

ITU-T Workshop

“Opportunities and Challenges in Home Networking”

Abstract

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Session: 5: Quality of Service in Home Network

Title of Presentation: A new paradigm of quality improvement method for non-QoS guaranteed video

This presentation introduces a new paradigm that improves quality of MPEG-compressed video transmitted in a best-effort domain, where no QoS is guaranteed. The new concept is “distributed video coding”. The main idea is based on the Slepian-Wolf theory and the Wyner-Ziv codec that are both established in the 1970s, and efforts toward practical scheme have been undertaken only recently. In the distributed video coding, motion-estimation is carried out at the “decoder” whereas the conventional MPEG decoder highly depends on predictors that are estimated in the encoder. Because of this nature, the new approach is expected to be applied to robust video transmission.