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SERIES G: TRANSMISSION SYSTEMS AND MEDIA,
DIGITAL SYSTEMS AND NETWORKS

Multimedia Quality of Service and performance – Generic
and user-related aspects

Opinion model predicting gaming quality of experience for cloud gaming services

Recommendation ITU-T G.1072

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For further details, please refer to the list of ITU-T Recommendations.

Recommendation ITU-T G.1072

Opinion model predicting gaming quality of experience for cloud gaming services

Summary

Recommendation ITU-T G.1072 presents an opinion model that predicts the overall gaming quality of experience (QoE) of non-expert gamers for cloud gaming services. The model uses an impairment factor approach in which the impact of typical Internet protocol (IP) network parameters and video encoding parameters on the video and input quality is estimated. The knowledge summarized in Recommendations ITU-T G.1032 and ITU-T P.809 serves as a basis for the development of the model. The model is a network planning tool which can be used by stakeholders to manage resource allocation and to configure IP-network transmission settings such as the selection of encoding framerates, resolutions and bitrates, under the assumption that the network is prone to packet loss and latency. Depending on whether the respective stakeholder has a priori knowledge of the type of game being offered through the cloud gaming service, either a default mode, which assumes the game to be highly sensitive towards delays and frame losses as well as having high encoding complexity, or an extended mode, which uses an adjusted model coefficient to increase the prediction accuracy, can be used.

History

Edition	Recommendation	Approval	Study Group	Unique ID*
1.0	ITU-T G.1072	2020-01-13	12	11.1002/1000/14151

Keywords

Cloud gaming, game, mean opinion score (MOS), modelling, quality of experience (QoE).

* To access the Recommendation, type the URL <http://handle.itu.int/> in the address field of your web browser, followed by the Recommendation's unique ID. For example, <http://handle.itu.int/11.1002/1000/11830-en>.

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