Device Memory Allocator Workshop

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Problem:

- Select possible/optimal buffer format, based on usages

- Transitioning a buffer between different usages

- Avoid grand all-encompassing solutions; focus on improving things incrementally.

- Focused on the most common transition case: Render to buffer, then either display or texture.

-       Ties in with libliftoff:

-       Decision about how to use display impacts transition

-       Libliftoff: give compositor feedback on whether a transition is required

-       Compositor use its rendering API (GL or vk) with new extensions to perform the transition

-       Also provide feedback to wayland clients about more optimal buffer format?

Next Steps

- See James Jones' slides for links to all his prototype patches: https://xdc2019.x.org/event/5/contributions/335/attachments/426/677/Generic_Allocator_in_Nouveau.pdf

- To be cleaned up and merge requests posted

- Follow-on work for defining constraints at buffer allocation-time