

Technical Advisory Council (TAC) Meeting

November 17, 2022

This meeting is being recorded.



CONFIDENTIAL COMPUTING
CONSORTIUM

The Confidential Computing Consortium

A community focused on open source licensed projects securing DATA IN USE & accelerating the adoption of confidential computing through open collaboration

Every member is welcome; every project meeting our criteria is welcome.
We are a transparent, collaborative community.

We as members, contributors, and leaders pledge to make participation in our community a harassment-free experience for everyone.

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Agenda

1. Welcome, roll call, introduce any first-time attendees
2. Approval of minutes
3. Action item review
4. Common Terminology whitepaper working session
 - a. Conformance to terminology
5. IETF Hackathon report
6. Occlum Annual Report
7. Common Test Infrastructure
8. 2022/2023 budget
9. TAC election results
10. Outreach / EUAC update
 - EUAC - Richard Searle
 - Landscape - Ben Fischer
11. Any other business

Roll Call, and Introductions of new attendees

Quorum requires **5** or more voting reps:

<u>Member</u>	<u>Representative / Alternate</u>	<u>Email</u>
Accenture	Giuseppe Giordano	giuseppe.giordano@accenture.com
Ant Group	Hongliang Tian (Tate)	tate.thl@antgroup.com
Arm	Thomas Fossati / Michael	thomas.fossati@arm.com
Facebook	Eric Northup / Shankaran	digitaleric@fb.com
Google	Cfir Cohen / Catalin Sandu	cfir@google.com
Huawei	Zhipeng (Howard) Huang	huangzhipeng@huawei.com
Intel	Dan Middleton / Simon	dan.middleton@intel.com
Microsoft	Dave Thaler(*)	dthaler@microsoft.com
Red Hat/IBM	Lily Sturmman / Dimitrios	lsturman@redhat.com

* TAC chair

Etherpad - Meeting Minutes

- <https://markdown.etherpad.com/p/CCC-TAC-Minutes-2022-11-17>
- Join the etherpad and set up your name and text color
 - Meeting attendance - please **add yourself**
 - **Voting Attendees just need to put a “+” next to their name**
- **Please** help make the meeting minutes be more accurate

Approval of TAC Minutes

<https://github.com/confidential-computing/governance/pull/146>

Proposed:

That the minutes of the November 3, 2022 meeting of the Technical Advisory Council meeting of the Confidential Computing Consortium as distributed to the members of the TAC in advance of this meeting are hereby adopted and approved.

Action Item Review

1. [Zongmin/Dan] Mentors to reach out to the project for getting the maintainers involved in Common Test Infrastructure (Gramine not interested), (Occlum is interested - IT administration or just hardware?)
2. [Kurt] to verify that project messaging services are listed on the new website, something similar to eBPF Foundation projects summary
3. [Kurt] see if LF has best practices documentation for growing a community, if not start a document on a CCC wiki page
4. [Kurt] to get more information on how Hyperledger funds a technical project architect/manager (The title used in Hyperledger was "Community Architect") (Need to define job responsibilities)
5. [Kurt] find out who suggested CDCC investigators (DONE) and follow up for future tech talks
6. ~~[Stephano Cetola] to sync with Lily Sturmann on Keystone (Done)~~
7. ~~[Kurt] send out email call for TAG Chair nominations (Done)~~
8. [Dan] work with CNCF to update confidential container definition
9. ~~[Kurt] reach out to Occlum to set up time for annual report (Done)~~

IETF Hackathon report - Thomas Fossati

CCC stickers! :)

Veraison had a successful experience at the event

Parsec, mbedTLS, and Veraison interactions

Attested TLS experience/discussions

Next one in Yokohama in March, then July in San Francisco

Occlum annual report

[governance/project-progression-policy.md at main · confidential-computing/governance \(github.com\)](https://github.com/confidential-computing/governance/blob/main/governance/project-progression-policy.md)

“The review includes the following:

1. Review whether any answers to the project's submission template or Technical Charter have changed, and if so, review the new answers. A representative from the project is responsible for presenting any deltas to the template answers since the last review, if any. If there are no changes, there is nothing to review here.
2. Review the project's progression status to determine whether the project is in the stage that accurately reflects its needs and goals. For example, is it already ready to move to another progression level? Is it on track at the current level? Is any action needed from the TAC (e.g., change in or addition to any project mentor(s))? If nothing has changed significantly, there may be nothing to review here.
3. Review any budget allocations relevant to the project, and whether any adjustments are needed.
4. Review license scans provided by the Linux Foundation. Provide feedback on any outstanding issues and evaluate the scanning service from the project's perspective.

Projects are encouraged to proactively inform the TAC when something changes that affects their submission template or Technical Charter (changing a License, security reporting process, CoC, etc.), rather than waiting for the next annual review.”

Common Test Infrastructure - deferred to 2023

- **Discussion: still desired?**
 - Feedback so far is that it might not be used this year
- **Needing:**
 - LF IT ready to meet for sizing and technical requirements
- Approved: 50K for infrastructure management and 15K for hardware
- Would any project use such infrastructure if it existed?
 - Projects: Enarx yes, OE no, Gramine no, **Occlum ?? (Annual Report)**

TAC Budget

Description	2022 Approved Budget	2022 September YTD	2023 Draft Budget	Notes	Area
License Scanning	\$12,000	\$0	\$0		Project support
Test infrastructure (capital or non-capital)	\$75,000	\$9922	\$60,000	\$10k/project x 6 projects	Project support
IT Services and Collab Tools	\$3,864	\$6,507	\$8,000	website, slack, groups,io	Project support Community development & DCI
Consortium IT Services and Collab Tools	\$100,000	\$0	\$10,000	Misc. budget for use by projects	Project support
Travel expenses	\$0	\$0	\$80,000	\$10k/project x 8 projects	Project support Cross-org coordination
Software licenses	\$10,000	\$0	\$0		Project support
Outreachy (internships/community support)	\$52,000	\$8,000	\$32,000	Outreachy (\$8k x 4 projects)	Community development & DCI Project support
Community management for projects			\$100,000		Community development & DCI Project support
Subtotal	\$257,781	\$17,952	\$290,000		

Election timeline

- FRI Nov 4, 2022: Call for nominations opened
- THU Nov 10, 2022: Call for nominations closed

One nomination, no election required - Dan Middleton, Intel new TAC Chair

- ~~WED Nov 16, 2022: Voting period opens~~
- ~~WED Nov 23, 2022: Voting period closes~~
- ~~TUE Nov 29, 2022: Election results announced~~

Dan to start TAC Chair role Nov 29th (Dec 1 TAC meeting)

Updates from EUAC

- Richard Searle

Updates from Outreach Committee

- Landscape and solutions map - Ben Fischer
- Wikipedia Confidential Computing Consortium page
 - Outreach will use the first whitepaper as a template and TAC will
 - Currently redirects to LF page
 - https://en.wikipedia.org/w/index.php?title=Confidential_Computing_Consortium&redirect=no
 - Alternate effort also do a confidential computing page
- https://en.wikipedia.org/wiki/Trusted_execution_environment
- New Website, status

Establishing common terminology - Whitepaper

Doc in progress:

- <https://github.com/confidential-computing/governance/blob/main/terminology/common-terminology.md>
- LF Creative Services engaged for document conversion and formatting for whitepaper PDF, needs to be finalized for last updates to LF CS
- PR's:
 - [Update common-terminology.md by MikeCamel · Pull Request #134 · confidential-computing/governance \(github.com\)](#)
- Issues:
 - [Terminology: handling of nesting and packaging granularity smaller than TCB · Issue #136 · confidential-computing/governance \(github.com\)](#)
 - [documentation/architecture.md at main · confidential-containers/documentation \(github.com\)](#)

Conformance to terminology - Dave

Various examples across industry:

- IEC 62443
- Vendor self-assertion
- OCF: OCF-generated requirements and contracted certification
- IPv6Ready: IETF-generated requirements but external lab vendor certification
- DISA, NIST: Regulatory body requirements
- NISTIR 8259A: Regulatory body recommendations (not requirements)
- CCC Wikipedia article should follow TAC definitions
- ...

Project	Proposed by	TAC Approved	Tech. Charter	IP Assigned	Board Presentation	Board Approved	Annual Review	Mentor	Webinar
Enarx	Red Hat	31 OCT 2019	Yes	Yes	31 OCT 2019	Yes	10 MAR 2022	Nick Vidal	JAN 2021
OE SDK	Microsoft	31 OCT 2019	Yes	Yes	31 OCT 2019	Yes	24 FEB 2022	Dave Thaler	MAR 2021
Gramine	UNC Chapel Hill	2 APR 2020	Yes	Yes	1 DEC 2021	15 SEP 2021	4 NOV 2021	Eric V	FEB 2022
Keystone	UC Berkeley	23 JUL 2020	Yes	Yes	24 JUN 2021	MAR 2021	13 JAN 2022	Stephen & Lily	JUN 2021
Occlum	Ant Financial	20 AUG 2020	Yes	Yes	10 SEP 2020	15 SEP 2021	2 DEC 2021	Zongmin	MAY 2021
Veracruz	Arm	3 SEP 2020	Yes	Yes	19 NOV 2020	14 APR 2021	18 NOV 2021	Thomas F	APR 2021
CCC-Attestation	TAC	Yes	Yes	N/A	18 MAR 2021	18 MAR 2021	21 APR 2022	Dan & Aeva	21 JUNE 2022
Veraison	Arm	4 FEB 2022	Yes	Yes	16 MAR 2022	18 May 2022		Howard Huang	NOV 2021

Time permitting: Review of open issues and PRs

Current open issues in the Governance repo:

<https://github.com/confidential-computing/governance/issues>

Current open PRs in the Governance repo:

<https://github.com/confidential-computing/governance/pulls>

Any other business / Schedule

Date	CCC Project Review	TAC Tech Talk
3 Nov 2022		
17 Nov 2022		Occlum Annual Report, EUAC Update
1 Dec 2022		
15 Dec 2022		

Tentative TAC talk topics

- Rust Hypervisor firmware: <https://github.com/cloud-hypervisor/rust-hypervisor-firmware>
- Trust domains - Mike?
- Defined-Trust Transport (DeftT) Protocol for Limited Domains - Kathleen Nichols, Van Jacobson, Randy King
- <Kurt: check with CDCC investigators?>
- Relationship between eBPF and Confidential Computing - Dave Thaler

Deferred topics / Backup

Budget as of 9/30/2022

Description	2022 Approved Budget	YTD Actuals thru Sept 22	Sept 2022	Remainder	Notes
License Scanning	\$12,000	\$0	\$0	\$12,000	
Test infrastructure	\$75,000	\$0	\$0	\$75,000	Common \$15k, Project \$60k
IT Services and Collab Tools	\$3,864	\$6,507	\$758	\$3,790	
Non-Capital Equipment		\$4,961	\$0	-\$4,961	Custom Exxact Workstation & Amazon order (Gramine)
Community Support	\$0	\$80	\$0	\$0	
Consortium IT Services and Collab Tools	\$100,000	\$0	\$0	\$100,000	
Hosting and other costs	\$10,000	\$0	\$0	\$10,000	
Internships	\$52,000	\$0	\$8,000	\$52,000	Outreachy
Subtotal	\$257,781	\$17,952	\$8,758	\$239,829	

Areas of CCC Focus

1. Project support, incl. cross-project coordination/communication
2. Cross-org coordination
 - a. Standards orgs: IETF, TCG, **RISC-V**, HomomorphicEncryption.org, ...
 - b. Open-source orgs: CNCF, TrustedFirmware.org, ...
 - c. Government agencies: NIST, BSI, ...
 - d. **Academia: NSF Center for Distributed Confidential Computing**, ...
 - e. **Other technical bodies: MPC Alliance**, ...
3. Additional collateral (whitepaper, terminology, talks)
4. Demos and tech talks in TAC meetings
5. Community development & DCI (diversity, civility, inclusion)

Reference: past TAC tech talk topics

- 2021-10-07: Kata containers
- 2021-10-21: Protecting critical infrastructure
- 2021-12-02: RISC-V security overview
- 2022-01-13: Homomorphic Encryption
- 2022-01-27: OP-TEE and Trusted Services
- 2022-02-10: Confidential computing mentorship
- 2022-03-10: Overview of TCG confidential computing
- 2022-04-07: Governance
- 2022-05-05: IETF Trusted Execution Environment Provisioning
- 2022-05-19: Logging and error reporting in confidential computing
- 2022-06-02: Multi-TEE systems: PCI-SIG WG
- 2022-06-30: Blueprints for Enclaves

Reference: CCC project expectations

CCC projects are expected to:

- Participate actively in CCC activities (webinars, newsletters, events, etc.)
- Notify the TAC and Outreach committees of relevant news
- Participate in an [annual review with the TAC](#)
- Inform the TAC when [dependencies change so records can be updated](#)
- Maintainers should take the Linux Foundation's free [Inclusive Open Source Community Orientation](#) training course
- Transfer trademarks and domain registrations to the Linux Foundation

Code Scanning from the LF

Recap:

- **Intake Scan:** High level scan with an emphasis on finding all open source licenses present in the codebase, and some third party dependencies. We provide a summary report listing the licenses found, including any copyleft licenses and potential license conflicts. We do NOT examine every match to a potential license, and we do NOT provide a detailed file inventory showing where the license matches occur. In order to do any follow up or recurring scans, a full baseline scan will be necessary first.
- **Baseline Scan:** Full scan, where every license match is examined. A detailed report is provided including a complete file inventory for every license match, and detailed findings for any copyleft license or other potential license issues found. This can potentially take significantly longer than an intake scan, depending on the size of the codebase. The baseline scan results are stored and are available for doing incremental / recurring periodic scans.

Reference: CCC project benefits

CCC projects have access to a number of benefits:

- Up to \$7,500 in budget for hardware and software per year.
- Funding for one Outreachy intern.
- TAC mentor assigned to the project.
- Collaboration tools (contact operations@confidentialcomputing.io):
 - Zoom
 - Domain registration and renewals
 - Mailing lists
 - YouTube playlists
- Optional security scanning
- LFX tools (<https://lfx.linuxfoundation.org>).