 

IEEE P802.21 Media Independent Handover Services

Minutes of the IEEE P802.21 Working Group (DCN 21-18-0028-00-0000)

Session #85 Meeting, Warsaw, Poland

Chair: Subir Das

Vice Chair: Hyeong Ho Lee

Meeting minutes are scribed by Hyeong Ho Lee

# Day 1 PM1 (1:30pm-3:30pm), May 7, 2018: Room Kopernik

## IEEE 802.21 WG Opening Plenary: Meeting is called to order at 1:30pm by Subir Das, Chair of IEEE 802.21 WG with opening notes

## May, 2018 Meeting Agenda (DCN: 21-18-0017-00-0000)

### Agenda bashing:

#### Agenda was modified by deleting AM2 IG Session on Thursday and moving the WG closing plenary session from PM1 to AM2 on Thursday.

#### The revised agenda (DCN: 21-18-0017-01-0000) was approved without any objection.

## IEEE 802.21 Session #85 Opening Plenary Notes (21-18-0022-0000)

### Meeting logistics: Meeting room Kopernik (Level 3); JTC1/SC6 Ad hoc: Ballroom EF (Level 2)

### <http://mentor.ieee.org/802.21/documents>

### Attendance procedures, logistics, breaks

### Duty to inform slides 1-4, etc.

### Request to make Intellectual Property declaration

#### No one declared any patent claims in this session

### LMSC Chair’s Guidelines on Commercialism at meetings

## Working Group Status

### P802.21-2017/Cor1 - Corrigenda draft published

### ISO/IEC/JTC1 SC6 DCOR ballot on IEEE-802.21-2017/Cor.1-2017

#### Will close on June 16, 2018

### IEEE802.21-2017 and IEEE802.21.1-2017 Standards are approved in ISO/JTC1/SC6

#### Pending comments response

### Interest Group on Network Enablers for Seamless HMD based VR Content Service

## Working Group Objectives for March meeting

### Discuss ISO/IEC/JTC1 SC6 FDIS ballot comments on IEEE-802.21.1-2017

### Prepare the FDIS comment response

### IG discussion on Network Enablers for Seamless HMD based VR Content Service

## Session #84 minutes (DCN: 21-18-0014-00-0000) was approved without any objections.

## Teleconference minutes (DCN: 21-18-0016-00-0000) was approved without any objections.

## Working Group Chair reported 802 Wireless Chairs’ Meeting updates (DCN: ec-18-0094-WCSC).

#### Future interim meeting venues, 802.18 Regulatory issue, WG update

## Voting of ISO/IEC/IEEE FDIS 8802-21-1 ballot ended on March 14, 2018 (DCN: 21-18-0015-00).

#### ISO/IEC/IEEE FDIS 8802-21-1 is approved with the P-members voting of 11 in favor out of 12.

#### Only China NB voted “no” with one comment related on IEEE 802.1X-2010.

#### The WG Chair presented a draft liaison document responding to China NB’s comment, and the WG discussed and produced the liaison document “Response to ISO/IEC/JTC1 SC6 Comments on IEEE 802.21.1 FDIS Ballot” (DCN: 21-18-0023-00).

## IG discussion on Network Enablers for Seamless HMD based VR Content Service

#### The IG Chair mentioned that the goal of the IG is to produce a white paper, and definition of terminologies and use cases will be discussed during these IG sessions.

## Meeting was adjourned at 2:40pm

# Day 4 AM2 (10:30am-12:30pm), May 10, 2018: Room Kopernik

## 802.21 WG Closing Plenary: Meeting is called to order at 10:45am by Subir Das, Chair of IEEE 802.21WG

## IEEE 802.21 Session #85 Closing Plenary Report (DCN: 21-18-0027-00-0000)

## Discussion on the draft text of Liaison Document to JTC1 SC6

#### WG Chair presented revised draft of Liaison document to reply to JTC1 SC6 on China NB comments on the ISO/IEC/IEEE FDIS 8802-21-1 ballot.

#### The final draft of Liaison document is uploaded on the mentor (DCN: 21-18-0023-01-0000).

## Interest Group Report

* + - * + IG on Network Enablers for seamless HMD based VR Content Service had three sessions.
        + IG Chair, Jeong Sangkwon Peter, presented the IG report (DCN: 21-18-0026-00-0000).

The report is available at <https://mentor.ieee.org/802.21/dcn/18/21-18-0026-00-0000-vr-ig-meeting-summary.ppt>

* + - * + Draft meeting minutes of the IG Session is uploaded on the mentor (DCN: 21-18-0024-00-0000).

## Work Update

#### Discussed the ISO/IEC/IEEE FDIS 8802-21-1 ballot comments and ongoing FDIS ballot on IEEE Std 802.21-2017/Cor1

#### Generated a draft response and consulted with IEEE 802 JTC Ad hoc

#### https://mentor.ieee.org/802.21/dcn/18/21-18-0023-01-0000-response-to-iso-iec-jtc1-sc6-comments-on-ieee-802-21-1-fdis-ballot.docx

#### WG Chair will submit the FDIS ballot response to EC for approval.

#### After EC approval, the response will be communicated to ISO/IEC/JTC1 SC6 Secretary.

## Teleconferences

#### Thursday, June 21, 2018, 8:00-9:00 am, US EDT

## WG Motion (Full details are available in 21-18-0027-00-0000)

#### Move to authorize the P802.21 WG Chair to obtain IEEE 802 EC approval to forward the comment responses in <https://mentor.ieee.org/802.21/dcn/18/21-18-0023-01-0000-response-to-iso-iec-jtc1-sc6-comments-on-ieee-802-21-1-fdis-ballot.docx> to ISO/IEC JTC1/SC6, as responses to the comments received on the recent FDIS ballot on ISO/IEC/IEEE FDIS 8802-21-1 (7/0/0)

## July 2018 Plenary Meeting Logistics

### IEEE 802 Plenary Meeting: July 8-13, 2018

* + Meeting Venue: San Diego, California USA in Manchester Grand Hyatt
  + Meeting Information: http://802world.org/plenary

### Registration Fees and Deadlines

* + Registration: https://www.regonline.com/ieee802plenaryJuly2018
  + Early Registration:
    - $US 500.00 (staying one or more nights at the Grand Hyatt) otherwise $800.00
    - Deadline: 6:00 PM Pacific Time, Friday, May 25, 2018
  + Standard Registration
    - $US 600.00 (staying one or more nights at Grand Hyatt) otherwise $US 900.00
    - Deadline: 6:00 PM Pacific Time, Friday, June 29, 2018
  + Late/On Site Registration
    - $US 800.00 (staying one or more nights at Grand Hyatt) otherwise $US 1100.00
    - Deadline: After 6:00 PM Pacific Time, Friday, June 29, 2018

### Hotel Reservations

* + Hotel ROOM RATES: SINGLE/DOUBLE OCCUPANCY: $US 199.00 per night
  + Children 21 years of age and younger may be share accommodations at no additional charge. EXTRA ADULT\*: $US 25.00 per night
  + IEEE 802 GROUP RATE DEADLINE: Friday June 15, 5:00 PM Pacific Time

## Future Sessions – 2018

### Plenary: July 8-13, 2018, Manchester Grand Hyatt, San Diego, CA, USA

* + Co-located with all 802 groups

### Interim: September 09-14, 2018, Hilton Waikoloa Village, Kona, HI, USA, 802 Wireless Interim Session.

* + Co-located with all 802 wireless groups

### Plenary: November 11-16, 2017, Marriott Marquis Queen’s Park, Bangkok, Thailand

* + Co-located with all 802 groups

## Future Sessions – 2019

### Interim: January 13-18, 2019, Hilton St. Louis at the Ballpark (TBC)

* + Co-located with all 802 groups

### Plenary: March 10-15, 2019, Hyatt Regency Vancouver and Fairmont Hotel Vancouver, Vancouver, Canada

* + Co-located with all 802 groups

### Interim: May 12-17, 2019, Grand Hyatt Atlanta in Buckhead, Atlanta, Georgia, USA

* + Co-located with all wireless groups

### Plenary: July 14-19, 2019, Austria Congress Centre, Vienna, Austria

* + Co-located with all 802 groups

### Interim: September 15-20, 2019 - Marriott Hanoi, Hanoi Vietnam (TBC)

* + Co-located with all 802 wireless groups

### Plenary: November 10-15, 2019, Hilton Waikoloa Village, Kona, HI, USA,

* + Co-located with all 802 groups

## The meeting was adjourned at 11:30am

# Attendance

|  |  |
| --- | --- |
| Das Subir | Vencore Labs |
| Goldberg Jonathan | IEEE-SA Manager |
| Hanatani Yoshikazu | Toshiba Corporation |
| Jeong Sangkwon Peter | JoyFun Inc. |
| Lee Hyeong Ho | Netvision Telecom Inc. |
| Oh Minseok | Kyonggi University |
| Seo Dongil Dillon | VoleR Creative |
| Takazoe Tomoki | Panasonic Corporation |

 

IEEE P802.21 Network Enablers for Seamless HMD based VR Content Service

Meeting Minutes of the IEEE P802.21 Interest Group

Chair: Sangkwon Jeong

Editor: Dong-il Seo

# Meeting Minutes of the IEEE P802.21 Interest Group on Network Enablers for Seamless HMD based VR Content Service

## TUESDAY, AM2 MEETING, MAY 8, 2018 (10:30 AM-12:30 PM)

Meeting called to order by Chair at 10:30 AM

Chair presented DCN 21-18-00-0000

Title: Terms and Definition on VR

Reviewed and commented on the terms and definition drafted for the purpose of IEEE 801.21 IG whitepaper inclusion.

Following comments were made:

* Deciding whether the entire terms and definition should be used for the white paper or the network related terms and definition should be used only.
* Benefit of providing the entire terms and definition will help the readers to understand some of the terms they are not used to see.
* Needs to be consistent with the document style (follow the IEEE standard document style).
* Delete the terms that are self-explanatory.
* Revisit some of the terms that are not explaining the terms (see the newly submitted document for more details).

Meeting was adjourned at 12:20 PM

## Wednesday, AM2 Meeting, May 9, 2018 (10:30 AM-12:30 PM)

Meeting called to order by Chair at 10:30 AM

Peter presented DCN 21-18-01-0000

Title: Why the network is important for HMD based VR services

Reviewed the various requirements needed to satisfy in order to minimize the VR sickness caused by the use of HMD based VR services but the document focused on the concept of “motion-to-photon” latency time.

Assuming that the HMD device and the content server latency to be constant or default value, the link between the HMD device and the content server is the only variable that this document is considering. The link between the device and the server is classified as the wired/wireless network and this network needs to support the synchronous data transfer rate with less than 5ms motion-to-photon latency.

Following Comments were made:

* The current motion-to-photo diagram should be redrawn as the current diagram creates a confusion to the reader that the HMD looks like two different HMDs.
* Suggested a new diagram and the presenter accepted the comment and redrew it.
* The diagram should be divided so that one diagram shows the basic structure of VR system and the other diagram shows the known latency to determine the tolerable latency for the network.
* New document should explain how the default latency is calculated and should define and discuss the wired/wireless network that is needed to achieve the goal.
* When the document is utilizing different color scheme, it needs to be explained.

This document is a good starting point but needs to be elaborated to offer better understanding.

Meeting was adjourned at 12:15 PM.

## Wednesday, PM1 Meeting May 9, 2018 (1:30 PM-3:30 PM)

Meeting called to order by Chair at 1:30 PM

Minseok presented DCN 21-18-0025-00-0000

Title: Updates on Use Cases and Network Requirements

Reviewed each use case presented in the document and explained what changes needed to be made in order to reflect the problem properly.

Following comments were made:

* For the use case summary table, the description for case 1 should be worded as “one or more networks” rather than “a series of networks”.
* The picture of PC used to describe the use case diagram creates unnecessary confusion; hence, new representation should be considered.
* The motion-to-photon latency diagram is inconsistent with the diagram presented in AM1 session. Hence, the diagram needs to be revised to match the use case diagram..
* The standard should only consider access network as the network topology or the ISP network control scheme cannot be controlled and managed by the standard development community.
* The whitepaper that will be created by the IG should be drafted in such a way so that the targeted audience, the IEEE 802 committee, should be able to comprehend the problems and the requirements of network needed for the optimal quality of service.
* For the use case description on “Network Handover,” the current description is not depicting the correct scenario since the network disconnection is inevitable. Hence, it should be reworded in a way such that it discusses the tolerable loss of packets and network latency.
* The document should consider who the targeted audience is as it will determine the content of the document.

The meeting was adjourned at 3:25 PM.