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CXL Dynamic Capacity MM

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CXL 3.0 introduces Dynamic Capacity Devices (DCDs) to enable highly dynamic memory pooling use cases. DCDs provide fine grained, address extent based, memory hot plug, with much lighter weight handling than for conventional device level hot plug.

This comes at the expense of complexity in software handling as the host physical address ranges are sparse, and may be added and removed dynamically, both at the individual CXL memory device level and for sets of interleaved CXL devices.

In addition CXL 3.0 uses the DCD concept to enable Shared Fabric Attached Memory (Shared FAM). This allows multiple hosts to share memory enabling many new use-cases.

The intent of this session is to provide a minimal introduction to these technologies to kick off a use case driven discussion about how Linux will support these features.

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Yes

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