Linux Plumbers Conference 2024



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CXL Shared Memory: progress, challenges and usability

Thursday, 19 September 2024 12:20 (20 minutes)

CXL version 3 supports shared memory that must remain separate from system-RAM. This talk will cover the following:

- How will CXL shared memory be managed?
- How do CXL Dynamic Capacity Devices fit into the shared memory picture?
- Specific challenges around cache coherency in both the hardware- and software-managed coherency cases
- Status update on famfs [1], which provides a zero-copy file system view of disaggregated shared memory
- · A discussion of sensible shared memory configurations and use cases

This a logical followup to my LPC talk last year [2] and my LSFMM talk on famfs earlier this year [3].

- [1] https://github.com/cxl-micron-reskit/famfs/blob/master/README.md
- [2] https://lpc.events/event/17/contributions/1455/
- $\label{eq:comwatch} \begin{tabular}{ll} [3] https://www.youtube.com/watch?v=nMaZhXJJgmU\&list=PLbzoR-pLrL6oj1rVTXLnV7cOuetvjKn9q\&index=66. All the properties of the properti$

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