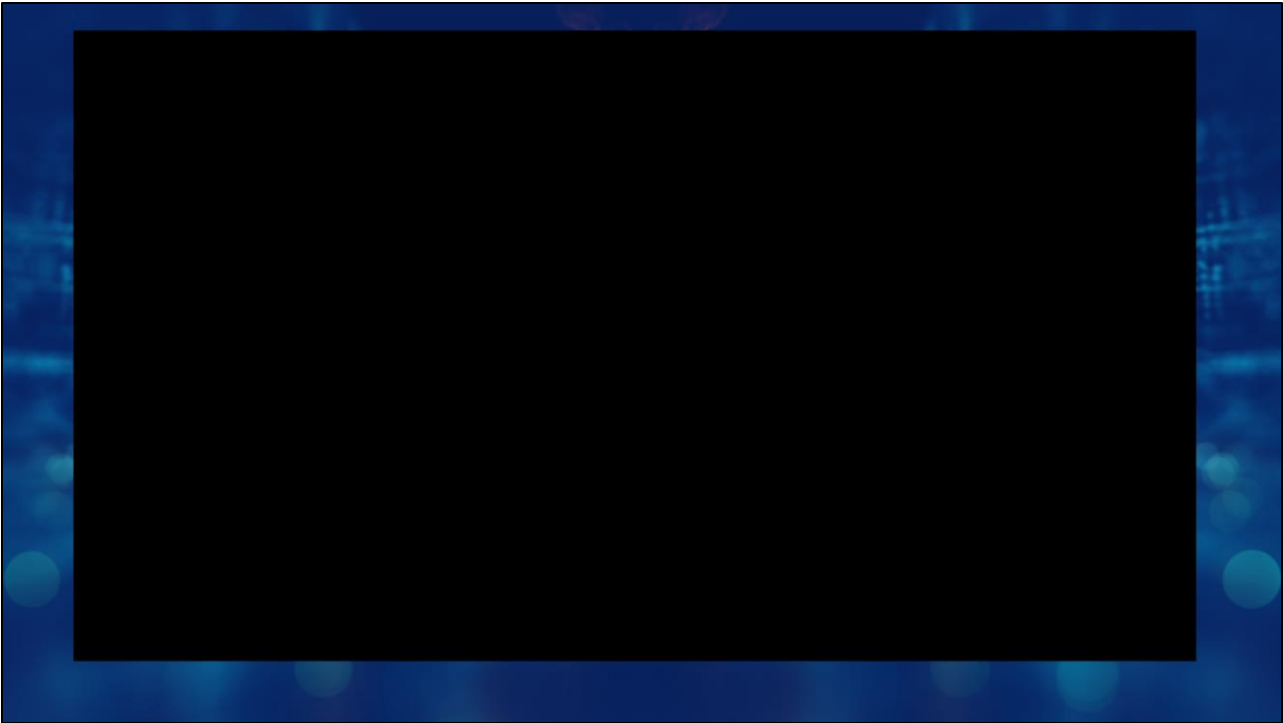




DTPM SIG E-Trace-Encap TG


13-Dec-2023

Meeting minutes are in the speaker notes for the relevant slide



Agenda

- Disclosures
- E-Trace packet encapsulation
- Maintenance
- Competitive Analysis
 - Priorities for next year?
- AOB

- PD** Paul Donahue (Ventana) (Me)
- IR** Iain Robertson (Siemens)
- RC** Robert Chyla
- BS** Beeman Strong (Rivos)
- BA** Bruce Ableidinger (SiFive)
- JG** Jay Gamoneda (NXP)
-  Ken Dockser (Tenstorrent)
- MS** Michael Schleinkofer (Lauterbach)



Attendees: see screenshot on the agenda slide

E-Trace Packet Encapsulation

- Chair: Iain Robertson, Vice-chair: Paul Donahue
- Reflector: tech-e-trace-encap@lists.riscv.org
- githubs: <https://github.com/riscv-admin/e-trace-encap>, <https://github.com/riscv-non-isa/e-trace-encap>
- DTPM SIG and E-Trace-Encap meetings will co-exist
- Adoc spec: <https://github.com/riscv-non-isa/e-trace-encap/blob/main/e-trace-encap.pdf>
- Spec complete and ready for ratification.
- Ratification plan reviewed at Tech Chairs today.



- RC: Ratification date in May is far away but spec is ready to go today.
- IR: HC wants us to do a proof of concept above and beyond the Siemens PoC. The TG also has not done things in the optimal order.

Maintenance (E-Trace)

- Clarification on push/pop support for data trace
 - Examples added to section 4.3 and pull request made
- Proposal to change description of tail call itypes to 'jumps'
 - Beeman generated pull request
- Typo spotted in data trace packets: *index_width_p* should be *lrid_width_p*
 - Iain generated pull request
- Update control section to reference common control document
 - Feedback incorporated and all issues resolved. A couple of clarifications for Common Control raised
- All changes approved for inclusion in 2.0.1. Just need to complete merge



- RC: Would it be better to wait for the completion of the trace control spec? It is close to ratification.
- IR: It's referencing the document but it doesn't need to wait.
- RC: What is the process to make 2.0.1?
- IR: There are no normative changes so it just needs to be approved by the HC. There was some feedback and minor changes made.

Competitive/Gap Analysis

- Spreadsheet:
 - Located in *for risc-v members/Workgroups/Debug Trace Performance Monitoring* RVI Google Drive
 - <https://docs.google.com/spreadsheets/d/1l0N-E-hTjFj3jkPrjsLitso4hACDajayNwh35F4KUfs/edit#gid=0>
- External Debug Security TG up and running.
 - Joe Xie acting chair; Gokhan Kaplayan acting vice chair
- Priority activities for next year?



- RC: N-Trace may want to add some additional things but this won't be brought up until after ratification.
- BS: We might want a future TG for self-hosted trace.
- RC: N-Trace supports RAM sinks today.
- IR: But this is about controlling trace.
- BS: CSR interface, buffer that supports virtual addressing, etc.
- JG: Brought this up previously. Glad to see that others are interested.
- BS: Trick with MMIO is to enforce that only my

core can access my core's control registers.

- IR: Everything today has been developed from the point of view of off-chip debuggers. Self-hosted is possible but it's not optimized for that. There's room for improvement.
- IR: Let's frame the issue in a way that can start the discussion.
- BS: Early next year I will bring high-level thoughts.
- We should monitor the secure external debug TG. RC and PD attended the recent meeting.
- Send gap analysis items by email if you have them.

Future Meetings / AOB

- From Jan, meetings will be 30mins at 10am Pacific every 4th Tuesday, starting Jan 9th
- AOB



Meetings are on weeks 2, 6, 10, 14, 18, ... (not the fourth week of the month)



Thank You

