

Fifth ACM Cloud Computing Security Workshop (CCSW 2013)

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ABSTRACT

The Cloud Computing Security Workshop (CCSW) focuses on the security challenges and opportunities raised by cloud computing. The “cloud” is a general term for aggregation of computing resources within an extensive, elastic environment typically marked by a high degree of resource virtualization and sharing among tenants. As a multi-faceted trend, cloud computing creates many and varied security and privacy requirements at the intersection of a broad range of disciplines. The goal of the workshop is to elucidate the security and privacy problems raised by cloud computing and foster understanding of the connection between research and practice in this vibrant and transformative area.

Categories and Subject Descriptors

C.2.0 [Computer-Communication Networks]: Security and Protection; D.4.6 [Operating Systems]: Security and Protection; K.6.5 [Management of Computing and Information Systems]: Security and Protection; H.2.0 [Database Management]: GeneralSecurity, Integrity, and Protection; K.4.4 [Electronic Commerce]: Security; K.6.m [Miscellaneous]: Security

Keywords

Cloud Computing; Computer Security; Computer Privacy

1. INTRODUCTION

There are many definitions of the “cloud” and many historical and contemporary synonyms and subcategories (utility computing, grid computing, PaaS, etc.). All of these terms and ideas point toward the same trend: A consolidation of computing, storage, and networking resources within a single, typically shared infrastructure. Naturally, with many stakeholders and users operating side-by-side in a cloud environment, the security and privacy challenges are legion. But the news isn’t all bad. Cloud computing also offers opportunities to improve security through the judicious use

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of virtualization, consolidation of security administrator duties, and general opportunities for rethinking security engineering in a new, centralized platform.

Since its inception in 2009, CCSW has become the premier venue for research on security and privacy in cloud computing. It has also produced some of the most popular and highly cited papers in the CCS family of workshops, and drawn an excellent and diverse range of invited speakers.

The workshop aims to bring together researchers and practitioners in all security aspects of cloud-centric and outsourced computing. Like CCS, its parent conference, CCSW offers a program spanning a broad range of topics and disciplines, including network security, consumer privacy, virtualization security, secure hardware, and cryptography—to name just a few.

2. TOPICS OF INTEREST

The broad scope of CCSW is best reflected in the topics of interest enumerated in the workshop call for papers:

- Practical cryptographic protocols for cloud security
- Secure cloud resource virtualization mechanisms
- Secure data management outsourcing (e.g., database as a service)
- Practical privacy and integrity mechanisms for outsourcing
- Foundations of cloud-centric threat models
- Secure computation outsourcing
- Remote attestation mechanisms in clouds
- Sandboxing and VM-based enforcements
- Trust and policy management in clouds
- Secure identity management mechanisms
- New cloud-aware web service security paradigms and mechanisms
- Cloud-centric regulatory compliance issues and mechanisms
- Business and security risk models and clouds
- Cost and usability models and their interaction with security in clouds
- Scalability of security in global-size clouds
- Trusted computing technology and clouds
- Binary analysis of software for remote attestation and cloud protection
- Network security (DOS, IDS etc.) mechanisms for cloud contexts
- Security for emerging cloud programming models
- Energy/cost/efficiency of security in clouds

The workshop program this year includes research papers on probing cloud infrastructure, securely outsourcing computation, authenticating storage using trusted hardware, secure code execution, secure hardware, auditing, and various flavors of encryption.

3. PROGRAM COMMITTEE

We wish to offer thanks to the members of our program committee for their hard work in reviewing and discussing workshop submissions.

- Giuseppe Ateniese, Johns Hopkins University
- Kevin Bowers, RSA Laboratories
- Srdjan Capkun, ETH-Zurich
- Melissa Chase, Microsoft Research
- Haibo Chen, Shanghai Jiao Tong University
- George Danezis, Microsoft Research
- Anupam Datta, Carnegie Mellon University
- David Evans, University of Virginia
- Roxana Geambasu, Columbia University
- Andreas Haeberlen, University of Pennsylvania
- Amir Herzberg, Bar Ilan University
- Giles Hogben, Cloud Security Alliance
- Trent Jaeger, The Pennsylvania State University
- Xuxian Jiang, North Carolina State University
- Seny Kamara, Microsoft Research
- Farinaz Koushanfar, Rice University
- Andres Lagar-Cavilla, GridCentric Inc.
- Ruby Lee, Princeton University
- David Lie, University of Toronto
- Petros Maniatis, Intel Labs
- Cristina Nita-Rotaru, Purdue University
- Alina Oprea, RSA Labs
- Mariana Raykova, IBM Research
- Thomas Ristenpart, University of Wisconsin
- Ahmad-Reza Sadeghi, TU Darmstadt
- Pierangela Samarati, Universita' degli Studi di Milano
- Matthias Schunter, Intel Labs
- Elaine Shi, University of Maryland
- Nigel Smart, University of Bristol, UK
- Sean Smith, Dartmouth College
- Leendert van Doorn, AMD, Inc.
- Yinglian Xie, Microsoft Research Silicon Valley
- Dongyan Xu, Purdue University

4. INVITED SPEAKERS

We are delighted to have three invited excellent speakers representing both industry and research perspectives on cloud security. They are:

- Daniele Catteddu
Managing Director EMEA
Cloud Security Alliance
- Marnix Dekker
Security Expert and Information Security Officer
European Network and Information Security Agency
(ENISA)
- Slava Kavsan
Partner Security Development Manager (Azure)
Microsoft