

Technical Advisory Council (TAC) Meeting

May the 4th, 2023 be with you

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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Etherpad - Meeting Minutes

- <https://etherpad.lfnetworking.org/p/CCC-TAC-Minutes-2023-05-04>
- 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

Agenda

1. Welcome, roll call, introduce any first-time attendees
2. Introduce CCC Executive Director
3. Approval of minutes
4. Gramine progression discussion
5. TAC Goal Topic: Education - Cfir Cohen
6. Action item review / 2023 Goals
7. Update: Attestation SIG - Shanwei Cen, Greg Kostal, Keith Moyer <defer>
8. Tech Talk: VirTEE - Tyler Fanelli
9. Any other business
 - a. Project website funding - Gramine

Roll Call

Quorum requires 4 or more voting reps:

* TAC chair

<u>Member</u>	<u>Representative / Alternate</u>	<u>Email</u>
Accenture	Giuseppe Giordano	giuseppe.giordano@accenture.com
Arm	Thomas Fossati / Michael	thomas.fossati@arm.com
Meta Platforms	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	Lily Sturmann / Yash Mankad	lsturman@redhat.com

Welcome New Community Members

New to the community?

Haven't introduced yourself at least twice?

Let us know

- your name
- where you are joining from
- your main Confidential Computing interest



Welcome (back) Mike Bursell!

CCC Executive Director



Approval of TAC Minutes

<https://github.com/confidential-computing/governance/pull/166>

Proposed:

That the minutes of the April 20, 2023 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.

Gramine Progression to Graduated

Proposal:

<https://docs.google.com/document/d/1gx72Zh8fX7Zg-r7qKk19fFRC4-RXkyGGGno8KueQ4H4/>

Mail list:

<https://lists.confidentialcomputing.io/g/tac/message/1026>

TAC Goal Topic

- Outbound Education - Cfir, et al.
- Draft text:

“We have increased the impact of the CCC in the ecosystem such that...”

“... the ecosystem better understands the strengths and limitations of Confidential Computing”

As measured by:

- We promoted security research papers on each of the technologies in production in 2023.
- We drafted a survey paper highlighting common strengths and weaknesses across technologies.
- ...

Progression discussion

- <https://github.com/confidential-computing/governance/pull/160>
- What additional services do projects want?
 - Gramine: Website
 - Note that existing list came from project requests and voted in by TAC after original policy was created
 - Mentors check in with projects on wishlists (see slide 28)
- Are different tiers / progression levels helpful or necessary?
 - History:
 - initial stage: is it defined enough to accept to the CCC
 - next stage: under development vs in production
 - How to apply criteria to projects with subprojects at different stages?

Project Website Funding

Gramine and Veraison have both asked for website updates

- Rough estimate approximately \$5K each (\$16k for github page)
 - Existing budget allocated \$10K total for all projects for “Project IT Services and Collab Tools” which would cover website redesign
 - Gramine also needing VPS Cloud services from the same budget item
- 1) Gramine VPS could be funded out of “Test Infrastructure/Hardware” budget (\$10K) and that would allow all the 10K from Project IT Services to be used on websites
 - 2) The TAC could get Governing Board approval for additional funding for Project IT Services
 - 3) The TAC could also/instead get approval to allow funding to be shifted from Test to IT
 - 4) Seek competitive bid from outside LF?
 - 5) Associate this spend level with progression level

Action Item Review

1. **[Kurt]** 1/12: Direct LF Creative to export the **TAC whitepaper to markdown** so we can put it under TAC source control.
 - a. 1/26: Update request with LF Creative; 3/9: Copy/Paste problem fixed; Will submit PR(s) before 3/23 TAC meeting
 - b. 3/22: Progress, but not clean to convert back to .md, will try editing source and getting help
 - c. 4/6: Post “source” from LF creative to mail list
 - d. **5/3: <https://github.com/confidential-computing/governance/pull/167> (Done? HW Based TEE?)**
2. **[Howard]** 1/12: Propose description in pull request for **project state sandbox requirements**
 - a. 3/9: Context: More mature lifecycle management.. facilitate more sandbox projects
 - b. 3/23: [All] Please review <https://github.com/confidential-computing/governance/pull/160>; discuss 4/6.
 - c. 4/6: Held discussion in TAC meeting
 - d. **5/3: Treat separately from proposal for website funding tied to project progression**
3. **[Kurt/Helen]** 2/9: work with the Gramine project (Mona V and Eric Voit) to plan website (cost problem ~6 months old)
 - a. 2/28: Gramine updating previous brief for website
 - b. 3/21: HL scheduled kickoff meeting for 3/30
 - c. 3/30: Kurt held kickoff meeting, actions and minutes published, making good progress on brief for quote
 - d. 4/19: Kurt scheduled follow up meeting to discuss next steps
 - e. **4/26: Kurt held follow up meeting, making good progress (Done?)**

Action Item Review (Continued)

5. [Dan/Kurt] 2/9: to look into a communication channel (mail list?) for discussing cross-project security concerns
 - a. 3/21: Mail list created, need mentors to contact their projects for the right person to monitor
 - b. 3/23: Kurt to email TAC mentors to find security mail list monitors (Done)
 - c. 4/20: ~~[Thomas] Veraacruz~~-(contacted: Derek or Mathias); OE (Radhika)
 - d. 5/4: Remaining mentors/projects; Kurt will ping the TAC list again.
6. [Giuseppe Giordano] 3/23: reach out to Cfir Cohen and Eric N for additional input on Outbound Education goals
 - a. 4/14: Update requested.
 - b. 5/3: On agenda for 5/4 meeting <COMPLETE>
7. [Kurt] 3/23: revise the Project review timeline and Tech Talk slides to show current status (In progress)
8. [Kurt] 3/23: get LF CS source SVG for the Venn diagram graphic so it may be editable,
<https://github.com/confidential-computing/governance/blob/main/related-terminology.png> (Done, in GH, pushed attack using power PNG also)
9. [Dan/Kurt] work on a proposal slide for website funding tied to project progression
10. [Dan] to take forward a proposal to the Governing Board for website funding above 10K to come from the Test Infrastructure budget
11. [Dan] to propose addition to Incubation status to cover one-time website or similar benefits

2023 TAC Goals

Working copy: https://docs.google.com/document/d/1BLsl0hv9ybHI-FBNqHp6bJzy6ng8yKs__556bTqBswc

“We have increased the impact of the CCC in the ecosystem such that...”

1. we increased Cross-project Integration [Lily, EricV]
2. the CCC hosts s/w projects adopted by the ecosystem [Dave, Howard, Dan]
3. other organizations reference Confidential Computing [MarkN, Howard, Thomas]
4. grew outbound education [Giuseppe, Cfir, EricN]
5. matured community D&I [Dan, Nick]

2023 TAC Goals

1. (Cross project coordination) [Lily, EricV]
... we increased CCC cross-project Integration, adoption of common code, modules, patterns:
 - a. There exists at least two CCC maintained modules which have been integrated by another CCC project during the year, OR there exist at least two upstream projects that have more than one CCC project as a contributor or user
 - i. as measured by being included as part of the installation process,
 - ii. Or as measured by inclusion in a CCC project as runtime/build time dependencies.
 - b. The TAC sponsors (financially and/or logistically) at least one event with a primary goal cross-project integration which results in the attendance and active participation of code submitters from the majority (currently: 4) of CCC projects.

SIG Update

- Attestation SIG - Shanwei Cen, Greg Kostal, Keith Moyer

Tech Talk

- VirTEE - Tyler Fanelli

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 Goal Topic	TAC Tech Talk
23 Mar 2023	OE SDK - Radhika		SGX Assurance Tool - Alex Berenzon
6 April 2023	GRC - Mark Novak	Progression - Howard	CDCC - XiaoFeng Wang
20 April 2023		xProject - Lily / EricV	
4 May 2023		Education - Cfir et al	VirTEE - Sergio Lopez Pascual (@slp)
18 May 2023	Attestation SIG	D&I - Dan & Nick	Keylime - Thore / Marcio
1 June 2023	Veraison		Bao Project - Sandro / Howard
15 June 2023			Fan Zhang - CDCC second talk?

Next Agenda (2023-05-18)

1. Welcome, roll call, introduce any first-time attendees
2. Approval of minutes
3. Action item review
4. 2023 Goals
 - a. Progression: Graduation Stage Requirements (Dave)
 - b. TAC Goals: D&I (Dan & Nick)
5. Annual Report/Update: Attestation SIG
6. Tech Talk: Keylime
7. Any other business
 - a.
 - b.

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	Lily	JUN 2021
Occlum	Ant Financial	20 AUG 2020	Yes	Yes	10 SEP 2020	15 SEP 2021	17 NOV 2022	Tate Tian	MAY 2021
Veracruz	Arm	3 SEP 2020	Yes	Yes	19 NOV 2020	14 APR 2021	18 NOV 2021	Thomas F	APR 2021
Veraison	Arm	4 FEB 2022	Yes	Yes	16 MAR 2022	18 May 2022	TBD	Howard Huang	NOV 2021

SIG / WG	Proposed by	TAC Approved	Tech. Charter	Board Presentation	Annual Review	Mentor	Webinar
CCC-Attestation SIG	TAC	Yes	Yes	18 MAR 2021	21 APR 2022	Dan	21 JUNE 2022
GRC SIG	TAC	Yes	Yes	21 SEP 2022	Quarterly	Mark Novak	

Deferred topics / Backup

Conformance to Terminology

- [Spreadsheet](#) - Dave Thaler
 - Reactions to a recent post

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
- ...

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 LFX mentorship
- 2022-03-10: Overview of TCG confidential computing
- 2022-04-07: Governance
- 2022-04-21: Code Scanning via LFX Security
- 2022-05-05: IETF Trusted Execution Environment Provisioning (TEEP)
- 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
- 2022-09-22:
- 2022-10-06: HC / RISC-V Security
- 2022-12-01: Best Practices for Creating an Inclusive Community
- 2023-02-25: RISC-V AP-TEE
- 2023-03-09: eBPF
- 2023-03-23: SGX Assurance Tool

Tentative TAC Tech Talk topics

- Trust domains - Mike?
- Defined-Trust Transport (DeftT) Protocol for Limited Domains - Kathleen Nichols, Van Jacobson, Randy King
- CDCC research updates
- Relationship between eBPF and Confidential Computing - Dave Thaler

TAC Budget (From approved budget 2/28/23 Final)

Description	2022 Approved Budget	2023 Approved Budget	Notes	Area
License Scanning	\$12,000	\$0	LF Security	Project support
Test infrastructure (capital or non-capital)	\$75,000	\$60,000	\$10k/project x 6 projects	Project support
IT Services and Collab Tools	\$3,864	\$15,000	website, slack, groups.io	Project support Community development & DCI
Consortium IT Services and Collab Tools	\$100,000	\$10,000	Misc. budget for use by projects	Project support
Staff Travel	\$0	\$60,000	\$10k/project x 6 projects	Project support (combined with other travel)
Hosting and other costs	\$10,000	\$0	Software	Project support
Outreachy (internships/community support)	\$52,000	\$32,000	Outreachy (\$8k x 4 projects)	Community development & DCI Project support
Community Support		\$100,000	Part-time Technical Architect	Community development & DCI Project support
Subtotal	\$257,781	\$277,000		

Annual report

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

“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.”

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

Reference: CCC project benefits

CCC projects have access to a number of benefits:

- Up to \$10K 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
 - Slack
- Optional security scanning
- LFX tools (<https://lfx.linuxfoundation.org>)

Reference Common Test Infrastructure

- **Summary:**
 - Projects preferred per project funding. No demand for common infrastructure. Approvals retained here for reference.
- **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)**

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