

Palestras da ComSoc

(Distinguished Lecturer Tour)

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Carrier-Grade Networks toward the Future: NGN and its Issues

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ABSTRACT

Carrier-grade networks for the future are being developed as Next Generation Networks (NGN). The NGN is a converged solution after the legacy telecom networks by enabling QoS management and controls in IP network like in legacy telecom networks and by supporting economical, versatile multi-media applications like those on the Internet. NGN supports voice, Internet services and further services which are being and will be developed in the future with flexible and cost effective manners and with high dependability and high security. It also supports third-party applications through the open interface. NGN also provides more flexible access arrangements such as fixed-mobile convergence with generalized mobility, and horizontal and vertical roaming as well as improved security. The concepts and architecture of NGN are described. The current status of NGN implementation in a commercial offer in Japan is touched upon. Issues for the global evolution of NGN are also described, such as IPv6 related issues, impacts of smartphones, cloud computing, global standards and regulations.

BIO

Koichi Asatani received his Ph.D. from Kyoto University in 1974. From 1974 to 1997, he was engaged in R&D on optical fiber communication systems, hi-definition video transmission systems, FTTH, ISDN, B-ISDN, ATM networks, IP networks and their strategic planning in NTT. Currently, he is Dean, Department of Computer Science and Communications Engineering, Kogakuin University, and a visiting professor, Graduate School of Global Information and Telecommunication, Waseda University, both in Tokyo, Japan. He is a Fellow of IEEE and of IEICE. He is Ex-Chair and Advisory Board Ex-Chair Emeritus of IEEE Technical Committee on Communication Quality and Reliability, Senior Technical Editor of IEEE Communications Magazine, and Technical Editor on Broadband Technology of IEEE Communications Survey. From 1988 through 2000, he served as Vice-Chairman of ITU-T SG 13, responsible for digital networks including GII, IP networks and NGN. He is serving as Chair for National Committee on Next Generation Networks in Japan, as Chair, R&D and Standardizations Working Group, Next Generation IP Network Promotion Forum, and as a board member of New Generation Network Promotion Forum. He has published more than fifty papers, and gave more than seventy talks including keynotes invited talks and tutorials at international conferences. He is author or co-author of nineteen books. His current interests are Information Networks and Network Architectures including Broadband networking, Internetworking, IP telephony, NGN, Future Networks and their QoS aspects.