Emerging Blockchain Technology Applications in Privacy Preservation

In conjunction with

39th IEEE -- International Performance Computing and Communications Conference

November 6th - 8th 2020, Austin, Texas, USA

Scope

Blockchain is a technology originally used for public transaction ledger of cryptocurrencies. Retaining the unique and desirable properties, including decentralization, shared ledger, immutability, auditability, anonymity, and smart contract, blockchain has been widely adopted in numerous applications in industries such as finance, healthcare, cybersecurity, internet of things, etc.

However, the privacy issues have become a hot topic in these applications of blockchain. With the advancement and prevailing of data collecting and processing, we often put our privacy at the mercy of the collecting agents and services providers (SP), e.g., governments, Google, Facebook, in exchange for their personalized services. The collecting agents assign each customer an identity (ID) or intelligent object for accessing their services. Customers' activities logs are observed and studied, via the assigned IDs, to provide targeted services and ensure customer satisfaction. The more personal data the SPs gather, the more they know about their customers. By doing so, they can provide more personalized services to customers. Once users get accustomed to the convenience of these personalized services from the SPs, most of them would agree on giving up privacy in exchange for such privileges. In a way, consumers are trapped in the so-called personalization-privacy paradox.

Due to the aforementioned properties, blockchain for privacy preservation in different applications has become a rapidly expanding research theme. In this research area, several open research problems, e.g. using and improving blockchain techniques for identity authentication, identity management, personal data protection, offline computing, still need to be discussed and studied. In addition, the efficiency of blockchain is the main consideration for adopting the technique. For example, utilizing the blockchain techniques in internet of things applications may occur significant energy, delay, and computational overhead, which is not suitable for most resource-constrained IoT devices.

This workshop named "Emerging Blockchain Technology Applications in Privacy Preservation" in conjunction with the 39th International Performance Computing and Communications Conference (IPCCC 2020) will provide a forum for researchers and practitioners from both academia and industry to present the cutting-edge research results, share practical experience of building emerging blockchain techniques for privacy protection in diverse applications. This workshop will solicit papers on various disciplines of emerging blockchain techniques for privacy protection in different applications.

Topics

- Emerging blockchain techniques for privacy preservation in internet of things.
- Emerging blockchain techniques for privacy preservation in financial technologies and applications.
- Emerging blockchain techniques for privacy preservation in healthcare.
- Emerging blockchain techniques for privacy preservation in E-commerce.
- Emerging blockchain techniques for privacy preservation in diverse applications.

Important Dates:

Paper Submission Deadline	31st August, 2020
Author Notification	15th September, 2020
Camera-Ready Deadline	25th September, 2020
Workshop Date	8th November, 2020

Organizing Committee

Steering Committee

- Prof. Ted Kuo (National Chiao Tung University, Taiwan)
- Prof. Ee-Chien Chang (National University of Singapore, Singapore)
- Prof. Feng-Jang Hwang (University of Technology Sydney, Australia)
- Prof. Chin-Ling Chen (Chaoyang University of Technology, Taiwan)

General Chairs

- Prof. Chia-Yu Lin (Yuan Ze University, Taiwan)
- Prof. Yu-Chih Wei (National Taipei University of Technology, Taiwan)

Session Chairs

- Prof. Houping Xiao (Georgia State University, U.S.)
- Prof. Hsiao-Ting Tseng (National Central University, Taiwan)
- Prof. Tzer-jen Wei (National Chiao Tung University, Taiwan)

Technical Program Committee

- Prof. Chi-Hua Chen (Fuzhou University, China)
- Prof. Jen-Jee Chen (National Chiao Tung University, Taiwan)
- Prof. Huai-Sheng Huang (Fu Jen Catholic University, Taiwan)
- Prof. Yan-Ann Chen (Yuan Ze University, Taiwan)
- Prof. Yu-Chi Chen (Yuan Ze University, Taiwan)
- Prof. Shao-Hung Cheng (National Defense University, Taiwan)

Proceedings

Workshop papers will be published in the same set of proceedings as the main conference, and available on IEEE Xplore.

Submission Information

Paper submissions should be formatted according to the IEEE standard double-column format with a font size of 10 pt or larger with a maximum of 8 pages for full papers. Please refer to the IEEE formatting instruction for details: http://www.ieee.org/conferences_events/conferences/publishing/templates.html
Submissions should represent original research results and may not be under review or accepted for publication in another venue. Papers should be submitted through EDAS. https://www.edas.info/newPaper.php?c=27710&track=103454

COVID-19 STATEMENT

The safety and well-being of all conference participants is our priority. After evaluating the current COVID-19 situation, the decision has been made to transform the in-person component of IPCCC into an all-digital, virtual conference experience – IPCCC 2020 will now be an online event. Therefore, IPCCC will no longer take place in Austin, Texas and will instead take place virtually. The conference dates remain the same – November 6th - 8th, 2020. Proceedings will not be cancelled, and publications will continue as planned. All authors will present their work remotely at the virtual conference. For questions, please contact the program chairs.

Contact

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