

# Allocation Constraints

*Wednesday, 16 September 2020 18:35 (45 minutes)*

I will present a proposal for integrating memory constraints into the Linux graphics software stack, including the kernel, userspace graphics drivers, and windowing systems. Constraints, or properties describing the various limitations imposed by devices with direct access to memory, are the second half of the prototype allocator design originally proposed at XDC 2017. I will contrast “capabilities,” which are currently well represented by DRM format modifiers as described at XDC 2019, with constraints, building the case for a separate mechanism for each. Examples, focusing on the constraints imposed by NVIDIA hardware, will be given to further illustrate the proposed design and the motivations behind it.

## GSoC, EVoC or Outreachy

No

## Code of Conduct

Yes

**Primary author:** JONES, James (NVIDIA)

**Session Classification:** Main Track

**Track Classification:** Talk (full slot) (Closed)