

# Content Delivery in Smart Ubiquitous Network

Hongseok Jeon\*, Taeyeon Kim\*, Seungik Lee\*\*, Bhumchul Lee\*

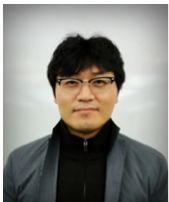
*\*Smart Node Platform Research Team, ETRI, Korea*

*\*\*Smart Infra Standardization Research Team, ETRI, Korea*

jeonhs@etri.re.kr, tykim@etri.re.kr, seungiklee@etri.re.kr, bchee@etri.re.kr

**Abstract**— As a large-scale content distribution becomes an important challenge in Internet, there are developed various approaches to address the challenge. ITU-T has standardized SUN (Smart Ubiquitous Network) as an evolved network concept that handles emerging Internet issues and now they are standardizing a functional architecture for content delivery in SUN. In this paper, we provide an overview of the functional architecture and operational procedures for content delivery in SUN.

**Keyword**—Content delivery, Smart ubiquitous network, SUN



**Hongseok Jeon** received the B.Eng in Industrial Engineering from Sungkyunkwan University, Suwon, Korea, in 2002 and M. Eng in Engineering from Information and Communications University(ICU), Daejeon, Korea, in 2004. I am currently studying toward my Ph. D. Degree at the Innovation and Technology Management, KAIST. Also, I am working for ETRI, Korea. My current research interests include Future Internet, Content-Centric Networking, and Smart Internet.



**Tae-Yeon Kim** received the B.S. and M.S. degrees in computer science from Chung-Ang University, Seoul, in 1990 and 1992 respectively and the Ph.D. degree in network engineering from Chungbuk National University in 2007. I have been working for ETRI since 1992 in networking department and I am interested in network virtualization and distributed cloud service platform for the future network.



**Seungik Lee** received the BS degree in computer science and engineering from Handong University, Korea in 2000 and the MS and Ph.D. degrees in computer science from KAIST, Korea in 2002 and 2009, respectively. He joined Standards Research Center of Electronics and Telecommunications Research Institute, Korea in May 2009 and has participated in the standardizations for IPTV, multicast, NGSON, and SDN in ITU-T SG13, JTC1/SC6, and IEEE P1903. His current research interests include SDN, IoT, and future networks.



**Bhum-Cheol Lee** received the B.S. degree from Kyung-Hee University, Seoul, Korea, in 1982, and the M.S. and Ph.D. degrees from Yonsei University, Seoul, in 1983 and 1997, respectively. From 1983 to 1995, he was with the Electronics and Telecommunications Research Institute (ETRI), Daejeon, Korea, as an Interface, Switching, Link, and Network Synchronization Engineer. Currently he is the Project Leader of the Smart Node Platform Research Section, ETRI. His research interests are synchronization, line coding, analog and digital circuit design, and network virtualization