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- 欢迎在开始的前5分钟进行自我介绍
- 日常八卦在东亚时区RISC-V双周同步微信群中，欢迎加入
- 东亚时区Slides会公开到：https://github.com/cnrv/RISCV-East-Asia-Biweekly-Sync/tree/main/biweekly-meetings仓库，并且默认了CC协议

东亚时区RISC-V双周会

2025年07月10日·第 106 次

https://github.com/cnrv/RISCV-East-Asia-Biweekly-Sync

Host: 朱旭昌

Organizer: PLCT Lab plct-oss@iscas.ac.cn

会议议程（15:00 - 16:00）

- 自我介绍、等待参会者接入、非技术话题八卦（没有的话就直接跳过）
- RVI 的更新和八卦（基本上跟东亚双周会群内消息同步）
- 东亚地区小伙伴的项目更新
- 自由讨论

RISC-V International 同步、全球开源社区八卦（陈逸轩）

[tech-vector-ext]Dawei Li提议以parrallel-prefix-style OR-reduction tree的形式实现 vmhash，因为视频 H266 第一的热点函数是直方图。

[tech-attach-matrix-extension]Philipp上传了slides讨论特定领域的应用，想要删除一些不常用的操作。点击此处参与讨论

[tech-psabi]开始投票选举

[tech-golden-model]开始征集北美峰会投稿，处理了一些pr

[sig-soft-cpu]更新了 Cache Index Operations 和 64b address space in RV32 的 Fast Track Proposal，正在投票中。

RISC-V 中文社区的同步与八卦（杨延玲）

- 重磅，格罗方德收购MIPS：又一家RISC-V公司倒下
- AI芯片新动向：Tenstorrent正式收购Blue Cheetah
- 矽力杰、芯来与Vector携手打造高性能车规RISC-V MCU基础软件平台，加速汽车创新
- Anolis OS 23 架构支持家族新成员：Anolis OS 23.3 版本及 RISC-V 预览版发布
- RISC-V大厂挂牌出售
- 关于RISC-V，看看openKylin最近都做了什么？

RISC-V 德语社区的同步与八卦（罗云翔）

- Codasip board initiates an expedited process to sell the company

  https://www.eenewseurope.com/en/europes-risc-v-processor-developer-up-for-sale/

欧洲RISC-V处理器设计公司Codasip（总部位于德国慕尼黑）正 寻求出售，原因是其投 资者（私募股权基金）希望退出。Codasip 是专注于可定制 RISC-V 处理器 IP 和设计工具的领先企业，其技术被广泛应用于高性能计算、AI 等领域。董事会已启 动“快速程序”（expedited process），预计将高效推进出售事宜，具体 时间表未公开。

- 背景信息：
  - Codasip成立于2014年，专注于RISC-V架构的定制化处理器IP和EDA工具开发。
  - 公司拥有独特的“处理器描述语言”（CodAL）技术，允许客户自定义指令集。
  - 近年来RISC-V生态崛起（替代ARM的开放架构），Codasip成为欧洲该领域的重要参与者。
  - Codasip目前的最大股东是 European私募股权基金（PE），具体为 BGF（Business Growth Fund） 和 Venture Capital（如Credo Ventures等）。BGF 是Codasip的主要投资方之一，曾主导其融资轮次（如2021年的B轮融资）。由于Codasip尚未上市，其股权结构未完全公开，但私募基金持有较大比例，并推动此次出售。
- 产品优势：
  - 模块化IP核：提供从低功耗嵌入式Codasip L31）到高性能多核（Codasip A70）的RISC-V IP解决方案。
  - 定制化能力：客户可通过CodAL语言扩展指令集，优化性能/功耗/面积（PPA）。
  - EDA工具链：Studio工具支持从架构设计到验证的全流程，缩短开发周期。
- 技术优势：
  - CodAL语言专利：允许在高级抽象层面定义处理器行为，自动生成RTL代码，降低设计门槛。
  - 安全扩展：支持RISC-V的物理内存保护（PMP）和自定义安全模块。
  - 异构计算：IP核可集成AI/ML加速指令，适应边缘计算需求。
- 专利布局：
  - 核心专利覆盖处理器自动生成方法（如EP3564809）、CodAL语言编译器（US11294796）等，全球约50+项专利。

RISC-V 德语社区的同步与八卦（罗云翔）

收购Codasip的好处

1. 突破技术封锁：
   - 获取RISC-V高端处理器设计能力，减少对ARM/X86的依赖，规避美国技术管制风险。
2. 增强生态话语权：
   - Codasip是RISC-V国际基金会高级会员，收购可参与标准制定，影响未来架构演进。
3. 市场协同效应：
   - 中国IoT/汽车芯片企业（如华为、地平线）可借助Codasip快速定制处理器，抢占AIoT市场。
4. 技术互补：
   - Codasip的EDA工具可与中国本土EDA企业（如概伦电子）整合，完善国产工具链。
5. 地缘战略价值：
   - 欧洲半导体资产稀缺，收购可建立“中国-欧洲”技术协作纽带，分散供应链风险。

RISC-V 德语社区的同步与八卦（罗云翔）

- Quintauris and WHS Will Work on RISC-V for Automotive

  https://www.quintauris.com/quintauris-wittenstein-partnership/

  合作双方：

  - Quintauris（专注于半导体 IP 和汽车电子）
  - WHS（Würth Elektronik eiSos Group 旗下公司，提供汽车电子解决方案）

  合作目标：

  - 共同开发基于 RISC-V 架构 的汽车电子解决方案，推动 RISC-V 在汽车行业的应用。
  - 重点领域可能包括 车载计算、ADAS（高级驾驶辅助系统）、车载网络和功能安全（ISO 26262）。

  此次合作表明 RISC-V 生态正积极向 汽车功能安全关键领域 渗透，未来可能重塑汽车半导体市场格局。

- ELIV 2025 October 15 - 16, 2025 Bonn World's Largest Congress for Automotive Electronics, Software and Applications
- FeNN: A RISC-V vector processor for Spiking Neural Network acceleration 2025 Neuro Inspired Computational Elements (NICE) 海德堡
- RLFuzz: Accelerating Hardware Fuzzing with Deep Reinforcement Learning University of Würzburg, Germany
- Beyond FinFETs: Transistor-to-GDS Benchmarking of AI Accelerators using Nanosheets and CFETs Technical University of Munich

GCC 进展

- Add basic instrumentation to fusion detection

  https://patchwork.sourceware.org/project/gcc/patch/7012f6c3

- Don’t use vsetivli for THeadVector extension

  https://patchwork.sourceware.org/project/gcc/patch/DB6O3X4PYIRN

- Fix Zc implement relation

  https://patchwork.sourceware.org/project/binutils/patch/20250709045342

- Update p-ext support in Binutils

  https://github.com/ruyisdk/riscv-binutils/tree/p-dev

Clang/LLVM 上游进展

- Merging RISCVToolChain and BareMetal toolchains.

  https://github.com/llvm/llvm-project/commit/f8cb7987c64d

- [RISCV][MC] Support Base P non-GPR pair instructions

  https://github.com/llvm/llvm-project/pull/137927

- The RISC-V SiFive 7-series scheduling model was refactored in order to maximise reuse with the upcoming X390 model.

  https://github.com/llvm/llvm-project/commit/f40909f605fd

  https://github.com/llvm/llvm-project/commit/7a3356951053

- Andes Vector INT4 Load extension(XAndesVSIntLoad) MC、LLVM IR intrinsics、clang intrinsics support

  https://github.com/llvm/llvm-project/pull/147005

  https://github.com/llvm/llvm-project/pull/147493

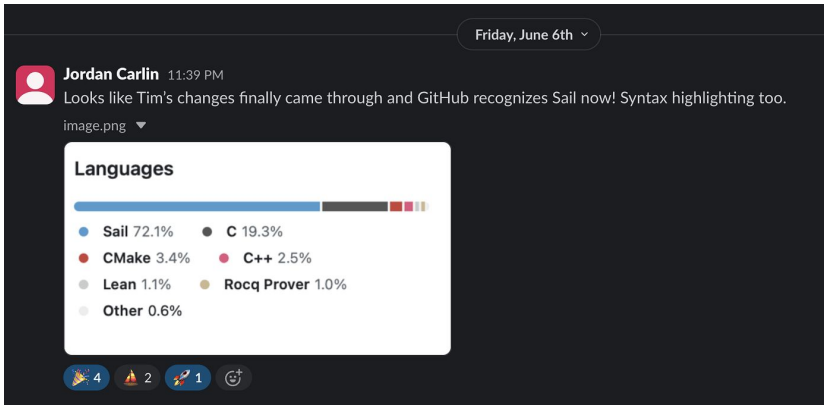
  https://github.com/llvm/llvm-project/pull/147767

Sail/ACT进展 (PLCT)

Sail

- Add support for Sail unit tests #710
- Add mseccfg CSR #1089
- Change XLEN and FLEN to be configure-time options #870
- Auto-enable Vector Crypto superset extensions (Zvkn, Zvknc, Zvkng, Zvks, Zvksc, Zvksg) #1096
- Add config flags to control PMP address mode support #1114
- Fix encoding for `ZBA_RTYPEUW`#1132
- Fix CSR trace output to print correct width based on XLEN #1128
- Fix mhpmeventnh CSR name mappings #1127

SAIL 语言终于被 GitHub 识别并能高亮（syntax highlighting）显示了 🎉🎉🎉



V8 for RISC-V 更新（陆亚涵、邱吉）

1.PLCT合入代码

1.1 maglev中实现优化 6656979: [riscv][maglev] Add some peephole optimisations |
https://chromium-review.googlesource.com/c/v8/v8/+/6656979

1.2 开启wasm deopt测试用例 6652018: [riscv][deoptimizer][wasm] Enable wasm deopt tests |
https://chromium-review.googlesource.com/c/v8/v8/+/6652018

2 审阅合入

2.1 重构lane-size编码方式，直接在opcode中实现 6699489: [riscv] Refactor lane-size encoding |
https://chromium-review.googlesource.com/c/v8/v8/+/6699489

2.2 正确记录Call函数的pc_offset
6652837: [riscv] Use pc_offset_for_safepoint instead of blocking trampolines |
https://chromium-review.googlesource.com/c/v8/v8/+/6652837

2.3 为了避免DEBUG模式下，向量寄存器 检查失败的问题，重构部分向量IR实现方式
6668634: [riscv] Move F32x4 comp functions to code generator |
https://chromium-review.googlesource.com/c/v8/v8/+/6668634

OpenJDK on RISC-V (PLCT 杨飞)

1. Authored/Co-authored JDK-mainline PRs:
- https://github.com/openjdk/jdk/pull/24909 (8355667: RISC-V: Add backend implementation for unsigned vector Min / Max operations)
- https://github.com/openjdk/jdk/pull/24296 (8352251: Implement JEP 518: JFR Cooperative Sampling)

2. Reviewed JDK-mainline PRs:
- https://github.com/openjdk/jdk/pull/25005 (8355699: RISC-V: support SUADD/SADD/SUSUB/SSUB)
- https://github.com/openjdk/jdk/pull/25158 (8356192: Enable AOT code caching only on supported platforms)
- https://github.com/openjdk/jdk/pull/25272 (8357143: New test AOTCodeCompressedOopsTest.java fails on platforms without AOT Code Cache support
- https://github.com/openjdk/jdk/pull/24910 (8355668: RISC-V: jdk/incubator/vector/Int256VectorTests.java fails when using RVV)
- https://github.com/openjdk/jdk/pull/24918 (8355796: RISC-V: compiler/vectorapi/AllBitsSetVectorMatchRuleTest.java fails after JDK-8355657)
- https://github.com/openjdk/jdk/pull/24943 (8355878: RISC-V: jdk/incubator/vector/DoubleMaxVectorTests.java fails when using RVV)
- https://github.com/openjdk/jdk/pull/24950 (8355913: RISC-V: improve hotspot/jtreg/compiler/vectorization/runner/BasicFloatOpTest.java)
- https://github.com/openjdk/jdk/pull/24968 (8355980: RISC-V: remove vmclr_m before vmsXX and vmfXX)
- https://github.com/openjdk/jdk/pull/24983 (8356030: RISC-V: enable (part of) BasicDoubleOpTest.java)

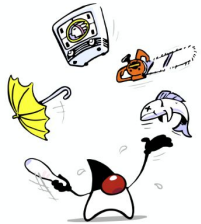
3. AOT support on RISC-V:
- https://bugs.openjdk.org/browse/JDK-8360000 (RISC-V: implement aot)
- https://openjdk.org/jeps/483 (JEP 483: Ahead-of-Time Class Loading & Linking)

JEP 483: Ahead-of-Time Class Loading & Linking

Authors	Ioi Lam, Dan Heidinga, & John Rose
Owner	Ioi Lam
Type	Feature
Scope	JDK
Status	Closed / Delivered
Release	24
Component	hotspot / runtime
Discussion	leyden dash dev at openjdk dot org
Relates to	JEP 514: Ahead-of-Time Command-Line Ergonomics JEP 515: Ahead-of-Time Method Profiling
Reviewed by	Alex Buckley, Brian Goetz, Mark Reinhold, Vladimir Kozlov
Endorsed by	Vladimir Kozlov
Created	2023/09/06 04:07
Updated	2025/05/30 16:06
Issue	8315737

Summary

Improve startup time by making the classes of an application instantly available, in a loaded and linked state, when the HotSpot Java Virtual Machine starts. Achieve this by monitoring the application during one run and storing the loaded and linked forms of all classes in a cache for use in subsequent runs. Lay a foundation for future improvements to both startup and warmup time.



RuyiSDK (Xi Jing, PLCT) （提交人不在线）

- RuyiSDk 包管理器发布v0.37版本：
  - RuyiSDK 包管理器：
    - 新增了基本的命令行自动补全支持，初期支持Bash 与 Zsh 两种 shells。
    - 使用 `ruyi self clean`清除本地数据时，如果新闻已读状态文件不存在，不会报错崩溃了。
    - 拉取远端 Git 仓库失败时，不会将 Python 错误信息暴露给用户了。
    - 只有在文件的下载 URL 协议为 FTP 时，才会为 `curl` 或 `wget` 启用 FTP 被动模式了。这修复了部分 RuyiSDK 用户由于cURL 8.14.1 的 bug 而无法下载任何文件的问题。
    - 重构了 `ruyi` 的捆绑资源处理方式，将其从虚拟环境机制中剥离了，以便后续捆绑其他非虚拟环境相关资源，如命令行自动补全脚本、多语言字符串文件等等。同时，也以 CI 方式确保了 `ruyi` 所含的压缩资源总与原始文件保持同步。
    - 新增了对于 OpenCloudOS 9.4、openEuler 24.03 LTS SP2、openEuler 25.03、openKylin 2.0 的支持情况。`ruyi` 的 Python 依赖包在这些发行版上均有少量缺失，但其余依赖包的版本满足要求，我们预计将在 2025 年 10 月完成对它们的支持。
  - RuyiSDK 软件源：
    - 实体数据库更新：
      - 新增了 SpacemiT X60 微架构。
      - 新增了 SpacemiT K1 处理器型号。
      - 新增了 BananaPi BPI-F3 的 eMMC 与 SD 存储两种设备变体。
    - 完善了设备支持：
      - 更新了 Milk-V Duo（64 & 256M RAM）、Duo S（SD 存储）的 Buildroot SDK。
      - 支持了 BananaPi BPI-F3 的 SD 存储型号，有 SpacemiT 提供的 Bianbu Desktop 与 Bianbu Minimal 两种系统供使用。
- RuyiSDK IDE 插件：实验性新增新的插件 projectcreator来为特定的开发板导入示例演示，并自动配置工具链和定制编译配置。提供了新建项目向导，预置开发板项目模板和自定义构建器用于一键在ruyi虚拟环境内构建项目。
- 操作系统支持矩阵：修复多个系统版本问题，测试SATA启动，更新工具链测试链接。
- https://ruyisdk.cn 网站上线，目前有PLCT实验室超过百名RISC-V开发人员和活跃爱好者帮助回答问题，欢迎注册并参与讨论分享。

详见RuyiSDK双周进展：https://github.com/ruyisdk/wechat-articles

openEuler RISC-V (Jiacheng Zhou)

Status / 20250710

- openEuler 24.03 SP2:
  - Official (RVA20): Released 🎉 [Download]
  - Preview (RVA22+V): Mass-rebuilding

– Updates –

- RVCK (6.6): merged backported fdt-based RISC-V IOMMU support
- OpenSSL: upstreamed SM3 Zbb implementation
- OpenSSL: upstreaming MD5 Zbb & RV64GC implementation
- OpenJDK: upstreaming code cleanup for native call for RV
- OpenJDK: upstreaming fixes for vector test failure for RV

Following releases in 2025

- Late Q3 - openEuler 25.09
- Late Q4 - openEuler 24.03 SP3

Features:

- 6.6-based common kernel for QEMU, SG2042 (Pioneer) & TH1520 (LPi4A) & K1(BPi-F3)
- UEFI-supported Hardware & QEMU images

Images:

- UEFI ISO
- UEFI qcow2 Image w/ Penglai TEE
- Legacy-boot Images for Pioneer & LPi4A

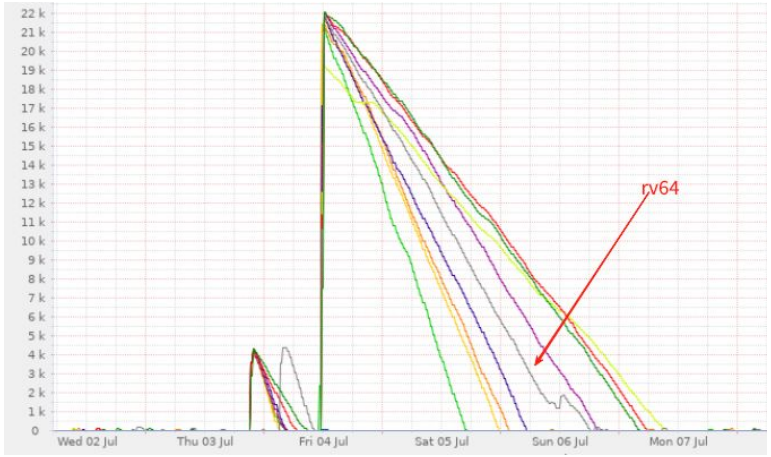
Fedora on RISC-V status update（20250710）

- **RPM packaging (https://www.fedoravforce.com)**
  - Koji Status: **F42, GA on Apr 15**
    - **F41: 23952/24320[98.48%] srpm**
    - **F42: 22470 [92.32%] srpm**
- **main package version:**
  - Toolchain:
    - gcc-15.1.1-2
    - glibc-2.41-5
    - binutils-2.44-3
  - libffi-3.4.6-5
  - java-21-openjdk-21.0.6.0.7-6
  - **java-latest-openjdk-24.0.1.0.9-4**
  - perl-5.40.2-517
  - python3.13-3.13.3-2
  - **llvm-20.1.6-1**
  - **golang-1.24.4-1**
  - rust-1.86.0-1

- Desktop support Fedora 42:
  - **DONE：XFCE/LXDE/GNOME/KDE/Sugar/i3/LXQT/Cinnamon/Sway/Budgie/Mate**
  - Building: **Deepin**
  - **Key Desktop App**
    - **firefox-140.0.1-1**
    - **libreoffice-25.2.3.1-3**
    - **thunderbird-128.9.2-1**
    - **chromium-137.0.7151.119-1**
- Image and REPOs :
  - **https://images.fedoravforce.org**
  - Images: rsync://mirror.iscas.ac.cn/fedora-riscv/releases/41/Spins/
  - REOP: rsync://mirror.iscas.ac.cn/fedora-riscv/releases/41/Everything
- ROS/ROS2 upgraded to F42
- Sail for rawhide[UPSTREAMING]
- function testing for F42:
  - **Podman, Image：fedorariscv/base**
  - Ceph[ONGOING]
  - K8s[ONGOING]

Fedora-V Force

Debian for RISC-V（于波）



- **Official port update**
  0. RISC-V Bof at Debconf25
  1. grub2 illegal instructions on riscv64

- **Debci update**
  1. running well
  2. testing 20K packages whitin 3d now
- **Reproduce-build**
  reproduced > 94.64% for riscv64 trixie
- **Some works**
  1. Redleafos for nanhu v3: boot firmware can be worked
  2. sail is preparing for revew/upload, linksem [upload]

RevyOS (郑景坤, PLCT Lab)

- Notable updates
  - TH1520 / Lichee Pi 4A & Milk-V Meles (No updates this week)
    - Image: 20250526 (Linux kernel 6.6.92)
    - Download Link: LPi4A | Meles
  - SG2042 / Milk-V Pioneer
    - Linux kernel 6.6/6.12/6.14/6.15/6.16 revyos/sg2042-vendor-kernel
      - Full upstream branch at sg2042-upstream-v6.15.y
      - Now boots on real machine!
      - All upstreamed features are backported
      - Upstream kernel source + backported patches
    - Download Link (20250703 image): ISCAS mirror
    - Currently in testing, we're still squashing bugs ;)
  - SG2044 / SRD3-10
    - Linux kernel 6.15/6.16: revyos/sg2044-vendor-kernel
      - All upstreamed features are backported
      - Upstream kernel source + backported patches
      - Now boots on real machine!
    - Download Link (20250703 image): ISCAS mirror
  - AMD ROCm
    - LLM (DeepSeek-R1) now running on RevyOS via ROCm
    - (Some benchmark results on the next pages)
- ROS2 (No updates this week)
  - RevyOS maintains two ROS2 distributions: Humble and Jazzy.
  - jazzy build: 1414/1539 (91.88%)
  - humble build: 658/1787 (92.78%)
  - CI test results:
    - Pass: 38120/38551 (98.88%)
    - Failed: 417, Skipped: 14
    - Total time: 7.83 hours

Supported devices

Image download directory

1. Lichee Pi 4A (w/kernel 6.6)
2. Milk-V Meles (w/kernel 6.6)
3. Milk-V Pioneer (w/kernel 6.6 & 6.12 & 6.14 & 6.15 & 6.16)
4. Lichee Cluster 4A
5. BeagleV-Ahead
6. Lichee Console 4A
7. RISC-V Book
8. Lichee Book
9. SRD3-10 (w/kernel 6.15 & 6.16)

SD card support

1. Lichee Pi 4A (w/kernel 6.6)
2. Milk-V Meles (w/kernel 6.6)

RevyOS

RevyOS ROCm(郑景坤, PLCT Lab)

- Deepseek-R1 llama.cpp benchmark (Radeon RX 7900 XTX, ROCm 6.2.4)

model	size	params	backend	threads	test	t/s
llama 8B Q4_K – Medium	4.58 GiB	8.03 B	ROCm	64	pp512	1121.01 ± 5.21
llama 8B Q4_K – Medium	4.58 GiB	8.03 B	ROCm	64	tg128	51.65 ± 0.73
llama 8B Q4_K – Medium	4.58 GiB	8.03 B	ROCm	32	pp512	1116.23 ± 2.69
llama 8B Q4_K – Medium	4.58 GiB	8.03 B	ROCm	32	tg128	52.18 ± 0.06
qwen2 1.5B Q4_K – Medium	1.04 GiB	1.78 B	ROCm	64	pp512	2682.12 ± 32.95
qwen2 1.5B Q4_K – Medium	1.04 GiB	1.78 B	ROCm	64	tg128	63.86 ± 0.27
qwen2 1.5B Q4_K – Medium	1.04 GiB	1.78 B	ROCm	32	pp512	2688.40 ± 9.68
qwen2 1.5B Q4_K – Medium	1.04 GiB	1.78 B	ROCm	32	tg128	64.20 ± 0.12

```
==========
HSA System Attributes
==========
Runtime Version:         1.14
Runtime Ext Version:     1.6
System Timestamp Freq.:  1000.000000MHz
Sig. Max Wait Duration:  18446744073709551615 (0xFFFFFFFFFFFFFFFF) (timestamp count)
Machine Model:           LARGE
System Endianness:       LITTLE
Mwaitx:                  DISABLED
DMAbuf Support:          YES
```

```
*******
Agent 2
*******
  Name:                    gfx1100
  Uuid:                    GPU-9ce06e413788e54f
  Marketing Name:          AMD Radeon RX 7900 XTX
  Vendor Name:             AMD
  Feature:                 KERNEL_DISPATCH
  Profile:                 BASE_PROFILE
  Float Round Mode:        NEAR
  Max Queue Number:        128(0x80)
  Queue Min Size:          64(0x40)
  Queue Max Size:          131072(0x20000)
  Queue Type:              MULTI
  Node:                    1
  Device Type:             GPU
  Cache Info:
    L1:                      32(0x20) KB
    L2:                      6144(0x1800) KB
    L3:                      98304(0x18000) KB
  Chip ID:                 29772(0x744c)
  ASIC Revision:           0(0x0)
  Cacheline Size:          128(0x80)
  Max Clock Freq. (MHz):   2482
  BDFID:                   768
  Internal Node ID:        1
  Compute Unit:            96
  SIMDs per CU:            2
  Shader Engines:          6
  Shader Arrs. per Eng.:   2
  WatchPts on Addr. Ranges:4
  Coherent Host Access:    FALSE
  Memory Properties:
  Features:                KERNEL_DISPATCH
  Fast F16 Operation:      TRUE
  Wavefront Size:          32(0x20)
  Workgroup Max Size:      1024(0x400)
```

RevyOS ROCm(郑景坤, PLCT Lab)

- rocm-bandwidth-test (Radeon RX 7900 XTX, ROCm 6.2.4)

```
RocmBandwidthTest Version: 2.6.0

Launch Command is: rocm-bandwidth-test (rocm_bandwidth -a + rocm_bandwidth -A)


Device: 0,
Device: 1,  AMD Radeon RX 7900 XTX,  GPU-9ce06e413788e54f,  03:0.0

Inter-Device Access

D/D       0         1

0         1         0

1         1         1


Inter-Device Numa Distance

D/D       0         1

0         0         N/A

1         20        0


Unidirectional copy peak bandwidth GB/s

D/D       0           1

0         N/A         12.829

1         13.192      1016.493


Bidirectional copy peak bandwidth GB/s

D/D       0           1

0         N/A         24.063

1         24.063      N/A
```

FreeBSD ports RISC-V Status (PLCT 蒙卓)

Related issues:

- libunwind: https://github.com/libunwind/libunwind/issues/857
- lang/go*,devel/go-perf: update default website to go.dev: **https://reviews.freebsd.org/D50595**
- sqlite3@default: **https://sqlite.org/forum/forumpost/a92e06fc8fa3ac99**
- lang/python311 构建问题 https://bugs.python.org/issue44733
- devel/zapcc: RISC-V support? https://github.com/yrnkrn/zapcc/issues/53
- devel/cxxtools: build failure https://github.com/maekitalo/cxxtools/issues/36
- devel/hpx: can't link against boost-libs [WIP]
- audio/vsound: Enable riscv64 build https://github.com/freebsd/freebsd-ports/pull/423
- devel/gn: enable riscv64 build https://github.com/freebsd/freebsd-ports/pull/421
- devel/critcl: enable riscv64 build https://github.com/freebsd/freebsd-ports/pull/420
- x11/virglrenderer: enable riscv64 build https://github.com/freebsd/freebsd-ports/pull/418
- chinese/ibus-table-chinese: Update to 1.8.13 https://github.com/freebsd/freebsd-ports/pull/419

riscv64 pkg site: https://mirror.iscas.ac.cn/FreeBSD-pkgs

Sophgo Linux Upstream Status Update（汪辰）

https://github.com/sophgo/linux/wiki [Last updated: Jul/10/2025]

- CV18XX Series
  - Reset, bindings & drivers are applied to reset/next, dts part is applied to sophgo/for-next. Will be pulled in 6.17.
  - Ethernet RFC driver updated to v3,v4 and now drops RFC patch serials and resubmit as two patchsets, one for bindings, another for dts. Binding part is applied to netdev/net-next.git, will be in v6.17.
  - Duo Module 01 EVB board support, picked by sophgo/for-next, will be pulled in 6.17.
  - USB phy patchset updated to v5.
- SG2042
  - SPI FMC/Nor-flash updated to v3.
  - Ethernet support is separated into two patchset and updated to v2.
  - EVB support is updated to v3.
  - Add more sg2042 isa extension support is updated to v3.
- SG2044
  - PCIe dts part is applied to sophgo/for-next, will be pulled in 6.17.
  - more DTS nodes is applied to sophgo/for-next, will be pulled in 6.17.
  - Add PMU support, v1.
  - Add ziccrse extension, v1
  - srd3-10 board reserves uart0 device, v1

Canaan Linux Upstream Status Update（汪辰）

https://github.com/plctlab/linux/wiki [Last updated: Jun/30/2025]

- K230
  - Rest driver v4 is applied on reset/next, will be pulled in 6.17.

RT-Thread (RISC-V) Upstream Status Update（汪辰）

PR list：

- bsp: cvitek:Fix the crash of the SPI driver under the smart mode: https://github.com/RT-Thread/rt-thread/pull/10449
- [bsp/xuantie] 修复bsp的dist功能:https://github.com/RT-Thread/rt-thread/pull/10437

Community News:

- 讨论 RISC-V 中断嵌套支持以及 SMP 支持情况：https://github.com/RT-Thread/rt-thread/issues/10457

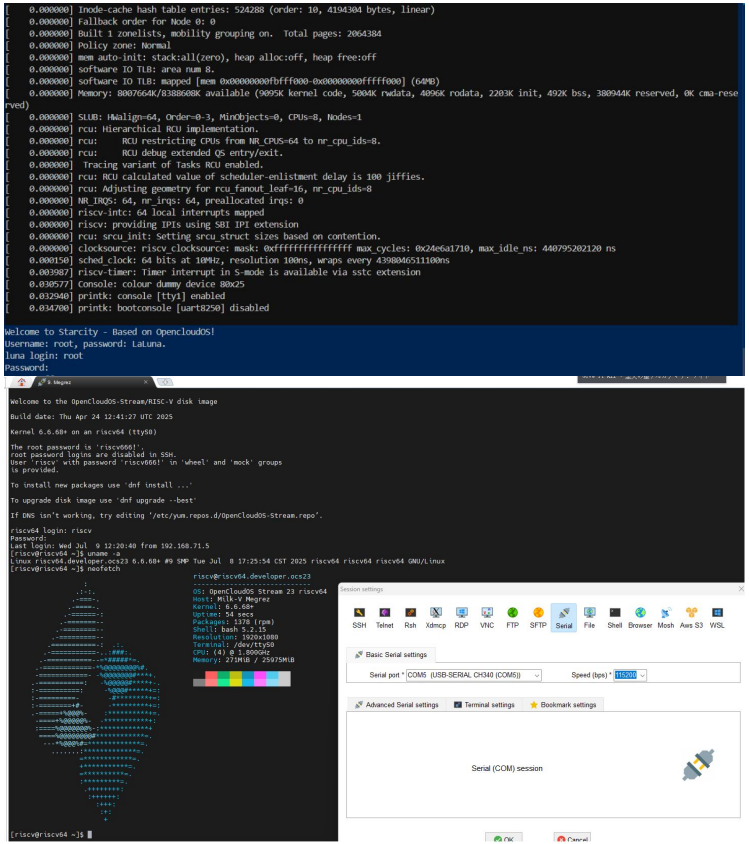
OpenCloudOS RISC-V SIG 进展（汇报人离线）

文档PR列表

- https://gitee.com/OpenCloudOS/Document/pulls/176 SLF4J RISC-V功能测试
- https://gitee.com/OpenCloudOS/Document/pulls/174 基于 QEMU的 EDK2 UEFI固件和GRUB进行启动
- **https://gitee.com/OpenCloudOS/Document/pulls/172** OCS-RISCV上部署whisper.cpp
- **https://gitee.com/OpenCloudOS/Document/pulls/171** Milk-V Megrez 适配进展

后续方向

- Megrez内核调优
- kernel支持VisionFive/VisionFive2
- 对外EDK2 UEFI镜像



OpenSBI（王翔）

- 修复宏传参的问题，参数为自增表达式时被多次展开
  https://lists.infradead.org/pipermail/opensbi/2025-July/008631.html
- 修正fdt中ranges中ranges解析的问题，父节点的地址和子节点的地址宽度可以不同
  https://lists.infradead.org/pipermail/opensbi/2025-July/008646.html
- 修正openpiton_early_init中局部变量未初始化的问题，随机值会影响之后的初始化
  https://lists.infradead.org/pipermail/opensbi/2025-July/008647.html
- 修正K210上编译dts的问题，llvm预处理不会移除编译器指令
  https://lists.infradead.org/pipermail/opensbi/2025-July/008654.html
- 修正重定位代码的符号名，修正的是Relocation addend，从rel改为rela
  https://lists.infradead.org/pipermail/opensbi/2025-July/008658.html
- 重定位代码中的便宜量从寄存器宽度修改为__SIZEOF_LONG__，防止机器字长和ABI不一样
  https://lists.infradead.org/pipermail/opensbi/2025-July/008656.html
- 改进sbi_trap_regs中通用寄存器的定义，方便在获取寄存器时使用索引
  https://lists.infradead.org/pipermail/opensbi/2025-July/008655.html

香山开源RISC-V处理器 - ICT / PCL

- 前端
  - Bug 修复
    - 修复 ICache 请求跨行时，parity 检查可能使用无效结果的问题 (#4814)
  - V3 Feature
    - BPU 顶层流水、新 uBTB、Ahead BTB (#4851)
    - IFU 将预译码的检查从关键路径上移除 (#4849)
- 后端流水线
  - Bug 修复
    - 修复 xtopi 选出条件与选出数据错拍的问题 (#4836)
    - 修复 VTypeBuffer 中指令提交总数、回滚总数等变量在特定参数下位宽计算错误的问题 (#4850)
  - V3 Feature
    - 增加 ROB 可压缩指令类型 (#4114)
    - 协商修改提交时后端通知前端 ftq 的机制 (#4114)
- 访存与缓存
  - Bug 修复
    - 修复向量 segment 指令未成功上报 ecc error 的 Bug (#4831)
    - 对齐 RTL 和 NEMU 对 vleff 指令的 agnostic 设置 (#4820)、(NEMU #906)
    - 修复 Dcache 请求阻塞在 s1 时，extra_meta_resp 信号错误地被覆盖的 Bug (#4842)
    - 修复已被 flush 的一条非对齐访存指令依然错误地进入 misaligned buffer 的 Bug (#4840)
    - 在 sbuffer 清空前，向量 segment 单元应该保持 flush sbuffer 的信号一直拉高 (#4853)
    - 修复一条非对齐向量指令被拆分成两条 对齐的请求后，第二条请求触发异常时上报异常有误的 Bug (#4854)
    - 修复 Dcache 请求缺失后产生的 mainpipe X 态传播 Bug (#4856)
    - 修复向量 unit-stride 指令触发 guest page fault 时，gpaddr 计算有误的 Bug (#4865)
    - 修复断电（退出一致性状态）后 linkactive 在 syscozck==0 前失效的问题 (CoupledL2 #422)
    - 修复 reset 后 exitcoDone 信号错误有效时机的问题 (CoupledL2 #424)
  - V3 Feature
    - 重构 L1 预取框架，包括参数化和去耦合等 (#4790)

自由讨论 / AOB

BACKUP

准备加入更多的国际开源组织进行同步观测

欢迎追加或提议