IEEE Transactions on Consumer Electronics

Call for Papers

Special Section on "Security, Privacy and Trust for Consumer Smart Devices"

Theme:

Currently, smart devices such as smarphones have become common and essential in our daily lives, which provide many new intelligent services. For example, consumers will use their smart devices for online purchase and personal data storage. In the context of Internet-of-Things (IoT), smartphones and household appliances can be seen as sensor nodes and compose sensor networks for measuring environmental parameters and generating user interaction data. These connections also offer novel use cases and customized experiences that are attractive to both manufacturers and consumers. However, the security, privacy and trust of consumer smart devices are threatened by various cyber-attacks. For instance, it still remains a challenge to protect the stored data on the smart devices under malicious applications, and to securely transfer confidential data over IoT in the presence of eavesdroppers and other attackers that may intercept and disrupt the information exchange between legitimate terminals remains to be a challenging research task. There is a significant need to secure smart devices in the aspect of security, privacy and trust.

This special section will focus on consumer smart devices, and attempts to solicit original research papers that discuss the security, privacy and trust issues and solutions.

Topics of interest in this Special Section include (but are not limited to):

- Adversarial modeling for consumer smart devices
- Vulnerability Assessment and testing for consumer smart devices
- Intrusion detection and prevention for consumer smart devices
- Tracing mobile attackers for consumer smart devices
- New security applications for consumer smart devices
- Lightweight privacy-preserving schemes for consumer smart devices
- Efficient implementation of lightweight cryptographic protocols for consumer smart devices
- Cryptographic hardware development for consumer smart devices (e.g., TPM)
- Formal methods for consumer smart devices
- Security and privacy issues in consumer smart devices
- Low-cost side-channel countermeasures for consumer smart devices
- Side-channel analysis of exist protocols and implementations for consumer smart devices
- Data privacy for consumer smart devices (e.g., GDPR)
- Trust management for consumer smart devices

Important dates:

- End of submission of Manuscripts: **December 15, 2022**
- Expected publication date (tentative): June 2023

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Instructions for authors:

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