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PCI Endpoint Subsystem Open Items Discussion

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PCI Endpoint subsystem allows Linux Kernel to run on the PCI endpoint devices thereby establishing communication with the PCI host for data transfer. There are 3 open items to discuss for the PCI Endpoint subsystem:

1. The heart of the PCI Endpoint subsystem is the Endpoint Function (EPF) driver that describes the Physical and Virtual functions inside the Endpoint device. So far 3 EPF drivers were supported in the upstream Linux kernel. Recently, there are attempts to add VIRTIO-based EPF drivers for interoperability. This discussion aims at presenting current and past proposals and getting feedback on the desired approach.
2. Most of the EPF drivers that exist today are virtual function drivers (i.e. not backed by a hardware entity) except Modem Host Interface (MHI) for Qcom platforms. So there is a requirement to describe those functions in devicetree and binding and also allow the EPF drivers to bind with EPC during boot without ConfigFS intervention (using devicetree link between EPC and EPF).
3. The PCI Endpoint subsystem uses a custom memory allocator for managing the PCI outbound window memory. But it could make use of the Linux kernel's generic "genalloc/genpool subsystem".

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