

**IEEE 1914 NGFI Working Group**  
Sponsored by the IEEE Communications Society

**26-28 October 2016**  
**San Jose, CA USA**

**Minutes**

**Chair: Jinri Huang**  
**Co-Chair: Abdellah Tazi**  
**Chief Editor: Jouni Korhonen**  
**Chair of P1914.1: Bomin Li**  
**Chair of P1914.3: Jouni Korhonen**  
**Secretary: Zhou Zhen**  
**Treasure: Tony Tam**  
**Meeting Recorder: Zhou Zhen**

**Day 1, Wednesday, 26 October 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.
- **16 voting member attended meeting. Quorum was not reached.**

**2. Executive Secretary Report**

- Zhou Zhen, Executive Secretary, presented [ngfi\\_1610\\_zhou\\_secretary-report.pdf](#).
- A report on working group member was provided.

**3. Approval of Agenda**

- Chair Huang presented the agenda, [ngfi\\_1610\\_agenda\\_4.pdf](#).
- Everyone agreed the agenda.

**4. Approval of Past Meeting Minutes**

- Chair Huang presented Past Meeting Minutes, [ngfi\\_1608\\_minutes\\_1.pdf](#).

**Motion#1:**

*To approve the meeting minute of IEEE NGFI 1914 WG August F2F meeting as in [ngfi\\_1608\\_minutes\\_1.pdf](#).*

*Moved: Zhou Zhen*

*Seconded: Abdellah Tazi*

*(Procedural, required >50%)*

*Y: 14, N:0, A:1*

*(The meeting had no quorum so the motion has to be ratified later with an email motion)*

**5. IEEE Patent Policy**

- Chair Huang displayed the patent slides. A call for potentially essential patents was made at **9:25** am. No potentially essential patent claims were declared, and no holders of potentially essential patents were identified.

**6. Chair's Opening Report**

- Chair Huang displayed the Chair's opening Report, [ngfi\\_1610\\_opening-report\\_1.pdf](#).
  - Chair Huang presented WG updates since last meeting.
  - Chair Huang presented the plan for this meeting.
- 7. Appointment of WG treasurer**
- Chair Huang appointed Tony Tom as the working group Treasurer.
- 8. Treasurer's Report**
- Chair Huang presented the treasure report, [ngfi\\_1610\\_treasurer\\_report.pdf](#).
  - Balance of WG account and details were shown.
- 9. P1914.1 Opening Report**
- Boming Li, P1914.1 Chair, presented the Task Force Opening Report, [tfl\\_1610\\_opening\\_1.pdf](#).
- 10. Incoming/outward LS discussion**
- Boming Li, P1914.1 Chair, presented the incoming liaison from ITU-T, [ngfi\\_1610\\_r3-162491-itu-t-sg15-com15-ls382e.doc](#).
  - Boming Li, P1914.1 Chair, presented the incoming liaison from Small Cell Forum, [ngfi\\_1610\\_scf-ieee-liaison.docx](#).
- 11. Function split and deployment scenarios for NGFI**
- Lujing Cai, AT&T, presented Function split and deployment scenarios for NGFI, [tfl\\_1610\\_cai-tazi\\_function-split-and-deploymnet-scenarios-for-ngfi\\_1.pdf](#).
- 12. RAN Split Grouping for Transport**
- Vishwanath Ramamurthi, Verizon, presented RAN Split Grouping for Transport, [tfl\\_1610\\_ramamurthi\\_5gtransportproposal\\_1.pdf](#).
- 13. Converged backhaul and fronthaul considerations**
- Jouni Korhonen, Broadcom Corporation, presented Converged backhaul and fronthaul considerations, [tfl\\_1610\\_korhonen\\_converged\\_2.pdf](#).
- 14. 5G Fronthaul Transport Classes for 3GPP Splits. Discussion for the need of MAC – MAC split**
- Aleksandra Checko, MTI, presented 5G Fronthaul Transport Classes for 3GPP Splits. Discussion for the need of MAC – MAC split, [tfl\\_1610\\_checko\\_fronthaultransportclasses\\_2.pdf](#).
- 15. P1914.3 Opening Report**
- Jouni Korhonen, P1914.3 Chair, presented the Task Force Opening Report, [tf3\\_1610\\_opening\\_1.pdf](#).
- 16. IEEE P1914.3 64B66B considerations**

- Jouni Korhonen, Broadcom Corporation, presented IEEE P1914.3 64B66B considerations, [tf3\\_1610\\_korhonen\\_64b66b\\_1.pdf](#).

The WG recessed at 6:05pm.

## **Day 2, Thursday, 27 October 2016**

The WG reconvened at 9:00am.

Boming Li, P1914.1 Chair, resumed P1914.1 meeting.

### **17. NG Fronthaul Control plane Requirements and Architectures**

- Jin Seek Choi, Hanyang University, presented NG Fronthaul Control plane Requirements and Architectures, [tf1\\_1610\\_choi\\_ng-fronthaul-network-requirements-and-architecture\\_1.pdf](#).

### **18. Priority considerations for fronthaul traffic**

- Raghuram M. Rao, Xilinx, presented Priority considerations for fronthaul traffic G, [tf1\\_1610\\_rao\\_priority\\_considerations\\_v1.pdf](#).

### **19. Holistic View of the Network Requirements and Architecture beyond Functional Split**

- Tony Tam, Fujitsu, presented Holistic View of the Network Requirements and Architecture beyond Functional Split, [tf1\\_1610\\_tam\\_holistic-view-of-network-requirements-and-architecture-beyond-functional-split\\_2.pdf](#).

### **20. Applicability of OTN for NGFI / CPRI Fronthaul**

- Scott Wakelin, Microsemi, presented Applicability of OTN for NGFI / CPRI Fronthaul, [tf1\\_1610\\_wakelin\\_otn-ngfi\\_1.pdf](#).

### **21. NGFI/RoE Proof-of-Concept**

- Brian Torley, Xilinx, presented NGFI/RoE Proof-of-Concept, [tf1\\_1610\\_torley\\_roe-poc\\_1.pdf](#).

### **22. IEEE P1914.1/D0.0 table of contents**

- Jouni Korhonen, Broadcom Corporation, presented IEEE P1914.1/D0.0 table of contents, IEEE P1914.1 Draft is password protected.

### **23. Native Packet Types**

- Richard Maiden, Intel, presented Native Packet Types Handling frequency domain I/Q encoding, [tf3\\_1610\\_maiden-native-packet-types\\_1.pdf](#).

- **Straw-man poll #1**

*Does the group believe there is value in adding a frequency domain transport & encapsulation mechanism as/similar to that described in this document to the standard?*

*Voting member (From 8)*

*Yes: 5 No: 0 Abstain 2*

*Whole people in the Room(From 24)*

*Yes: 14 No: 0 Abstain 2*

#### 24. IEEE P1914.3 64B66B considerations

Jouni Korhonen, Broadcom Corporation, presented the update version of IEEE P1914.3 64B66B considerations, [tf3\\_1610\\_korhonen\\_64b66b\\_2.pdf](#)

- **Straw-man poll #2**

*Agree as a baseline the changes needed for 64b66b line coding regeneration and removal in structure agnostic mode as listed in page 6 and 7 of [tf3\\_1610\\_64b66b\\_2.pdf](#)*

*Voting member (From 8)*

*Yes: 9 No: 0 Abstain 4*

*Whole people in the Room(From 24)*

*Yes: 12 No: 0 Abstain 6*

#### 25. Resolution of 1914.3 D1.2 comments

- Richard Maiden, P1914.3 Task Force Editor, presented Comments with Proposed Responses, [tf3\\_1610\\_comments-received-working\\_1.xlsm](#).
- Most of comments were resolved. Some comments would be resolved after meeting.

The WG recessed at 6:05pm.

### **Day 3, Friday, 28 October 2016**

The WG reconvened at 9:00am.

Jouni Korhonen, P1914.3 Chair, resumed P1914.3 meeting.

#### 26. IEEE P1914.3 64B66B considerations

Jouni Korhonen, Broadcom Corporation, presented the third version of IEEE P1914.3 64B66B considerations, [tf3\\_1610\\_korhonen\\_64b66b\\_3.pdf](#)

- **Motion #2:**

*Agree as a baseline the changes needed for 8b10b & 64b66b line coding add/removal in structure agnostic mode as listed in page 6 and 7 of [tf3\\_1610\\_korhonen\\_64b66b\\_3.pdf](#).*

*Moved: Jouni Korhonen*

*Seconded: Richard Tse*

*Yes: 7 No: 0 Abstain: 2 (tech.  $\geq 2/3$ )*

*(10 voting members in the room, Chair did not vote)*

*(the meeting had no quorum so the motion has to be ratified later with an email motion)*

#### 27. P1914.3 Closing Report

- Jouni Korhonen, Task Force 3 Chair, presented P1914.3 closing report, [tf3\\_1610\\_closing-report.pdf](#).

#### 28. Motion discussion

- Lujing Cai, AT&T, presented [tf1\\_1610\\_motion\\_proposal\\_3](#).
- **Motion #3:**

Agree as a base line to define NGFI transport classes of service according to priority, latency, and bandwidth criteria as detailed in the table specified in [tfl\\_1610\\_motion\\_proposal\\_3.pptx](#) on page 2.

*Moved: Lujing Cai*

*Seconded: Vishwanath Ramamurthi*

*Yes: 13 No: 0 Abstain: 0 (tech.  $\geq 2/3$ )*

*(Chair did not vote)*

*(the meeting had no quorum so the motion has to be ratified later with an email motion)*

### **29. P1914.1 Closing Report**

- Boming Li, P1914.1 Chair, presented the Task Force Closing Report, [tfl\\_1610\\_closing\\_1.pdf](#).

### **30. Future meeting discussion**

- WG planned to have next meeting on January 17-19<sup>th</sup> in Beijing China, hosted by CMCC.
- 2017 meeting schedule was discussed. It was decided that NGFI would have 5 meetings in 2017.
- Accurate date would be decided after meeting.
- Host of future meetings were needed.

### **31. WG Closing Report**

- Chair Huang presented the WG Closing Report, [ngfi\\_1610\\_closing-report.pdf](#).

### **32. Any other Business**

- No other business was brought before the WG.

### **33. Adjourn**

- The WG adjourned at 1:04 pm.

## Attendance Record

First Name	Last Name	Affiliation	Attendance		
			Wednesday October 26, 2016	Thursday October 27, 2016	Friday October 28, 2016
Abdellah	Tazi	AT&T	X	X	-
Aleksandra	Checko	MTI Radiocomp	X	X	X
Andres	Garcia Saavedra	NEC	X	X	X
Bob	Cai	Fujitsu	X	-	-
Bob	Deletto	Keysight	X	X	X
Bomin	Li	Comcores	X	X	X
Brian	Torley	Xilinx	X	X	X
Bumjun	Kim	Samsung	X	X	
Cary	Snyder	Sarokal	X	X	X
Changlan	Tsai	Hon Hai Precision Ind. (Foxconn)	X	X	X
Jinri	Huang	CMRI	X	X	X
Jinseek	Choi	Hanyang University	X	X	X
Jouni	Korhonen	Broadcom Corporation	X	X	X
Kevin	Bross	Intel Corp.	X	X	X
Khalid	Al-Mufti	CommScope	X	X	X
Leon	Bruckman	IP Light	X	X	X
Lujing	Cai	AT&T	X	X	X
Michelle	Perras	InterDigital	X	X	X
Mohammad	Akhter	Integrated Device	-	X	-
Ofir	Mahazri	ASOCS	X	X	X
Praseeth	Sreedharan	Samsung Electronics America	X	X	-
Raghu	M. Rao	Xilinx	X	X	-
Raimena	Veisllari	Transpacket	X	X	-
Richard	Maiden	Altera	X	X	-
Richard	Tse	Microsemi	X	X	X
Sassan	Ahmadi	Xilinx	X	X	-
Scott	Wakelin	Microsemi	X	X	X
Tien-Shou	Chang	Hon Hai Precision Ind. Co.	X	X	X
Tony (Shau-Chia)	Tam	Fujitsu Network Communications	X	X	X
Vishwanath	Ramamurthi	Verizon	X	X	X
Yanwei	Wu	ZTE	X	X	X
Zhen	Zhou	Fiberhome	X	X	X