Challenges in using multiple DRM devices per system

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WSI   **Acceleration API**

DRI 2/3   Vulkan

Wayland   EGL   OpenGL

GBM/KMS   OpenCL

/dev/dri/controlX   /dev/dri/renderX

/dev/dri/cardX

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1. GBM lacks vendor neutral dispatch

2. GBM mixes WSI and accel context

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Compositor

gbm
EGL
GL

platform_
drm

gbm_dri

egl_dri2

mesa-st

dri-st

dri-st

gallium

gallium

pipe driver

pipe driver

display

render

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3. How to find matching/best EGL device?

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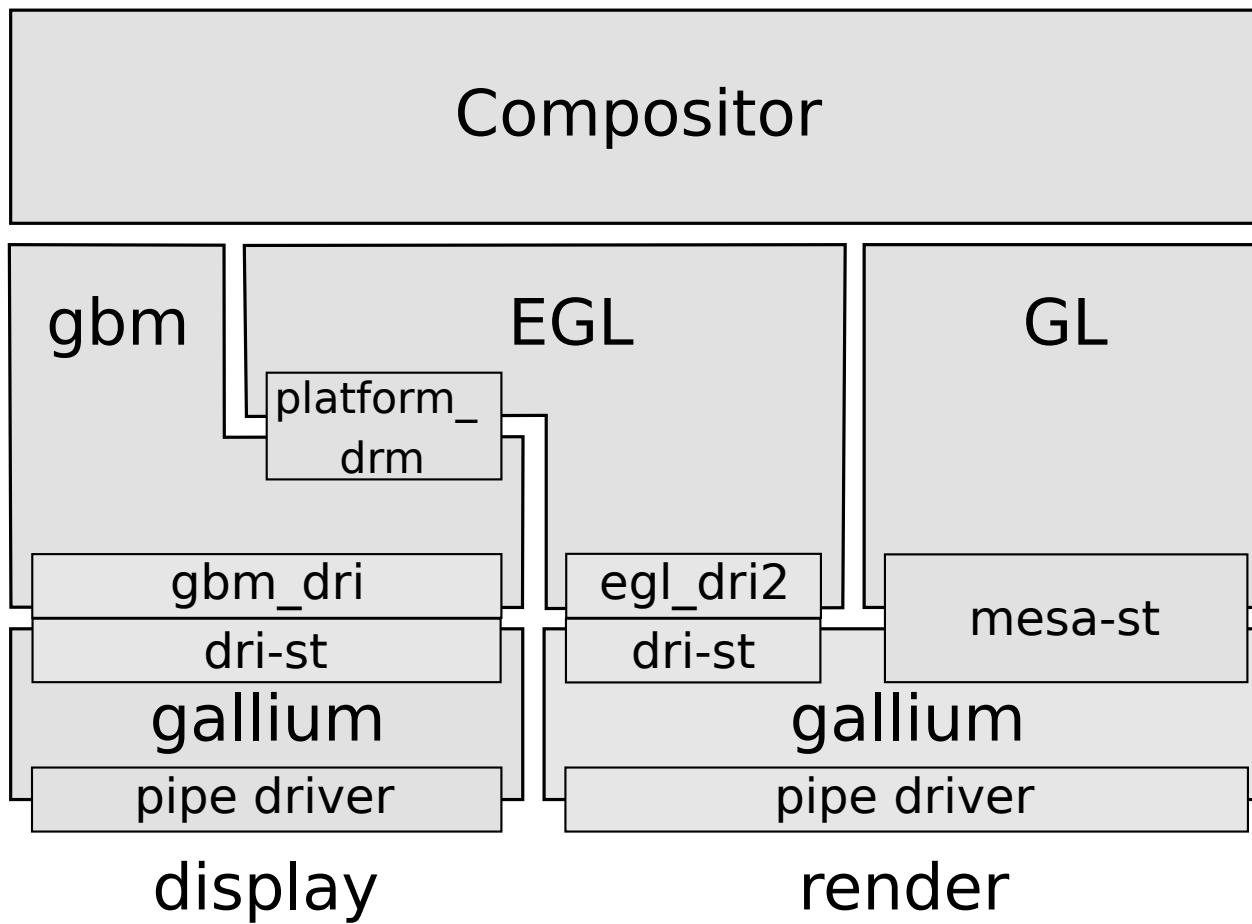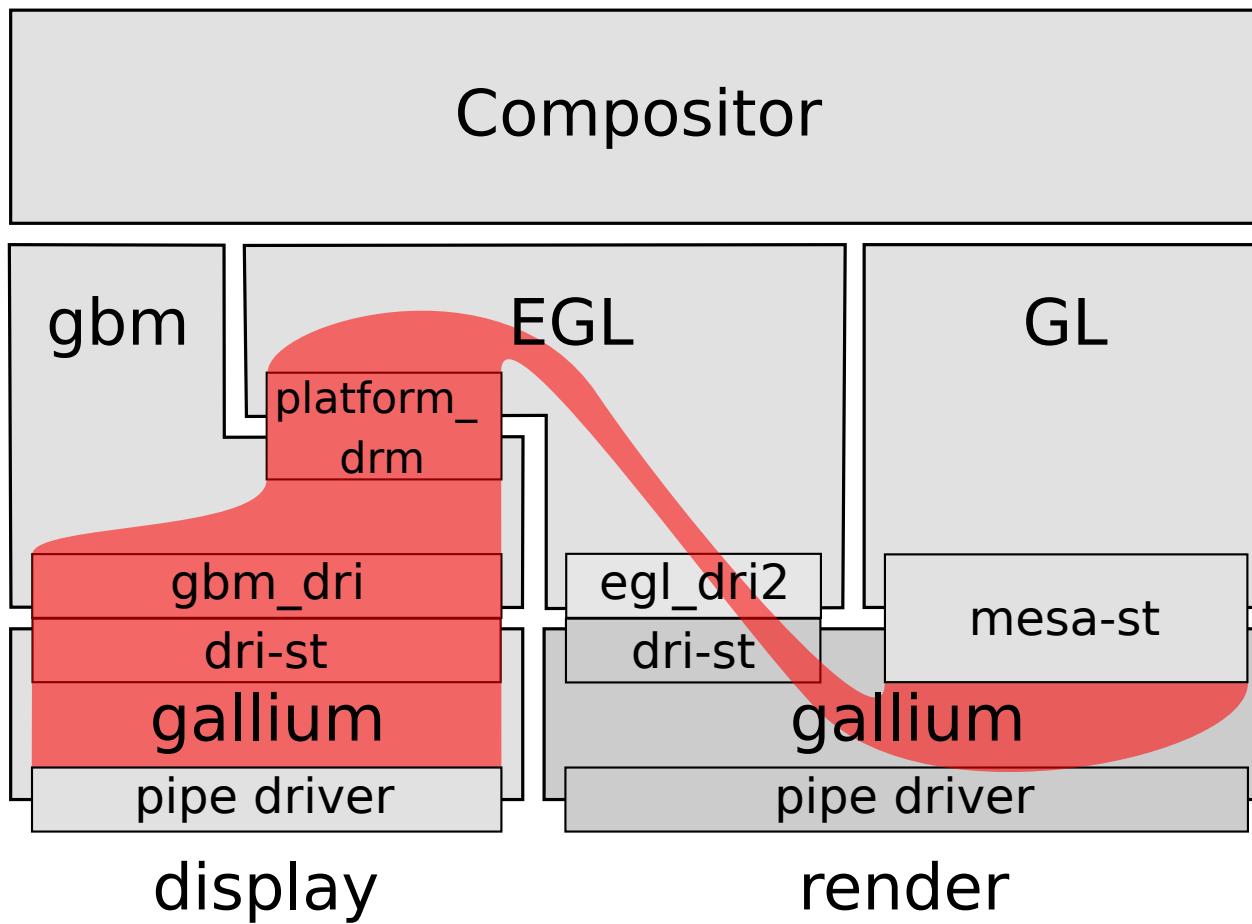
3. How to find matching/best EGL device?

4. Buffer constraint negotiation
- format modifier (tiling, compression)
- alignments (start, size, stride, height)
- contig vs paged

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5. Where and how to alloc the memory backing the negotiated buffer?