

# **CIP Technical Steering Committee Meeting**

Date: 14th March 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 (joined 20 minutes late) Sietze van Buuren
Cybertrust	Hirotaka 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 Developer)
Linux Foundation	Neal Caidin

# **Discussions**

# **Security Working Group**

### Items need to be approved by TSC voting members

- MOTION: CIP TSC decide to start discussion and make a contract with BV for IEC62443 certification.
  - Second: Siemens
  - o Results: Approved without any objection.

- Deciding Certification Body for CIP IEC-62443 final assessment (BV or exida)
  - BV and exida both shared the final negotiated cost as below
    - BV cost 90, 000 USD (Including SVV testing)
    - Exida cost 104,000 USD (Including training to CIP members for SVV testing)
  - SWG decided to chose BV after internal voting by all SWG members
    - BV (Renesas, Siemens, Moxa), exida (Toshiba, Bosch)
  - SWG requested Neal and TSC members to consider to start engagement with BV for final assessment
- Siemens M-Com X86 devices for SWG
  - One device would be needed asap
  - o Two devices can be shared late
  - Confirmation from Bosch and BV pending
- CIP Requirements document shared for review
  - https://docs.google.com/document/d/16dX-3coBeZonPGYgsPIOyniT3XYJcbNUu6RcO mrWkAw/edit
  - Document is added in the CIP IEC repository
    - https://gitlab.com/cip-project/cip-documents/-/blob/master/process/CIP\_req uirements.md
- CIP Security hardening document MR under review in SWG
  - https://gitlab.com/cip-project/cip-documents/-/merge\_requests/31
- Share your opinion about how CIP Security images should be generated
  - A detailed email is sent today subject [About CIP Security image generation]
  - Making this decision faster is needed as CIP Core WG members plan to finalize release of isar-cip-core meta data

- Proposal to Create SBOM for CIP package list
  - No update
  - Anyone has any comments or suggestions about SBOM proposal?
  - Following proposal was made by Stefan from Siemens to discuss possibility of supporting SBOM by reusing Debian packages
  - Proposal
    - New legislation in the US and Europe will lead to SBOM (Software Bill of Material) mandates. Currently there are several competing standards (see <a href="https://www.linux.com/news/generating-a-software-bill-of-materials-sbom-with-open-source-standards-and-tooling/">https://www.linux.com/news/generating-a-software-bill-of-materials-sbom-with-open-source-standards-and-tooling/</a>)
    - **Decision needed**: How does the CIP project want to communicate SBOM information to their users? This needs to be coordinated with the core-team.
    - **Suggestion**: Adopt the CycloneDX standard which is well established. Tools exist to create SBOM automatically for Debian (e.g. https://github.com/CycloneDX/cyclonedx-linux-generator)
      - CycloneDX can be used to collect information like below
        - o All installed component types e.g. app, library, container etc
        - Known Vulnerabilities
        - Integrity verification
        - Authenticity of each component by digital signature
        - License compliance
        - Dependency graph
        - o Many more... refer [1]
    - References
      - [1] https://cyclonedx.org/use-cases/
      - [2] <a href="https://cyclonedx.org/tool-center/">https://cyclonedx.org/tool-center/</a>

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# **Kernel Team Working Group**

### Items need to be approved by TSC voting members

None

- CIP IRC weekly meeting
  - Logs
    - Feb 16
    - Feb 23
    - Mar 2
    - Mar 9
- CIP kernel releases
  - 0 4.4

- v4.4.302-cip73 on Mar 13 by Ulrich
- => all on schedule
- 0 4.19
  - v4.19.273-cip92 on Feb 25 by Iwamatsu-san
  - v4.19.276-cip93 on Mar 13 by Iwamatsu-san
  - => vanilla on schedule, rt now due
- o 5.10
  - v5.10.168-cip27 on Feb 25 by Iwamatsu-san
  - v5.10.173-cip28 on Mar 13 by Iwamatsu-san
  - v5.10.168-cip27-rt11 on Feb 25 by Pavel
  - => all on schedule

#### • LTS discussion

- Had a chat with Greg KH in last IRC meeting
- Greg: "given all of the new laws coming into play in the US and EU, long-term kernels
  just are not going to work at all"
- But on his LF slides, he was only referring to regulations in the mobile market
- Greg predicts 3 years max for LTS, will provide 4 years in "transition period", 2 years would be ideal
- We need to follow up with him and ask for explanations, channel still unclear
- Greg also talked about writing a blog post
- Will also reach out to Debian kernel and Debian LTS on their perspective
- CIP announced to test 6.1-LTS
  - https://lkml.org/lkml/2023/3/9/567
- Improving RT stable QA
  - Still under discussion

# **CIP Core Working Group**

### Items need to be approved by TSC voting members

None

#### **Past minutes**

past meetings

- Had a discussion with Freexian to ask to use CIP kernel in Debian ()
  - Discussion point
    - They are required to have a more generic kernel configuration.
  - Action(Kazu)
    - Loop to kernel team for the discussion
- The query from Freexian (Thorsten): Debian 10 buster package list
  - o Renesas requested to add several packages in addition to the current CIP list

- Freexian wants the updated package list by the end of this month (but not mandatory)
- CIP Core will discuss about the additional packages once Renesas shared the formal request
- isar-cip-core:
  - Updates
    - cip-core-image-security: Add support for SWUpdate
    - Enable efibootguard for riscv64
    - add opensbi with u-boot payload for riscv64
    - add linux 6.1 mainline kernel
    - add swupdate support for qemu-riscv64
    - (v5) Encrypt Partition in initramfs
      - (From README) By adding the recipe `initramfs-crypt-hook` to the
        initramfs build user defined partitions will be encrypted during first
        boot. The encrypted partition is a LUKS partition and uses a TPM to
        secure the passphrase on the device.
    - Update Isar revision
    - Update SWUpdate/secure boot documents
    - ... and various fixes (mainly towards the first CIP Core release)
  - o (WIP)
    - Secure storage support (QEMU x86)
    - Enable Images based on Debian 12
  - Release
    - It's now ready to make a release once the version name (WIP) is decided
- CIP reference H/W support
  - Plat'home OpenBlocks IoT
    - Kernel WG is considering if the patch to fix a DMA related issue can be backported to 4.19
  - Siemens M-Com X86
    - Plan: The device would be supported by CIP Core images which is Debian 11+ based

# **CIP Testing Working Group**

# Items need to be approved by TSC voting members

None

- No updates from previous meeting
- Kernel & testing teams have agreed to only keep LAVA lab test logs for 1 year. (Currently we save forever, and the database/log storage is getting very large).
- Talk proposal submitted for EOSS: "LAVA Tutorial: Simple Guide on How To Put Those Old Platforms to Good Use by Putting Them in Your Very Own Board Farm"

- Finally found the cause of the LAVA server running out of storage nightly backups weren't being cleaned up regularly enough due to badly defined cron.
- LAVA version upgrade: In progress
- Backlog tidy up: In progress
- Start CI on all stable kernels: TODC
- Start Cl on RT project trees: TODO

#### **Discussions**

None

# **Software Update Working Group**

### Items need to be approved by TSC voting members

None

### **Status updates**

- Related updates in isar-cip-core
  - o cip-core-image-security: Add support for SWUpdate
  - Enable efibootguard for riscv64
  - add swupdate support for qemu-riscv64
  - Update SWUpdate/secure boot documents
- EFI Boot Guard and SWupdate where EBG is enabled are available in bullseye-backports
  - They would be directly used in isar-cip-core for bullseye image as an option
- (WIP) Support SWUpdate + secureboot on physical boards
  - Renesas RZ/G2M HopeRun HiHope
  - M-COM RT x86 V1
- (WIP) Support secure storage with SWUpdate
  - Targets
    - QEMU ARM : WIP
    - QEMU x86 : WIP (The current main target)
    - Physical boards: TBD

# **Upcoming TSC meetings**

- Regular TSC meeting
  - o Date: 28th of March, 2023
  - Start time: 13h UTC. <u>Local time in your timezone</u>
  - 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