Confidential Computing devroom - Welcome!

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whoami

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Confidential computing disclaimer

Many definitions of confidential computing may exist.

Today, we take the one from the Linux Foundation's *Confidential Computing Consortium*.

Confidential Computing is the protection of **data in use** by performing computation in a **hardware-based**, **attested Trusted Execution Environment** (TEE).

Definition from: *A Technical Analysis of Confidential Computing*, v1.3 (November 2022), `https://confidentialcomputing.io/`

Key properties

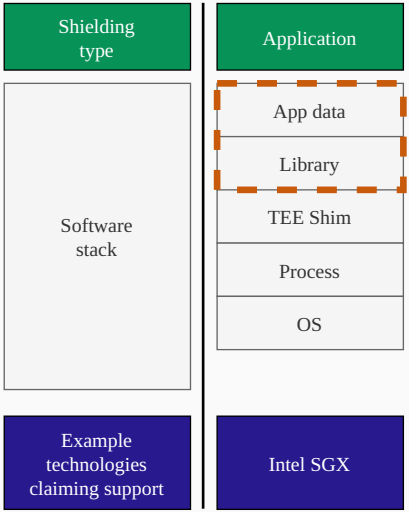
Common properties:

- Data confidentiality
- Data integrity
- Code integrity

Contextual properties:

- Code confidentiality
- Authenticated launch
- Programmability
- Attestability
- Recoverability

Definition from: *A Technical Analysis of Confidential Computing*, v1.3 (November 2022), `https://confidentialcomputing.io/`



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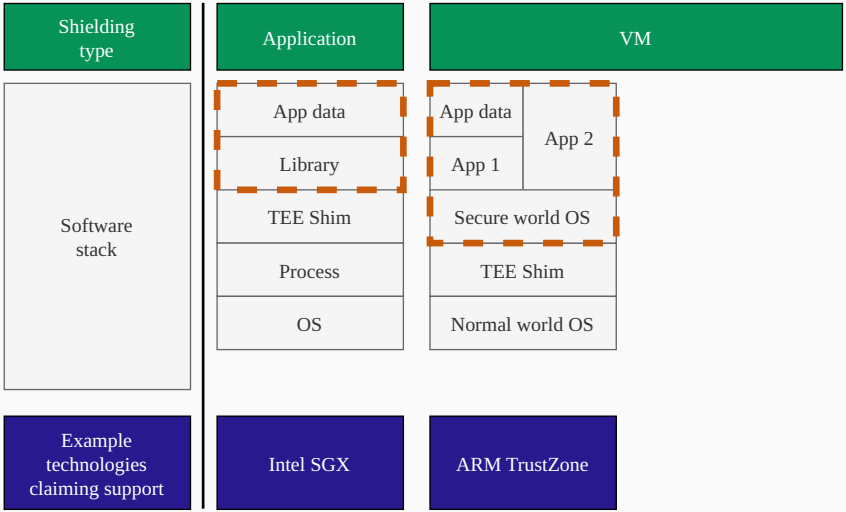

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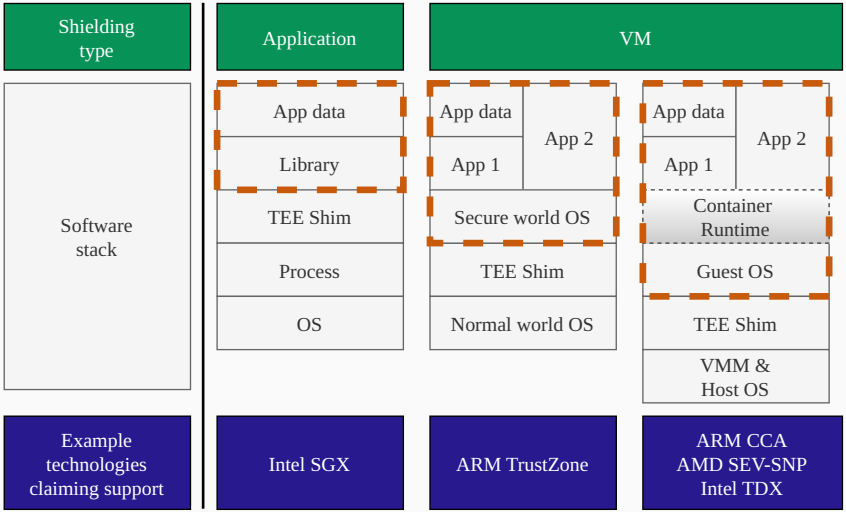

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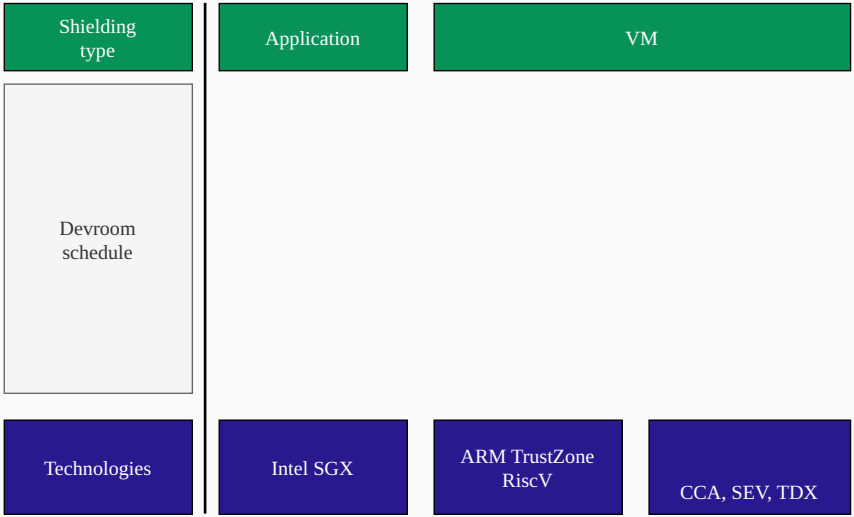

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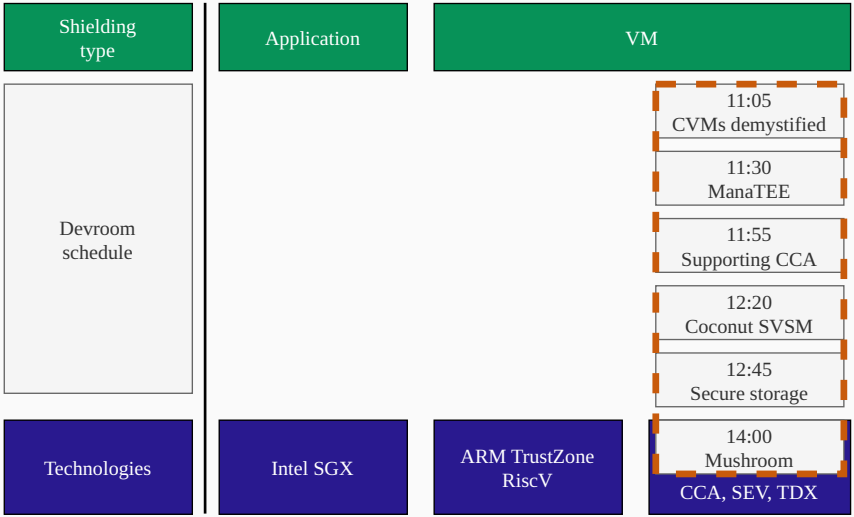

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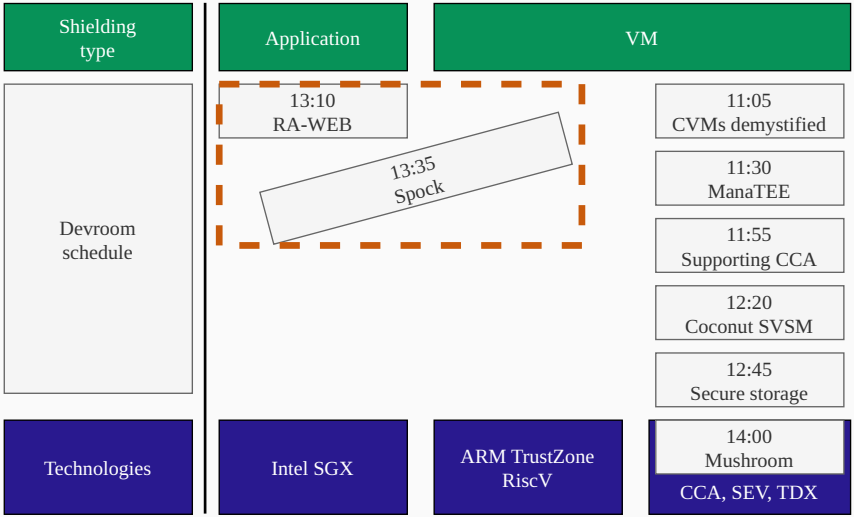

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Where are we going?

2024	2025
25 submissions, **8 accepted**	**15 submissions**, **9 accepted**

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19 talks related to confidential computing @ FOSDEM 2025!

40 submissions!

Attestation devroom on Sunday! Room K.4.401

Event	Speakers	Start	End
Sunday			
Welcome to attestation devroom!	Thomas Fossati, Muhammad Usama Sardar	09:00	09:25
Binding Intel SGX Root-of-Trust to PKI to Establish High-Performant Trusted Channel Between Enclaves	Gilang Mentari Hamidy	09:30	09:55
Integrating Intel TDX remote attestation into SSH	Fabian Wesemann	10:00	10:15
Attested Noise Protocol for Low-TCB Trusted Execution Environments	Ivan Petrov, Katsiaryna Naliuka	10:20	10:45
Secure Push Attestation with Extensible REST APIs	Jean Snyman	10:50	11:20
Measurement and Attestation Schemes for Container Sandboxes	Magnus Kulke	11:25	11:50
Virtual Machine attestation on Arm CCA	Jean-Philippe Brucker	11:55	12:10
Remote Attestation in the cloud	Jagannathan Raman	12:15	12:35
Remote Attestation on Arm TrustZone OP-TEE with VERAISON Verifier --- current status and future plan ---	Kuniyasu Suzaki	12:40	13:00

https://fosdem.org/2025/schedule/track/attestation/

Honorable mentions

- "Enabling AMD SEV technology in Xen Hypervisor." – Andrei Semenov
  Virtualization and Cloud Infrastructure devroom [Sunday, 4pm UB4.132]
- "Latest implementation of AMD SEV-SNP in OVMF" – Richard Lyu
  Open Source Firmware, BMC and Bootloader decroom [Saturday, 12:40 UB4.136]
- . . . ?

Thank you to all submissions we could not fit! *Retrievable Secrets for Confidential Guests on s390* (Claudio Imbrenda), *A Game of TEEs: How CC keeps diverging itself from simplicity and wide adoption* (Klaus Heinrich Kiwi), *A persistent vTPM through remote storage* (Sören Langenberg) *Why do current remote attestation methods not suit VM-type CC?* (Kuniyasu Suzaki) *CoMPai: Confidential Multi-Party AI* (Krzysztof Baran) *Introducing FUKI, guest firmware in a UKI* (Ani Sinha)

Schedule

Event	Speakers	Start	End
Saturday			
Confidential Computing devroom welcome	Fritz Alder, Jo Van Bulck, Fabiano Fidêncio, Ilaria Battiston, Steffen Eiden	10:30	10:40
Confidential Computing's Recent Past, Emerging Present, and Long-Lasting Future	Sal Kimmich	10:40	11:00
Confidential Virtual Machines Demystified: A Technical Deep Dive into Linux Guest OS Enlightenment	Ankita Pareek, Archana Choudhary	11:05	11:25
ManaTEE: an Open-Source Private Data Analytics Framework with Confidential Computing	Dayeol Lee	11:30	11:50
Supporting Confidential Computing on Arm with Open Source Software	Poirier Mathieu	11:55	12:15
Updates on Coconut SVSM: Secure Services and Stateful Devices for Confidential Virtual Machines	Stefano Garzarella, Oliver Steffen	12:20	12:40
Trust No One: Secure Storage with Confidential Containers	Aurélien Bombo	12:45	13:05
RA-WEBs: Remote Attestation for WEB services	Yoshimichi Nakatsuka	13:10	13:30
Spock : a software-based RISC-V TEE	jip helsen	13:35	13:55
Running Mushroom on Intel TDX	Tom Dohrmann	14:00	14:20
Confidential Computing devroom lightning talks	Claudio Imbrenda, Steffen Eiden, Kuniyasu Suzaki	14:20	14:30

https://fosdem.org/2025/schedule/track/confidential/