欢迎第一次加入的伙伴(开会时请从下一页开始展示)

- 开放编辑, 直接点击 request for edit 然后在东亚时区群里at吴伟
- 如果没有找到自己的内容分类, 可以添加1-2页在最开始或中间
- 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RISC-V双周会

2025年03月20日 · 第 99 次

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

Host: 朱旭昌

Organizer: PLCT Lab <u>plct-oss@iscas.ac.cn</u>

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)
- Unratified Specs 的参考实现进展
- 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)

- [sig-vector] 删掉了 vabs 的操作数 .vx 类型、提交了zvzip指令提案
- [sig-hpc] BSC的Roger Ferrer Ibanez 将会介绍 LLVM 的自动向量化
- [sig-academia-training] RVI online hackathon 更新参加详情, 发布题目

RISC-V 中文社区的同步与八卦(聂雨婷)

- 1. <u>进迭时空RISC-V AI CPU K1累计量产超5万颗!</u>
- 2. <u>乐鑫科技拟定向募资17亿元, 其中4亿用于RISC-V芯片研发, 6亿用于建上海研发大楼</u>
- 3. 聚焦细分赛道, 浦东"RISC-V生态街区"助力未来产业发展
- 4. <u>欧洲数字自主(DARE)项目</u>
- 5. 英飞凌将RISC-V引入汽车行业, 并将率先推出汽车级RISC-V MCU系列
- 6. 哈萨克斯坦首颗芯片点亮! RISC-V架构!

RISC-V 韩语社区的同步与八卦

•

RISC-V 德语社区的同步与八卦(罗云翔)

- RISC-V @ embedded world Germany 纽伦堡, March 11 March 13
 - SESSION 4.6 HARDWARE DESIGN, RISC-V Development Ecosystem powered by RISC-V Foundation (105 min)
 - Moving to RISC-V: Is it Really that Difficult? Designing Software to be Futureproof
 - Transforming the RISC-V Landscape: The Path to Ecosystem Alignment
 - How to Enable RISC-V Processor Customization without Re-verifying the Whole Processor
 - SESSION 4.7 HARDWARE DESIGN, RISC-V System Design powered by RISC-V Foundation (105 min)
 - CVA6 MMU-less Virtualization From Hardware to Software, and Vice Versa!
 - Wearable Biomarker Processing using Speckle Plethysmography Based on an Embedded RISC-V ASIP
 - The Benefit of RISC-V for Machine Learning Applications
- Infineon brings RISC-V(MCU) to the automotive industry and is first to announce an automotive RISC-V microcontroller family
 - 英飞凌计划在未来几年推出基于 RISC-V架构的全新汽车微控制器家族,归属于其成熟品牌 AURIX™。在2025年嵌入式世界大会上,英飞凌推出由 Synopsys工具支持的虚 拟原型开发套件,允许合作伙伴在芯片硬件上市前启 动预开发。英飞凌作为全球汽车微控制器市场领导者(市占率 28.5%),是首个宣布汽车级RISC-V方案的半导体厂商。
- RISC-V chips for a digitally autonomous EU: 240 million euros for DARE SGA1
 - 欧盟通过 DARE-SGA1(数字自主性研究与生 态系统构建) 项目, 计划投入 2.4亿欧元,推动RISC-V架构芯片的研发与应用,以减少对非欧洲技术(如Arm/x86)的依赖,增强数字主权。重点领域包括:高性能计算(HPC)、汽车电子、人工智能加速器及低功耗边缘计算。
- Codasip selected to design a high-end RISC-V processor for the EU-funded DARE project
 - Codasip入选欧盟DARE项目(2.4亿欧元), 主导开发高端RISC-V处理器
 - https://codasip.com/press-release/2025/03/06/codasip-selected-to-design-a-high-end-risc-v-processor-for-the-eu-fund e-project/



Pasadena Convention Center Pasadena, California

RISC-V 德语社区的同步与八卦(罗云翔)

- IEEE
 - <u>Domain-Specific Hyperdimensional RISC-V Processor for Edge-Al Training</u>
 - Technical University of Munich
 - 新型16位定点模型及配套处理器架构,旨在解决边缘AI中高精度与高效训练的平衡问题。采用16位定点量化,在保持接近浮点模型精度的同时降低计算复杂度。通过数学函数量化和编码矩阵压缩(最高缩减390倍)显著减少内存需求。推理/训练速度较基线提升6.9倍和3倍,能耗降低4.6倍/1.9倍(面积成本增加45%)。在强量化与近似计算下,推理精度仍维持浮点模型水平。
 - Polynomial Formal Verification of a RISC-V Processor
 - University of Bremen
 - 提出了一种基于二元决策图(BDD)的多项式复杂度形式化验证方法(PFV),用于高效验证复杂处理器设计的功能正确性。利用BDD结构特性,将验证问题转化为多项式复杂度的空间与时间计算,突破传统形式化方法的指数级复杂度瓶颈。针对组合逻辑与时序逻辑子系统设计专用验证流程,结合新型数据结构与代码库提升效率。实现处理器级设计在多项式复杂度下的形式化验证,为大规模系统验证提供理论支持。

RISC-V 日语社区的同步与八卦

RISC-V 中国峰会进展(吴伟)

Clang/LLVM 上游进展

[RISCV][VLS] Support RISCV VLS calling convention

```
https://github.com/llvm/llvm-project/commit/c804e86f558a
```

Codegen for Qualcomm Xqccmp and MC Layer support for Xqcibm, Xqcili

```
https://github.com/llvm/llvm-project/commit/e49180d84c4d
```

https://github.com/llvm/llvm-project/commit/6e7e46cafecc

https://github.com/llvm/llvm-project/commit/e61859f

• [RISCV] Generate MIPS load/store pair instructions

https://github.com/llvm/llvm-project/commit/5048a0858beb

GCC 进展

- gcc近期关闭了在线search commit功能,只能本地进行搜索
- gcc15将在5月份release, 正在修复回归测试中的一些错误

https://gcc.gnu.org/git/?p=gcc.git;a=commit;h=e9888795b8bafe37dc65bd638de0533b842c960a

● 提交了ssnpm/smnpm/smmpm扩展的支持

https://sourceware.org/pipermail/binutils/2025-March/140063.html

● 更新了zilsd/zclsd的支持

https://sourceware.org/pipermail/binutils/2025-March/140027.html

● 提交了xuantie c90x系列的-mcpu选项支持

https://gcc.gnu.org/pipermail/gcc-patches/2025-March/677772.html

QEMU/Spike 进展(呼唤志愿者)

Sail/ACT进展 (PLCT)

- Sail Compiler 0.19 Release
 - Model configuration system
 - Lean4 backend (HIGHLY EXPERIMENTAL)
 - Sail to SystemVerilog improvements
 - Sail to C improvements
 - --c-no-mangle
 - --c-generate-header
- Feature
 - Add unratified Svrsw60t59b extension #797
 - change all mapping guard ifs with when #794
 - Fix vmsof.v condition check and vmxnor.mm
 bit mask #793

- Add unratified Svrsw60t59b extension tests #621
- riscv-arch-test is considering a fairly significant overhaul.
 riscv-arch-test and cvw-arch-verif (based on system verilog) will merge

V8 for RISC-V 更新(邱吉、陆亚涵)

- 1. 6350634: [riscv][turbofan] Inline Adapter's DeoptimizeView into instruction selectors | https://chromium-review.googlesource.com/c/v8/v8/+/6350634
- 2. 6343958: [riscv][wasm][jspi] Remove jump buffer external pointer | https://chromium-review.googlesource.com/c/v8/v8/+/6343958
- 6343957: [riscv][cppgc][heap] Scan simulator stack and registers | https://chromium-review.googlesource.com/c/v8/v8/+/6343957
- 4. 6334906: [riscv][wasm][jspi] Validate the in-sandbox chain of stacks | https://chromium-review.googlesource.com/c/v8/v8/+/6334906
- 5. 5841190: [riscv] Port some patch about v8_enable_external_code_space and sandbox | https://chromium-review.googlesource.com/c/v8/v8/+/5841190
- 6. 6349925: [riscv] Use t2/t4 in Unaligned Load/Store | https://chromium-review.googlesource.com/c/v8/v8/+/6349925

Review Patch:

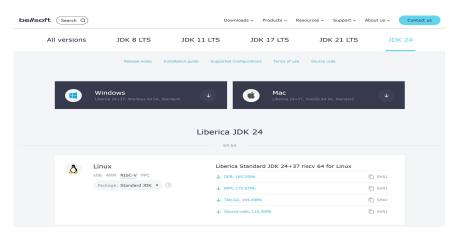
```
6298056: [riscv] optimise type conversions | <a href="https://chromium-review.googlesource.com/c/v8/v8/+/6298056">https://chromium-review.googlesource.com/c/v8/v8/+/6298056</a> 6325791: [riscv64][codegen] Optimize 32-bit compare code generation | <a href="https://chromium-review.googlesource.com/c/v8/v8/+/6325791">https://chromium-review.googlesource.com/c/v8/v8/+/6325791</a>
```

Spidermonkey for RISC-V更新(邱吉、陆亚涵)

OpenJDK on RISC-V (PLCT 杨飞)

1. OpenJDK JDK 24 General-Availability Release

- https://jdk.java.net/24 (aarch64 & x64)
- https://bell-sw.com/pages/downloads/#jdk-24 (riscv64)



JDK 24

This release is the Reference Implementation of version 24 of the Java SE Platform, as specified by JSR 399 in the Java Community Process.

JDK 24 reached General Availability on 18 March 2025. Production-ready binaries under the GPL are available from Oracle; binaries from other vendors will follow shortly.

The features and schedule of this release were proposed and tracked via the IEP Process, as amended by the JEP 2.0 proposal. The release was produced using the JDK Release Process (JEP 3).

Features

- 404: Generational Shenandoah (Experimental)
- 450: Compact Object Headers (Experimental)
- 472: Prepare to Restrict the Use of INI
- 475: Late Barrier Expansion for G1
- 478: Key Derivation Function API (Preview)
- 479: Remove the Windows 32-bit x86 Port
- 483: Ahead-of-Time Class Loading & Linking
- 484: Class-File API
- 485: Stream Gatherers
- 486: Permanently Disable the Security Manager
- 487: Scoped Values (Fourth Preview)
- 488: Primitive Types in Patterns, instanceof, and switch (Second Preview)
- 489: Vector API (Ninth Incubator)
- 490: ZGC: Remove the Non-Generational Mode
- 491: Synchronize Virtual Threads without Pinning
- 492: Flexible Constructor Bodies (Third Preview)
- 493: Linking Run-Time Images without IMODs
- 494: Module Import Declarations (Second Preview)
- 495: Simple Source Files and Instance Main Methods (Fourth Preview)
- 496: Ouantum-Resistant Module-Lattice-Based Key Encapsulation Mechanism
- 497: Quantum-Resistant Module-Lattice-Based Digital Signature Algorithm
- 498: Warn upon Use of Memory-Access Methods in sun.misc.Unsa
- 499: Structured Concurrency (Fourth Preview)
- 501: Deprecate the 32-bit x86 Port for Removal

2. C2 compiler support for Float16 type and associated scalar operations (Zfh & Zfa)

- https://github.com/openidk/idk/pull/23844 (8345298: RISC-V: Add riscv backend for Float16 operations scalar)
- https://github.com/openidk/idk/pull/24047 (8352022: RISC-V: Support Zfa fminm h/fmaxm h for float16)
- https://github.com/openidk/jdk/pull/24081 (8352159: RISC-V: add more zfa support)
- https://github.com/openidk/idk/pull/23509 (8349632: RISC-V: Add Zfa fminm/fmaxm)
- https://github.com/openidk/idk/pull/23171 (8347981: RISC-V: Add Zfa zli imm loads)

Go community work update (PLCT 蒙卓)

1. Authored/Co-authored Go-mainline CLs:

- 647596: runtime: unify C -> Go ABI transitions on riscv64 | https://go-review.googlesource.com/c/go/+/647596
- all: add race support for riscv64 | https://github.com/mengzhuo/go/commit/a1b9b0d4faae07a31c599e00ee73aa6b4f882068 https://github.com/golang/go/issues/64345
- 657515: debug/elf: add riscv attributes definitions | https://go-review.googlesource.com/c/go/+/657515 [merged]
- 659175: cmd/link: generate proper attributes for riscv profile | https://go-review.googlesource.com/c/go/+/659175
- 657036: internal/bytealg: vector implementation of count 1 byte for riscv64 | https://go-review.googlesource.com/c/go/+/657036 (performance gain +2000%)

2. Reviewed Go-mainline CLs:

- 648855: internal/bytealg: clean up and simplify the riscv64 equal implementation | https://go-review.googlesource.com/c/go/+/648855
- 631937: cmd/internal/obj/riscv: implement vector load/store instructions | https://go-review.googlesource.com/c/go/+/631937
- 646775: cmd/internal/obj/riscv: add support for vector integer arithmetic instructions | https://go-review.googlesource.com/c/go/+/646775
- 646736: internal/bytealg: vector implementation of equal for riscv64 | https://go-review.googlesource.com/c/go/+/646736
- 646737: internal/bytealg: vector implementation of compare for riscv64 | https://go-review.googlesource.com/c/go/+/646737
- 646777: cmd/internal/obj/riscv: add support for vector floating-point instructions | https://go-review.googlesource.com/c/go/+/646777
- 646776: cmd/internal/obj/riscv: add support for vector fixed-point arithmetic instructions | https://go-review.googlesource.com/c/go/+/646776
- 652717: doc, cmd/internal/obj/riscv: document the riscv64 assembler | https://go-review.googlesource.com/c/go/+/652717
- 652320: cmd/compile: intrinsify math/bits.TrailingZeros on riscv64 | https://go-review.googlesource.com/c/go/+/652320 [merged]
- 637317: cmd/internal/obj/riscv: fix the encoding for REV8 and ORCB | https://go-review.googlesource.com/c/go/+/637317

总结:

- race detector代码已完成, 支持待合入
- rvv 汇编支持推进中, runtime review完成, 待测试验证
- rvb 汇编支持推进70%, 待SSA和runtime 优化代码 review
- riscv attributes 支持待合入
- 一些工具链错误的修复



RuyiSDK (Xi Jing, PLCT)

- RuyiSDk 包管理器发布v0.29版本:
 - RuyiSDK 包管理器:
 - 修复了 ruyi news list 命令的机读模式(porcelain mode)支持。
 - 为 ruyi news read 增加了机读模式(porcelain mode)支持, 返回格式与 ruyi news list 相同。
 - RuviSDK 软件源格式更新:
 - 不再支持以 JSON 格式撰写软件源全局配置与软件包描述。RuyiSDK 官方软件源已于 0.18 版本完成了升级, 预期不受此变更影响。如您仍未升级您的ruyi 版本, 建议您重新安装 ruyi 并重做虚拟环境(如有)。
 - 为软件包版本描述新增了可选的 upstream_version 字段, 用来记录相应上游对该版本的称呼。由于 RuyiSDK 软件源普遍采用语义化版本, 经常需要对不采用语义化版本的上游版本号进行映射: 新增该字段有助于 RuyiSDK 生态的软件包管理工具正确理解该类映射关系。
 - 为未来的软件包级别的公共信息作了向后兼容的预留。
- RuyiSDK IDE Plugins 插件 v0.0.3 发布,新增 RISC-V 开发板管理功能,支持添加、编辑、删除及设置默认开发板。。
- 操作系统支持矩阵

0

- Add a new RTOS: LiteOS and add LiteOS test report for CH32V307
- BIT-BRICK K1:add new board
- LicheePi4A: update to fedora 41
 - BPI-F3: Update Bianbu v2.0.4 to v2.1
- feat/tools: split customized linux distributions
- LicheePi4A/RevyOS: Remove ruyi-install version
- VisionFive2: add eweOS,update openkylin 2.0 SP1
- feat/tools: remove customized distributions from linux table
- o Pioneer: Bump a bunch of reports
- <u>LicheeRV & Duo & Duo256m & VisionFive2/nixos: fix typo</u>
- Fix: make sys field case insensitive
- Add LiteOS test report for CH32V208, update documents and fix some typos.
- o Add/Update mangopi mg pro (1)
- update Licheepi4A RevyOS 20250123
- IndexUpdator: V1 Version
- o fix: images generation
- VisionFive2: add irradium(core), Bit-Brick K1: update bianbu
- VisionFive2: remove non-existent images

openEuler RISC-V (周嘉诚)

Status / 20250320

- openEuler 25.03:
 - Working on pre-release testing
 - Fixing env. related building issues on Eulermaker
- openEuler 24.03 LTS Service Pack 1:
 - Official (RVA20): Released [DL Link]
 - Preview (RVA22+V): Released [[DL Link]
- Updates
 - RVCK (RV Common Kernel Project)
 - Finishing reviewing K1 enablement patches
 - (WIP) Adding support for Milk-V Megrez
 - OpenSSL: sha256 RVV patches sent upstream
 - ISA-L: adding RVV support for RAID P/Q parity check
 - CI: evaluating 25.03 testing images

Following releases in 1H'25

- Late Q1 openEuler 25.03
- Late Q2 openEuler 24.03 SP2

Features:

- 6.6-based <u>common kernel</u> for QEMU, SG2042 (Pioneer) & TH1520 (LPi4A)
- UEFI-supported Hardware & QEMU images
- Penglai TEE-enabled firmware variants

Images:

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

Gentoo for RISC-V 的情况更新(Gentoo 小队)

Arch Linux RISC-V (Felix & PRZ)

- Apply <u>workarounds</u> for Node.js (GCC bug: https://gcc.gnu.org/bugzilla/show_bug.cgi?id
 =116057)
- Electron 34.x <u>patched</u>, still working on 35.x
 (Good news: it now compiles on SG2042!)
- Linux kernel updated to 6.13.x
- Chromium updated to 134.x
- ROCm updated to 6.3.x
- GCC patched to fix bootstrapping issues:
 - https://github.com/Rust-GCC/gccrs/issues/3424
 - https://gcc.gnu.org/bugzilla/show_bug.cgi?id=119012

- glibc <u>cherry-picked</u> patches:
 - RISC-V: Fix IFUNC resolver cannot access gp pointer by cyy
 - linux: prevent kernel choose addr by itself in mremap test by c10s
- Rust updated to 1.85 with <u>patches</u> for musl.
- Arch Linux upstream starts to <u>accept</u> some RISC-V patches (autoreconf) that x86_64 doesn't explicitly need.
- ... and many other updates.

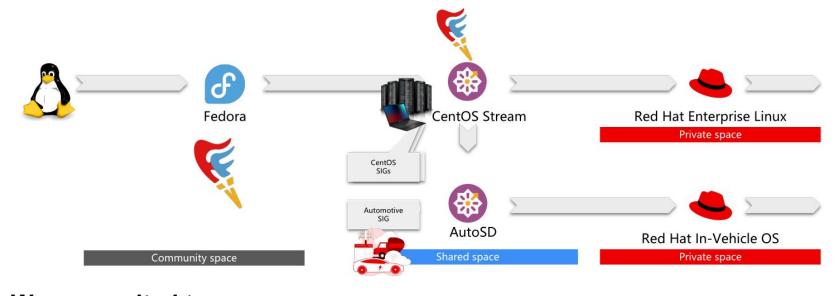
Arch Linux RISC-V (Felix & PRZ) - Electron

Fedora on RISC-V status update (20250320)

- RPM packaging
 - 。 Koji Status: **F41, GA on Nov 12**
 - F41: 23952/24320[98.48%] srpm
 - Rawhide/F42: 21508 [88%] srpm
 - https://www.fedoravforce.com
- main package version:
 - Toolchain: gcc-15.0.1-0.3[upgrading],
 - glibc-2.40.9000-27.0[upgrading],
 - binutils-2.44-3
 - libffi-3.4.6-5
 - java-21-openjdk
 - java-latest-openjdk(22.0.2.0.9)[upgrading]
 - o perl-5.40.1-515
 - o python3.13-3.13.2-2
 - o IIvm-19.1.7-5.0
 - o golang-1.23.3-1[upgrading]
 - o rust-1.85.0-1

- Desktop support Fedora 42:
 - o DONE:
 - building:XFCE/LXDE/LXQT/Cinnamon/Sway/Budgie/Sugar/GNOME/Mate/KDE/Deepin
 - Key Desktop App
 - firefox-131.0-2
 - o libreoffice-24.8.3.2-2
 - Thunderbird-128.8.0-1
 - o chromium-126.0.6478.182-2
 - Image and REPOs:
 - https://images.fedoravforce.com
 - 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
 - <u>Sail</u> for rawhide[UPSTREAMING]
 - function testing for F41:
 - Podman, Image: fedorariscv/base
 - Ceph[ONGOING]
 - K8s[ONGOING]

Fedora/CentOS stream/RHEL





We are excited to announce that work is underway on <u>CentOS Stream 10</u> for the RISC-V architecture within the <u>CentOS ISA SIG</u>.



The Fedora-V Force team is helping to jumpstart the effort.



Debian for RISC-V(于波)

- Official port update
 - 0. Debian Trixie initial freeze 03/15
 - 1. Toolchain package need pre-approval
- Debci
 - 0. Running well
- Some works
 - 1. Unmatched image[repo], gnome-authenticator[timeout on rv64]
 - 2. arandr[sponsor <u>upload</u>], sysdig[<u>patch</u> on rv64], go-jose[backports <u>upload</u>]
 - 3. libdrm [update the patch]

testing/riscv64



RevyOS (郑景坤)

- Notable updates
 - TH1520 (Lichee Pi 4A & Milk-V Meles)
 - New kernel 6.6.82 w/bugfix
 - Milk-V Meles aon/cpufreq issue (#109)
 - Firefox 136.0.1 & Firefox ESR 128.8.0
 - https://support.mozilla.org/en-US/kb/root-certificate-expiration
- Community Additions
 - o RevyOS Docs
 - Kernel compile guide
 - SD card compatibility list
 - Typical applications / Demo
 - Known Issues
 - Known compatibility issues
 - HDMI display compatibility issues (#106, #117)
 - Weak Wi-Fi signal on Meles (<u>#118</u>)
 - Some USB/UVC Cameras are not working (#78)
- ROS2
 - RevyOS maintains two ROS2 distributions: Humble and Jazzy.
 - o jazzy build: 1389/1481 > 1397/1539 (90.77%)
 - o humble build: 1561/1740 -> 1619/1785 (90.7%)
 - CI test results:
 - Pass: 39437/39696 -> 38039/38470 (98.88%)
 - Failed: 417, Skipped: 14
 - Total time: 8.25 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)
- Lichee Cluster 4A
- 5. BeagleV-Ahead
- 6. Lichee Console 4A
- 7. RISC-V Book
- 8. Lichee Book

SD card support

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

Sophgo Linux Upstream Status Update(汪辰)

https://github.com/sophgo/linux/wiki [Last updated: Mar/19/2025]

- CV18XX Series
 - https://lore.kernel.org/linux-rtc/20250309202629.3516822-1-alexander.sverdlin@gmail.com/ RTC 补丁第 13 版
 - https://lore.kernel.org/linux-rtc/20250315224921.3627852-1-alexander.sverdlin@gmail.com/ RTC 补丁第 14 版
- SG2042
 - https://lore.kernel.org/linux-riscv/20250313-sfg-spi-v3-0-e686427314b2@gmail.com SPI 控制器补丁 第 3 版
- SG2044
 - https://lore.kernel.org/linux-kernel/20250307010649.422359-1-inochiama@gmail.com/ MSI 控制器, 第 2 版
 - https://lore.kernel.org/linux-riscv/20250307011623.440792-1-inochiama@gmail.com 以太网控制器第 7 版, Applied to netdev/net-next.git (main), expectd to be pulled in v6.15.
 - https://lore.kernel.org/linux-riscv/20250304083548.10101-1-looong.bin@gmail.com/ SPI FMC, 第 2 版, Applied to spi/for-next, expcetd to be pulled in v6.15.
- [GIT PULL] RISC-V Sophgo Devicetrees for v6.15: https://lore.kernel.org/linux-riscv/PN0PR01MB10393CEC71B623E0A779E7393FEDF2@PN0PR01MB10393.INDPRD01.PROD.OUTLOOOK.COM/ Sophgo:
 - Add pwm controller support for SG2042.
 - Add pwm-fan & cooling maps for Milk-V Pioneer.
 - Updated MAINTAINERS info for SOPHGO DEVICETREES and DRIVERS.

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

PR list:

- [libcpu][risc-v]add comments for rt_hw_mem_setup_early.:
 https://github.com/RT-Thread/rt-thread/pull/10102
- [libcpu][risc-v]处理mmu.c中_unmap_area函数的几处潜在风险或问题: https://github.com/RT-Thread/rt-thread/pull/10107

RFC discussion

- 主线 5.2.0 预发布工作,测试基本完成,本周重点完成 Changelog 的编写。同时讨论了以后改进版本测试和维护工作的计划,譬如完善 github ci 机制,利用 CI 自动化机制定期测试重点维护产品,然后迭代小版本发布;对于大版本发布,再由专业测试团队进行统一测试。尝试利用 githook 机制为 commit 设定 message 模板,统一大家提交的commit message 格式,方便后续统计工作等等。

Box64 RISC-V 进展

OpenSBI(王翔)

- 优化makefile移除不必要的递归扩展变量 https://lists.infradead.org/pipermail/opensbi/2025-March/008172.html
- 根据最新规格在初始化时清除ENVCFG_ADUE
 https://lists.infradead.org/pipermail/opensbi/2025-March/008176.html
- 在ipi发送时有些核心不能接受中断, 添加 错误处理 https://lists.infradead.org/pipermail/opensbi/2025-March/008178.html
- 根据最新规格更新sse https://lists.infradead.org/pipermail/opensbi/2025-March/008190.html
- sbi_mpxy_set_shmem添加参数检测 https://lists.infradead.org/pipermail/opensbi/2025-March/008200.html
- 修正SHMEM_PHYS_ADDR忽略高位地址 https://lists.infradead.org/pipermail/opensbi/2025-March/008201.html
- 简化结构体对象偏移量的检查 https://lists.infradead.org/pipermail/opensbi/2025-March/008202.html
- 移除不必要的列表初始化 https://lists.infradead.org/pipermail/opensbi/2025-March/008203.html

RustSBI团队进展(洛佳)

RustSBI团队进展(洛佳)

香山开源RISC-V处理器 - ICT / PCL(提交人不在线)

- 前端
- IFU 修复 uncache 区域总线返回 corrupt 的处理 ¹ (#4301)
- 后端
- 修复复位时 CSR difftest 框架错误比对的问题 (#4419)
- 修复 CSR 读指令访问 xireg 和 Vtype 时未按序处
- 理的问题 (#4393)、(#4354) 修复 JumpUnit 中高位地址截断异常产生时未正常 发出重定向信号的问题 (#4392) 特定场景下同步释放 JTAG 的 reset 信号 (#4414) 修复 Trigger 中,在特定匹配模式下 pc 与 tdata2 匹配出错的问题 (#4346)

- 修复 AMOCAS 指令重命名出错导致卡死的问题 (#4382)
- 去除只读 CSR 寄存器输出作为写数据输入驱动 的冗余逻辑 (#4412)

访存与缓存

- 添加了 L2 Cache 刷新操作 (CoupledL2 #348) 修复非对齐访存在违例检测和写回唤醒上有关的一系列问题
- (#4333)、(#4359)、(#4369)、(#4426) 修复多核场景下,difftest 不支持向量 load 指令结果检查的 Bug (#4361)
- 修复预取请求错误进入 load RAR queue 导致的功能和性能 Bug
- 修复 Dcache 发生 ECC 或 data error 时的处理逻辑 (#4345)、
- 修复多种虚实地址转换模式混杂导致的例外地址错误的 Bug 0 (#4349)
- 修复 MMU 中,与 TLB 压缩、地址截断、异常处理相关的一系列问 0 题 (#4396)、(#4404)、(#4406)、(#4407) 修复 L2 Cache 中与 CMO 事务相关 Bug (CoupledL2 #382)、
- (CoupledL2 #378)
- 修复 L2 Cache 出现嵌套事务时, 目录命中/缺失相关逻辑;对于 ProbeAck/ProbeAckData 事务, 更新 MSHR 中状态 (CoupledL2 #374), (CoupledL2 #377)

banshanjdk-8 让你的 java8 程序在 RISC-V 平台极限加速

Chisel and Additional Technology / Sequencer

- <u>zaozi</u>:
 - SMT Dialect Support
 - omlib for Object Model parsing
- T1:
 - T1 ZVMA micro architecture
 - Reproducible Build with mill.lock

提交人不在线

OpenHW & OpenHW Aisa Working Group

甲辰计划进展(吴伟)

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