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

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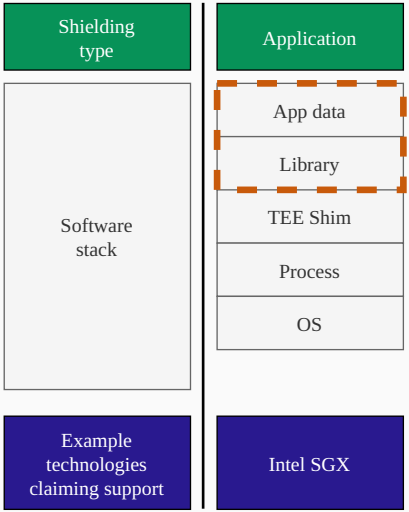

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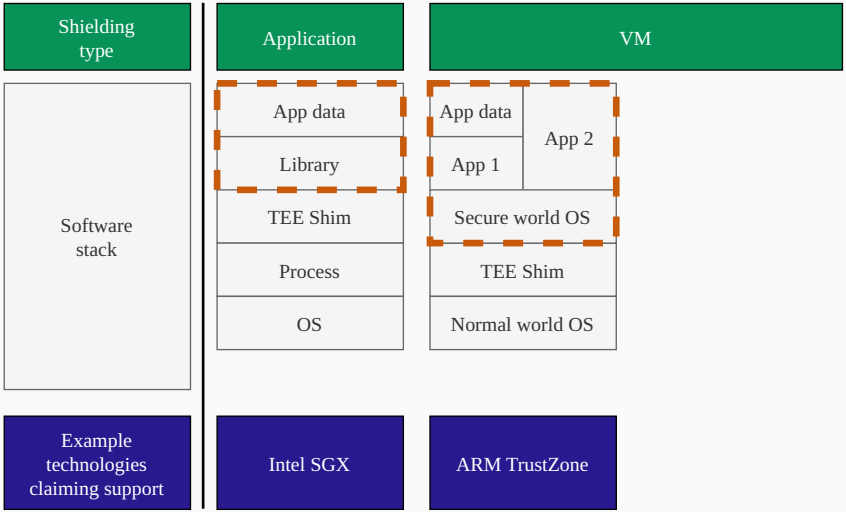

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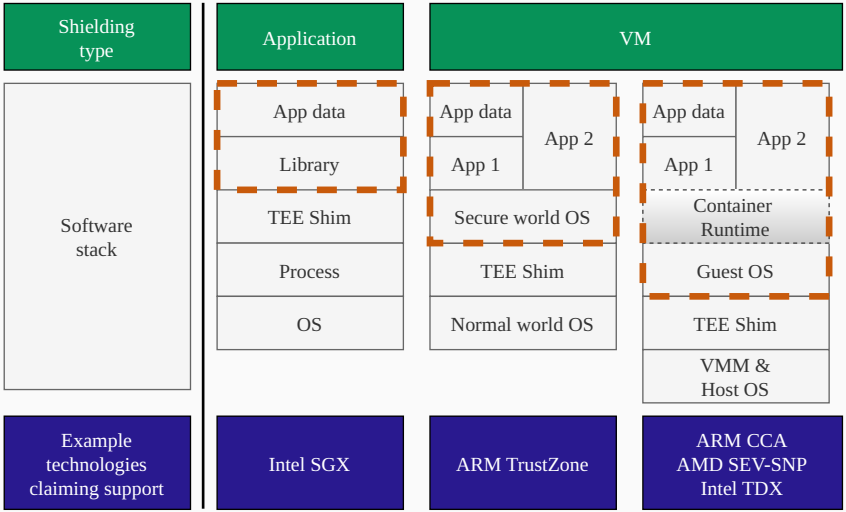

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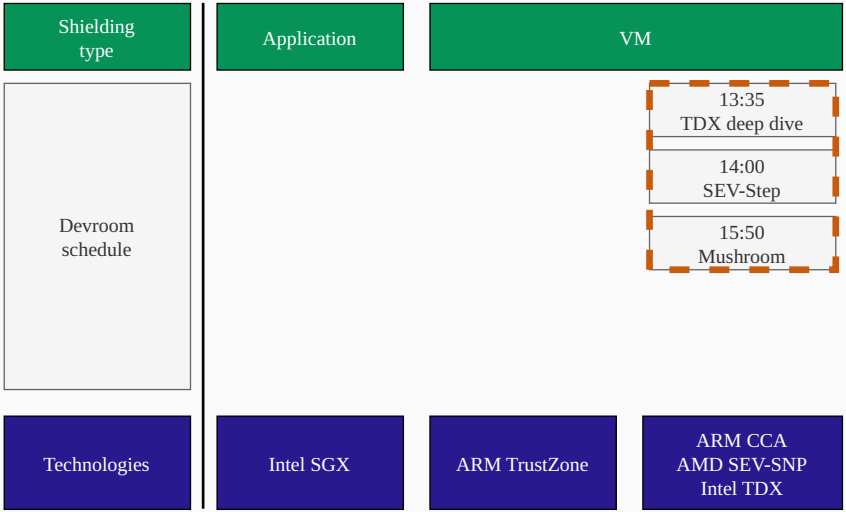

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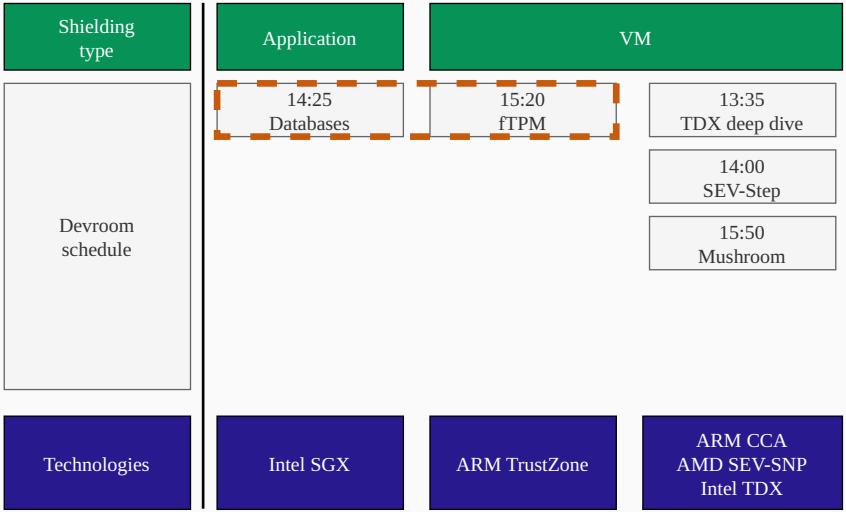

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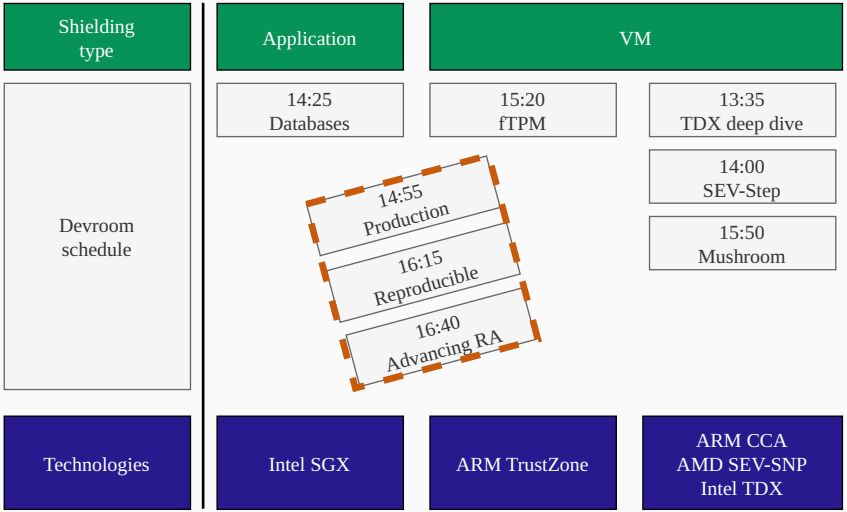

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Honorable mentions

- **Project VERAISON** (https://github.com/veraison)
  Also check out Thomas Fossati's talk from FOSDEM'23 in the archives!
- **Confidential Containers** (https://github.com/confidential-containers)
- **Confidential Clusters** (https://github.com/openshift/)
- **CC on OpenStack** (https://www.openstack.org/)
- **RA in Telecom** (https://github.com/nokia/AttestationEngine)
- **Formalizing RA** (https://github.com/CCC-Attestation/formal-spec-TEE/)
- **Pandora** (https://github.com/pandora-tee)
- **Bare-SGX** (https://github.com/jovanbulck/bare-sgx)
- ...

Schedule

Event	Speakers	Start	End
Sunday			
Confidential Computing devroom welcome	Fritz Alder, Jo Van Bulck, Fabiano Fidêncio	13:15	13:30
Intel TDX Deep Dive	Benny Fuhry	13:35	13:55
SEV-Step: A Single-Stepping Framework for AMD-SEV	Luca Wilke	14:00	14:20
Shielding Data, Embracing Openness, Optimizing Performance: A Journey Through Trustworthy Environments for Database Systems	Ilaria Battiston, Lotte Felius	14:25	14:45
The ups and downs of running enclaves in production	Cian Butler	14:55	15:15
Securing Embedded Systems with fTPM implemented as Trusted Application in TEE	Tymoteusz Burak	15:20	15:40
Integrity Protect Workloads with Mushroom	Tom Dohrmann	15:50	16:10
Reproducible builds for confidential computing: Why remote attestation is worthless without it	Malte Poll, Paul Meyer	16:15	16:35
Increasing Trust and Preserving Privacy: Advancing Remote Attestation	Ionut Mihalcea, Thomas Fossati	16:40	17:00

https://fosdem.org/2024/schedule/track/confidential-computing/