

A teleco's view for better and better customer expectations in multi-band, multi-network, multi-device and multi-demand smart society

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Abstract:

Since people use smart phones in daily life, the mobile traffic over the network is changing. The rich content such as video streaming with high quality becomes popular and popular, resulting in huge traffic. The 4G (LTE) system with high capacity, launched in 2012 and now under rapid deployment, may not be sufficient to cope with the explosion. KDDI, the second-largest telco in Japan, is accelerating R&D activities towards LTE-Advanced, including Multi-User MIMO, Small Cell Enhancement, and Small-sized Active Antenna for Multi-band Basestations. Also, KDDI has a broader view under the name of "3M strategy" which comprises "Multi- Network", "Multi-Device" and "Multi-Use." We believe that further network enhancement from "Dumb Pipe" to "Smart Pipe" is the key for user-centric smarter life. Related R&D activities backed by Big Data will be introduced.

Biography



Shinichi NOMOTO received B.E., M.E., and Ph.D degrees, all in electrical engineering, from Waseda University, Tokyo, Japan, in 1980, 1982, and 1993, respectively. He joined Kokusai Denshin Denwa Co., Ltd. (now KDDI Corp.), in 1982. Since 1983, he has been engaged in research and development of radio transmission systems. As a professional assignee at Inmarsat HQ's from 1992 to 1995, he has contributed to the "Inmarsat-P (ICO)" project, which includes development of a global personal communications system using a number of non-geostationary satellites.

He is a Vice President, Managing Director, of KDDI R&D Laboratories, Inc., an R&D fellow of KDDI, a fellow of IEICE, a senior member of IEEE, and a Chairman of the Standardization Council in the Telecommunication Technology Committee (TTC). He has also been a visiting professor of Waseda University, Tokyo University of Agriculture and Technology, University of Electro-Communications, Tokyo Institute of Technology, Keio University, and Doshisha University. He received the Shinohara Memorial Young Researchers' Award from IEICE in 1988, the Piero Fanti International Prize from INTELSAT/Telespazio in 1988, and the Radio Distinguished Award from RCR (now ARIB) in 1991. In 2004, two of his published papers received the Best Paper Awards from IEICE, one of which was the recipient of the 10th Inose Award (the very best paper of the year) too. In 2010, he received the Prize for Science and Technology (Development Category) in the Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology. He also received the 58th Maejima Hisoka Prize from Tsushinbunka Association in 2013.