Editor’s Message to Special Issue on Network Services and Distributed Processing

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Since the 1990s, the Internet has been widely deployed and used. Today, Internet network technology is incorporated as the indispensable technology in many systems. This technology continues to change daily. For example, attention is no longer directed to only networked terminals, diversification now includes many new devices such as PCs, mobile phones, smart phones, and even wearable devices. Therefore, new network services to accommodate these new devices also continue to appear. Furthermore, according to M2M and IoT (Machine To Machine and Internet of Things), the study of the technology for connecting network devices represented by robots and sensors, devices that are not directly operated by persons, has also progressed. As a result, the study of cyber-physical network services for linking network space and real space has become widespread. In addition, in recent years, changes in the information handled by the network have also been proceeding rapidly. For example, focusing on the source of the information, the network service provider generates the traditional information and the user, in most cases, processes it. However, in recent years, information generated by the user himself, in the form of CGM (Consumer Generated Media) utilized services, has also increased. CGM information represented by SNS and blogs, for example, can sometimes be transmitted at explosive rates and may cause a social phenomenon that was not considered possible until recently. In addition, change in the amount of information is also underway. The importance of large data volumes is already recognized in many fields. The vast quantity of data released by public organizations, such as the government, has also been growing recently. It can be expected that the quantity of information will continue to increase explosively.

Based on this background, we planned a special issue entitled “Network Services and Distributed Processing” in 2013. This special issue solicited submissions about research that collateralizes the existing distributed processing, not only network research but also embryonic research, research across boundaries in the application field, technical research for new service provision, safety, and research of new fundamental technology. Mainly the committee members from Special Interest Group on Distributed Processing System (IPSJ SIG-DPS) formed the editorial committee of the special issue as below. The Editorial Committee received 50 submitted papers and accepted 31 papers among many high-quality submissions (62% acceptance rate).

Papers from wide variety of research area that related to “Network Services and Distributed Processing” are submitted. The accepted papers include 2 papers related to “Task Scheduling”, 5 papers “Network Architecture”, 3 papers “Wireless/Mobile Networks”, 7 papers “Network Services”, 6 papers “Mobile Computing”, 3 papers “ITS”, 3 papers “Network Security”, 2 papers “Web Intelligence”. Every accepted paper treats important research issue that is essential for the future network services. I hope that the special issue will further promote researches and making community among researchers in this area. Lastly, I would like to thank Dr. Tetsuya Shigeyasu, Editorial Board, and other Editorial Committee members for their enthusiastic contribution to the entire planning and reviewing processes.

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