**xl interface**

jgross: Should we have a thing within disk[], or something else?

marmarek: We should try to make it possible in libvirt to be the same.

Does it make sense to tie this to the PCI specification?

(VirtIO devices can already be straight MMIO for embedded support)

julien: You can't hot-plug devices

andy: There are limits WRT event channels and what-not anyway

argo / grant / shared memory?

stefano: All of them require a spec change

juergen: Why do you think that?

cclark: the transport can translate addresses; so a spec change isn't necessary.

stefano: spec / transport / drivers are all a little bit different

jueren: The spec requires \*DMA\* addresses; but you can have a special DMA engine; grant table / argo counts as that.

daniel: The \*transport interface\* (between the frontend driver and the frontend transport) is fixed, but the transport can translate things under the covers.

stefano: evaluating the changes to the ecosystem. sounds like we don't need to change the spec; and it sounds like we can just implement a transport, without having to change the other frontend drivers at all.

juergen: Yes; and actual backends will be unchanged, only transport will require some modifications.

 George: OK, but Argo / grant?

 Andy: We need both; some people will want the isolation of Argo, some people will want the performance of grant

 < discussion of whether shared memory is really faster >

 Stefano: my measurements on ARM are always in favor of memcpy

 < some discussion of ARM and atomics on shared memory >

 Julien: It looks like RISC-V has the same issues.

 julien: Potentially implementing Argo for other hypervisors as well.

 stefano: windriver is doing memcpy-based approach (also for heterogeneous processors). linaro is meant for Xen / jailhouse; they're doing shared memory. They're increasing the ring size and picking addresses within the ring only.

 George: It sounds like we have some clarity on the core issue; different groups can work on the transport they think is more likely to be promising

 < Discussion on the number of copies under Argo >

 Juergen: I have data in memory; how does that get there?

 Andy: Source side passes arbitrary addresses. It's like grant copy.

 Julien: Do we rely on mapping in Xen.

 Rich: If we use Argo, we'll be adding an option for a standard for MAC.