Meeting minutes are in the speaker notes for the relevant slide


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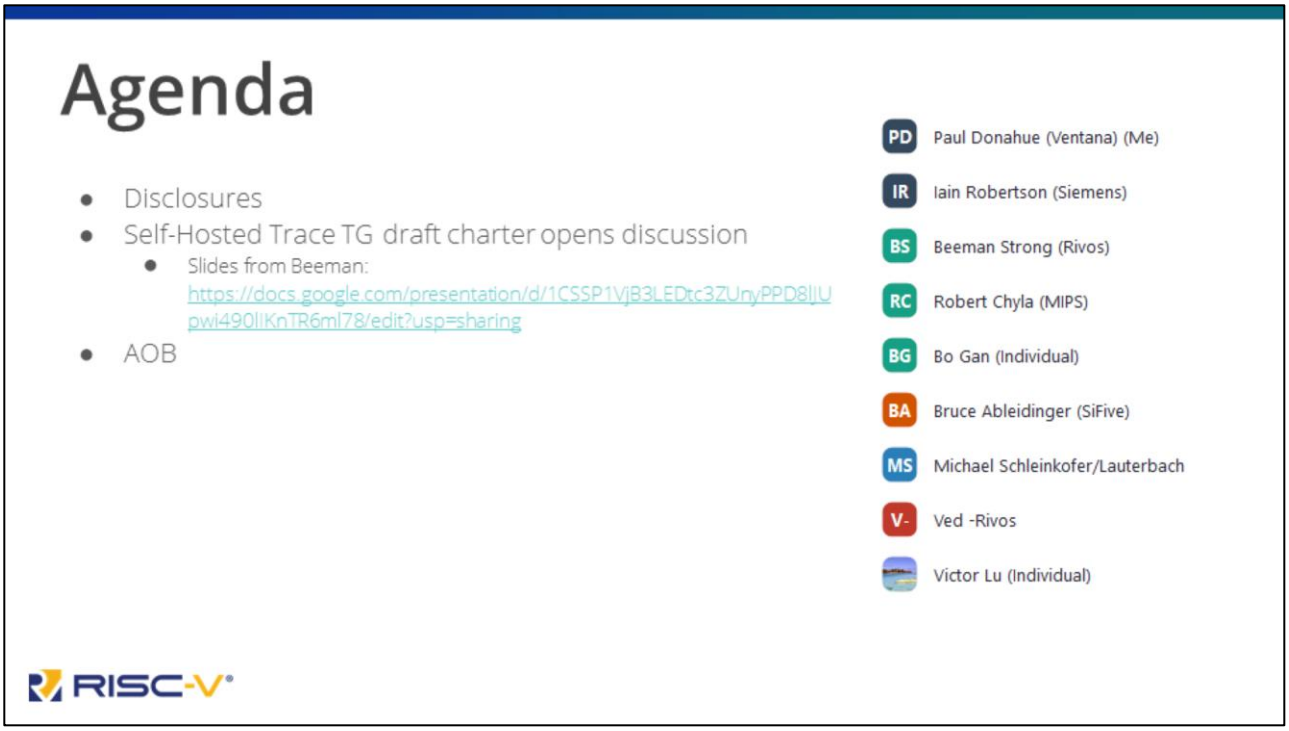

Self-hosted trace

- Beeman presented his slides
- Single-context tracing: an entire user process. Used in conjunction with mode filtering.
- Open issue: SBI interface or CSR interface
  - Assuming there aren't multiple processes actually doing trace at the same time, is lazy context switch a possible way to reduce the SBI overhead? Yes, though you probably need to do the save but not the restore.
  - Need a way for external debugger to reserve trace for itself so that software is told that there is no trace.
  - SOC HC says that they want the SBI vs. CSR strategic decision to be part of the charter rather than allowing the TG to decide
  - Hypervisor vendors don't want to trap in context switches. They currently have to do this for debug triggers but that may be need to be fixed (via a separate effort than the self hosted trace TG).
  - General consensus seems to be CSR interface
- Open issue: Single-context self-hosted buffer PA (or GPA) vs. VA
  - Use case is for hyperscalers that can't plug in external debug to every server: e.g. https://engineering.fb.com/2021/04/27/developer-tools/reverse-debugging/ https://lldb.llvm.org/use/intel_pt.html
  - Turning on trace may disturb behavior. Heisenbugs. This is related to DRAM sink, not necessarily to self-hosted debug specifically.

    - OS should pin pages to avoid page faults.
    - Treat it like DMA. However, CPU page table walk engines are already like scatter-gather engines.
    - As buffer is getting close to full, we may want an interrupt. That's a TG detail.
    - Consensus is to do virtual addressing
- Beeman will update the proposed charter with these decisions and send it out

Future Meetings / AOB

- From May, meetings will be 60mins at 10am Pacific every 4th Tuesday, starting Jan 9th
  - Next meeting is 20-Aug at 10am Pacific (17:00 UTC)
- AOB

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Thank You
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