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CXL 2.0+ Emulation With QEMU Status, requirements and roadmap.

Wednesday, 14 September 2022 18:00 (25 minutes)

This session will provide a brief status report on emulation of CXL in QEMU: What's upstream, what's queued and what's already in development.

The bulk of the time will focus on discussion of priorities for the next year.

The limited availability of CXL 2.0 hardware, against high priority of support when such hardware is available, meant that the Linux Kernel stack has been developed and tested against QEMU emulation (along with mocking in the kernel).

There are a number of advantages to QEMU:

- Common test platform available to all developers
- Flexible test platform - can emulate many topologies
- More complete emulation than practical with mocking approaches
- Great platform for future specification feature verification.

The base support for CXL Type 3 Devices, root ports and host bridges on x86 has merged. We will provide an up to date status report and in particular highlight some of the other elements that already exist.

However, this emulation is far from feature complete and CXL specification continues to grow. So the main focus of this session will be on discussing a future road map and establishing priority + seeking additional contributors to drive this road map forwards. A straw man proposal will be available to get the discussion going. That road map will need to align with and support OS and other software stack road maps so key to a successful session will be getting input from those active in those related areas.

I agree to abide by the anti-harassment policy

Yes

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