

Trench Boot

Technical Showcase

CE Workgroup Linux Foundation / Embedded Linux Conference

On firm footing with an extensible measured launch framework

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Module

What is demonstrated **OPERATING** SYSTEM 3rd Party Extension Trusted Measurement Storage TRENCH BOOT Enforcement API Go runtime Intel tboot Launch Kernel **Trusted Grub BOOT LOADER UEFI Shim Loader FIRMWARE UEFI Secure Boot** Trusted Platform **ROOT OF TRUST**

Hardware Information

AMD, ARM, Intel

• PC Engines APU2 with AMD Jaguar CPU

HARDWARE

• 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