

Call for Papers

Special Issue on Security and Dependability of Cloud Systems and Services IEEE Transactions on Services Computing

Service-based cloud systems are being used in business-, mission- and safety-critical scenarios to achieve operational goals. Their characteristics of complexity, heterogeneity, and fast-changing dynamics bring difficult challenges to the research and industry communities. Among them, security and dependability (Sec & Dep) have been widely identified as increasingly relevant issues. Crucial aspects to be addressed include: metrics, techniques and tools for assessing Sec & Dep; modeling and evaluation of the impact of accidental and malicious threats; failure and recovery analysis; Sec & Dep testing, testbeds, benchmarks; infrastructure interdependencies, interoperability in presence of Sec & Dep guarantees.

The objective of this Special Issue is to bring together sound original contributions from researchers and practitioners on methodologies, techniques and tools to assess or improve the security and dependability of cloud systems and services.

Suggested topics include, but are not limited to:

- Design, deployment and management of secure and dependable cloud systems and services;
- Secure and dependable Service-Oriented Architecture (SOA);
- Secure and dependable Big Data services;
- Specification and design methodologies (e.g., model-driven, component-based);
- Modeling and simulation of security and dependability of cloud systems and services;
- Metrics for quantifying services dependability and security;
- Dependability and security benchmarking of cloud systems;
- Verification and validation (V&V) for dependability and security evaluation of services;
- Formal verification, testing, analytical and experimental evaluation of services;
- Off-line versus on-line dependability and security services assessment;
- Protocols and network technologies for dependable and secure mobile cloud applications
- Virtualization for dependable cloud networks
- Future Internet architectures and protocols for mobile cloud computing
- Design and use of supporting tools for creating dependable and secure services;
- Case studies illustrating challenges and solutions in designing secure and dependable cloud systems and services.

Important Dates

- May 31, 2015: deadline for manuscript submission
- July 31, 2015: first round decision announcement
- Sept. 30, 2015: revised submissions due
- Oct. 30, 2015: second round decision announcement
- Dec. 31, 2015: camera-ready version due

Submission Guidelines

Manuscripts that have not been published or considered for publication elsewhere are welcome. Authors will submit their manuscripts through the TSC online system (<https://mc.manuscriptcentral.com/tsc-cs>) and select "SI on Security and Dependability of Cloud Systems and Services". Author guidelines will be available at the journal website (<http://www.computer.org/tsc>).

Guest Editors

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