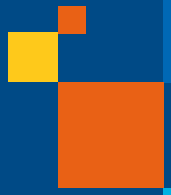
# RISC-V Server Platform Compliance Test Suite(CTS) Proposal

Dec 7, 2023

Intel RISCV SW Team



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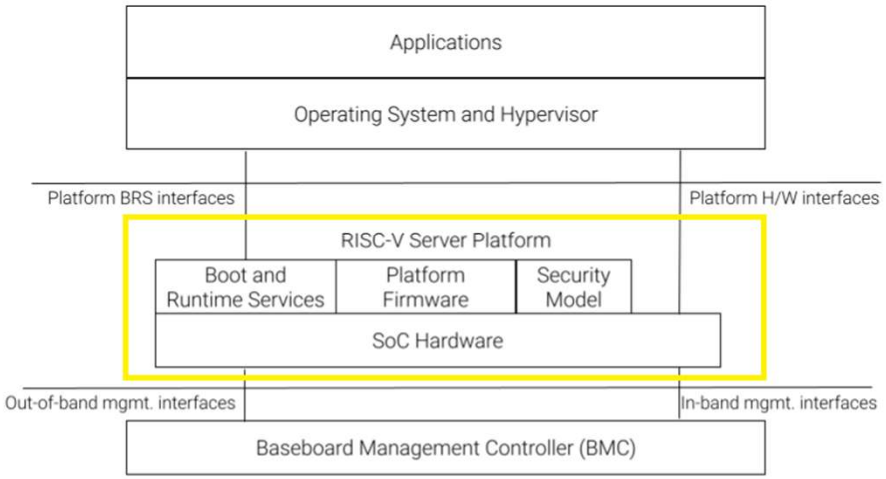
# Background

- https://lists.riscv.org/g/tech-server-platform
- The Server Platform Task Group shall define a specification for a standardized set of hardware and software capabilities, that portable system software (such as operating systems and hypervisors) can rely on being present in a RISC-V server platform.
- https://github.com/riscv-non-isa/riscv-server-platform

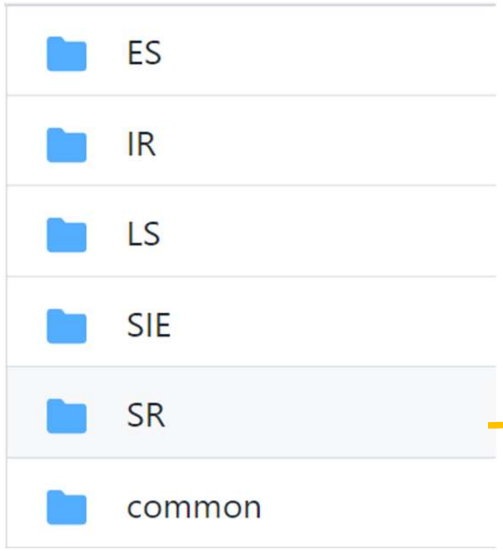



Components of a RISC-V Server Platform

# Goal

Proposal a RISC-V Server Platform Compliant Test Suite to verify and certify that implementations are following related RISC-V Server Platform standards.

# ARM SystemReady ACS - SR




1. https://github.com/tianocore/edk2.git
2. https://github.com/tianocore/edk2-libc
3. https://github.com/tianocore/edk2-test
4. https://github.com/torvalds/linux.git
5. https://github.com/rhboot/grub2.git
6. https://gitlab.arm.com/linux-arm/linux-acs
7. https://github.com/ARM-software/bsa-acs.git
8. https://github.com/ARM-software/sbsa-acs.git
9. https://github.com/ARM-software/bbr-acs.git
10. https://git.gitlab.arm.com/systemready/edk2-test-parser.git
11. https://kernel.googlesource.com/pub/scm/linux/kernel/git/jejb/efitools
12. http://git.buildroot.net/buildroot

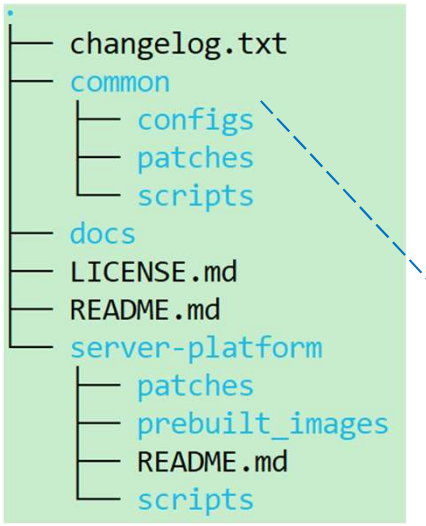
*Porting work are needed!*

https://github.com/ARM-software/arm-systemready

# RISC-V Server Platform CTS Proposal – Repository

Server-Platform TG

Server Platform CTS




1. https://github.com/tianocore/edk2-test.git
2. https://github.com/tianocore/edk2-libc.git
3. https://github.com/????/edk2
4. https://github.com/????/linux.git
5. https://github.com/????/qemu

Include downstream patches

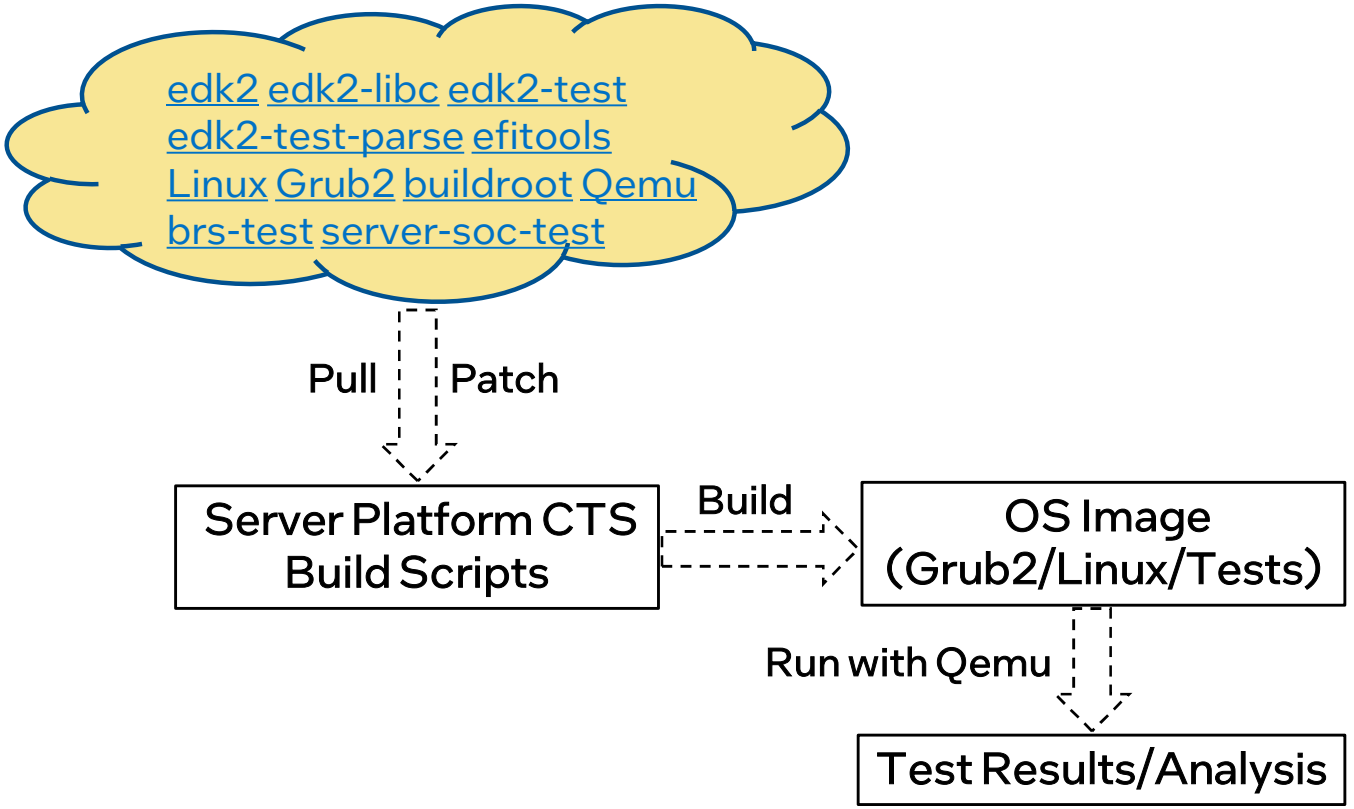
6. https://github.com/rhboot/grub2.git
7. https://github.com/????/server-soc-test.git → Server-SoC TG
8. https://github.com/????/rv-brs-test-suite.git
9. https://github.com/????/edk2-test-parser.git

PRS/BRS TG

10. https://github.com/????/sbi-test.git
11. https://kernel.googlesource.com/pub/scm/linux/kernel/git/jejb/efitools
12. http://git.buildroot.net/buildroot

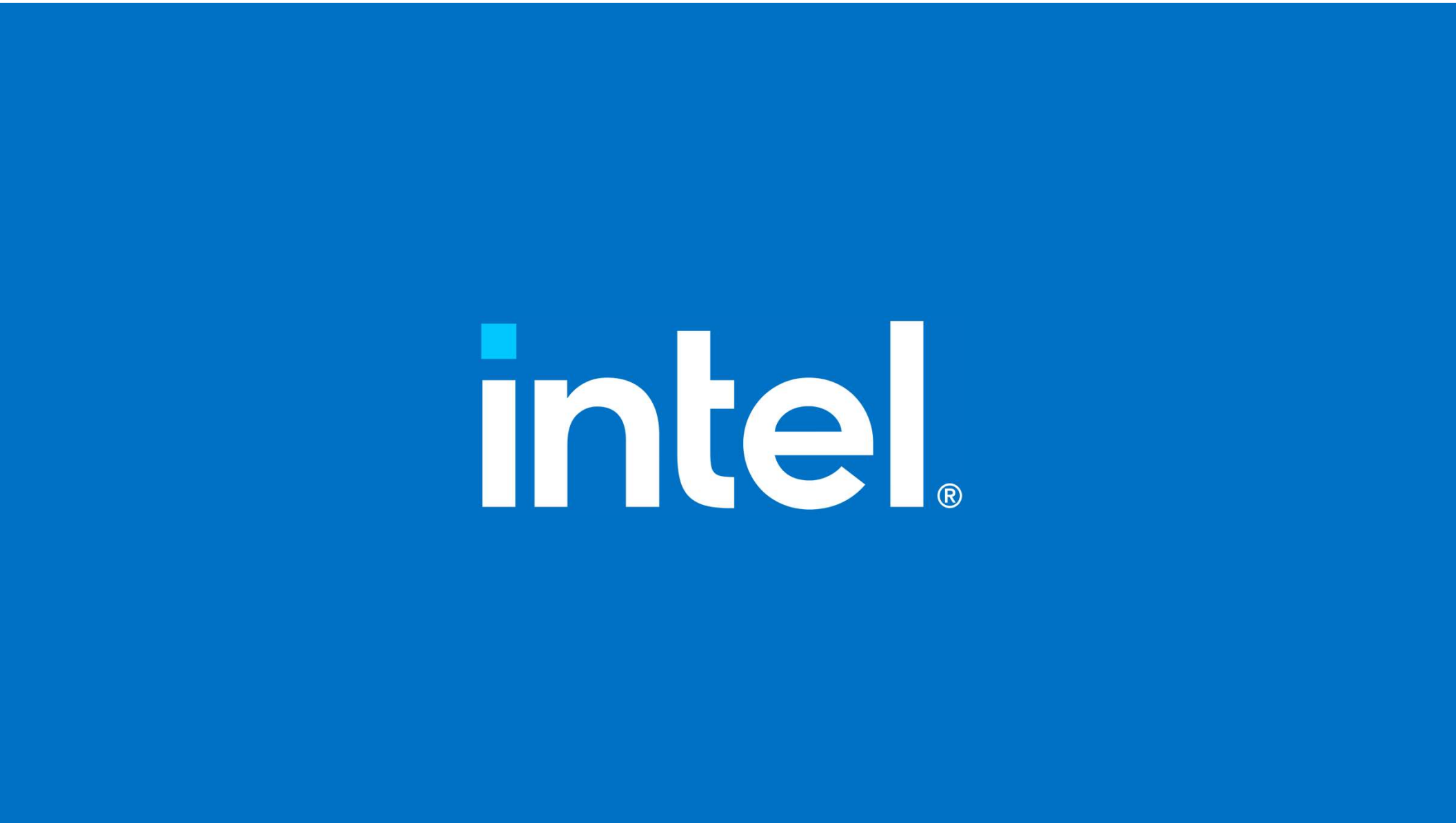
*For supporting other RISC-V platforms in the future.*

# RISC-V Server Platform CTS Proposal – Build/Run



# Action Required

- Setup Server Platform CTS repository
- Sync with Server SoC TG
  - Qemu RISC-V Server SoC machine(ref sbsa-ref);
  - Test cases and repository
- Sync with PRS/BRS TG
  - SBI test and repository
  - BRS test suite repository
- Sync with Security Model TG
  - Server Platform Security Requirement(ref BBSR) and test
- Sync with RISE FW/Kernel WG
  - EDK2 platform package for RISC-V Server Platform(ref SbsaQemu);
  - Linux ACPI/SMBIOS etc.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