Keynote Talk 2

Securability: the Key Challenge for Autonomic and Trusted Computing

Miroslaw Malek
Humbold-Universität zu Berlin
Germany
e-mail: malek@informatik.hu-berlin.de

***Abstract*— Rapid proliferation of computing and communication systems, ranging from clouds to cyber-physical systems, puts ever-growing demands on dependability and security. Securability, the key challenge for autonomic and trusted computing, focuses on both these properties, namely dependability and security. Main techniques to meet this challenge will be outlined and concepts such as proactive fault management, failure prediction, translucency and qq-plane will be introduced.**

Biographical Sketch

Miroslaw Malek is professor and holder of Chair in Computer Architecture and Communication at the Department of Computer Science at Humboldt University in Berlin. His research interests focus on dependable architectures and services in parallel, cloud, distributed and embedded computing environments including failure prediction, dependable architectures and service availability. He has participated in two pioneering parallel computer projects, contributed to the theory and practice of parallel network design, developed the comparison-based method for system diagnosis, codeveloped comprehensive WSI and networks testing techniques, proposed the consensus-based framework for responsive (fault-tolerant, real-time) computer systems design and has made numerous other contributions, reflected in over 200 publications and nine books.
He has supervised 26 Ph.D. dissertations and three habilitations (ten of his students are professors) and founded, organized and co-organized numerous workshops and conferences. He served and serves on editorial boards of several journals and is consultant to government and companies on technical and strategic issues in information technology. Malek received his PhD in Computer Science from the Technical University of Wroclaw in Poland, spent 17 years as professor at the University of Texas at Austin and was also, among others, visiting professor at Stanford, Universita di Roma "La Sapienza", Politecnico di Milano, Keio University, Technical University in Vienna, New York University, Chinese University of Hong Kong, and guest researcher at Bell Laboratories and IBM T.J. Watson Research Center.