

74th Meeting of the IFIP 10.4 Working Group on Dependable Computing and Fault Tolerance

June 28- July 01, 2018 Clervaux, Luxembourg

Technological and Societal Challenges to Blockchain Dependability and Security

Program

Thursday, June 28, 2018

19:00 Welcome reception

Friday, June 29, 2018

8:30 Meeting start

Introduction to the meeting and workshop
(Paulo Esteves-Veríssimo, University of Luxembourg, LU)

Workshop on Technological and societal challenges to blockchain dependability and security

Co-chairs: Jiangshan Yu, Paulo Esteves-Veríssimo, University of Luxembourg, LU

9:00 Session 1: Dependability and Security Aspects for Blockchain Consensus (Chair: TBD)

Introduction to Blockchain Security and Dependability Challenges: a viewpoint.
(Jiangshan Yu, University of Luxembourg, LU)

Blockchain Consensus Protocols: an Outlook
(Marko Vukolić, IBM Research Zurich, Switzerland)

10:30 Discussion

10:45 Coffee break

11:15 Session 2: Performance and Scalability Aspects of Blockchain (Chair: TBD)

The Red Belly Blockchain: Consistency and Scalability
(Vincent Gramoli, University of Sydney and Data61-CSIRO, Australia)

Can we trust blockchain as a public utility? - The performability aspect.
(Andras Pataricza, Budapest University of Technology and Economics, Hungary)

12:45 Discussion

13:00 Lunch

15:40 Coffee break

16:00 Session 3: Sharding in Blockchain (Chair: TBD)

A simple recipe for scaling Byzantine fault tolerant systems
(Fernando Pedone, USI-Università della Svizzera italiana, Switzerland)

Fast Transaction Commit in Sharded Data Stores and Blockchains
(Gregory Chockler, Royal Holloway, University of London, UK)

17:30 Discussion

17:45 Business Meeting of WG 10.4

IFIP Working Group 10.4 business meeting

19:15 End of meeting day 1

Saturday, June 30, 2018

9:00 Session 4: Experience with Deployed Blockchain (Chair: TBD)

Experiences with BFT-SMaRt as a consensus substrate of Permissioned Ledgers
(Alysson Bessani, Universidade de Lisboa, Portugal)

Investigating and securing smart contracts
(Radu STATE, University of Luxembourg, LU)

10:30 Discussion

10:45 Meeting wrap-up

Presentation of session summaries and discussion

12:00 Lunch

14:00 Excursion

17:30 Return to hotel

20:00 Banquet

Sunday, July 01, 2015

9:00 Research Reports (on-site enrollment)

12:00 Lunch

13:30 End of meeting