CIP mini-summit 2019: Agenda

Date and time: 31\textsuperscript{st} October (8:00 am – 1:00 pm)

<table>
<thead>
<tr>
<th>Time (Length)</th>
<th>Title</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:00-08:15 (15min)</td>
<td>&lt;preparation&gt;</td>
<td></td>
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<tr>
<td>08:15-08:30 (15min)</td>
<td>State of CIP project</td>
<td>Yoshitake Kobayashi and Urs Gleim</td>
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<tr>
<td>08:30-08:50 (20min)</td>
<td>CIP @ Siemens Mobility</td>
<td>Benjamin Schilling / Yasin Demirci</td>
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<tr>
<td>08:50-09:10 (20min)</td>
<td>Power Plants run on Linux CIP</td>
<td>Yoshiyuki Nitta</td>
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<td>09:10-09:30 (20min)</td>
<td>Launching CIP-based Linux distribution</td>
<td>Masashi Kudo</td>
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<td>09:30-10:05 (35min)</td>
<td>Security WG</td>
<td>Kento Yoshida</td>
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<tr>
<td>10:05-10:15 (10min)</td>
<td>&lt;break&gt;</td>
<td></td>
</tr>
<tr>
<td>10:15-10:50 (35min)</td>
<td>Kernel Team</td>
<td>SZ Lin / Nobuhiro Iwamatsu / Pavel Machek</td>
</tr>
<tr>
<td>10:50-11:25 (35min)</td>
<td>CIP Core</td>
<td>Kazuhiro Hayashi / Jan Kiszka</td>
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<tr>
<td>11:25-12:00 (35min)</td>
<td>SW update WG</td>
<td>Akihiro Suzuki</td>
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<tr>
<td>12:00-12:35 (35min)</td>
<td>CIP Testing</td>
<td>Chris Paterson</td>
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<tr>
<td>12:35-12:50</td>
<td>&lt;Wrap up&gt;</td>
<td></td>
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State of CIP Project

Yoshitake Kobayashi, Toshiba Corp., CIP TSC Chair
Urs Gleim, Siemens AG, CIP Board Chair
CIP mini-summit, Lyon, October 31, 2019
28.3%
The key challenges

- Apply IoT concepts to industrial systems.
- Ensure quality and longevity of products.
- Keep millions of connected systems secure.

Industrial grade
- Reliability
- Functional Safety
- Real-time capabilities

Sustainability
- Product life-cycles of decades
- Backwards compatibility
- Standards

Security
- Security & vulnerability management
- Firmware updates
- Minimize risk of regressions

CIP mini-summit 2019
The backbone of CIP are the member companies

Open Source Projects (Upstream work)
Scope of activities

User space

- Domain Specific communication (e.g., OPC UA)
- Shared config. & logging
- Multimedia

Middleware/Libraries

- CIP Core Packages
- Safe & Secure Update
- Monitoring
- Security
- Real-time support
- Real-time / safe virtualization

Kernel space

- Linux Kernel
  - Super Long Term Supported Kernel (STLS)

On-device software stack

Tools

- Build environment (e.g., bitbake, dpkg)
- Test automation
- Tracing & reporting tools
- Configuration management
- Device management (update, download)
- Application life-cycle management

Concepts

- Functional safety architecture/strategy, including compliance w/ standards (e.g., NERC CIP, IEC61508)
- Long-term support Strategy: security patch management
- Standardization collaborative effort with others
- License clearing
- Export Control Classification

Product development and maintenance

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CIP governance structure and projects

Governing Board (GB)

Technical Steering Committee (TSC)

CIP Projects and its scopes

1. SLTS kernel
2. Real-time
3. CIP Core
4. Testing
5. Security WG(*)
6. Software update WG

(*): Workgroup

Industrial grade
Sustainability
Security

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Collaborative development with other OSS projects

Contribute, Collaborate and use by CIP

Upstream Projects
- mainline
- LTS
- debian
- LAVA
- Reproducible Builds
- yocto
- Project
- Real-Time LINUX
- KernelCI
- EDGEX FOUNDATION

Contribute by CIP members as future candidates
- Jailhouse
- fossology
- Fuego
- hawkBit
- 360

1. Upstream first
2. Use the upstream code
3. Integrate

CIP Open Source Base Layer (OSBL)
Collaborative development with other OSS projects

Contribute, Collaborate and use by CIP

1. Upstream first

2. Use the upstream code

3. Integrate

CIP Open Source Base Layer (OSBL)

Contributing by CIP members as future candidates

Jailhouse

CIP mini-summit 2019
CIP joined KernelCI project as a Premier member.
Join us
CIP for sustainable Smart Cities with Open Source Software
Contact Information and Resources

To get the latest information, please contact:

• CIP Mailing list: cip-dev@lists.cip-project.org

Other resources

• Twitter: @cip_project
• CIP Web site: https://www.cip-project.org
• CIP news: https://www.cip-project.org/news/in-the-news
• CIP Wiki: https://wiki.linuxfoundation.org/civilinfrastructureplatform/
• CIP source code
  • CIP GitLab: https://gitlab.com/cip-project
  • CIP kernel: git://git.kernel.org/pub/scm/linux/kernel/git/cip/linux-cip.git
Questions?
Thank you