A Remote User Interface Framework for Collaborative Services Using Globally Internetworked Smart Appliances

Bongjin Oh*, Jongyoul Park*

*Bigdata S/W Platform, ETRI, 218 Gajeong-ro, Yuseong-gu, Daejeon, 305-700, Korea
bjoh@etri.re.kr, jongyoul@etri.re.kr

Abstract—This paper introduces a remote user interface framework which supports devices to share the UI of their applications with multiple smart devices. The smart devices are internetworked globally through RUI server. Besides that, a virtual IO function is provided to use mobile devices as remote controller. By thus, users can control home networked devices and applications by their smart devices with intuitive UI/UX. The proposed framework provides collaborative application model, APIs of sharing application view and virtual IO emulator.

(Pr9)Keyword—RUI framework, home network, collaborative, application, UI migration, Virtual IO

Bong-Jin Oh received B.S. and M.S. degrees in computer science from Pusan National University, Busan, Korea in 1993 and 1995 respectively, and the Ph.D. degree from Chungnam National University, Daejeon, Korea in February 2012. Since 1995, he has been with the Electronics and Telecommunications Research Institute (ETRI), where he develops home network Middleware and data broadcasting middleware. His research interests are home network middleware, data broadcasting middleware, IPTV, pervasive Computing, and big data analytics.

Jongyoul Park received the B.S. degree in computer engineering from Chungnam National University, Korea, in 1996, the M.S. and Ph.D. degrees in information and communication engineering from the Gwangju Institute of Science and Technology (GIST), Korea, in 1999 and 2004, respectively. From 2001 to 2002, he was a visiting researcher at the school of computing, University of Utah. Since 2004, he has been a Research Staff and Director of Analytics SW Research Section of Electronics and Telecommunications Research Institute (ETRI), Korea. His research interest includes IP Broadcasting, software middleware, mobile code, distributed computing, big data and analytics platform.