

ARQ Scheme in Multimedia Streaming for Hybrid Delivery over Heterogeneous Network

Sung Hei Kim*, Chang Kyu Lee**, Jae Hyung Lee**, Shin Gak Kang*

*ETRI(Electronics and Telecommunications Research Institute), Rep. of Korea

**UST(University of Science and Technology), Rep. of Korea

shkim@etri.re.kr, echkyu@etri.re.kr, hafins@etri.re.kr, sgkang@etri.re.kr

(Pt9)Abstract— Nowadays, many mobile devices have multiple networking modules to receive data from various networks such as WI-FI, 3G, Wimax, DVB-H, etc. The mobile devices are used to receive multimedia streams through various networking interfaces. However, mobile characteristics can cause loss of packets and needs an effective method to recover the loss to provide high-quality multimedia streaming service. ARQ (Automatic Repeat Query) can be used to re-receive the loss packets that are being delivered. The heterogeneous networks can be used to effectively deliver multimedia stream and also provides ARQ to recover the loss packets. The retransmitted data can be delivered over bi-directional network such as Internet. This paper proposes a hybrid delivery for heterogeneous network environment and efficient ARQ that can be considered for multimedia streaming.

(Pt9)Keyword— Multimedia streaming, Hybrid delivery over heterogeneous networks, Automatic Repeat Query



Sung Hei Kim

Working on a Ph.D degree, majoring in telecommunication in Chungnam National University.

Currently working in ETRI as a researcher in the Standard Research Department.

Participating in standardization in ITU-T study group 11, 13, 16, ISO/IEC JTC 1/SC 6, MPEG, W3C.

Topic of interests includes, multimedia delivery, peer-to-peer communication, multicasting, future network, and Internet routing.