VirtIO sub group Meeting



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Where the Arm software ecosystem connects

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Agenda

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Where the Arm software ecosystem connects

- Virtio-msg Discussion
- Testing Enhancements Discussion
- Other Topics from kick-off
- AOB?

virtio-msg Discussion

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- Current State
  - Spec v2 posted by Bertrand Marquis
    - cover letter has details of demos with ff-a and amp implementations
  - LKML RFC was sent
  - QEMU RFC was sent
- Phase 1 - minimum upstream requirements until v1 code patchsets
  - virtio-msg core transport changes
  - virtio-msg-ffa, virtio-msg-amp, virtio-msg-loopback changes
  - validation
  - < Currently paused due to funding >

virtio-msg Discussion



- Phase 2
  - rework based on upstream comments
  - additional features support
- Funding status
  - Spec upstreaming sponsored by arm
  - **Action**: Sumit to setup a meeting with Google/QC/AMD for funding discussion and steps forward

Testing Enhancements Discussion

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- Interest areas as per kickoff meeting
  - mimicking Backend / driver
  - compliance tests
  - functional tests
    - via QEMU?
  - feature bit management
  - CI Loops for implementations?
  - any others?
- Steps forward
  - Narrowed list of topics of interest with next level details
  - funding willingness for the above?

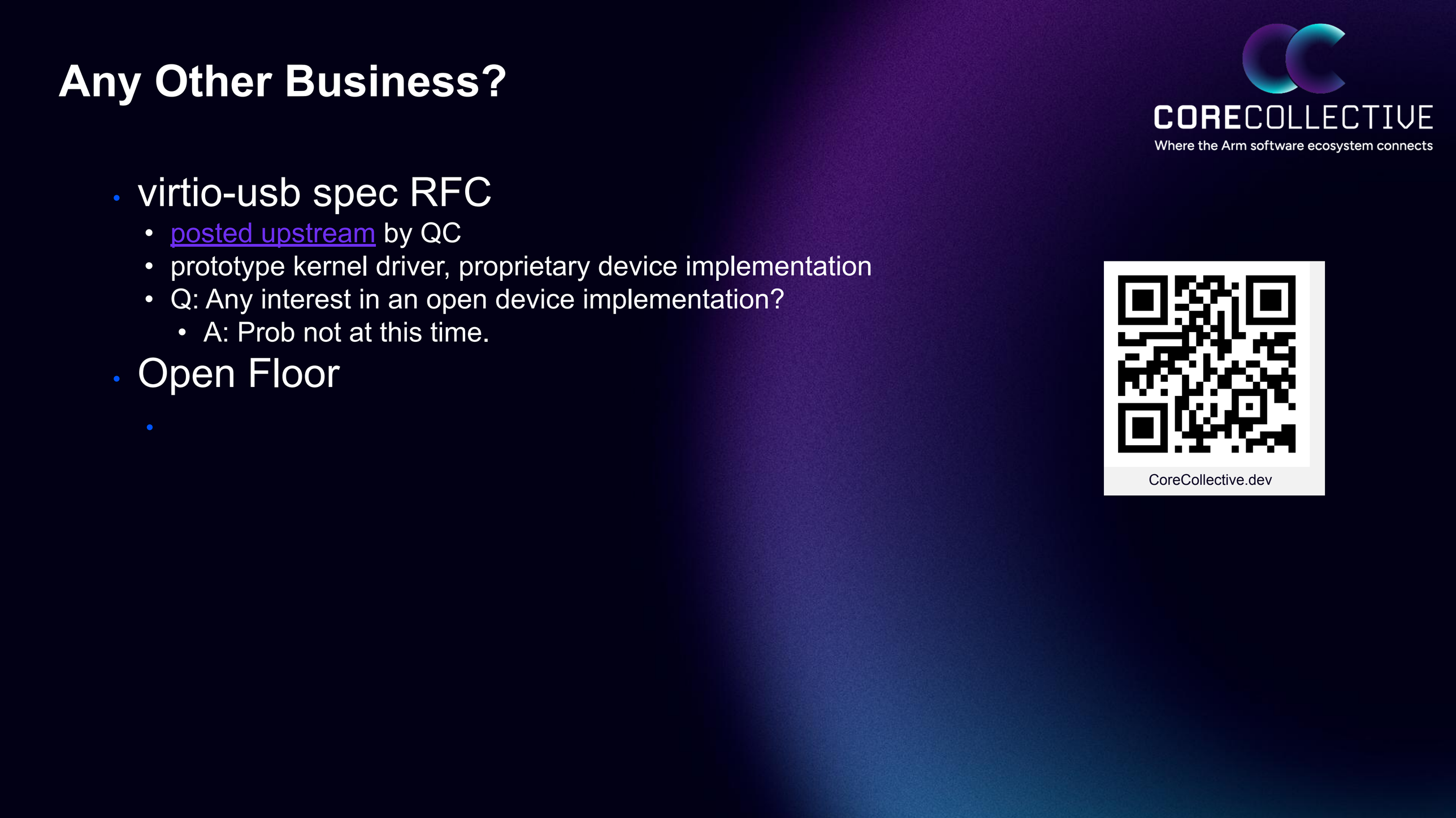
Other Topics from Kickoff

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- vsock and memory sharing?
  - Google and AMD are interested parties
    - Viresh's PoC is a good start; Trusty custom transport also can be looked at.
    - AMD:
      - have an efficient implementation that makes sense for Xen environments
      - zero-copy buffer sharing between guests (video frames or others)
- Additional devices (eg virtio-media in QEMU?)
  - AMD
- Safety / RT needs of virtio [Robustness]
  - AMD: interest in using virtio in safety-certified environments - including virtio-msg
    - Q (Arve): does it need protocol changes?
      - A: prob not.
    - "guest pausing during virtio configuration while pci emulation comes up" - was a problem
      - trap and emulate is one issue.
      - similar things for RT environments
    - need to discuss Virtqueue formats etc to solve
  - Google is also interested in some of the issues above. (relevant for communication between mutually-distrusted entities) - eg neither side can cause the other side to crash.

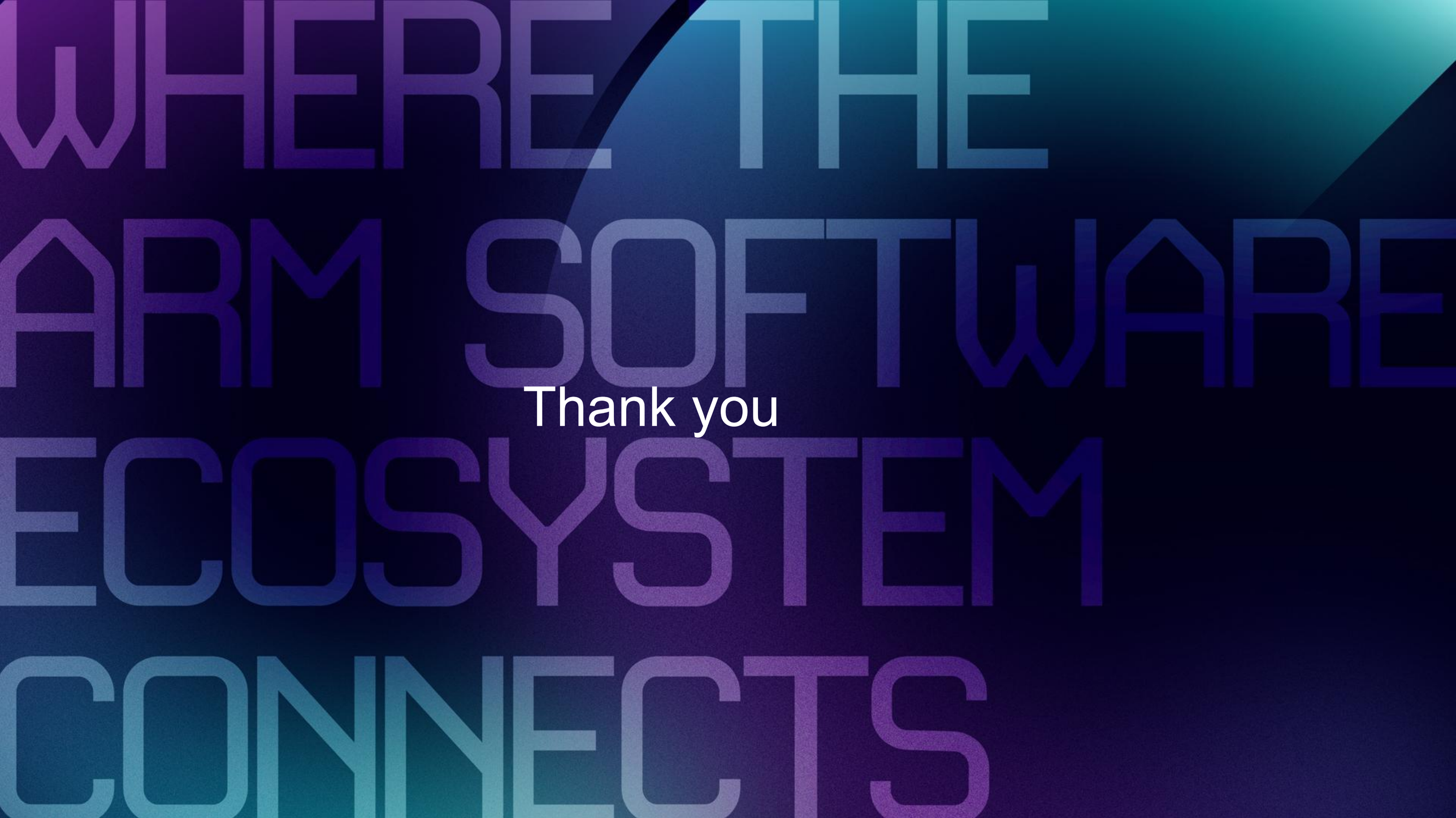
- filled interactively during the meeting

Any Other Business?



- virtio-usb spec RFC
  - posted upstream by QC
  - prototype kernel driver, proprietary device implementation
  - Q: Any interest in an open device implementation?
    - A: Prob not at this time.
- Open Floor
  -

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Thank you