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| Project | **HMD based 3D Content Motion Sickness Reducing Technology**<<http://sites.ieee.org/sagroups-3079/> **>>** |
| Title | **Terminology in Network Aspect** |
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| Re: | IEEE 3079 Session #04 in Seoul, Korea |
| Abstract | This document defines terminology used in VR in the aspect of network. |
| Purpose | Working Group Discussion and Acceptance |
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# Definition

* **Virtual Reality –** This is a realization of a space similar to reality in which a space and objects according to human imagination are created using a computer. In this case, VR means a way to get a new experience getting away from a time and space constraint by using a VR HMD.
* **HMD (Head Mounted Display)** – A device that is worn like a goggle or a helmet on a person's head and through which the image displayed to the front panel can be seen by the wearer. Normally sensors such as a gyro, an accelerometer, and a magnetometer are attached to respond to user's head movement.
* **Bit Rate** – The amount of data transmitted through a certain device or a transmission link per a fixed duration. In general, bps (bit per second) is used as a unit.
* **CBR (Constant Bit Rate) encoding** – When referring to codecs, CBR encoding means that the rate at which a codec's output data should be consumed is constant.
* **VBR (Variable Bit Rate) encoding** –As opposed to CBR, VBR files vary the amount of output data per time segment. VBR allows a higher bitrate (and therefore more storage space) to be allocated to the more complex segments of media files while less space is allocated to less complex segments.
* **Frame Rate** – The amount of frames through a certain device or a transmission link per a fixed duration. In general, fps (frame per second) is used as a unit.
* **LOS** (**Line-Of-Sight) propagation** – In LOS, electro-magnetic waves travels in a straight line.
* **NLOS (Non-Line Of Sight) propagation** – Radio transmissions across a path that is partially obstructed, usually by a physical object in the innermost.
* **Jitter** – The deviation from true periodicity of a presumably periodic signal, often in relation to a reference clock signal.
* **Motion-to-photon latency** – Time delay from the HMD user’s movement and the change of view in HMD caused by the movement
* **Motion-to-audio latency** – Time delay from the HMD user’s movement and the change of sound in HMD caused by the movement
* **Multiple VR access users** – More than one user that access a VR system simultaneously at the same space.
* **Motion feedback frequency** – The frequency that an HMD sends collected data, mainly motion, to a VR server.
* **HMD access distance** – The distance from the VR contents server wireless module to the HMD wireless module and within that distance the VR HMD should display without severe interruption.
* **PER (Packet Error Rate)** – The number of incorrectly received packets divided by the total number of received packets.

