Preface
Special Issue on Safety and Security

Hiromu Hayashi
Senior Vice President
Fujitsu Laboratories Ltd.

Against the background of the recent movement toward making social and business systems more open, systems have become more complex and the assurance of safety and security has become much more difficult. As a result, not only the development environments of the people involved in advancing the manufacture of products and systems, but also the environments for using these systems have become extremely intense and complicated. This special issue maps out the various proposals that have been made to solve these problems.

Accompanying the development of the IT society, corporate activities have become more widespread, making it very difficult to fully grasp their social effects. The risks that accompany corporate activities not only affect the safety and security of IT systems, but also involve the governance of entire corporations. From the viewpoint of IT systems, we have made proposals regarding activities for responding to the enactment of the Japanese SOX act. Furthermore, we take into consideration the Fujitsu Enterprise Architecture for entire systems based on the trend toward compliance with this act and an open framework. Based on the above, we then offer technology for formulating a Business Continuity Plan (BCP) and a new methodology for using this technology.

In recent years, information leaks have become a significant problem for corporations and also the government and municipal offices. Because theft and loss of PCs are the main causes of these leaks, IT resource management, data protection, and restrictions on user operations at the PC level and other endpoints have become essential functions. On the other hand, making public information available to the public is important. However, since the full implementation of the Act on the Protection of Personal Information, public information has not always been disclosed, which has led to many problems. In this special issue,

FUJITSU Sci. Tech. J., **43**,2,p.151-152(April 2007)

151

we propose a new concept called "Information Commons" that will enable public information to be distributed while protecting private information. We also describe a watermarking technology that offers a high level of protection against information leaks, as well as a technology that makes it easier to conceal private information in documents so they can be safely released to the public.

Along with technology used for preventing virus attacks on computer systems, technologies for ensuring the physical safety of individuals and for aiding in the identification of individuals are also important. As examples of these technologies, we describe an ITS sensor for railroad crossing safety; the Students' Arrival/Departure Notification Service, which uses RFID to acquire the arrival/departure status of students; and Fujitsu's PalmSecure-based e-POS system for school cafeterias, which employs palm vein pattern authentication technology and is being used in the UK.

The current software development processes must be reviewed to ensure safety and security for IT systems and incorporate into them mechanisms for ensuring the quality of security. The software techniques used for ensuring a high level of security must be systemized in order to develop IT systems. In this special issue, we describe basic technologies and tools for ensuring the security quality of application software that has been developed based on field knowledge.

We hope that the concepts and IT techniques proposed in this special issue will be used in a wide range of fields to raise the safety and security of social and business systems to a higher level.