TRUSTED COMPUTING GROUP

Cerebrating TCG 25th Anniversary: Japan Regional Forum (JRF) Open Workshop (14th)

TCG's Challenge for Next Generation Cyber Security

～ Security by Design with TCG Technology ～

概要 OVERVIEW

DATE:	**February 29 (Thursday), 13:00-20:00** (registration check-in 12:30)
HOSTED BY:	Trusted Computing Group, Organized by TCG Japan Regional Forum JRF）
VENUE:	Hilton Tokyo (6-6-2 Nishi-Shinjuku, Shinjuku City, Toko), 3F Fuji 1, 2, 3
AUDIENCE:	TCG members and developers and users involved in information security, policy makers and those interested in TCG activities and technologies.
Outline:	"TCG Remote Attestation" technology for cyber security applications will be discussed to gain a better understanding, exchange ideas, and discuss future applications of TCG technology and where it is headed.
URL:	https://bit.ly/tcg-jrf-2024

プログラム AGENDA

Time (JST)	**Program** *Simultaneous interpretation to be provided for all sessions.*
13:00 – 13:20 (20)	**Opening Remark** *Marie, ANDO, TCG-JRF Chair; ST Microelectronics* **Welcome Remark: TCG Message celebrating 25th Anniversary** *Joe PENNISI, TCG President & Chairman (video)* *Stephanie SCHULTZ, TCG Executive Director*
13:20 – 14:10 (50) (Q&A 5mins)	**Keynote：Trends in Cyber Security Threats and JPCERT/CC Approaches** *Mitsutaka HORI, Threat Information Analyst, Early Warning Group, JPCERT/CC*
14:10 – 14:55 (45) (Q&A 5mins)	**Speech #1: TCG Attestation Framework and IETF Remote Attestation Procedures: An Overview of TCG and IETF Attestation Working Groups** *Ned SMITH, TCG Attestation WG Chair; Intel*
14:55 – 15:05 (10)	**Break** (Aoi)
15:05 – 15:50 (45)	**Leading Edge of Supply Chain Security: Remote Attestation with Hardware Security Technology, Platform Certificate Overview** *Tsukasa KOBAYASI, TCG-JRF Member; NEC*
15:50 – 16:20 (30) (Q&A 5mins)	**Speech #2: Overview of TCG Technologies for Device Identification and Attestation** *Guy FEDORKOW, TCG Technical Member and Editor; Juniper Networks*
16:20 – 16:30 (10)	**Break** (Aoi)
16:30 – 17:15 (45) (Q&A 5mins)	**Lightning Talk: Remote Attestation At Google** **Speech #3: TCG's PQC Vision** *Chris FENNER, TCG TPM WG Chair; Google*
17:15 – 17:45 (30)	**Roundtable: TCG's Challenge for Next Generation Cyber Security** *Session Speakers, Moderated by Atsushi Nagata, TCG-JRF*
18:00 – 20:00 (120)	**Demonstration and Networking** (appetizers, drinks to be served)
	Demonstration on Remote Attestation and discussion *TCG-JRF Member; NEC Team*
20:00	**Closing**

The program is subject to change. (updated 2-26-2024)

3855 SW 153rd Drive Beaverton, Oregon 97003 USA | Phone: +1 503-619-0562 (USA) | Fax: +1-503-644-6708 | www.trustedcomputinggroup.org

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講演詳細 SESSIONS & SPEAKERS

Mitsutaka HORI
Threat Information Analyst, Early Warning Group
JPCERT Coordination Center (JPCERT/CC)

Mr. Mitsutaka Hori was appointed to the Control System Security Response Group of the JPCERT Coordination Center in September 2017, after working as an in-house SE for a manufacturing company and system development for a venture company. Since January 2024, he has been serving as a member of the Early Warning Group, where he is responsible for delivering information such as early warning information and alerts. He is also involved in public awareness activities such as speaking engagements.

Abstract：Trends in Cyber Security Threats and JPCERT/CC Approaches

With expanding IoT technologies, more and more software products are connected to the internet, and in recent years, attacks that exploit vulnerabilities in these products have been increasingly being used as initial pathways for intrusion. In this session, we will discuss recent cyber security threat trends and challenges, which will also introduce the efforts of JPCERT/CC, including its response to the most recent cases.

Ned SMITH
TCG Attestation WG Chair;
Principal Engineer, Security Privacy Mitigation Team
Intel Corporation

Mr. Ned Smith is a principal engineer on Intel's Security, Privacy, and Mitigation team. He co-chairs the Internet Engineering Task Force (IETF) Remote Attestation Procedures (RATS) Work Group and the Trusted Computing Group (TCG) Attestation Work Group. He is a primary contributor to the Device Identity Composition Engine (DICE) family of TCG specifications and a prolific inventor.

Abstract： TCG Attestation Framework and IETF Remote Attestation Procedures: An Overview of TCG and IETF Attestation Working Groups

Trust and attestation are gaining in popularity and importance for cloud, edge, and distributed computing. Attestation capabilities in the platform as well as attestation services in the cloud, edge, and IT enterprise need to interoperate to minimize costs and maximize reach. Many standards are actively defining attestation technologies, but interoperability isn't guaranteed. This talk provides an overview of work in the TCG Attestation and IETF Remote Attestation Procedures (RATS) working groups.

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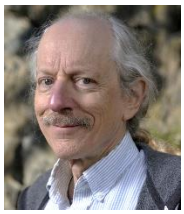
Tsukasa KOBAYASHI
TCG-JRF Member;
Director, Technology Services Software Division
NEC Corporation

Since joining NEC, Mr. Tsukasa Kobayashi is in charge of communications embedded software development, wireless communication technology development, and product development in the IoT security area, and is currently engaged in business development of trust services. In recent years, he has been working for social implementation and dissemination of TPM and other TCG technologies at events organized by the Trust Computing Group (TCG) Japan Chapter (JRF).

Abstract : Leading Edge of Supply Chain Security: Remote Attestation with Hardware Security Technology, Platform Certificate Overview

In recent years, global supply chain risks have been rapidly increasing, and countermeasures to address these risks have become an urgent issue. In response to this circumstance, the TCG and IETF have been developing international standards and guidelines to address supply chain risks of computing devices. In this presentation, we will introduce RFC9334 RATS (Remote Attestation Procedures) and TCG Platform Certificate, technologies that enable the substance of supply chain security, with an overview and explanation of how they work, along with a demonstration. These technologies enable verification of the safety of computing devices with hardware security functions through the supply chain, and are of great interest to companies striving to implement effective security measures.



Guy FEDORKOW
TCG Technical Committee Member and Editor;
Distinguished Engineer, Juniper Networks

Mr. Guy C. Fedorkow received his BASc and MASc in Engineering Sciences at University of Toronto, and went on to develop both communications and high-throughput parallel computer architectures at Bolt, Beranek and Newman in Cambridge, MA, Cisco Systems and Juniper Networks, where he has served as system architect for a number of communications products. Guy's work at Juniper Networks currently includes infrastructure security and trusted computing topics, the Trusted Computing Group and IETF

Abstract: Overview of TCG Technologies for Device Identification and Attestation

In this session, we shall look at how Roots of Trust play an important role in securing critical systems with attestation. We'll also review TPM, MARS and DICE, the three different Root of Trust technologies currently being developed in TCG.

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Chris FENNER
TCG TPM WG Chair;
Software Engineer, Google

Mr. Chris Fenner is a Software Engineer working on at-scale datacenter attestation systems currently in use at Google. He co-chairs the Trusted Platform Module (TPM) Work Group at TCG, and is leading TCG's efforts to address post-quantum threat models in future versions of its standards.

Abstract: Lightning Talk: Remote Attestation At Google

TCG's PQC Vision

Post-quantum-quantum cryptography (PQC) is an emerging risk for embedded (i.e., hardware or firmware) users of cryptography. We expect that the devices created in the next few years may still be in use when the first cryptographically relevant quantum computers come online (as soon as 10 years from now, according to some experts). This talk will provide an overview of the impact of quantum computing on classical cryptography, and how applications developers can begin to address threats like Store Now, Decrypt Later.

Atsushi NAGATA
TCG-JRF Member;
Technical Expert, Maritime Security Management Division
NEC Corporation

Mr. Atsushi Nagata is a Technical Expert at NEC, leading Zero Trust Security System Development Team. He has 17 years of experience in computer system and network products development.

Demo Abstract: TPM has been standardized by the TCG and is being promoted and utilized through the sustained efforts of many organizations and companies. The Remote Attestation standard was developed by the IETF last year as a technology to ensure the Root of Trust and Chain of Trust relationships between systems, which are fundamental principles of security. Remote Attestation using TPMs has gained attention in recent years as an effective approach to enhancing overall system security. This session will cover a wide range of TPMs, from x86-based servers, laptops and desktops with TPMs, to small ARM-based computers. During the session computers of different architectures, from x86-based servers, laptops and desktops with TPMs to small ARM-based computers, will be demonstrated on how security can be verified using Remote Attestation. In Furthermore, the near-term implementation possibilities of systems using Remote Attestation to create a more robust network access environment will be explored.

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Toru TOMITA
TCG-JRF Member;
General Manager, The Managing Department of Technology
Cyber Defense Institute, Inc.

Mr. Toru Tomita is currently engaged in research on supply chain security, remote attestation and hardware-based security. In the realm of supply chain security, he, along with fellow members, has made significant contributions by ensuring that the TCG Platform Certificate, a crucial technology for supply chain security, is compatible with OpenSSL. This was achieved by implementing the RFC5755's Attribution Certificate. As a testament to his commitment to the field, the code he contributed to OpenSSL has been incorporated as a standard feature, enabling users to easily verify the origin, authenticity, any modifications, and traceability of devices.

Pre-Event Survey

We kindly ask for your cooperation in filling out a questionnaire to help us improve the operation of the event.

https://forms.gle/QWPNVpRAe3dtmjay8

Presentations: *The URL below will open on or after Feb 29*

https://bit.ly/3uztZaA

Contact Information

TCG-JRF Workshop Administration
japan_admin@trustedcomputinggroup.org
Mobile: +81 90 3237 7189 (Yuko Shigemura; TXT/WhatsApp)