



CIP Technical Steering Committee Meeting

Date: 7th November 2023.

Roll Call

TSC members (Alphabetical order by company name)

Attendees (Please change to **Bold**, if you attend this meeting) (Key shortcut: Ctrl+b)

Company	Members
Bosch	Philipp Ahmann [at the airport, may not be able to join] Sietze van Buuren
Cybertrust	Hirotaika Motai (Representative) Hiraku Toyooka
Hitachi	Hidehiro Kawai (Representative) Takuo Koguchi
Linutronix	
Moxa	Jimmy Chen (Representative)
Plat'Home	Masato Minda (Representative)
Renesas	Chris Paterson (CIP Testing WG Chair) Kento Yoshida Kazuhiro Fujita (Representative) (Voting) Takehisa Katayama (Representative) (Voting)
Siemens	Jan Kiszka (Representative) (Kernel Team Chair) Wolfgang Mauerer (Representative) (Voting) Urs Gleim Stefan Schroeder
Toshiba	Dinesh Kumar Kazuhiro Hayashi (Voting Representative) (CIP Core / Software Update Chair) Venkata Pyla Nobuhiro Iwamatsu (Kernel Maintainer) Shivanand Kunijadar

	Yoshi Kobayashi (TSC Chair)
Denx	Pavel Machek (Kernel Maintainer)
	Ulrich Hecht (Kernel Maintainer)
Linux Foundation	Neal Caidin

Discussions

2024 Budget Planning

Need recommendations for the following sponsorships:

- Project membership
 - Real-Time Linux - \$25K
 - KernelCI - \$50K
 - Reproducible Builds - \$30K (standard Bronze rate)
 - Freexian - LTS - ELTS - need quote
 - LTS \$28,800 - no change in 2024
 - <https://www.freexian.com/lts/debian/>
 - ELTS Debian 8 \$15,375 (\$7000 + \$8375) => **EUR??(5880 + 7035)**
 - Details - https://drive.google.com/drive/folders/1JLEQbQS649vOdPD6E2r2Mz8E05qlwRxT?usp=share_link
 - Prefer a quote for the full year. Does that work within this model?
 - ELTS Debian 10
 - Do we need to clarify the required cost for Debian 10? - **YES please.**
 - <https://wiki.debian.org/LTS/Extended> (from 2024-07)
 - ASAP, by November at the latest
 - **[Nov. 7th] Estimated cost: Approx. 2835 EUR**
 - **This includes “openssl” proposed by Renesas**
 - **See Core WG status update for details**
- Kernel work
 - Denx - 660 hours in 2023 Action: Neal - work with Kernel team
 - Ulrich Hecht - 920 hours in 2023: Neal - work with Kernel team
- Security - status of work with BV? Budget needed for 2024?
- Core and SW Update - no needs?
 - Kazu: Yes no need (ELTS topic is mainly handled by CIP Core WG though)
- Testing
 - LAVA Farms with Denx - \$26,000 in 2023
 - Need to add 1 or 2 M-COM devices
 - Proposal: Budget for \$30k Denx spend in 2024
 - AWS costs (for all of CIP) came to ~\$1k/month in 2023 (apart from the “blip”)

- Proposal: Budget for \$15k spend in 2024
 - TBD: Additional project to prepare/expand testing for more self-maintenance
- Proposal
 - Approve for 4 separated items as the follows
 - 1st: Real time Linux, KernelCI, Reproducible Builds.
 - 25+50+30 = 105K
 - 2nd: Debian LTS and Debian 8, 10 ELTS
 - 28,800 USD + 15,375 USD + 2,835 EUR
 - 3rd: CI testing
 - 30+15 = \$45K
 - 4th: Kernel work (AI: Neal)
 - 5th: Security if needed

OSS Japan Planning

- Planning document:
 - <https://docs.google.com/spreadsheets/d/1chVxJhl9vYWLwTuNDiXaywmPm0hZFYcaeUrY5A88rII/edit?usp=sharing>
 - Action(ALL OSSJ attendees): Signup the above spreadsheet
- Deadlines
 - Polo shirt sizes for those attending - this week
 - List of attendees for Renesas to process for planning and security - November 1st
 - Registration - Siemens is only using 1 of 2 designated passes. We have 5 available for members. Put in your request. If we don't have enough we will let you know asap.
 - Booth Demos
 - 1 pass for Plathome
 - 1 pass for Renesas
 - 1 pass for Toshiba
 - 2 passes will be allocated to Booth staff. (Sign-up place
- Rooms for WG meetings
 - Action(Kazu): Need to decide when and expected attendees

Security Working Group

Items need to be approved by TSC voting members

- None

Status updates

- Siemens members have started creating recipes and also started testing isar-cip-core images on M-COM device
 - a. Isar-cip-core image can boot on M-COM device and integrating Security image features in progress

- b. First 7 devices will be delivered at Siemens office next week and rest 4 in Dec-23
- Next meeting with BV and CIP members is planned on 10th Nov to review and clarify about CIP IEC documents and clarifications
- Updates on ReadTheDocs hosting and pdf generation of [IEC documents](#)
 - a. <https://gitlab.com/cip-project/cip-documents/-/issues/5>
 - b. <https://gitlab.com/cip-project/cip-documents/-/issues/2>
 - c. SWG members have identified PlantUML for creating diagrams in CIP IEC documents, with PlantUML diagrams are rendered correctly in pdf as well as ReadTheDocs format
 - d. Tables having columns with more contents are splitted to fix text overlapping issues in pdf
 - <https://test-update-pandoc-plugin.readthedocs.io/en/latest/security/iec62443-4-2-FR-1/>
 -
 - e. Known issue: In the ReadTheDocs format CIP logo is not embedded correctly
 - f. Investigating integration of gitlab and ReadTheDocs documents

Kernel Team Working Group

Items need to be approved by TSC voting members

- None

Status updates

- **CIP IRC weekly meeting**
 - Logs
 - [Oct 12](#)
 - [Oct 19](#)
 - [Oct 26](#)
 - [Nov 2](#)
- **CIP kernel releases**
 - 4.4
 - v4.4.302-cip80-rt46 on October 28 by Pavel
 - => all on schedule
 - 4.19
 - v4.19.297-cip104 on November 6 by Iwamatsu-san
 - => all on schedule
 - 5.10
 - none
 - => delayed because of pending regression fix on Renesas board
 - 6.1
 - v6.1.58-cip7 on October 16 by Iwamatsu-san
 - v6.1.59-cip8 on October 27 by Pavel

- v6.1.59-cip8-rt4 on October 29 by Pavel
 - => all on schedule
- **LTS discussion**
 - No updates
- **Budget planning next year**
 - Kernel WG expects same efforts next year as in this year
 - @Neal: Please request offers from our suppliers over same amount of hours
 - WARNING: Efforts in 2025 are expected to increase noteworthily
 - 5th SLTS kernel will likely be started
 - 4.19 will enter self-maintenance phase
 - Outlook to 2027: expected effort peak
 - Both 5.10 and 6.1 will enter self-maintenance
 - 4.4 will be EOL
 - one new kernel will be added
- FYI: OSSJ
 - Shibata-san from LF Japan conducted a meeting with GregKH and Sasha Levin and some attendees to discuss LTS during OSSJ (expected Dec 6th).
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CIP Core Working Group

Items need to be approved by TSC voting members

- None

Past minutes

- [past meetings](#)

Status updates

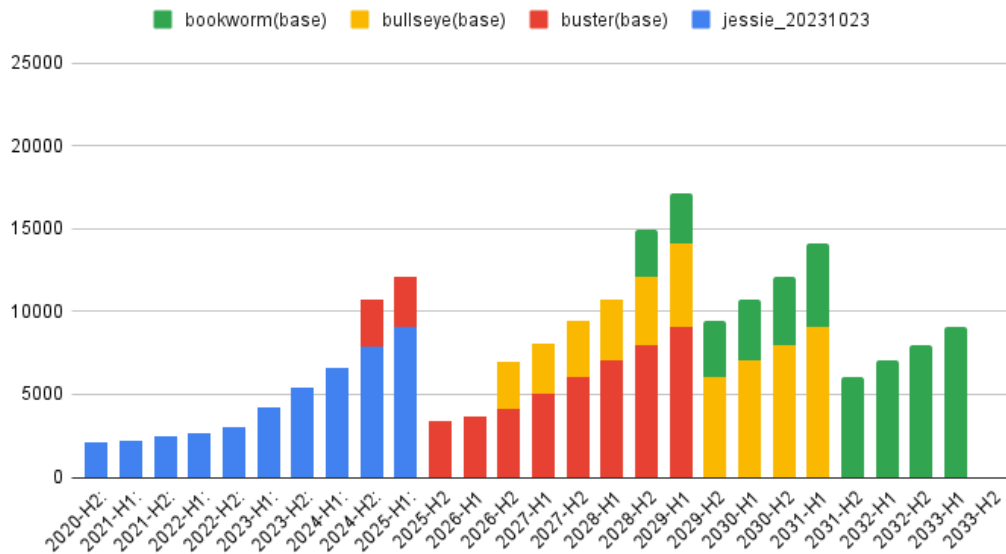
- CIP Reproducible Builds support
 - Status

	Reproducible Build Status			
Target	Files: vmlinuz, initrd, rootfs Features: None Pipeline	Files: vmlinuz, initrd, rootfs, linux.efi, .swu Features: SWUpdate, secure boot, security Pipeline	Filesystem Images: vfat(efi, boot), squashfs(rootfs), ext4(home, var) Pipeline	Disk Images
QEMU AMD64	Reproducible	Reproducible	Not Reproducible	Not Verified
QEMU ARM64	Reproducible	Reproducible	Not Reproducible	Not Verified
QEMU ARMHF	Reproducible	Reproducible	Not Reproducible	Not Verified
BBB	Reproducible	Reproducible	Not Reproducible	Not Verified

- Open issues
 - (WIP) [#58 Diffoscope tool could not verify disk images with partitions](#)
 - (WIP) [#74 ext4 filesystem images are not reproducible](#)
 - (Resolved) [#80 .swu file is not reproducible](#)

- Signing swu file with cms method adds time stamp in the signature, so [avoid this by the "-noattr" option](#)
- isar-cip-core
 - Major updates
 - Make .swu file reproducible
 - Refactor customization recipes
 - New releases
 - (None)
- CIP Core package list
 - Also please check [the email](#)
 - Kazu summarize the package maintenance plan in ELTS & cost estimation for specific package list based on the discussion with ELTS so far
 - https://drive.google.com/drive/folders/133fabGL9jrzmCniWiRamLr2iRbbD9q4s?usp=drive_link
 - PDF: Summary of ELTS status
 - Spreadsheet: The total funding cost required for Debian 8, 10, 11, and 12 packages
 - NOTE: All estimated cost values are "dummy" (See "About cost estimation by ELTS" section in the PDF for details)
 - Purposes of this investigation:
 - 1. CIP needs to decide the total budget for Debian ELTS for next semester (i.e. Debian 8 + 10) by the end of Nov.
 - 2. CIP needs to know total cost to fund ELTS for multiple Debian releases at the same time (Currently, CIP is funding for Debian 8 jessie ELTS, but also planning for 10 and later releases)
 - 3. CIP needs to clarify the current plan of ELTS about 10 years package maintenance, especially security packages like openssl which would require a lot of security fix efforts
 - Conclusion:
 - 1. => Clarified, check the "Cost estimation (base)" sheet "2024-H*" total
 - 2. => Clarified, check the total cost in the "Cost estimation (*)" sheets (security is just for reference to know how much cost will be required when we ask more packages used in the isar-cip-core security image)
 - 3. => ELTS will maintain base packages + openssl at least for 10 years by themselves

Cost estimation: jessie + buster + bullseye + bookworm (base)



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○ Next step

- Check possibility of keeping budget for the total cost for Debian 10 + 11 + 12 (ELTS base system only)
 - The maximum cost (2029-H1): **Approx. 17115 EUR** in total
- If it's possible, Core WG makes the package proposal for Debian 11 and 12
- Check possibility of keeping budget for the total cost for security packages if the Security WG proposed them
- Revise the Debian 10 cost estimation once ELTS provides it

CIP Testing Working Group

Items need to be approved by TSC voting members

- None

Status updates

- The usual LAVA maintenance
- LAVA infrastructure is now running LAVA v2023.10 (the latest supported by lava-docker)
- Sietze is continuing to investigate SQUAD
- Hunter (new contributor on IRC) is starting to investigate sending weekly testing summaries to the kernel team. This should help decode the many test reports received from our CI and from KernelCI
- Starting to properly create backlog so that we can assign tasks to interested developers accordingly, and also identify if there is a suitable work package to contract out
- 2024 budget planning
 - LAVA Farms with Denx - \$26,000 in 2023
 - Need to add 1 or 2 M-COM devices
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- AWS costs (for all of CIP) came to ~\$1k/month in 2023 (apart from the “blip”)
 - Proposal: Budget for \$15k spend in 2024
- Additional project to prepare/expand testing for more self-maintenance
 - TBD

Discussions

- None(?)

Software Update Working Group

Items need to be approved by TSC voting members

- None

Status updates

- (WIP) Support physical boards
 - Secure storage
 - MCOM
 - SWUpdate + Secure boot
 - BBB
 - Renesas RZ/G2M
- (WIP) Secure update framework investigation: SWUpdate + TUF
 - Toshiba: WIP: Prototyping with the simple python library: <https://github.com/theupdateframework/python-tuf>
 - Concept: Evaluate basic combination of SWUpdate & TUF reference implementation
 - Created sample of server & device (on QEMU, with SWUpdate)
 - The server consists of three managers: Metadata, Target, Key
 - Check the basic actions:
 - Server: Create metadata, upload .swu (target)
 - Device: Download metadata, download .swu and install by SWUpdate
 - **Preparing the draft implementation to share with CIP**
 - Planning to make a demo in OSSJ 2023
- (WIP) Evaluating wfx + SWUpdate internally
 - Toshiba: Created a sample implementation of wfx + SWUpdate
 - Server
 - Run a job from DAU workflow
 - Prepare another service to share the update image
 - Request update using wfx’s web API
 - Device
 - Run suricatta that connects to the wfx server
 - Detect the update then receive the update image & install
 - **Preparing the draft implementation to share with CIP**

- Planning to make a demo in OSSJ 2023
- Investigating the ways to use with the TUF reference implementation

Other topics

- Open Source Summit Japan
 - CFP has already closed.
 - Accepted talks
 - Something relate to CIP
 - Proposing the Integration of CIP Kernel into AGL - Hirotaka Motai, Cybertrust Japan Co., Ltd.
 - Secure Software Update for Embedded Devices with SWUpdate and TUF - Koshiro Onuki, Toshiba Corporation
 - Other interesting talks
 - High Stability Rust in Kernel by Kernel CI - Arisu Tachibana, Cybertrust Japan Co., Ltd.
 - Building Hard Real-Time Linux Systems with Xenomai - Jan Kiszka, Siemens
 - SBOM Automation - Making Compliance Effortless by Consuming, Enriching, and Managing Software Bill of Material - Kouki Hama, Toshiba Corporation & Anupam Ghosh, Siemens Technology and Services Private Limited
 - Accelerate Open-Source Community Development for Automotive Industry on R-Car Board - Gaku Inami & Yusuke Goda, Renesas Electronics
 - Object Lifetime Issues - a Threat for Safety? - Wolfram Sang, Consultant / Renesas
- - Call for Booth demo
 - Plat'Home(minmin): I will prepare the demo for IoT. It's my usual demo, but I'm making little progress each time.

- Toshiba: Planning to provide a demo about Software Updates WG topics using physical board(s)
 - Renesas: Planning to provide the same audio demo as the last conference, now using the 6.1 CIP kernel
- AI(Neal): Create a spreadsheet for OSSJ
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- CRA is becoming a more serious issue for open source community and users.
 - <https://digital-strategy.ec.europa.eu/en/library/cyber-resilience-act>
 - <https://debconf23.debconf.org/talks/112-eu-legislation-bof-cyber-resilience-act-product-liability-directive-and-csam-regulation/>
- (DONE) Email to cip-dev: “[cip-dev] projected EOL v4.4 SLTS”

Upcoming TSC meetings

- Regular TSC meeting
 - Date: 21st of November, 2023
 - Start time: 13h UTC. [Local time in your timezone](#)
 - NOTE: DST information
 - US DST start: The second Sunday of March
 - US DST end: the first Sunday of November
 - EU DST start: The last Sunday of March
 - EU DST end: The last Sunday of October
- F2F meeting schedule
 - Date: 4th of December 2023
 - Time: Expected TSC from 9am to 2pm, GB from 2:30pm to 5:00pm
 - Booth setup at conference venue during the GB meeting
 - Place: Renesas HQ office
 - Map: <https://goo.gl/maps/TwfpjjsbGXik7oa29>
 - Registration will be required at the timing of entrance.
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