Special Issue Editor's Message

Preface

Trustworthy Computing is a broad concept and has been around since the introduction of computers to our society. Since computers become an essential part of our daily life, people would like them to be as trusted as utility supplies. A trustworthy system should meet people's expectation of achieving its goals without failing during its lifetime. Down to the engineering aspects, trustworthy computing consists of reliable hardware, robust and trusted software, security and privacy mechanisms, etc. Each aspect needs tremendous devotion of technological works to make it trustworthy.

In 2002, Microsoft created the Trustworthy Computing Initiative (TwC). It identifies four key areas: security, privacy, reliability and business integrity for its software development and services. We have seen strong momentum and much progress in pursuing these goals since then. In 2012, after 10 years of the Initiative, Microsoft retrospected its work on Trustworthy Computing and announced that it is more important than ever to provide trustworthy systems as computers are even more deeply embedded into our daily life than ever. Smart devices, cloud computing, Internet of things, big data, etc., all need to be trustworthy.

The Reliability Society recognizes the need of trustworthy computing and establishes Technical Committee on Trustworthy Computing and Cybersecurity. The first issue of Reliability Digest is devoted to this topic. The call-for-paper/article was announced on the website of the Reliability Society and sent to prospective scholars and researchers. We received very positive response of submission. Each submission is reviewed by at least three reviewers. We finally choose six papers for this issue.

It is not possible to cover all aspects of trustworthy computing and provide complete treatment in an issue of Reliability Digest. We hope that the readers can piece together information from these papers and other sources to shape your own viewpoints of trustworthy computing and contribute in the future issues of Reliability Digest.

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