CIP Technical Steering Committee Meeting

Date: 15th February 2022.

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
Cybertrust	**Hirotaka Motai (Representative)** **Hiraku Toyooka**
Hitachi	**Hidehiro Kawai (Representative)** Takuo Koguchi
IoT.bzh	Stéphane Desneux (Representative)
Linutronix	Jan Altenberg (Representative)
Moxa	Jimmy Chen (Representative)
Plat'Home	**Masato Minda (Representative)**
Renesas	**Chris Paterson (CIP Testing WG Chair)** Kento Yoshida Kazuhiro Fujita **Takehisa Katayama (Representative) (Voting)**
Siemens	**Jan Kiszka (Representative) (Kernel Team Chair)** Wolfgang Mauerer (Representative) (Voting) Urs Gleim **Yasin Demirci (Security WG Chair)**
Toshiba	**Dinesh Kumar** **Kazuhiro Hayashi (Voting Representative) (CIP Core /** **Software Update Chair)** Venkata Pyla **Nobuhiro Iwamatsu (Kernel Maintainer)** Punit Agrawal Shivanand Kunijadar

|	Yoshi Kobayashi (TSC Chair)
VES Solutions	Fred Night **Josiah Holder**
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

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Status updates

- **Progress for supporting AIs**:
  - AI Lists: CIP_AI_From_4-1_Gap_Assessment
  - Status: https://gitlab.com/cip-project/cip-security/iec_62443-4-x/-/issues
  - Following is the status of IEC-62443-4-1 & IEC-62443-4-2 AIs
    - 2 released
    - 9 resolved
    - 18 in-progress
    - 20 not-started

IEC Gap Assessment Als Status

Resolved
Not-started
IN-PROGRESS

Not-started

Resolved

19.0

9.0

20.0
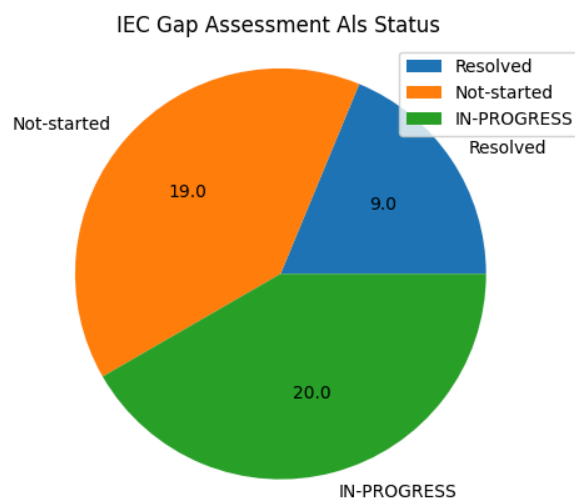
IN-PROGRESS

- CIP Security WG members tasks status

- ○ Toshiba Total = 16 (In-progress: 7, Resolved: 7, Released: 2)
- ○ Renesas Total = 8 (In-progress: 8, Resolved: 0)
- ○ Siemens Total = 4 (In-progress: 4, Resolved: 0)
- ○ Moxa Total = 1 (In-progress: 1, Resolved: 0)
- **Security testing**
    - ○ SWG had a meeting with Chris and Alice on 31.01.
    - ○ Conclusion:
        - ■ We lack expertise on security testing (penetration, fuzz, network storm)
        - ■ Kernel testing seems good, core package testing has to be improved long term
        - ■ We lack resources to drive these topics

            → **Query**: Does a member company have a suitable candidate? Can CIP open a job posting? Otherwise, finishing 62443 certification will be difficult.

            AI: Yasin contacts Jimmy on that topic as MOXA may already have some expertise on this topic.

    - ○ **Update**: MOXA works with an external audit company
        - ○ https://group.bureauveritas.com/markets-services/cybersecurity/industrial-ot-cybersecurity
        - ○ Consulting + security testing for MOXA
    - • Need external help for estimation as well
        - ○ Use the same company as MOXA
        - ○ TSC opinion?
- **General 62443 certification experience**
    - ○ Sharing knowledge would be beneficial
    - ○ Likely confidential/company knowledge
    - ○ How realistic is sharing this knowledge in CIP?
        - ■ E.g. MOXA audit results regarding testing so we know what to do in CIP
- **Survey for 62443 in member companies**
    - ○ Context: The security working group currently plans its schedule to certify CIP according to IEC 62443. If possible, we would like to align this schedule with the member company's certification plans.
    - ○ **Question**: Without declaring your own schedule, when would you like to see CIP be certified for IEC 62443 4-2 SL3? Any specific date or time frame is fine (e.g. in 6 months, End of 22, …).
        - ■ Cybertrust: No hard time requirement.
        - ■ Hitachi: No hard time requirement
        - ■ IoT.bzh:
        - ■ Linutronix:
        - ■ Moxa:
        - ■ Plat'Home: No hard time requirement
        - ■ Renesas:
        - ■ Siemens: No hard time requirement but should not be delayed (asap).
        - ■ Toshiba: No hard time requirement but should be done by End of 22 or earlier.

- - - VES Solutions: No hard time requirement
    - Denx:
  - **Roles and responsibilities**
    - SWG reevaluated: Big changes are not needed right now to fulfill the IEC 62443. We propose this yearly process for maintainer rights only:
      - https://gitlab.com/cip-project/cip-documents/-/blob/master/security/development_environment_security.md#6-policy-for-cip-repository-maintainer-privilege
      - Motion is not yet accepted
        - Plat'Home, Hitachi, Cybertrust, Toshiba, Renesas accepted
        - (Currently a git permission review date is not yet planned.)
      - Feedback: AI: also mention the owner role
  - **CIP AWS access**
    - How are our AWS instances managed? Who has access? How do users authenticate?
      - Chris provided feedback to SWG
        - Some machine accounts have unclear purposes
        - Same rules as for git might be reasonable
  - **Document feedback from EXIDA**
    - Shared 11 finished/almost finished documents
    - EXIDA provides feedback in February
  - **Hardware encryption**
    - Got some feedback.
    - Will present it to the software update working group as they are better prepared to incorporate our idea.

Kernel Team Working Group

Items need to be approved by TSC voting members

- None

Status updates

- **CIP IRC weekly meeting**
  - logs
    - [Feb 3rd](#)
    - [Feb 10th](#)
- **CIP kernel release**
  - 4.4
    - [v4.4.302-cip68](#) on Feb 14th by Iwamatsu
    - [v4.4.302-cip68-rt38](#) on Feb 14th by Pavel
  - 4.19
    - [v4.19.229-cip67](#) on Feb 14th by Iwamatsu
  - 5.10
    - none

- **Self-maintenance of 4.4-cip started**
  - Follow-up email on 4.4 EOF to confirm 4.4-cip maintenance by us to be sent soon
  - Announcing 4.4-stable continuation branch was accepted by TSC via voting, will be done once branches are ready
  - FYI: https://lwn.net/Articles/883684/
- **KernelCI work**
  - CIP Maintainers now have private branches and can trigger runs (still to be confirmed that everything works as it should)
- **Kernel irc bot switch**
  - LF provides such a service already
  - Neal is clarifying migration details
  - No extra costs assumed so far

CIP Core Working Group

Items need to be approved by TSC voting members

- None

Past minutes

- past meetings

Status updates

- IEC-62443-4
  - Will check some examples of security tests used for the actual certification (product level), then discuss what kind of tests can be done in the "platform" level (= CIP Core reference image)
- Reproducible builds
  - Decide the next step to solve the reproducible build issue caused by debconf cache file (/var/cache/debconf/config.dat)
    - 1) Simply remove the cache file, explaining the necessity, to make isar-cip-core image reproducible
    - 2) In parallel, ask Debian community if any ways to achieve reproducible image (e.g. their Live image) with or without this cache file
- isar-cip-core
  - Add the instruction & recipes for swupdate testing (See Software Updates WG)
  - Uprevision the cip-kernel-config to latest one
  - Patches to deploy efibootguardx64.efi as a package (Under review)
    - Deploy efibootguardx64.efi and bg_setenv from .deb package
    - efibootguard: Do not copy the efi binaries directly into DEPLOY_DIR
  - Set default rt-kernel version for bullseye to 5.10
  - etc.
- deby
  - Checking the cause of CI issue: All lava/submit-job.sh are failing

- Testing
  - [No OpenBlocks IoT device available in LAVA](#)
    - Plat'Home is checking missing kernel configs required by LAVA environment, and planning to test locally

CIP Testing Working Group

Items need to be approved by TSC voting members

- None

Status updates

- Work to use Debian compiler for kernel testing almost complete (if no more issues it will be completed today)

Discussions

- None

Software Update Working Group

Items need to be approved by TSC voting members

- None

Status updates

- Patches to add the instruction & recipes for swupdate testing have been merged into isar-cip-core:
  - [README.swupdate.md: add readme file with steps to verify swupdate](#)
  - [Add recipe to cause kernel panic during system boot](#)
  - [swupdate: use latest swupdate handler code](#)
- (WIP) Support ARM targets
  - isar-cip-core image boots in BBB using sd card
  - Investigating changes needed in bootloader scripts and partitions needed for swupdate