

Aug 24, 2023 | 📅 RISC-V Control Transfer Records TG Meeting

Attendees: tech.meetings@riscv.org Beeman Strong Bruce Ableidinger

Notes

- **Attendees:** Beeman, DavidW, BruceA, JohnS, SnehasishK, RobertC
- **Slides/video** [here](#)
- **Opens**
 - Bruce: can you share Qemu patches? Rajnesh will.
 - S*csrind needs at least one more week in ARC review
 - Tech talk will be reprised (though shorter) at RISC-V Summit in CA
- **WRAP**
 - Continuing discussion from last time
 - 2-bit WRAP only useful for stitching between consecutive samples
 - Linux stitching doesn't work that way, just looks for overlap between any samples
 - 1-bit WRAP can be useful for knowing how many entries are valid, if:
 - RASEMU=0
 - SW sets CLR after each collection
 - Plan to stick with 1 WRAP bit for now
- **Extension splitting**
 - Idea: speed approval of our base capability by having submitting 2 extensions, base and enhanced. Could also push some pieces to a future extension.
 - Have not discussed this idea with ARC to see if it has merit and would actually help. Beeman will do that.
 - Bruce: would be nice to have a table that illustrates how CTR features compare to BRBE and LBR
 - Beeman: Will put that together
 - External Traps are an example of an arch feature we've added that profiling tools won't use currently, propose pushing to enhanced or even future
 - Discussed this with StephaneE and Snehasish, PGO only wants internal transfers (for user-only or user+kernel)
 - Robert: we need to talk to more tools reps, they may want different things. Shouldn't remove it from the spec at this point.
 - Beeman: maybe better at this point to just add non-normative text about the possibility of splitting the extension, and get feedback in internal review
- **Out of time.** Beeman will put out another spec release this week or next, should be first stable release. Please review it so we can move forward to broader internal review shortly.

Action items

