

Implementation of Continuous HTTP Live Streaming using Playback Position Request Mechanism in Heterogeneous Networks

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Abstract— Wide spread of smart devices makes high demand on multimedia service using these devices. Especially, demand on continuous service between 3G/4G network and Wi-Fi network are increasingly high. Also, multimedia services are combined with web technology to make HLS(HTTP Live Streaming)and HDS(HTTP Dynamic Streaming) in web convergence era as most of services are converged to web. In this paper, we implement continuous seamless multimedia service using HLS. In HLS, a video is truncated to fragments of the constant length; these are contained to MPEG-TS and transmitted over HTTP. Periodically requests of these fragments and playing them continuously enable streaming service. If fragments are served with multiple rates, these enable link adaptation to select fragments of adequate rates variably. In playing an on-demand HLS video using built-in application of iPhone and android phone, the video is usually reset to play from the beginning when connection changes to Wi-Fi to 3G/4G. Due to disconnect the video stream and make a new stream, and due to drop playback position in changing streams, the video is reset when the connection changes. To prevent this, we implement web browser based player. The player remember the fragment number in playing and, request the next fragment instead of the first one when the network connection changes. This does not reset the video and continues the multimedia service.

Keyword— Context reasoning, sensor data fusion, smart media service



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