

# IEEE 1904 Access Networks Working Group

Sponsored by the IEEE Communications Society

**3-5 February 2015**  
**Louisville, CO USA**

## Minutes

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

### **Day 1, Tuesday, 3 February 2015**

#### **1. Call to Order**

- The meeting was called to order at 2:00 pm.
- All present introduced themselves and declared their affiliation.
- A sign in sheet captured attendance each day.
- Quorum was reached.

#### **2. Executive Secretary Report**

- Zhou Zhen, Executive Secretary, presented [anwg\\_1502\\_exec\\_report.pdf](#).
- A report on working group member was provided.

#### **3. Chair's Opening Remarks**

- Chair Kramer presented ANWG opening remarks [anwg\\_1502\\_opening.pdf](#).
- Chair Kramer presented the plan for this meeting.
- Chair Kramer announced the formation of P1904.3(Task Force 3) with the scope as defined in [P1904.3 PAR](#).

#### **4. Approval of Agenda**

- Chair Kramer presented the agenda, [anwg\\_1502\\_agenda.pdf](#).

##### **Motion#1:**

*Approve the agenda for the February 2015 meeting as presented in [anwg\\_1502\\_agenda.pdf](#).*

*Moved: Marek Hajduczenia, Bright House Networks*

*Seconded: Zhou Zhen, Fiberhome*

*(Procedural, required>50%)*

*Motion passed by voice vote without opposition*

#### **5. Approval of Past Meeting Minutes**

##### **Motion#2:**

*Approve minutes of the August 2014 meeting as recorded in*

*[anwg\\_1412\\_minutes\\_unapproved.pdf](#).*

*Post the approved minutes on the WG website as [anwg\\_1412\\_minutes\\_approved.pdf](#).*

*Moved: Curtis Knittle, CableLabs*

*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 2:18 pm. No potentially essential patent claims were declared, and no holders of potentially essential patents were identified.

## **7. Disband P1904.1**

- Chair Kramer gave the update on the publication status of the P1904.1/Conformance standards and suggested disbanding the 1904.1 SIEPON Working Group.

- **Motion#3:**

*Disband 1904.1 Working Group*

*Moved: Marek Hajduczenia, Bright House Networks*

*Seconded: Razi Gabe, PMC Sierra*

*(Required >= 75%)*

*9 yes, 0 no, 0 abstained (Vote is taken among the 1904.1 entity voting members)*

## **8. Appoint P1904.3 officers**

- Chair Kramer appointed officers of P1904.3 task force as following:

Chair: Jouni Korhonen

Vice-Chair: Yuan Liquan

Editor: Peter Ashwood-Smith

The appointed officers were asked to leave the meeting room for the WG discussion and affirmation. There were no objections from WG members.

## **9. August meeting financial report**

- Chair Kramer, presented the financial report for the August 2014 meeting for Ravi Subramaniam, [anwg\\_1502\\_kramer\\_1.pdf](#).

## **10. December meeting financial report**

- Marek Hajduczenia, Bright House Networks, presented the financial report for the December 2014 meeting, [anwg\\_1502\\_hajduczenia\\_1.pdf](#).

## **11. Revision & Maintenance TF Opening Report**

- Curits Knittle, Chair of RMTF, gave RMTF opening report.

## **12. Discussion and approval of the Revision PAR**

- Curits Knittle, Chair of RMTF, presented the draft of P1904.1-REV PAR, [rmtf\\_1412\\_kramer\\_1a.pdf](#).

- **Motion#4:**

*Approve PAR for 1904.1 standard revision as presented in [rmtf\\_1412\\_kramer\\_1a.pdf](#).*

*RMTF Chair has the editorial license to apply changes as needed.*

*Moved: Marek Hajduczenia, Bright House Networks*

*Seconded: Razi Gabe, PMC Sierra*

*(Required >= 2/3)*

*9 yes, 0 no, 0 abstained*

### 13. 1904.2 (Task Force 2) Opening Report

- Lu Yang, Chair of P1904.2, presented the P1904.2 Opening Report, [tf2\\_1502\\_opening.pdf](#).

### 14. Review and discussion on the UMT layering diagram

- Glen Kramer, Broadcom Corporation, presented a new version of UMT Forwarding Layer Diagram, [tf2\\_1502\\_kramer\\_2.pdf](#).

### 15. Behaviors and configuration of UMT nodes

- Liquan Yuan, ZTE Corporation, presented Behaviors and configuration of UMT nodes, [tf2\\_1502\\_yuan\\_1.pdf](#).

### 16. UMT Discovery Protocol Ladder Diagram

- Glen Kramer, Broadcom Corporation, presented UMT Discovery Protocol Ladder Diagram, [tf2\\_1502\\_kramer\\_3a.pdf](#).

The WG recessed at 5:15pm.

## **Day 2, Wednesday, 4 February 2015**

The WG reconvened at 11:18am.

### 17. UMT Parser and UMT Multiplexor State Diagrams

- Glen Kramer, Broadcom Corporation, presented UMT Parser and UMT Multiplexor State Diagrams, [tf2\\_1502\\_kramer\\_4.pdf](#).
- **Motion#5:**  
*Accept the figures shown in [tf2\\_1502\\_kramer\\_4.pdf](#) as a baseline proposal for the UMT Parser and Multiplexor State Diagram with the following changes:*
  - In “CHECK OPCODE” state, change data\_rx[0:15] to data\_rx[0:7]  
*Moved: Razi Gabe, PMC Sierra*  
*Seconded: Marek Hajduczenia, Bright House Networks**(Required >= 2/3)*  
*10 yes, 0 no, 0 abstained*

### 18. Examples of UMT architectures

- Razi Gabe, PMC Sierra, presented Examples of UMT architectures, [tf2\\_1502\\_gabe\\_1.pdf](#), with the same figures in [tf2\\_1502\\_kramer\\_1.pdf](#).

### 19. Distributed Access Architectures

- Hesham Elbakoury, Huawei Technologies, presented Distributed Access Architectures, [tf2\\_1502\\_elbakoury\\_1.pdf](#).

### 20. 1904.3 (Task Force 3) Opening Report

- Jouni Korhonen, Chair of P1904.3, presented the P1904.3 Opening Report, [tf2\\_1502\\_opening.pdf](#).

## 21. CMCC's view on next generation radio interface

- Clark Chen, CMCC, presented CMCC's view on next generation radio interface, [tf3\\_1502\\_clark\\_1a.pdf](#).

## 22. Basic requirements of RoE

- Liquan Yuan, ZTE Corporation, presented Basic requirements of RoE, [tf3\\_1502\\_yuan\\_1.pdf](#).

## 23. A Performance Study of CPRI over Ethernet

- Peter Ashwood-Smith, Huawei Technologies, presented A Performance Study of CPRI over Ethernet, [tf3\\_1502\\_ashwood\\_1.pdf](#).

## 24. Combatting latency and packet jitter in packet switched networks

- Steinar Bjornstad, TransPacket, presented Combatting latency and packet jitter in packet switched networks, [tf3\\_1502\\_bjornstad\\_1.pdf](#).

## 25. RoE considerations

- Jouni Korhonen, Broadcom Corporation, presented RoE considerations, [tf3\\_1502\\_korhonen\\_1.pdf](#).

The WG recessed at 5:30pm.

## **Day 3, Thursday, 5 February 2015**

The WG reconvened at 9:05am.

## 26. IEEE 802.1AE (MACSec) and IEEE 802.1Qbb (PFC)

- Hesham Elbakoury, Huawei Technologies, present IEEE 802.1AE (MACSec) and IEEE 802.1Qbb (PFC), [tf2\\_1502\\_elbakoury\\_2.pdf](#).
- **Straw Poll #1**  
*UMT does not need to specify encryption mechanism; instead it should rely on underlying encryption mechanism.*
  - Agree:
  - Disagree:
  - Need more information:*(Straw Poll was not taken)*

## 27. Example of UMT packet format

- Marek Hajduczenia, Bright House Networks, presented Example of UMT packet format, [tf2\\_1502\\_hajduczenia\\_1.pdf](#).

## 28. Introduction to IEEE 802.1CF

- Hesham Elbakoury, Huawei Technologies, present Introduction to IEEE 802.1CF, [tf2\\_1502\\_elbakoury\\_3.pdf](#).

## 29. Ethernet Fronthaul Considerations

- David Chen, Nokia, present Ethernet Fronthaul Considerations, [tf3\\_1502\\_chen\\_1.pdf](#).

## 30. Discussion on RoE outbound liaison

- Jouni Korhonen, Broadcom Corporation, presented RoE outbound liaison draft, [tf3\\_1502\\_korhonen\\_2.docx](#).
- **Motion#6:**  
*Approve the draft output liaison statement to CPRI, IEEE802.1, CCSA TC5/TC6 and ORI as presented in [tf3\\_1502\\_korhonen\\_2a.docx](#). WG chair has a right to do editorial changes as needed.*  
*Moved: Jouni Korhonen, Broadcom Corporation*  
*Seconded: Razi Gabe, PMC Sierra*  
*(Procedural, required > 50%)*  
*10 yes, 0 no, 0 abstained*
- Chair Kramer has made several editorial changes after the discussion. The final version of the liaison can be found at [anwg\\_1502\\_ols\\_1904\\_3\\_roe.pdf](#).

## 31. Task Force 2 Closing Report

- Lu Yang, Task Force 2 Chair, presented Task Force 2 Closing Report, [tf2\\_1502\\_closing.pdf](#).
- **Motion#7:**  
*Accept the figure shown in [tf2\\_1502\\_kramer\\_2.pdf](#) as a baseline proposal for the UMT Layering Diagram with the following changes:*
  - Replace “???” with “other service interfaces”.*Moved: Mark Laubach, Broadcom Corporation*  
*Seconded: Razi Gabe, PMC Sierra*  
*(Required >= 2/3)*  
*10 yes, 0 no, 0 abstained.*

## 32. Task Force 3 Closing Report

- Jouni Korhonen, Task Force 3 Chair, presented Task Force 3 Closing Report, [tf3\\_1502\\_closing.pdf](#).
- **Straw Poll #2**  
*Agree on the reoccurring teleconference. Poll for:*
  - 1) Biweekly      Yes: 11
  - 2) Weekly        Yes: 0

## 33. WG Closing Report

- Chair Kramer presented the WG Closing Report, [anwg\\_1502\\_closing.pdf](#).
- Time and locations of the following meetings in this year were discussed.
- **Straw Poll #3**  
*I prefer the meeting on March 31-April 2<sup>nd</sup>*  
*In Louisville, CO                  6*

- In Sunnyvale, CA*            8
- Do not care*                    6
- **Straw Poll #4**  
*1904.2 and 1904.3 meeting shall meet together in August/September(no split meeting)*  
*Yes:        6*  
*No:        11*
- **Straw Poll #5**  
*I prefer*
  - *1904.3 meets in Santa Cruz on Sept 8-12 and 1904.2 meets in Tampa, FL on Sept 14-19 (exact dates TBD)        9*
  - *1904.2 and 1904.3 meet in Santa Cruz on Sept 8-12    8*
  - *1904.2 and 1904.3 meet in Tampa, FL on Sept 14-19 (exact dates TBD)    10*
- WG planned to have next meeting in March/April at Louisville, CO or Sunnyvale, CA USA

**34. Unfinished Business**

- No unfinished business was brought before the WG.

**35. New Business**

- No new business was brought before the WG.

- **Motion#8:**

*Move to adjourn the meeting.*

*Moved: Raziell Gabe, PMC Sierra*

*Seconded: Marek Hajduczenia, Bright House Networks*

*Motion passed by voice vote without opposition.*

The WG adjourned at 5:50pm.

## Attendance Record

Last Name	First Name	Affiliation	Attendance		
			Tuesday, February 3, 2015	Wednesday February 4, 2015	Thursday February 5, 2015
Ashwood-Smith	Peter	Huawei	X	X	X
Bjørnstad	Steinar	Transpacket		X	X
Bross	Kevin	Intel Corp.		X	X
Chen	Clark	China Mobile	X	X	X
Chen	David	Nokia		X	X
Claussen	David	Charter Communication		X	
Dai	Eugene	Cox		X	X
Elbakoury	Hesham	Huawei	X	X	X
Gabe	Raziel	PMC Sierra	X	X	X
Hajduczenia	Marek	Bright House Networks	X	X	X
Hirth	Ryan	Broadcom Corp.	X		
Korhonen	Jouni	Broadcom Corp.	X	X	X
Knittle	Curtis	CableLabs	X	X	X
Kramer	Glen	Broadcom Corp.	X	X	X
Kusano	Toshihiko	Oliver Solutions	X	X	X
Laubach	Mark	Broadcom Corp.	X	X	X
Lu	Yang	RITT	X	X	X
McCallan	Chris	Fujitsu		X	X
Moriyama	Tetsuya	OKI Electric Industry	X	X	X
Noll	Kevin	Time Warner Cable		X	X
Parsons	Glenn	Ericsson		X	X
Suzuki	Ken-Ichi	NTT Corporation	X	X	X
Yuan	Liquan	ZTE Corporation	X	X	X
Zein	Nader	NEC	X	X	X
Zhen	Zhou	Fiberhome Technologies	X	X	X