 

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

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## 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

Chair 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 5 ms motion-to-photon latency.

Comments from Subir

* 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 Chair 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 define what wired/wireless network we need to discuss to achieve the goal

Comments from Hanatani

* 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 a little bit 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.

Comments from Subir

* 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 is creating an 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 either revised to match the use case diagram or vice versa.
* The standard should only consider access network as the network topology or the ISP network control scheme cannot be controlled of managed by the standard development community.
* The whitepaper that will be devised from the IG should be drafted 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 providing an impossible case as the network disconnection is inevitable. Hence, it should be reworded in a way that it discusses the tolerable loss of packets and network latency.

Comments from Hanatani

* The document should consider who the targeted audience is when it is revised as it will determine the content of the document.

The meeting was adjourned at 3:25 PM.