarding bridging 802.11.

Adjourn at 6:00 PM.

## **Friday, 6 September**

Meeting called to order at 9:00 AM.

Stephen Haddock gave the call for patents. No response to the call for patents.

**802.1Qca PCR:** Janos Farkas continued comment resolution on the Task Group ballot of 802.Qca-d0.3 Path Control and Reservation.

Adjourn at 11:30 AM.

## ***TSN Minutes***

**Tuesday, 3 September**

**0900-1200, TSN**

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

Geoffrey M. Garner presented P802.1ASbt/D0.1 editor's draft

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

**1300-1400, Joint meeting with TSN task group and 802.3 DMLT study group**

Ludwig Winkel presented Proposed Updates to PAR and 5C

[http://www.ieee802.org/3/DMLT/PAR\\_5C\\_Objectives/8023-DMLT-SG-1309-Winkel-PAR-2013-07-17r3.3.pdf](http://www.ieee802.org/3/DMLT/PAR_5C_Objectives/8023-DMLT-SG-1309-Winkel-PAR-2013-07-17r3.3.pdf)

[http://www.ieee802.org/3/DMLT/PAR\\_5C\\_Objectives/8023-DMLT-SG-1309-Winkel-5C-Proposed-Refinements-v2.2.pdf](http://www.ieee802.org/3/DMLT/PAR_5C_Objectives/8023-DMLT-SG-1309-Winkel-5C-Proposed-Refinements-v2.2.pdf)

[http://www.ieee802.org/3/DMLT/PAR\\_5C\\_Objectives/8023-DMLT-SG-1309-Winkel-Objectives-v2.3.pdf](http://www.ieee802.org/3/DMLT/PAR_5C_Objectives/8023-DMLT-SG-1309-Winkel-Objectives-v2.3.pdf)

**1400-1700, TSN**

Geoffrey M. Garner presented P802.1ASbt/D0.1 editor's draft, discussion of annex Z

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

**Wednesday, 4 September**

**0900-1700**

Joint meeting with 802.1 TSN and 802.1 Interworking task group

See Interworking meeting notes above.

**Thursday, 5 September**

**0900-1700**

János Farkas continued presenting P802.1Qca Comment Review

<http://www.ieee802.org/1/files/public/docs2013/ca-farkas-editor-report-0913-v01.pdf>

<http://www.ieee802.org/1/files/private/ca-drafts/d0/802-1Qca-d0-3-pdis-v01.pdf>

Geoffrey M. Garner discussed clarifications to BMCA for 802.1AS.

Wilfried Steiner presented Interoperability of IEEE 802.1AS and Fault-Tolerant Clock Synchronization (update)

<http://www.ieee802.org/1/files/public/docs2013/new-avb-wsteiner-8021AS-interoperability-ft-clocksynchron-0913-v03.pdf>

Franz-Josef Goetz presented Guaranteed Latency for Control-Data-Traffic in Time Sensitive Networks

<http://www.ieee802.org/1/files/public/docs2013/bv-goetz-TSN-GuaranteedLatency4CDT-20130904-v1.pdf>

Tony Jeffree presented Guard Band Signalling – Does It Help?

<http://www.ieee802.org/1/files/public/docs2013/avb-tj-signalling-guard-band-0913.pdf>

Rodney Cummings presented Recent AAA2C Shaper Discussion

<http://www.ieee802.org/1/files/public/docs2013/new-tsn-cummings-aaa2c-shaper-discussion-0913-v2.pdf>

## ***DCB Minutes***

**Wednesday, 4 September**

Administrivia - Pat Thaler

- Patent slides were shown and there were no responses to the call for patents.
- Agenda.
  - Review draft of Qcd.
  - Review of SVID assignment in CDCP.
  - New work discussion of flow control for higher speeds.

P802.1Qcd editor's draft - Eric Multanen, Intel

- Should the support for the TLV be mandatory?
  - Will be made optional.
- Subtype value to be assigned before sponsor ballot.
- Brief discussion of single vs multiple VLANs per application.
  - Currently we keep it similar to the priority.

Application VLAN TLV - Anoop Ghanwani, Dell

- Editor's note/note calling out single vs multiple VLANs.
- Add an editor's note for default VLAN (with no application).
  - PVID already exists in LLDP via other basic 802.1Q-defined TLVs.
- LAG issue should already be covered by the meeting on Q-REV yesterday.
  - There will be a NOTE in Q-REV discussing this.
- Mention priority and VLAN in the context of multichannel.

SVID assignment in CDCP - Anoop Ghanwani, Dell

- Conclusion was that it's probably easier to just always have the end station request with a value of 0.

Next Gen CEE flow control group discussion - Pat Thaler

- Went over Mitch's presentation from Geneva meeting.
- Discussed advantages of credits.
- Hop-by-hop vs end-to-end congestion control.
- Group seemed more open to enhancements for hop-by-hop flow control.
- E2E needs a lot of simulation resources and the RoI from QCN is not there.
- Presentation is too broad. To work on something here we would need a more specific PAR.



To be discussed further on conference call(s) and at next meeting.

## ***Security Minutes***

### **Tuesday, 3 September through Thursday, 5 September**

The Security Task Group met Tuesday 3rd (AM & PM), Wednesday 4th (AM & PM), Thursday 5th (AM) and participated in the Interworking Task Group meeting on Thursday afternoon.

The TG discussed the following topics over the course of the 3 days

#### ***Patent Policy***

The chair showed the patent policy slides and issued the call for notification of essential patents at the start of each day's meetings.

There were no responses at this time. On each occasion the TG chair noted that the patent policy slides could be found in the opening plenary slides (pointer distributed to the 802.1 email list by the 802.1 WG chair) if attendees wished to study them further, and that notifications of essential patents could be made to either the TG or WG chair at any time.

#### ***P802.1Xbx***

The meeting considered the WG ballot comments. Decisions are recorded in the dispositions of comments.

The meeting scheduled a follow-on teleconference to complete the resolution of ballot comments.

#### ***802.1AR SHA-384 and P-384***

Karen Randall described the pressing customer requirement for stronger security for the 802.1AR Secure Device Identity.

Adding SHA-384 and P-384 as options would allow 192 bits of effective security, as opposed to the effective 128 bits currently available with SHA-256 and P-384 and the slightly weaker security obtained with RSA-2048 and SHA-256.

The meeting agreed that an amendment should be developed.

#### ***OmniRAN***

Max Riegel presented on the OmniRAN architecture (presentations available on the 802.1 server – see reference above).

Mick Seaman was concerned at the suggestion that MACsec be used in a multi-hop fashion to create point-to-point links across a bridged network. Although it was possible to use the information provided in his MACsec Hops note to construct such links, the note was explicit about why a single hop restriction was important and the special circumstances that applied when complex connectivity could be described as a single hop (connectivity between two Customer Bridges across a provider network for example). 802.1AE already states that (except in very constrained and already specified circumstances) the network topology should not depend on the presence or absence of security. Brian Weis was concerned that service providers already know how to use a combination of layer 2 technology and routers and doubted the requirement for (and appeal and applicability of) an IEEE 802 only solution.

### ***EDEs (Ethernet Data Encryption devices)***

Mick Seaman presented his note on Ethernet Data Encryption devices, based on prior task group study of the ESS (Ethernet Security Specification) 0.5 specification prepared by the NSA and subsequent discussion with task group members and members of the team working on that specification.

<http://www.ieee802.org/1/files/public/docs2013/ae-seaman-edc-0713-v02.pdf>

A summary of the need and related issues was presented to the Interworking Task Group.

<http://www.ieee802.org/1/files/public/docs2013/ae-seaman-edc-ppt-0913-v01.pdf>

There was a clear need for a two port bridging device that could be added to bridge networks to provide just the necessary secure connectivity functions. The task group agreed to develop an amendment to 802.1AE.

### ***Confidentiality Offset clarification in 802.1AE***

The use of Interpretations has been discontinued by the IEEE, so it will be necessary to develop a maintenance request item and response to address this issue (previously discussed at the Santa Cruz interim).

## ***Maintenance Minutes***

Are available at: <http://www.ieee802.org/1/files/public/maint/2013-09-maintenance.pdf>