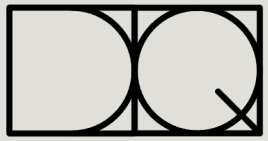

DECENTRIQ

# Securing trusted boot of confidential VMs

Stefan Deml <Stefan.Deml@decentriq.com>

Andras Slemmer <Andras.Slemmer@decentriq.com>

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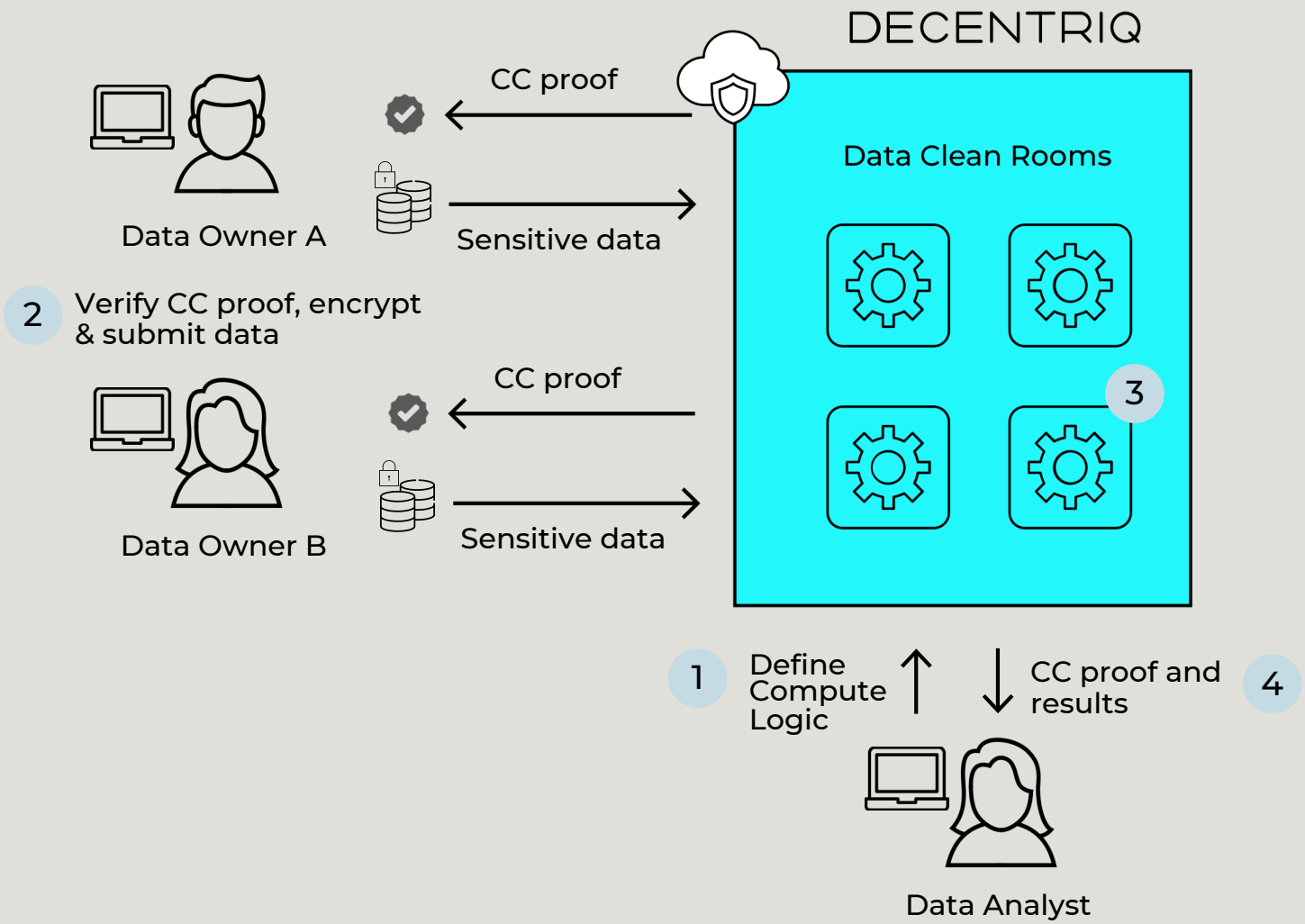
# Motivation for using Confidential Computing

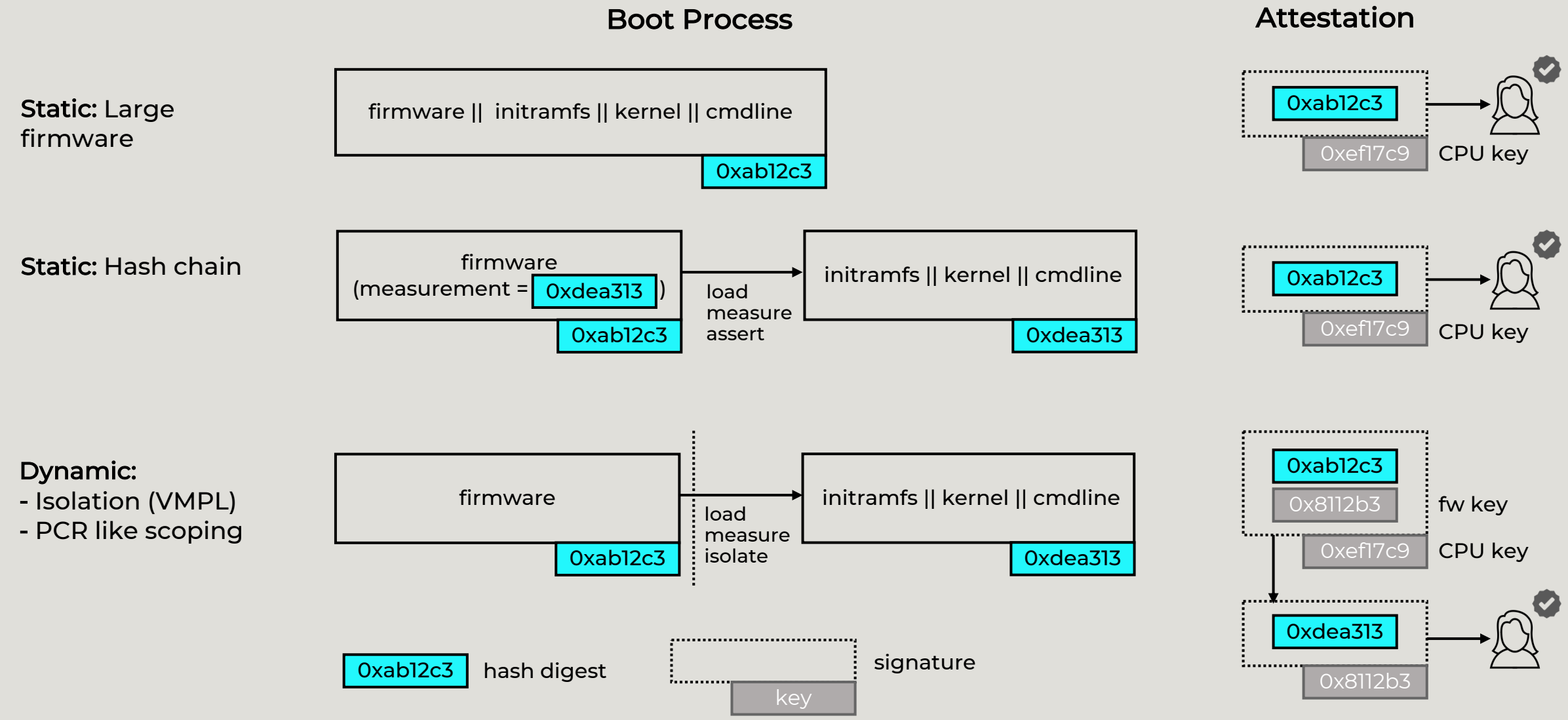
Enable confidentiality and integrity of multi-party remote computations.




**Required security guarantees:**

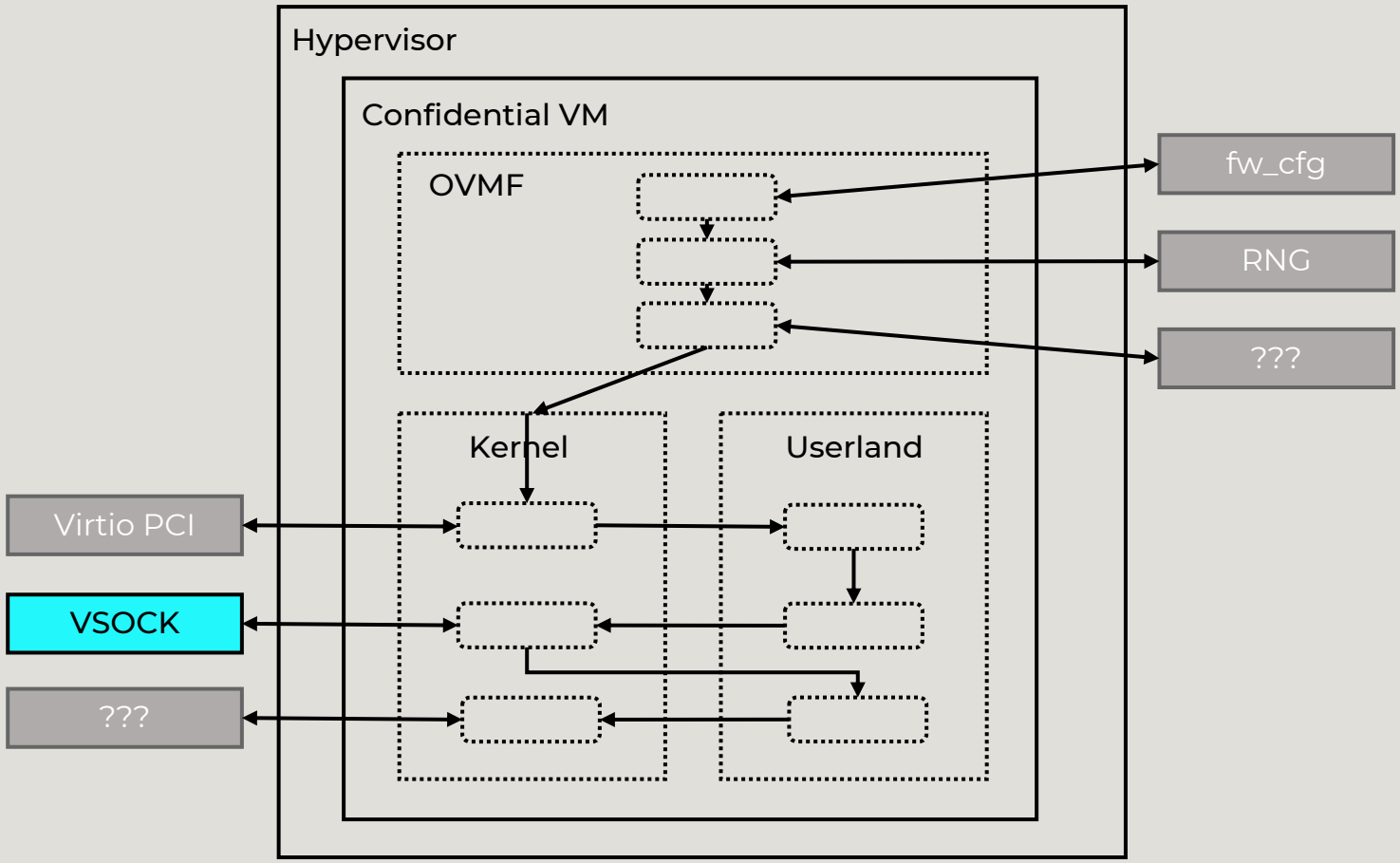
- Memory confidentiality
- Memory integrity
- Memory freshness
- Code auditability
- Attestation of the TCB and software running remotely
- Control flow integrity:
  - Process based CC (SGX)
  - VM based CC (TDX, SEV) ?

# Attestation of remote software: Measured Boot



# Providing Control flow integrity (CFI)

- Firmware: **OVMF**
  - long-term CC support
- Hypervisor: **QEMU/KVM**
- VM parameters passed in:
  - memory size/e820
  - CPU Count
  - ACPI, ....
- Kernel: stripped down
  - Limit IO to VSOCK
- Virtualized devices
  - RNG
  - Time
  - Option ROM
  - Virtio PCI




Problem: How do we provide CFI using existing software (OVMF, linux)?

# Thank You

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