Embedded Graphics Drivers in Mesa

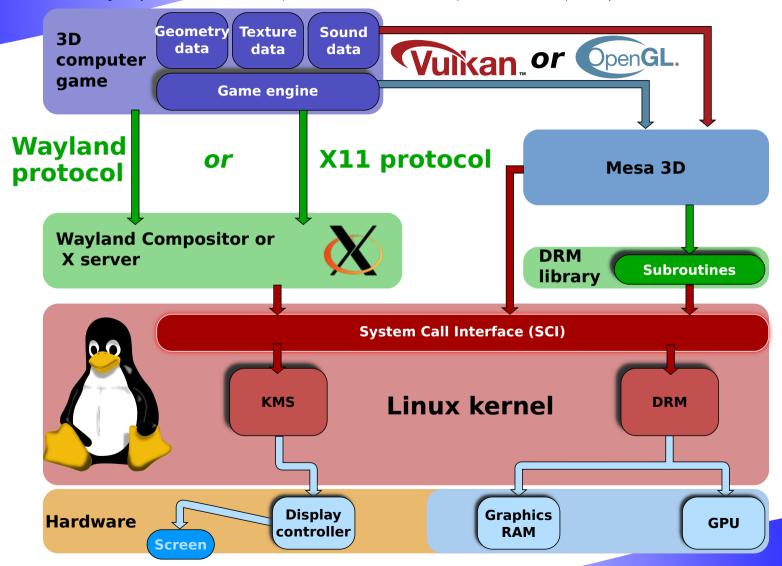
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Overview

About GPUs

- It is a specialized electronic circuit designed to rapidly manipulate and alter memory to accelerate the creation of images in a frame buffer intended for output to a display device. Wikipedia.
- They are becoming increasingly general purpose processors that can run programs (shaders).
- They are highly threaded and typically use SIMD to operate on multiple inputs at the same time.
- Still contain fixed function pieces for graphicsspecific functions:
 - Texture sampling
 - Primitive assembly
 - etc



Graphics APIs

History of Mesa

Architecture of Mesa

Embedded drivers

Freedreno

Panfrost

Broadcom

Thanks.
Questions?