

# IEEE 1904 Access Networks Working Group

Sponsored by the IEEE Communications Society

**25-26 April 2016**  
**San Jose, CA USA**

## Minutes

**Chair: Glen Kramer**  
**Vice-Chair: Ken-Ichi Suzuki**  
**Executive Secretary: Zhou Zhen**  
**Chief Editor: Marek Hajduczenia**  
**Meeting Recorder: Zhou Zhen**

### Day 1, Monday, 25 April 2016

#### 1. Call to Order

- The meeting was called to order at 9:00 am.
- All present introduced themselves and declared their affiliation.
- A sign in sheet captured attendance each day.
- **10 voting member attended meeting. Quorum was reached.**

#### 2. Executive Secretary Report

- Zhou Zhen, Executive Secretary, presented [anwg\\_1604\\_exec\\_report.pdf](#).
- A report on working group member was provided.

#### 3. Chair's Opening Remarks

- Chair Kramer presented ANWG opening remarks [anwg\\_1604\\_opening.pdf](#).
- Chair Kramer presented WG updates since last meeting.
- Chair Kramer presented the plan for this meeting.

#### 4. Approval of Agenda

- Chair Kramer presented the agenda, [anwg\\_1604\\_agenda.pdf](#).

- **Motion#1:**

*Approve the agenda for the February 2016 meeting as presented in [anwg\\_1604\\_agenda.pdf](#).*

*Moved: Marek Hajduczenia, Bright House Networks*

*Seconded: Jouni Korhonen, Broadcom Corp.*

*(Procedural, required>50%)*

*Motion passed by voice vote without opposition*

#### 5. Approval of Past Meeting Minutes

- Chair Kramer presented [anwg\\_1602\\_minutes\\_unapproved.pdf](#).

- **Motion#2:**

*Approve minutes of the February 2016 meeting as recorded in*

*[anwg\\_1602\\_minutes\\_unapproved.pdf](#).*

*Post the approved minutes on the WG website as [anwg\\_1602\\_minutes\\_approved.pdf](#).*

*Moved: Zhou Zhen, Fiberhome*

*Seconded: Marek Hajduczenia, Bright House Networks*

*(Procedural, required>50%)*

*Motion passed by voice vote without opposition*

**6. IEEE Patent Policy**

- Chair Kramer displayed the patent slides. A call for potentially essential patents was made at **9:30 am**. No potentially essential patent claims were declared, and no holders of potentially essential patents were identified.

**7. Treasurer's Report**

- Zhou Zhen, Treasurer, presented [anwg\\_1604\\_treasurer\\_report.pdf](#).
- Balance of WG account and details were shown.

**8. Logistics for June 2016 meeting**

- Chair Kramer suggested that work group, RMTF and TF2 should have teleconference meeting for June.
- TF3 may have face to face meeting. TF3 chair should make the decision after this meeting.

**9. Revision & Maintenance Task Force Opening Report**

- Curtis Knittle, Revision & Maintenance Task Force Chair, presented the Task Force Opening Report, [rmtf\\_1604\\_opening.pdf](#).

**10. Resolution of open maintenance requests**

- Marek Hajduczenia, Revision & Maintenance Task Force Editor, presented Comments with Proposed Responses, [rmtf\\_1604\\_comments\\_1904\\_1\\_proposed.xlsm](#).
- All comments were resolved.

**11. Revision & Maintenance Task Force Closing Report**

- Curtis Knittle, Revision & Maintenance Task Force Chair, presented the Task Force Closing Report, [rmtf\\_1604\\_closing.pdf](#).

- **Motion#3:**

*Authorize the Editor to incorporate the resolved comments from the April 2016 meeting as recorded in [rmtf\\_1604\\_comments\\_1904\\_1\\_resolved.pdf](#) and produce draft 1904.1-rev/D2.3. Editor has a license to resolve conflicts and apply editorial changes as needed.*

*Moved: Curtis Knittle, CableLabs*

*Seconded: Marek Hajduczenia, Bright House Networks*

*(Technical, Required >= 2/3)*

*11 yes, 0 no, 0 abstained*

*Motion Passes*

- After discussion, Sponsor Ballot of 1904.1-Rev would be started at August 2016.

**12. RMTF Liaison to CableLabs**

- Curtis Knittle, Revision & Maintenance Task Force Chair, presented the liaison from RMTF to CableLabs, [anwg\\_1604\\_LS\\_CL\\_outgoing.pdf](#).

- **Motion#4:**

*Authorize IEEE 1904 Chair to send liaison provided in [anwg\\_1604\\_LS\\_CL\\_outgoing.pdf](#) to CableLabs together with draft 1904.1-rev/D2.3. Chair has editorial license to make necessary changes to the liaison letter. .*

*Moved: Curtis Knittle, CableLabs*

*Seconded: Marek Hajduczenia, Bright House Networks*  
*(Procedural, required>50%)*  
*Motion passed by voice vote without opposition*

### **13. Status update on 1904.2 and EtherType assignment discussion**

- There was no contribution of 1904.2 in this meeting. Chair and editor of 1904.2 did not attend this meeting.
- Chair Kramer, presented the letter from IEEE Registration Authority, [RA letter 1904 ethertype.pdf](#) and 1904.2 UMT frame format, [tf2 1408 kramer 2.pdf](#).
- Chair Kramer explained that IEEE Registration Authority gave 1904 WG only one EtherType: A8C8.

### **14. P1904.3 (Task Force 3) Opening Report**

- Jouni Korhonen, Task Force 3 Chair, presented the Task Force Opening Report, [tf3 1604 opening.pdf](#).

### **15. EtherType and RoE common header format**

- Jouni Korhonen, Broadcom Corporation, presented EtherType and RoE common header format, [tf3 201604 korhonen ptk type 1.pdf](#).
- **Motion#5:**  
*Allocate multiple subtypes as RoE protocol identifiers.*  
*Moved: Kevin Bross, Intel Corporation*  
*Seconded: Jouni Korhonen, Broadcom Corp.*  
*(Technical, Required>=2/3)*  
*7 yes, 3 no, 0 abstained*  
*Motion Passes*

### **16. 1PPS Signal**

- Kevin Bross, Intel Corporation, presented 1PPS Signal, [tf3 1604 bross 1pps 1.pdf](#).

### **17. Time Accuracy of Sequence Numbers**

- Kevin Bross, Intel Corporation, presented Time Accuracy of Sequence Numbers, [tf3 1604 bross seqnum 1.pdf](#).

### **18. RF Accuracy - Presentation time & sequence numbers**

- Richard Maiden, Intel Corporation, presented RF Accuracy - Presentation time & sequence numbers, [tf3 1604 maiden rf timing 1a.pdf](#).

### **18.a. RoE OAM PDU**

- Richard Maiden, Intel Corporation, presented RoE OAM PDU proposal, [tf3 1604 maiden oampdu.pdf](#).

The WG recessed at 4:45pm.

## **Day 2, Tuesday, 26 April 2016**

The WG reconvened at 9:05am. Introductions by all attendees were made.

Jouni Korhonen, Task Force 3 Chair, resumed Task Force 3 meeting.

### **19. Redefining Timestamp Precision**

- Kevin Bross, Intel Corporation, presented Redefining Timestamp Precision, [tf3 1604\\_bross\\_timestamp 1.pdf](#).
- Chair Kramer requested that concrete proposals for timestamp be brought forward for Task Force consideration.

### **20. RoE Use Cases**

- Jouni Korhonen, Broadcom Corporation, on behalf of Recharad Tse, presented RoE Use Cases, [tf3 1604\\_tse\\_use\\_cases 1.pdf](#).

### **21. Data Path vs Control Path for Timing of Radio Data**

- Jouni Korhonen, Broadcom Corporation, on behalf of Recharad Tse, presented Data Path vs Control Path for Timing of Radio Data, [tf3 1604\\_tse\\_datapath 1.pdf](#).

### **22. Control Packets for RoE**

- Kevin Bross, Intel Corporation, presented control Packets for RoE, [tf3 1604\\_bross\\_control\\_packets 1.pdf](#).

### **23. RoE Link Setup**

- Gareth. Edwards, Xilinx, presented RoE Link Setup, [tf3 1604\\_edwards\\_link\\_setup 1.pdf](#).

### **24. Handling Multiple K-Characters**

- Kevin Bross, Intel Corporation, presented Handling Multiple K-Characters, [tf3 1604\\_bross\\_k\\_chars 1.pdf](#).

### **25. Task Force 3 Closing Report**

- Jouni Korhonen, Task Force 3 Chair, presented Task Force 3 Closing Report, [tf3 1604\\_closing.pdf](#).

- **Motion#6:**

*Accept as a baseline the format of the timestamp as presented in [tf3 1604\\_bross\\_timestamp 4.pdf](#) page 8.*

*Moved: Kevin Bross, Intel Corporation*

*Seconded: Yasser Bajwa, Hon Hai Precision*

*(Technical, Required  $\geq 2/3$ )*

*8 yes, 0 no, 0 abstained*

*Motion Passes*

- **Motion#7:**

*Accept adding a recommendation of the 1PPS output as outlined in [tf3 1604\\_bross\\_1pps 2.pdf](#) page 2 second bullet.*

*Moved: Kevin Bross, Intel Corporation*

*Seconded: Xhafer Krasniqi, NEC*  
(Technical, Required  $\geq 2/3$ )  
8 yes, 0 no, 0 abstained  
*Motion Passes*

- **Motion#8:**

*Editor shall produce the draft D1.0 of the 1904.3 specification and incorporate the baseline proposal motions #5, #6 and #7 as agreed in this meeting. The editor has an editorial license to make the necessary changes to the draft.*

*Moved: Jouni Korhonen, Broadcom Corp.*

*Seconded: Richard Maiden, Intel Corporation*

(Technical, Required  $\geq 2/3$ )  
10 yes, 0 no, 0 abstained  
*Motion Passes*

## **26. WG Closing Report**

- Chair Kramer presented the WG Closing Report, [anwg\\_1604\\_closing.pdf](#).
- Transferring 1904.3 into 1914 was discussed. Chair Kramer shown three Straw Poll made in February meeting. A new Straw Poll was made.

- **Straw Poll #1**

*I support the transfer of the RoE project from 1904.3 to 1914.x*

*Yes: 29*

*No: 0*

- **Motion#9:**

*The chair shall take the steps necessary to transfer the 1904.3 RoE project to the 1914 NGFI working group.*

*Moved: Curtis Knittle, CableLabs*

*Seconded: Xhafer Krasniqi, NEC*

(Super-majority, Required  $\geq 2/3$ )  
1904 voters only: Y: 8 N: 0 A: 2 (11 in the room)  
All attendees: Y: 25 N: 0 A: 3 (29 in the room)  
*Motion Passes*

- WG planned to have next meeting on June. 1904.1 and 1904.2 would meet by teleconference, 1904.3 might meet by face-to-face. TF3 chair should make the decision after this meeting.

## **27. Unfinished Business**

- No unfinished business was brought before the WG.

## **28. New Business**

- No new business was brought before the WG.

- **Motion#10:**

*Move to adjourn the meeting.*

*Moved: Kevin Bross, Intel Corporation*

*Seconded: Yasser Bajwa, Hon Hai Precision*

*Motion passed by voice vote without opposition.*

The WG adjourned at 5:07pm.

## **Attendance Record**

<b>First Name</b>	<b>Last Name</b>	<b>Affiliation</b>	<b>Attendance</b>	
			<b>Monday, April 25, 2016</b>	<b>Tuesday, April 26, 2016</b>
Mohammad	Akhter	Integrated Device Technology Canada, Inc.		<b>X</b>
Andres	ARJONA	Nokia	<b>X</b>	<b>X</b>
Filippos	Asimakopoulos	University of Kent	<b>X</b>	<b>X</b>
Yasser Kilde	Bajwa	Hon Hai Precision Ind. (Foxconn)	<b>X</b>	<b>X</b>
Ralph	Bechstein	Viavi Solutions	<b>X</b>	<b>X</b>
Kevin	Bross	Intel Corp.	<b>X</b>	<b>X</b>
Tien-Shou	Chang	Hon Hai Precision Ind. Co.	<b>X</b>	<b>X</b>
Binrong	Chen	Hon Hai Precision Ind. (Foxconn)	<b>X</b>	<b>X</b>
Divya	Chitimalla	UC Davis	<b>X</b>	<b>X</b>
Peter Kwangho	Cho	Actus Networks	<b>X</b>	
Jinseek	Choi	Hangyang University	<b>X</b>	<b>X</b>
Moonchan	Choi	Actus Networks	<b>X</b>	<b>X</b>
Gareth	Edwards	Xilinx	<b>X</b>	<b>X</b>
Joerg-Peter	Elbers	ADVA Optical Networking	<b>X</b>	<b>X</b>
Marek	Hajduczenia	Bright House Networks	<b>X</b>	
Jinri	Huang	CMRI	<b>X</b>	<b>X</b>
Curtis	Knittle	CableLabs	<b>X</b>	<b>X</b>
Jouni	Korhonen	Broadcom Corporation	<b>X</b>	<b>X</b>
Glen	Kramer	Broadcom Corp.	<b>X</b>	<b>X</b>
Xhafer	Krasniqi	NEC	<b>X</b>	<b>X</b>
Mark	Laubach	Broadcom	<b>X</b>	<b>X</b>
Bomin	Li	Comcores	<b>X</b>	<b>X</b>
Richard	Maiden	Altera	<b>X</b>	<b>X</b>
Amit	Oren	Broadcom		<b>X</b>
Erik	Pennings	SOLiD		<b>X</b>
Michelle	Perras	InterDigital	<b>X</b>	<b>X</b>
Philippe	Sehier	Alcatel-Lucent	<b>X</b>	<b>X</b>
Hans	Sjostrand	Infinera		<b>X</b>
Ken-Ichi	Suzuki	NTT Corporation	<b>X</b>	<b>X</b>
Tony (Shau-Chia)	Tam	Fujitsu Network Communications	<b>X</b>	

Thomas	Tan	Verizon		<b>X</b>
Perminder	Tumber	Xilinx	<b>X</b>	<b>X</b>
Stuart	Whitehead	Anritsu	<b>X</b>	<b>X</b>
Zhen	Zhou	Fiberhome	<b>X</b>	<b>X</b>

The meeting attendance is only credited for those who attended at least 50% of meeting duration.