Trench Boot

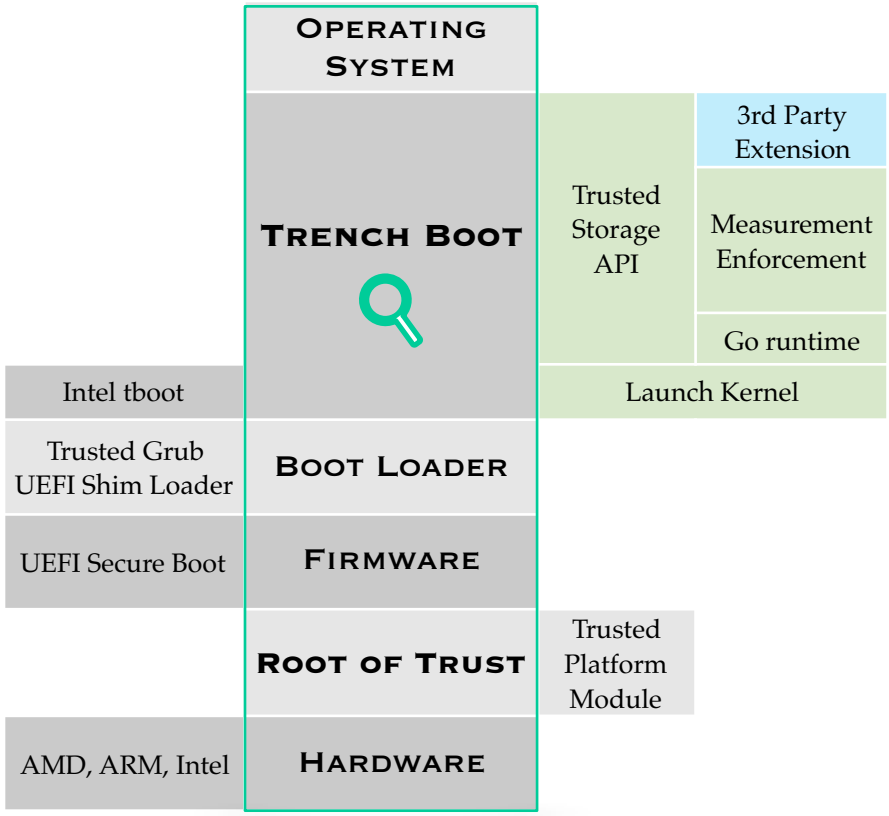
Technical Showcase

CE Workgroup Linux Foundation / Embedded Linux Conference

On firm footing with an extensible measured launch framework

Daniel Smith, Christopher Clark, Rich Persaud | OpenXT.org

What is demonstrated



Hardware Information

- PC Engines APU2 with AMD Jaguar CPU
- Trusted Platform Module (TPM) 1.2

What was improved

Description

- Unifying framework for Boot Integrity Technologies (BIT)
- Advanced Measurement Collection
- Extensible, Fine Grained Verification
- Remote Attestation

Security & Assurance Use Cases

- Secure Over-The-Air (OTA) Updates
- Boot with Dynamic + Static Root of Trust
- Verify BIOS, firmware, hypervisor, OS
- TPM-signed Measurements

Components

- Grub patched to initiate AMD Secure Launch
- Linux kernel patched as AMD Secure Loader
- Go libraries for extensible measurement enforcement

Source code or detail technical information availability

- http://github.com/TrenchBoot
- http://openxt.org
- http://github.com/flihp/meta-measured