Scene-based Metadata Generation and Open API Provisioning Method for Smart Broadcast Service

Seung-Hee Kim, Deokkyu Jung, Sang-Yun Lee, Sun-Joong Kim ETRI (Electronics and Telecommunications Research Institute), Korea seung@etri.re.kr, jdk30621@etri.re.kr, syllee@etri.re.kr, kimsj@etri.re.kr

Abstract— To cope with the new media paradigm era toward user -centric service by using scene-based broadcast content, this paper proposes the scene-based metadata automatic generation method on small -size segmented unit, and open API provisioning method for metadata and its related video clip retrieval function. In order to fulfil this proposed essential technology, the smart broadcast platform is composed of following four enablers such as informal data management, semantic cluster, convergence-type metadata generation, and service control management. Through the opening of metadata resource in smart broadcast platform, the diverse and innovative broadcast media service that attracts users or business operators will provide more easily and conveniently. Eventually, it will also contribute to construction of smart media ecosystem with a virtuous cycle.

Keyword - Smart Broadcast Service, Scene, Metadata, Open API, Smart Broadcast Platform



Seung-Hee Kim received the B.S. and M.S. degrees in electronic engineering from Korea University, Seoul, Korea in 1982 and 1988 respectively. Since 1982, she has been with Broadcasting & Telecommunications Media Research Lab., ETRI, Daejeon, Rep. of Korea, where she is currently principal researcher. Her research areas are open smart broadcast service platform, situation-aware based personalization service, and broadcast content metadata technology.



Deokkyu Jung received his B.S in Computer Engineering from Korea Polytechnic University, Republic of Korea in 2014. He received his M.S. in Computer Science and Engineering from UNIST (Ulsan National Science and Technology), Republic of Korea in 2017. He inced ETRI, Republic of Korea in 2017, where he is currently research internHis research areas are deep learning, media platform, and distributed system.



Sang-Yun Lee received his MS and Ph.D. degrees in electronics and telecommunications engineering from Hanyang University, Seoul, Rep. of Korea in 1996 and 2007 respectively. Since 2011, he has been with Broadcasting & Telecommunications Media ResearchLab., Electronics and Telecommunications Research Institute (ETRI), Daejeon, Rep. of Korea. He focuses on embedded software, smart TV software platform, and Web technology.



Sun-Joong Kim received her BS degree in computational statistics and her MS degree in computer science from Chungnam National University, Daejeon, Rep. of Korea, in 1989 and 2000 respectively. In February 1989, she joinedETRI, Daejeon, Rep. of Korea, where she is currently principal researcher and director. Her research interests include convergence service control, smart TV, content knowledge mining.