

RISC-V Server Platform 1.0

One Spec to Boot Them All

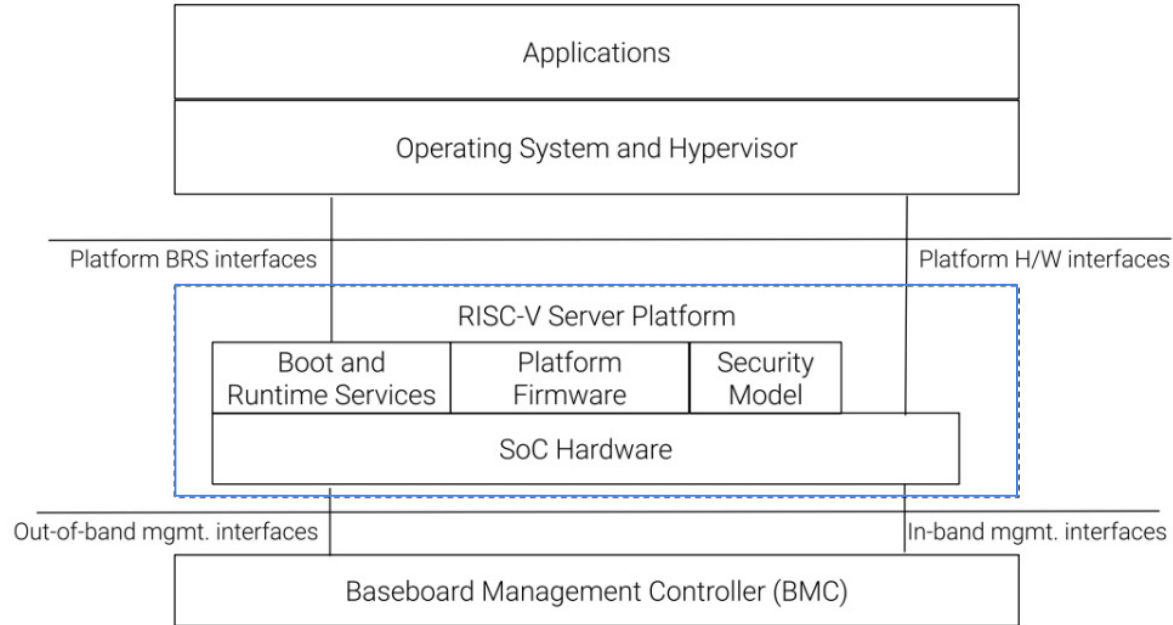
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Agenda

1. Intent
2. Content
3. Task Group
4. Future



Standardized set of hardware and software capabilities



A Server Platform

- Reduce ecosystem fragmentation
 - Sufficient baseline
 - Seamless adoption
- Cloud & Virtualization Hosts
 - Enterprise Linux Servers
 - Storage, Networking & Security Appliances
 - HPC & Research Clusters
 - Edge / Regional Data Center



RISC-V Server Platform 1.0

RVA23S64 Profile

Sstc, Sha, Zic64b,
Zimop, V, etc.

Sv48, Sdtrig,
Sdext, Zkr, Sscfg,
Sstrict, Ssaia

Equivalent harts

Minimal counter
numbers, etc.

Server SoC 1.0

Constant 1ns time

IMSIK

IOMMU

PCIe 6.0

RAS *

QoS *

Management *

PCIe if assignable

Peripherals

UART

XHCI if USB

AHCI if SATA

RTC with Battery

TPM 2.0

BRS-I 1.0

SBI HSM

UEFI

ACPI

SBI DBTR

SBI SSE if RAS

Security Model

RoT

Secure Boot

Authorization

Updates

A joint effort of the Task Group

Alibaba Damo Academy

Andes

BOSC

Canonical

Ventana Micro Systems

AMD

Betrothed Ltd.

ByteDance

Eldorado Research Institute

Tenstorrent

Google

SUSE

Intel

Ratified May 2026

SiFive

Jaguar Land Rover

Scaleway

Samsung

RISC-V International

Qualcomm

MIT

Sanechips

Rivos

Red Hat

NVIDIA

The Future

Test specification

- OS-level tests
- Executables

Server Platform 1.1 or 2.0

- Address feedback
- Integrate Security Model
- Assess ecosystem

Virtual Server Platform

- Devices
- Migration

Meeting every first and third Monday of the month at 17:00 UTC.

<https://github.com/riscv-non-isa/riscv-server-platform>

<https://lists.riscv.org/g/tech-server-platform>

